Lund University

School of Economics and Management

Master Essay

Cross-border M&A Performance Involving Emerging Markets: Impact of Cultural and Institutional Distance

Supervisor

Jens Forssbaeck

Students

Alena Bogdanova

Melanie Pussnig

Abstract

The number of cross-border Mergers and Acquisitions involving an emerging economy as either acquirer or target is steadily increasing. Cultural- and institutional distance thereby are important issues for cross-border M&A value creation, since countries involved in the deal can be very different in terms of their cultural embedding (norms, values, beliefs) and/or their institutional domain (formal and legal aspects of governments). Empirical evidence about the influence of cultural- and/or institutional distance on cross-border M&A performance is mixed. This paper reflects the effect of cultural- and institutional distance on value creation of cross-border M&A deals involving emerging economies. Using a sample of 117 deals consisting of cross-border M&As involving emerging countries as targets or as acquirers, we applied the event study. We find that on average these deals destroy value for the acquirer. Moreover, we find that cultural- and institutional distance destroy value for the acquiring firm from emerging markets, and if a company from an emerging market is a target, the effect of cultural and institutional distance is less and not statistically different from zero.

JEL Classification: G34

Keywords: Cross-border mergers and acquisitions; value creation; cultural distance; institutional distance

Acknowledgements

This work becomes a reality with the kind support and help of many individuals and we would like to extend our thanks to all of them. Foremost, we would like to express our sincerest gratitude to our supervisor Jens Forssbaeck, for his professional advice and support throughout writing this master essay. – A.B. & M.P.

I would like to express my gratitude to my beloved parents, Sergey and Larisa Bogdanov, and sister, Vlada Bogdanova, for providing me with unfailing support and continuous encouragement throughout my years of study. Special thanks to SEB for sponsoring my Lund University Global Scholarship, without their financial support this work would not be possible. Also, I would like to thank my friends and colleagues at Lund University for their friendship and support, which made my stay and studies in Lund more enjoyable. – A.B.

A very special thanks to my loving parents Helmut and Maria Pussnig for your kindness, love and support. I am truly blessed to have you. Thank you, Carina Pussnig, for being a beautiful soul, always having my back, for encouraging talks and just being my best friend. You are my true inspiration. Thank you Hannah Klinkhammer, Hannah Nicklas, Astrid Gillam, Lauren Bennet, Jannika Salonen and Sophia Nölting for making my time in Lund unforgettable and creating a home far from home – M.P.

CONTENT

1. Introduction 1

2. Cross-Border M&As, their motives and market overview 4

2.1 Cross-Border M&As and their motives 4

2.2 Deal Direction 5

2.3 Overview and statistic of cross-border M&A deals 6

2.4 Impact of cultural and institutional distance between countries on the deal performance: literature review 7

2.4.1 Cultural Distance 7

2.4.2 Institutional Distance 8

2.5 Hypothesis of cross-border M&A value creation and the impact of cultural and institutional distance on it 9

3. Modeling of the impact of cultural and institutional distance on the value creation of cross-border M&A 12

3.1 Methodology 12

3.2 Sample selection and data 19

4. Results of the research and their discussion 22

4.1 Value creation of cross-border M&A involving emerging markets 22

4.2 Impact of cultural distance on the cross-border M&A value creation 24

4.3 Impact of institutional distance on the cross-border M&A value creation 27

5. Conclusion 31

References 34

Appendix 37

List of Tables and Figures

Table 1: Descriptive statistics

Table 2: Mean of CAR in three observed event windows for entire sample

Table 3: Mean of CAR for deals from Developed markets to BRICS

Table 4: Mean of CAR for deals from BRICS to Developed markets

Table 5: Regression of cultural distance influence on CAR in cross-border M&A involving BRICS

Table 6: Regression of institutional distance influence on CAR in cross-border M&A involving BRICS

Figure 1: Cumulative Abnormal returns for different event windows

List of Abbreviations

AR	Abnormal Return
Bln	Billion
BRICS	Brazil; Russia; India; China; South Africa
CAR	Cumulative Abnormal Return
Et Al.	Et Alia
Etc	Et Cetera
GDP	Gross Domestic Product
H#	Hypothesis #
M&A	Mergers and Acquisitions
Mln	Million
OLS	Ordinary Least Squares
USA	United States of America
USD	US-Dollar

1. Introduction

In an economic age of globalization where companies strive to grow internally, as well as externally, expansion is a key element of corporate strategy. Useful tools for companies to achieve those growth and expansion aims are Mergers and Acquisitions (M&A). M&As are numerously examined by scholars in various research fields like economics, finance or strategy. M&A deals are geographically unbound. Acquiring companies can find targets in their resident country, as well as in a different country, whereby target countries can differ substantially in their level of economic development. If the acquirer and target in an M&A deal are situated in different countries, this deal is called cross-border M&A.

A company conducting an M&A on a cross-border dimension has to interact not only in a foreign cultural dimension, but also faces a different institutional environment. Humans are embedded in different cultures, facing different norms, values and beliefs, which makes the cultural dimension of every country different and unique. Furthermore, countries can be different in terms of formal and legal aspects in their governmental structures, which explain different institutional environments. These differences can be a source for benefits and value creation for the acquirer, as well as being disadvantageous and value destroying. M&As and also cross-border M&A deals are not always value creating for the acquirer since there are several parameters, which may impede value creation. Based on recent estimates, the share of value destroying cross-border deals for the acquirer is 14% (Baker & McKenzie 2015). Scholars investigating the impact of cultural and institutional distance on M&A performance in term of value creation find various positive as well as negative results (Bauer et al. 2014; Li et al. 2016; Datta & Puia 1995; Morosini et al. 1998; Du & Boateng 2015; Hasan et al. 2015; Aybar & Ficici 2009).

The majority of literature about cross-border M&As nevertheless focuses on developed markets (Heron & Lie 2002; Linn & Switzer 2001). Only a small part of academic articles about cross-border M&As examine emerging markets (Rahim et al. 2013; Narayan & Thenmozhi 2014). However, emerging markets are participating more and more in cross-border M&A deals on the acquirer as well as on the target side. The share of emerging market involvement in all cross-border M&As has increased significantly and reached 27,1% in 2015 in comparison with 15,5% in 2010 (Thomson Reuters 2015). According to Baker & McKenzie (2013), investment activities into the BRICS countries (Brazil, Russia, India, China and South Africa) are the strongest among emerging markets.

This study aims to empirically examine the effect of cultural- and institutional distance on the cross-border M&A performance involving companies from emerging markets. The focus thereby will lie on two deal directions involving emerging markets: to emerging countries as targets and from emerging countries as acquirers. We chose to focus on different directions of cross-border M&A deals because we expect that the degree of development of the particular markets will have an impact on our results. Developed-market companies could be more experienced in conducting cross-border M&A and overcoming potential obstacles caused by cultural- and institutional distance since their processes of globalization and internationalization have started earlier. Furthermore, developed market companies could have access to more experienced investment-banking services. Hence, we would expect them to be less affected by potential cultural- and institutional distance risks.

Previous literature is inconclusive on whether cross-border M&As involving emerging markets are efficient on average for the acquiring firm shareholders in terms of value creation. Also, there are mixed results about the impact of cultural- and institutional distance on value creation for the acquirer. By using a sample consisting of cross-border M&A deals involving emerging markets, we conduct the event study. According to our empirical analysis, cross-border M&As involving emerging markets destroy value on average for the acquirer. The retrieved cumulative abnormal returns were negative for all explored event windows. We divided our whole sample of cross-border M&A deals involving an emerging market into two subsamples: deals flowing from developed markets into emerging markets and vice versa. Hence, we find that cultural- and institutional distance destroy value for the acquiring firm from an emerging market, and when a company from an emerging market is a target, the effect of cultural- and institutional distance is significantly less and not statistically different from zero.

This study is unique and offers a contribution to prior literature in terms of analyzing both, cultural- as well as institutional distance in one paper, and comparing their effect on the acquirer's value. Furthermore, we focus on cross-border M&As flowing into more than one direction. We compare the effect of cultural- and institutional distance when deals are flowing from developed- into emerging markets and vice versa. Prior studies tend to focus on only one deal direction.

The practical relevance of this study is that the result can be used by the management and the board of directors of companies in order to help to make essential strategic decisions about cross-border M&As.

In the first part of this paper, we will introduce cross-border M&As, their motives, current statistic data about M&A market and we will further conduct a literature review on cross-border M&A value creation with a focus on the effects of cultural- and institutional distance. Hypothesis and the model for cross-border M&A value creation will further be implemented in the second part. We use the event study in order to find cumulative abnormal returns, which show the financial market´s reaction to the deal announcement. Hence, this will be the dependent variable in our model. The independent variables of primary interest, institutional- and cultural distance, and their impact on the M&A value creation and its dependence on the deal direction will further be tested and analyzed in the third part of the paper.

2. Cross-Border M&As, their motives and market overview

In the following chapter, we will discuss motives and incentives for conducting a cross-border M&A deal as well as possible benefits and risks deriving from the direction of the deal. Furthermore, we will discuss market statistics of cross-border M&A deals to show how important emerging markets have become as an acquiring- and as a target party. Likewise, in this chapter, we will review the literature on cross-border M&A about the impact of cultural and institutional distance on value creation. We will set hypotheses for our empirical research based on the findings of the reviewed literature.

2.1 Cross-Border M&As and their motives

Mergers and Acquisitions are researched in academic literature and appear to positively occur in waves throughout economic history (Harford 2005). According to Gaughan (2007), M&As are driven by various factors. Economies of scale, synergies, oligopoly benefits or agency problems can incentivize companies to conduct M&As (Neuhauser, 2007). In this study, we focus on cross-border Mergers and Acquisitions. Cross-border M&As are a practical channel for companies to enter new markets, which could be a beneficial strategic move (Hasan et al. 2015). The driving benefits and potentially positive effects for the acquirer can thereby originate from different sources, like the legal, corporate or national/cultural sphere (Datta & Puia 1995). Tripathi and Lamba (2015) state that there are five motives for conducting a cross-border M&A, in order to grow, enhance market power and/or gain efficiency. Those motives are value creation, improvement in efficiency, market leadership, marketing and strategic motives as well as synergistic gains (Tripathi & Lamba 2015). We will discuss some of the reasons for cross-border M&A in details.

Cross-border M&As, first of all, are investments that help companies to enter new markets (Yamakawa et al. 2013). Usually, this method for entering new markets is easier to implement than starting up a new company in a foreign environment. Companies can acquire already well-known brands in a target area (Rui & Yip 2008), and furthermore, new markets are associated with new consumers, which is a strong incentive in favor of conducting M&As. According to Baker & McKenzie (2015), 34% of all deals are conducted because of this motive. An example of a deal which was motivated by this particular reason is the M&A between Huawei, one of the biggest Chinese companies in the telecommunication industry, and Marconi, an Italian company which operates in the same industry. Huawei acquired Marconi in spite of financial problems of the target, and due to this deal Huawei benefited from new technologies and the access to the European market (Rui & Yip 2008).

Additionally, cross-border M&As can be motivated by the desire to reach more market power. Lanine and Vander Vennet (2007) examined cross-border M&As between Eastern and Western European banks. They conclude that Western European banks aim to acquire big and successful regional banks, which have a lot of permanent customers and high values of transactions, in order to increase their market power. Ojala and Tyrväinen (2007), who analyzed M&As by foreign companies in Poland during privatization, argue that foreign companies are more interested in horizontal- rather than vertical mergers, which is connected with market power or minimization of costs.

There are several studies arguing that the development of financial markets of entities involved in a deal is crucial since the amount of undertaken cross-border M&As depends on that (Luo & Tung 2007; Meyer & Peng 2005). Cross-border M&As may be beneficial for a company dealing with institutional- and market restrictions in its domicile country (Luo & Tung 2007). Strong institutions are driving motives increasing the number of inflows cross-border M&As. According to Luo and Tung (2007), based on the fact that institutions are well-developed, foreign companies usually prefer acquiring companies rather than starting a new business in a new country.

Furthermore, according to Datta & Puia (1995), market risk can be reduced due to market- as well as geographic diversification following cross-border M&As. In the current age of globalization, companies strive to grow and thereby signal performance. Big corporations are more stable, financially strong and hold a healthy management and production structure. Diversification in a global dimension enables companies to be less affected of economic problems and obstacles that can occur in a country. For example, if there is a crisis in one country, but the company also has assets in another country where there is no crisis, it would be easy to survive hard economic times (Visic & Peric 2011).

2.2 Deal Direction

The primary purpose of cross-border M&As mainly depends on the direction of the deal. In the case of acquiring a company from an emerging market, usually, the aims are new customers and new production capacity because, firstly, the population in emerging markets is high and, secondly, costs of new constructions and labor costs in emerging countries are lower

(Mergermarket 2012). If the target is from a developed country, the main incentive conducting M&As can be an increase of market power because it is hard to be a global company without branches in developed markets. Also, an acquisition of a company from a developed market can be motivated by new technologies (Mergermarket 2012).

Risks of cross-border M&As can also depend on the direction of the deal. M&A risks are mistakes during due diligence, the absence of a common strategy between companies as well as the lack of control during the M&A process. Compared to domestic acquisitions, the cross-border dimension of M&As is more complex and has its own risks due to differences in the legal-, financial- and political environment in different countries. If the target is from an emerging market, acquirers can face problems due to governmental features and corruption. On the other hand, if the target is from a developed market, risks are market saturation and over-regulations in the target market. There are exists, for example, a strict ecology policy in some developed countries. In both cases, risks are connected with institutional- and cultural distance between countries. Thus, it is of further interest to examine the effect of these factors on cross-border M&A deal efficiency.

2.3 Overview and statistic of cross-border M&A deals

According to Baker & McKenzie (2017), the number of cross-border M&A deals has increased from 23% of all M&A deals in 1998 to 35% in 2017. The number of cross-border M&As in the first quarter of 2017 is 1238 deals with the total value $331,2 bln. The most active sector by volume is technology (182 deals) and by value is retail ($113,3 bln).

The majority of literature about cross-border M&As focuses on developed markets (Heron & Lie 2002; Linn & Switzer 2001). Only a small part of academic articles about cross-border M&As in contrast examine emerging markets (Rahim et al. 2013; Narayan & Thenmozhi 2014). Emerging markets are participating more and more in cross-border M&A deals on the acquirer as well as on the target side. According to Baker & McKenzie (2013), investment activities into the BRICS countries are strong. BRICS is thus as per definition of the Goldman Sachs Global Economics Group (2007) an acronym for the largest emerging market economies Brazil, Russia, India, China and South Africa. In contrast, as shown in Appendix 1, also companies from the mentioned large emerging economies acquire targets in developed, as well as emerging markets (Baker & McKenzie 2017). The volume and number of M&A deals from emerging markets into developed- or into emerging market is nevertheless substantially smaller than the volume and number of M&A deals from developed markets into developed- or emerging markets.

Nonetheless, the share of cross-border M&As involving emerging markets is increasing. In 2015 the share of cross-border M&As involving emerging markets reached 27,1% of all cross-border M&As, whereas in 2010 it was only 15,5% (Thomson Reuters 2015).

2.4 Impact of cultural and institutional distance between countries on the deal performance: literature review

According to statistics, approximately 14% of all cross-border deals can be considered to destroy value for the acquiring entity (Baker & McKenzie 2015). An undesirable merger performance can result from risks like unsuccessful integration, which can be influenced by cultural- as well as institutional distance between countries (Weber et al. 2009; Du & Boateng 2015; Aybar & Ficici 2009). According to Malhotra et al. (2011), more than a half of all the cross-border M&As, resulting in a negative impact for the acquirer, are explained by these two factors. However, the literature is inconclusive whether cultural- and institutional distance have positive, negative or no effect at all on value creation for the acquirer in the cross-border M&As.

2.4.1 Cultural Distance

According to Hofstede (1980), the cross-border perspective of Mergers and Acquisitions is inevitably linked to risks and difficulties due to cultural distance, cultural fit and also cultural similarities, which emerge because of cultural contact of different entities. Cultural differences can have positive as well as negative effects on the M&A performance and can further be subdivided into an organizational and national level of cultural distance (Olie 1990). Interactions between beings, which are enclosed and influenced by their culture and may have different values and beliefs, can be complicated. Also, decision making, as well as the implementation phase, can be disturbed by misunderstandings (Olie 1994). Moreover, cultural distance on an organizational level could be seen as different characteristics of organizational cultures in different countries (Olie 1990). Literature provides evidence for negative, positive and insignificant effects of cultural distance on the performance of cross-border M&As.

The evidence in literature about the negative impact of cultural differences on value creation of M&A performance is provided by Li, Li and Wang in 2015. Using a sample of 367 cross-border mergers and acquisitions between 2000 and 2011 involving Chinese listed companies as the acquirers, Li et al. (2015) study the announcement effect on the acquirer's value and they show that cultural distance is negatively related to the value creation of cross-border M&As and also that larger, more experienced firms and acquisitions within the same industry were less affected by cultural distance. Furthermore, Datta and Puia (1995) state that higher cultural distance leads to lower value for acquirers.

An empirical example of another example how cultural differences can negatively affect M&A value creation was provided by Bauer, Matzler and Wolf in 2014. By analyzing short-term performance of cross-border M&As, they found in their paper that M&A performance depends on human- and task integration, whereby cultural distance affects integration in both dimensions. Using sample data of cross-border M&A transactions that took place between early 2007 and late 2010, with targets from the German-speaking part of central Europe and acquirers from all over the world, Bauer et al. (2014) provide evidence that cultural differences are destructive because creating a shared identity and satisfying employees from both organizations is moderated by cultural distance.

By using a sample of 52 Italian companies that had undertaken a cross-border acquisition between 1987 and 1992 and applying short-term performance analysis, Morosini, Shane and Singh (1998) support the counter hypothesis, that cultural differences are beneficial for cross-border M&As and are able to present evidence for a positive association between cultural distance and cross-border M&A performance. Furthermore, Chakrabarti, Gupta-Mukherjee and Jayaraman (2008), investigating 1157 unique acquisitions worldwide, emphasize in their paper that cultural difference is beneficial for the long-term performance of M&A´s.

Additionally, the 2014 paper of Ahammad, Tarba, Liu and Glaister, which is working with a sample of UK firms that had acquired North American and European firms between 2000 and 2004, concludes that cultural distance has no direct effect on cross-border M&A value creation based on short-term performance of the deals.

Concluding that, we can see that evidence in literature of the value creation of cultural distance on cross-border M&A is mixed. The effect was found to be value creating, value destroying as well as being insignificant for the acquirer. This mixed evidence can be explained by scholars using different samples in terms of countries, and time periods.

2.4.2 Institutional Distance

When conducting a cross-border merger or acquisition, the acquirer is not only confronted with a different national- and organizational culture, but also with a different institutional setting like differences in the formal and legal aspects of governments. Hur et al. (2011) argue further that the quality of institution affects the inflow of cross-border M&A deals since more deals flow towards developed countries.

There are mixed results about the effect of institutional distance in terms of value creation. Du & Boateng (2015) examine 468 cross-border M&As by Chinese firms involving targets from North America, Europe as well as Asia. And by using event study to observe the announcement effect, a positive effect of institutional distance on M&A performance is found. Du and Boateng (2015) explained that emerging market companies, facing a low level of institutions, entering into a developed market with a high level of institutional quality, can access more high-quality financial resources. Furthermore, Hasan, Ibrahim and Uddin (2016) argue in their review, that institutional distance could positively affect cross-border M&A value creation.

However, according to the paper of Aybar and Ficici (2009), who used the event study to identify the announcement effect and the sample of cross-border M&A initiated by companies from emerging markets, institutional distance has a negative effect on the cross-border M&A value creation. They connect it with additional costs and time for negotiation for companies if the distance between institutional levels is high. Likewise, Reis, Ferreira and Santos (2014) argue in their institutional approach that institutional distance is negatively affecting the cross-border M&A value creation since it can be challenging to adapt to foreign institutions and the more distant those institutions are, the more problems to adapt and cost will occur.

Overall, based on the literature review we observe mixed results considering the impact of cultural- and institutional distance on cross-border M&A value creation. And it is worth to mention that there is a small part of academic articles about cross-border M&As involving emerging markets. Also, there are no studies, which focused on both cultural- and institutional impacts and compare their effects on the acquirer's value. Moreover, we were not able to find papers, which focus on their studies on more than one direction of deals and compare the results of the value creation depending on the direction. This paper is aiming to fill this gap and is aiming to offer a contribution to prior literature.

2.5 Hypothesis of cross-border M&A value creation and the impact of cultural and institutional distance on it

Although the share of cross-border M&As involving emerging markets has increased significantly in the last years there is evidence in the literature that cross-border M&As

involving emerging markets destroy value on average for the acquirer (Aybar & Ficici 2009). Synergies, economies of scale or other benefits, which might derive from a cross-border M&A deal might be offset or overwhelmed by the magnitude of negative impacts of, for instance, cultural- or institutional distance. Hence we expect that cross-border M&As overall destroy value for the acquirer on average.

H1: Cross-border M&A involving emerging markets destroy value for the acquirer on average.

Cultural distance is one of the most common reasons behind cross-border M&A value destruction for the acquirer (Malhotra et al. 2011). Around a half of all such deals are considered to be unsuccessful because companies were not able to build common corporate culture due to workers having different values, norms, etc.

In our paper we analyze two subsamples, the first is when a company from a developed market, initiates a cross-border M&A, targeting a company from a BRICS country. The second subsample contains cross-border M&A deals with the direction from BRICS- to developed markets.

We expect to get a negative impact of cultural distance on CAR, however, we believe that the impact of cultural distance on the value for the acquire will be less for a subsample consisting of cross-border M&A deals involving emerging markets as targets. This can be explained since developed market companies are more experienced in conducting cross-border M&A deals since their globalization process started earlier than for companies from emerging markets. Thus, they have more experience on how to interact with different cultures (Malhotra et al. 2011).

The most common used measure of cultural distance is the Hofstede index developed by Kogut and Singh (1988), this measure is used in many papers (Morosini et al. 1998; Ahammad et al. 2014; Du & Boateng 2015).

H2: Cultural distance destroys value for the acquirer from an emerging market conducting a cross-border M&A.

H3: The negative impact of cultural distance is lower when a cross-border M&A deal is flowing from developed to emerging market.

There are many papers, which consider institutions as an important factor in cross-border M&As (Du & Boateng 2015; Hur et al. 2011). La-Porta (1998) notes that institutions are like the rules of the game, which determine the interaction between entities. So, if two companies are from countries with close institutions, it means that there are lower transaction costs because both understand each other's rules. If companies are from countries with different institutions, extra costs can occur and usually it takes more time to negotiate. That is why we expect that institutional distance between countries has a negative influence on CAR.

Although, we expect to obtain the result that the impact of institutional distance would be less in the case of a cross-border M&A initiated by companies from developed markets targeting companies from BRICS since developed countries are more experienced because they have started the internationalization process earlier (Malhotra et al. 2011).

As a proxy for the institutional distance, we use an index constructed from the Worldwide Governance Indicators. It takes into account factors such as political stability, government effectiveness, a rule of law, control of corruption, etc.

H4: Institutional distance destroys value for the acquirer in cross-border M&As when emerging markets act as the acquirer.

H5: The negative impact of institutional distance is lower when a cross-border M&A deal is flowing from a developed to an emerging market.

3. Modeling of the impact of cultural and institutional distance on the value creation of cross-border M&A

The following chapter will describe a model for testing the impact of cultural- and institutional distance on the cross-border M&A value creation in detail. We will begin with the explanation of the model construction and will describe the particular variables, which are used in the model. Furthermore, in this chapter we will cover the sample on which the model will be applied.

3.1 Methodology

To test hypotheses, we need to build a model of cross-border M&A value creation. We use a short-term event study by calculating cumulative abnormal returns, which show financial markets' reaction to a deal announcement. The reason to use a short-term event study is that it combines a firm-level metric by reflecting market expectations generated by the deal announcement as well as a transaction-level metric by using short time period excluding other events which can influence the acquirer´s value (Zollo & Meier 2008).

The cumulative abnormal returns (CAR) are good to use as dependent variable due to several reasons:

1) This variable is usually used in financial literature because it is a well-known fact that the main aim of a company is the maximization of shareholders' welfare, which is connected with share prices. There are many papers that use CAR to measure effectiveness of cross-border M&A because it is easy to calculate for different countries (Du & Boateng 2015; Malhotra et al. 2011; Narayan & Thenmozhi 2014)
2) Movements of stock prices are more correlated with the company's value than, for example, profitability, because share prices are the ex-ante company's value, which correlates with the ex-post company's value (Kale et al. 2002)
3) Share prices represent a more reliable estimate of the company's value in comparison to other methods of estimation due to share prices are not affected by different accounting policies all around the world (Cording et al. 2008).

One of the key elements in an event study is to choose the right length of the event window that captures the whole effect of the event. The announcement date of a deal is a zero day in the estimation window. Long periods capture the whole effect from the deal, however, they can distort the data by including effects from other events during estimated days. Mcwilliams and Siegel (1997) state that the estimation window should be short enough to make an analysis more powerful and long enough to capture the full effect from the event.

Cross-border M&As, especially involving emerging markets, are complex events. Market mechanisms in emerging economies are less advanced than market mechanisms in developed countries and hence, markets need more time to react to deal announcements. By considering several papers that studied cross-border M&As involving emerging markets, we decided to use the estimation windows (-15,+15), (-10,+10) and (-5,+5) in this study (Datta & Puia 1995; Aybar & Ficici 2009; Du & Boateng 2015).

To begin with, we need to calculate the CAR for each deal. We use the risk and market adjusted variant to determine abnormal returns also referred to as the market model. This method is the most commonly used method. It measures abnormal returns the most precise way and it takes into account normal returns and market risks. Other methods to estimate abnormal returns are weaker. The mean adjusted return model assumes normal returns are constant, but most stocks respond to market movements to some extent, so these estimates of AR are noisier and contain the effect of market-wide occurrences. And as for the market adjusted return model, different stocks have different market betas what makes this method less precise.

To define normal returns, first of all, we need to determine the estimation period, which is considered to be "clean" from any events and during which we observe normal stock price returns. This period can be set before the event, but should not include the estimation window. In this study, we use the estimation period t=-121 to t=-21 from the announcement day (t=0), so there are 100 observations in the estimation period.

The expected return on day t is computed as follows:

$$R_{it} = \propto_i + \beta_i R_{mt} + \varepsilon_{it}$$

where R_{mt} is the daily market return on day t, β_i shows a sensitivity of firm to the market, $\propto_i$ is return at period t that is not explained by the market, ε_{it} is a random error ($\sum \varepsilon_{it} = 0$).

To find expected returns $\hat{R}_{it}$, we run the regression using "clean" estimation period, and it outputs estimated coefficients $\propto$ and β:

$$\hat{R}_{it} = \hat{\propto}_i + \hat{\beta}_i R_{mt}$$

We find stock returns and market return by using the following formulas:

$$R_{it} = \frac{p_{i,t}}{p_{i,t-1}} - 1$$

$$R_{mt} = \frac{p_{m,t}}{p_{m,t-1}} - 1$$

$R_{i,t}$ and R_{mt} are the daily returns of stock and market respectively on day t, $p_{i,t}$ refers to the closing price of stock on day t, and $p_{m,t}$ is the closed market index ratio on day t.

Next, we calculate abnormal returns for each day during the event window for each company. The abnormal return is a difference between actual stock returns and estimated normal returns at the same day: $AR_{it} = (R_{it} - \hat{R}_{it})$. This refers to returns, which are unexpected, generated by the announcement of the deal.

The final step is to summarize abnormal returns from the event window and by doing this, we will find cumulative abnormal returns.

$$CAR\ (-n, +m) = \sum_{t=-n}^{m} AR_t$$

Where $CAR\ (-n, +m)$ are the cumulative abnormal returns for the event windows from n days before the announcement and m days after.

If $\overline{CAR} > 0$, deals are value creating in average and they create value for the company. If $\overline{CAR} < 0$, these deals are considered to be not successful because they destroy the company's value. As was mentioned before, in this paper we work with three different windows: (-5, +5), (-10, +10) and (-15, +15).

To create a model of the value creation of cross-border deals, we should identify independent variables that have an influence on the cumulative abnormal returns. We follow Aybar & Ficici (2009), Ahammad et al. (2014), Cho & Ahn (2016), Du & Boateng (2015), Narayan & Thenmozhi (2014), whereby the authors examined the effect of cultural- or institutional distance on value creation through cross-border M&As involving emerging markets. As independent variable they used cultural distance, institutional distance, foreign exchange reforms, sectors, prior cross-border M&A experience, cash holding, acquirer size, deal size, relatedness, geographic region, dummy for acquisition of control part of shares at the company, method of payment, ROA, TobinQ and a dummy for financial crisis.

Taking into account our study´s sample, which will be further explained in the next part of the paper, the final model of the value creation of cross-border M&As involving emerging markets was created, which consists of the following independent variables:

Cultural distance (CultDist). People all around the world have different norms, habits, beliefs, etc. Geert Hofstede established four dimensions of a country´s culture in his work from 1980. Each country is attributed to a certain score for every dimension, enabling scholars to create indices in order to compare different countries with each other. According to Sivakumar and Nakata (2001), Hofstede is the most cited cultural framework and used by various academic disciplines.

The four cultural dimensions are the following:

1) Power distance
2) Individuality
3) Masculinity
4) Uncertainty avoidance

The higher *power distance* means the stricter hierarchies. A country facing high power distance thereby means that everyone has a place in a hierarchy, whereas in a country facing low power distance, people strive for equality and the distribution of power (Hofstede 1980).

In terms of i*ndividualism*, people can tend to only care for themselves and close family. On the contrary, in a country in which culture is more oriented towards collectivism, people would expect relatives or people belonging to a special group to care for them and be loyal (Hofstede 1980).

A *masculine* culture prefers heroism, control, and power and can be described as very competitive and tough, whereas a feminine culture is tenderer and prefers cooperation, modesty, caring for the weak and quality of life (Hofstede 1980).

Uncertainty avoidance stands for how uncomfortable people feel towards uncertainty like the future. Strong uncertainty avoidance thereby means that there are codes of belief and behavior. Contrary to that, countries with weak uncertainty avoidance do not face such patterns of ideas of behavior and beliefs (Hofstede 1980).

The table of Hofstede Index for different countries is presented in Appendix 2.

Kogut & Singh (1988) developed the most common methodology to identify the cultural distance between two countries. Many scholars used their index in papers (Morosini et al. 1998; Ahammad et al. 2014; Du & Boateng 2015).

$$CultDist_{MN} = \sqrt{\sum_{i=1}^{4} (C_{iM} - C_{iN})^2}$$

where $CultDist_{MN}$ is the cultural distance between country M and country N, C_{ij} is the country's score on the i cultural dimension.

Institutional distance (InstDist). During cross-border M&As companies also face differences in institutions, hence, differences in the formal and legal aspects of governments. As a proxy for the institutional distance between two companies we use Worldwide Governance Indicators provided by The World Bank Group and produced by Kaufmann and Kraay in 1999, which include the following dimensions:

1) Voice and Accountability
2) Political Stability and Absence of Violence/Terrorism
3) Government Effectiveness
4) Regulatory Quality
5) Rule of Law
6) Control of Corruption

Voice and Accountability measures freedom of expression, association and media as well as to which extent citizens can select the government of their country (Kaufmann & Kraay 1999).

Political Stability and Absence of Violence/Terrorism measure the likelihood of political instability, terrorism and politically motivated violence (Kaufmann & Kraay 1999).

Government Effectiveness describes the quality of public and civil services as well as how independent those are from political pressure. Furthermore, it accounts for the credibility of the government´s policies (Kaufmann & Kraay 1999).

The *Regulatory Quality* of a country describes to which extent the government is able to find and implement policies and regulations in order to permit and stimulate the development of the private sector (Kaufmann & Kraay 1999).

Furthermore, *Rule of Law* describes confidence in the rules of society, property rights, police and courts and the contract enforcement. Also, the likelihood of crimes is captured by that measure (Kaufmann & Kraay 1999).

The *Control of Corruption* measures the extent of corruption, which means to which extent public power is used for private gain (Kaufmann & Kraay 1999).

All of the above-mentioned measures are matched with a score, whereby a higher score corresponds to a better outcome in terms of the particular categories. The table of Worldwide Governance Indicators for different countries is presented in Appendix 3.

In order to find the distance between two companies, we calculate the index based on Kogut & Singh (1988) methodology with several dimensions.

$$InstDist_{MN} = \sqrt{\sum_{i=1}^{6}(I_{iM} - I_{iN})^2}$$

where $InstDist_{MN}$ is the institutional distance between country M and country N, I_{ij} is the country's score on the institutional dimension.

The share of the Control (Control). If a company acquires more than 50% of target's shares, it will give the acquirer full control and the flexibility in management decisions and, consequently, if management of the target was inefficient, it will create value for the acquirer (Kiymaz 2004; Du & Boateng 2015). To capture this effect, we find a dummy variable in the model that equals 1 if the acquisition gives the bidder full control and 0 otherwise.

Deal size (Dsize). There are many studies which support that deal size is one of the core factors in terms of M&A efficiency (Cho & Ahn 2016; Kim & Jung 2016; Du & Boateng 2015). If a company acquires a large target, it will give the acquiring firm greater power, better reputation, economies of scale and other benefits (Cho & Ahn 2016; Du & Boateng 2015). However, large deal size may be a source of overinvestment and overestimation of the target value as well (Terhaar 2012; Roll 1986). Thus, we take deal size in our model as a quadratic function. We expect that it is a concave function, firstly, larger deal size increases the value creation of the deal for the acquirer, but from the exact point of saturation, there would be an opposite effect. Hence, if the deal size is too big, it may destroy acquirer's value as a result of overestimation. Deal size in the model is measured as the logarithm of the amount paid for the target in million USD.

Relatedness of companies (Relatedness). The combination of related companies may create market power by increasing the absolute size of the firms and their effectiveness by economies of scale (Cho & Ahn 2016; Du & Boateng 2015). We include in the model a dummy variable taking the value 1 if acquirer and target companies are from the same industry and 0 otherwise.

Acquirer Tobin's Q (TobinQ). This control variable represents the acquiring firm's growth opportunities (Du & Boateng 2015) and a measure of management performance (Servaes 1991). The commonly used proxy for Tobin's Q is Market-to-book ratio (Kim & Jung 2016; Du & Boateng 2015). We expect that higher market-to-book ratio will lead to higher stock attractiveness and better performance of M&A deals in term of value creation (Du & Boateng 2015; Servaes 1991).

Relative Size of companies (RelSize). The relative size of the target and acquirer may cause an effect on the value creation of the deal. Some papers support the idea that higher relative size of the target in combined firm negatively influences the value for acquiring firm's shareholders (Danbolt & Maciver 2012). We measure company size by the market value of the company before the date of the announcement of a deal. We take all market values in millions of USD. In order to identify the relative size between companies, the market value of the target is divided by the sum of market value of the target and bidder.

Developed_BRICS. The direction of the deal in cross-border M&As usually also has an effect on CAR of the acquiring firm's stocks. Numerous researchers include direction dummies in their studies (Aybar & Ficici 2009; Danbolt & Maciver 2012; Du & Boateng 2015). We have two subsamples: M&As to emerging markets as targets and from emerging markets as acquirers. Thus, the dummy variable Developed_BRICS is equal 1 if a company from a developed market acquires a target from a BRICS country.

Interaction variable between culture/institutions and direction of the deal (Cult_DB / Inst_DB). We add an interaction variable between the dummy of the direction of deals and the main variables of interests. It will show us the additional effect of cultural and institutional distance if cross-border M&A is flowing from a developed market to a BRICS market (Cult_DB=CultDist*Developed_BRICS, Inst_DB=InstDist*Developed_BRICS).

Variables such as acquirer's ROA, cash holding or method of payment are prominent in cross-sectional analysis dealing with M&A value creation (Li et al. 2016; Aybar & Ficici 2009; Malhotra et al. 2011; Narayan & Thenmozhi 2014; Bertrand & Betschinger 2012; Collins et al. 2009; De Beule & Sels 2016; Du & Boateng 2015). We considered these variables for our models. Since the particular variables were highly insignificant and did not enhance the quality of our models, they were not included in the final models.

In order to check if there are any variables, which are highly correlated with each other, we apply a covariance analysis (Appendix 4) to identify potential multicollinearity problems before running the OLS regression. There appears to be only one high statistically significant correlation, which is a correlation between cultural- and institutional distance and which is equal to 0.7 with zero p-value. It follows that if companies are situated in countries that are very different from each other in terms of institutions, they are also facing high cultural distance. It can be explained that each country requires special institutions that suit its culture. Taking high correlation into account, we examine the effect of the institution and cultural distance on CAR separately. Hence, multicollinearity is not a problem.

We also conducted tests to ensure the robustness of the model. We run tests of heteroscedasticity and autocorrelation of errors, and we figure out there are no such problems. Also, we run a Ramsey RESET test in order to check whether our model is right specified, and, according to the result of the test, it is.

Thus, the final model of the cross-border M&A value creation and the impact of the cultural distance between countries is the following:

$$CAR_i = \beta_1 CultDist_i + \beta_2 Control_i + \beta_3 Dsize_i + \beta_4 Dsize2_i + \beta_5 Relatedness_i \\ + \beta_6 TobinQ_i + \beta_7 RelSize_i + \beta_8 Developed\text{d\_BRICS}_i + \beta_9 Cult\_DB_i + \varepsilon$$

To determine the effect of institutional distance on the cross-border M&As involving emerging markets value creation, the model is:

$$CAR_i = \beta_1 InstDist_i + \beta_2 Control_i + \beta_3 Dsize_i + \beta_4 Dsize2_i + \beta_5 Relatedness_i + \beta_6 TobinQ_i \\ + \beta_7 RelSize_i + \beta_8 Developed\text{d\_BRICS}_i + \beta_9 Inst\_DB_i + \varepsilon$$

3.2 Sample selection and data

In order to test hypotheses, we need to create a sample of cross-border M&As involving companies from emerging countries as an acquirer or as a target.

BRICS (Brazil, Russia, India, China and South Africa) countries are the major emerging economies in the world. According to Baker & McKenzie (2013), investment activities into the BRICS countries are the strongest among emerging markets. BRICS are commonly used as representatives of emerging markets (Malhotra et al. 2011). Countries from BRICS have many common things in terms of economic development and world market positions. The population of these countries is 42% of all population in the world, the territory of BRICS accounts for 26% of total land, and their GDP equals to 27% of the world GDP (BRIC, 2015).

As for developed markets, we take into account the US and all developed economies in Europe (MSCI, 2017). Companies from these countries are most often participants in cross-border M&As (Baker & McKenzie 2017). It is worth to mention that the US represents the most developed M&A market in the world. US companies conduct the highest number of cross-border M&A deals and they are leaders regarding deal values as well (Baker & McKenzie 2017).

Thus, the sample consists of cross-border M&A deals undertaken by companies from BRICS countries as acquirers to developed markets and cross-border M&As from developed markets as acquirers to BRICS countries as targets.

The time period considered by this study is from January 2000 to March 2017. We obtain our data from the database Thomson Reuters Eikon, providing information regarding the acquirer's and target's name, nation and industry, relevant transaction dates, acquired percent of the target, deal status, deal value, deal type, deal purpose and method of payment. Share price data and other figures from companies' financial reports and balance sheets were also collected from the Thomson Reuters Eikon database.

However, for inclusion in the final sample, the following sample selection criteria were imposed:

1) Completed deal
2) The domicile countries of the acquirer and the target are different to ensure the cross-border M&A
3) Acquirer and target must be listed on a stock exchange
4) Transaction value is in excess of 1 mln USD
5) Exclusion of deals where the acquirer and/or the target is a financial firm. All firms that belong to the financial sectors have different assets and liabilities, reporting system and unique regulations, which can bias results.
6) Exclusion of deals during the last financial crisis (from 2008 to 2009) because in times of recession many companies trade at a price lower than their fair value (Krugman 2000).

In order to calculate normal returns for stocks, we use domestic country's index of the country where the acquiring firm situated. The table of countries' indexes is presented in Appendix 5.

The imposition of these restrictions leads to the final usable sample of 117 cross-border M&As involving companies from BRICS as either acquirer or target. There are two subsamples, whereby the first is consisting of deals where cross-border M&As are initiated by companies from developed markets targeting companies from BRICS countries, it consists of 81 observations. The second subsample contains 36 deals with cross-border M&A deal direction from BRICS to developed markets. There are not many observations in the second subsample due to the lack of data on the firms from emerging markets. Not many firms are listed which limits our opportunities to collect required data for the analysis.

In our sample, the largest part of deals was initiated by US firms (20 deals) (Appendix 6). Focusing on BRICS, Indian companies initiated the highest number of cross-border deals (12 observations). And as for targets, Indian companies were the most common targets – 32 deals in the sample. Moreover, US firms were the most common targets from the developed markets section - there are 20 deals.

Table 1. Descriptive statistics

	CultDist	InstDist	Control	DSize	Relatedness	TobinQ	RelSize	Developed_BRICS
Mean	58,64	2,99	0,31	4,49	0,56	2,85	0,16	0,69
Median	57,36	2,79	0	4,48	1	2,16	0,06	1
Maximum	101,8	4,56	1	8,74	1	37,58	0,97	1
Minimum	21,49	0,96	0	0,69	0	-5,19	0,00035	0
Std. Dev.	20,07	0,75	0,46	2,02	0,5	3,96	0,23	0,46

By using a descriptive statistic, the typical cross-border M&A deal in the sample appears to be initiated by a company from the US, targeting a company situated in India. Both companies operate in the same industry (horizontal merger). The acquirer buys less than 50% of the target (the average acquired share is 39%) and the deal value is around 89,12 mln USD ($e^{4,49}$). The market-to-book ratio of the acquirer before the deal was 2.85 and the relative size of the target is around 16% in the combined firm.

4. Results of the research and their discussion

In the fourth chapter, we will present and analyze the results retrieved from applying the model to the sample, which were introduced and described in the third chapter. We will present the analysis whether cross-border M&A deals involving emerging markets are value creating on average and will discuss obtained results. Furthermore, we will find the impact of cultural- and institutional distance on the cross-border M&A value creation and will identify if the negative effect of culture and institutions is less when the M&A deal is initiated by a company from a developed market, targeting a company from BRICS.

4.1 Value creation of cross-border M&A involving emerging markets

In order to test the first hypothesis whether cross-border M&As involving emerging markets create value for acquiring firm shareholders on average, we calculate the average value of cumulative abnormal returns in three observed event windows and associated a t-test to check if the result is statistically significant.

Table 2. Mean of CAR in three observed event windows for entire sample

	Mean	**p-value**
CAR (-5, +5)	-1,36%	0,1536
CAR (-10, +10)	-2,89%	0,0690
CAR (-15, +15)	-5,03%	0,0177

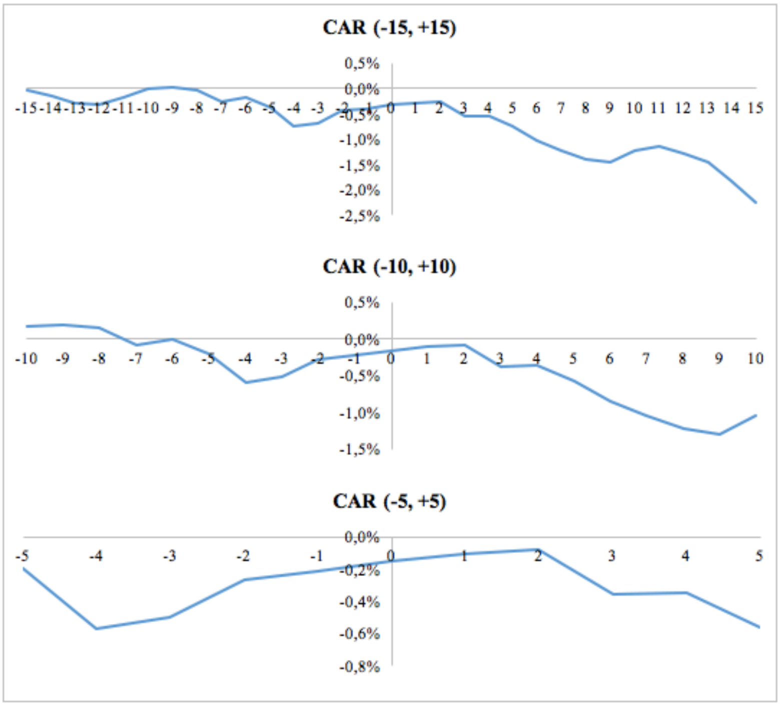


Figure 1. Cumulative Abnormal returns for different event windows

The results in Table 2 show that the average CAR in cross-border M&As involving emerging markets is negative and is robust to the time window chosen. The negative value of the mean of cumulative abnormal returns is higher for longer windows. However, the negative mean of CAR for acquirer's shareholders is statistically significant only in two largest windows. It is significant at the 10% level in the (-10, +10) period and equal to -2.89%. For the longest period in the study, (-15, +15), the negative mean of CAR is equal to -5,03% and is significant at 5% level.

In order to identify if the result is driven mainly by one of the directional subsamples, we calculate the CAR mean for both subsamples separately.

By looking at the subsample consisting of cross-border M&A deals flowing from developed- into BRICS countries, we find that the average CAR is negative as well, however, it is statistically insignificant in all three observed windows (Table 3). Hence, for this subsample, cross-border M&As neither create nor destroy value for the acquirer on average.

Table 3. Mean of CAR for deals from Developed markets to BRICS

	Mean	**p-value**
CAR (-5, +5)	-0,03%	0,9577
CAR (-10, +10)	-0,43%	0,6634
CAR (-15, +15)	-1,74%	0,1392

By analyzing the subsample of deals flowing from BRICS to developed markets, we retrieve the same statistically significant result, that cross-border M&As destroy value on average as in the case of the entire sample, although, the negative effect is considerably higher (Table 4).

Table 4. Mean of CAR for deals from BRICS to Developed markets

	Mean	**p-value**
CAR (-5, +5)	-4,55%	0,1177
CAR (-10, +10)	-8,32%	0,0922
CAR (-15, +15)	-11,47%	0,0860

Hence, we can conclude that the results for the overall sample are mainly driven by the statistically significant results of the subsample BRICS to developed markets and they are derogated by the effects of the subsample consisting of deals with the opposite direction.

Therefore, the results are consistent with the stated hypothesis that cross-border M&As involving emerging markets are inefficient on average in terms of value creation for acquiring firm shareholders.

This is in support of the study results by Aybar & Ficici (2009), whose findings show the cross-border M&As involving emerging markets on average destroy value for shareholders of the acquiring firm. Although, our results are not supported by Kim & Jung (2016) and Narayan & Thenmozhi (2014), who found that cross-border M&As involving emerging markets create value for the acquirer.

The findings present a paradox - while cross-border M&As have increased in popularity, such deals are not necessarily viewed as being positive net present value investments by investors. According to Baker & McKenzie (2017), the number of cross-border M&A deals has increased from 23% of all deals in the year 1998 to 35% in 2017. There are several explanations of the negative wealth effect and belief that cross-border M&As are poor investments. Firstly, bidders usually overbid and overpay for the target firm due to their overestimation of the benefits of the deal (Roll 1986), secondly, there can be difficulties associated with pricing target firms in unfamiliar market conditions with different accounting conventions (Davis et al. 1991). Furthermore, when the acquiring company´s management has already invested time and resources into the target selection they may believe that the company will lose more if the acquisition will not be realized.

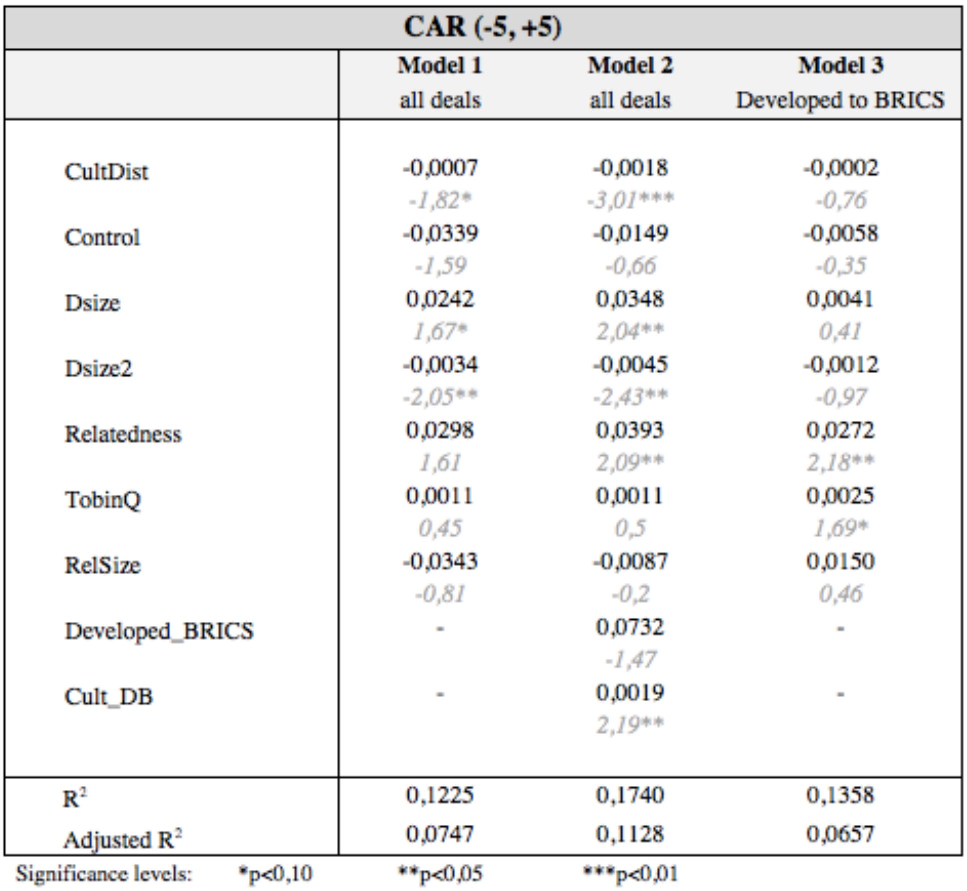
In this paradox, we should understand that the negative effect of cross-border M&As is only an expectation of investors. However, M&A deals are planned and executed by acquiring firm management who may have additional information about the target and possible advantages which could be derived from combining two firms (Datta & Puia 1995). Investors may not have a full insight on what can cause the negative effect of the deal on CAR. When more information becomes available about the deal, the stock price will adjust to more accurate estimation of the deal effect on acquiring firm shareholders.

4.2 Impact of cultural distance on the cross-border M&A value creation

The second hypothesis states that cultural distance negatively affects the cross-border M&A value creation when BRICS countries act as acquirers. Based on the literature review, cultural distance is one of the most common reasons for cross-border M&A failure (Malhotra et al. 2011). Around half of all such deals are considered to be unsuccessful in terms of value creation for the acquirer because companies were not able to build a common corporate culture due to workers having different values, norms, etc. Thus, we expect to get a negative influence of the Hofstede index as a measure of cultural distance on CAR.

The following analysis of the results will be based on the event window (-5, +5). Other results for the event windows (-10, +10) and (-15, +15), which are used to test robustness of the results, can be retrieve from the Appendix 9 and 10. All regressions have R^2 of around 14%. This value is not high, but this is usual for stock returns due to their high volatility.

Table 5. Regression of cultural distance influence on CAR in cross-border M&A involving BRICS



CAR (-5, +5)			
	Model 1 all deals	Model 2 all deals	Model 3 Developed to BRICS
CultDist	-0,0007 -1,82*	-0,0018 -3,01***	-0,0002 -0,76
Control	-0,0339 -1,59	-0,0149 -0,66	-0,0058 -0,35
Dsize	0,0242 1,67*	0,0348 2,04**	0,0041 0,41
Dsize2	-0,0034 -2,05**	-0,0045 -2,43**	-0,0012 -0,97
Relatedness	0,0298 1,61	0,0393 2,09**	0,0272 2,18**
TobinQ	0,0011 0,45	0,0011 0,5	0,0025 1,69*
RelSize	-0,0343 -0,81	-0,0087 -0,2	0,0150 0,46
Developed_BRICS	-	0,0732 -1,47	-
Cult_DB	-	0,0019 2,19**	-
R^2	0,1225	0,1740	0,1358
Adjusted R^2	0,0747	0,1128	0,0657

Significance levels: *p<0,10 **p<0,05 ***p<0,01

Firstly, we run the regression without taking into account the direction of deals in the sample to retrieve the effect of cultural distance. In Table 5, Model 1 we see that cultural distance is statistically significant at the 10% level and destroys value for the acquirer. By increasing the Hofstede index by 1 unit and not changing other variables, CAR will decrease by 0,07%.

In the next stage of our analysis, we will take the directions of deals into account. Based on Model 2 from Table 5, cultural distance destroys value for acquiring firm shareholders when the acquirer company is from a BRICS country. We find that if the acquirer is from an emerging market and the Hofstede index increases by 1 unit, the cumulative abnormal return decreases by 0.18% in the (-5, +5) event window. In all three observed event windows, the cultural distance coefficient is statistically significant at the 1% level, which supports the robustness of the results. The findings can be explained by cultural distance resulting in a misunderstanding of a foreign market and the foreign firm culture. This can lead to overpaying for a target because of administrative- and consolidation problems (Datta & Puia 1995; Li et al. 2016).

Hence, we find support for the hypothesis that cross-border M&As destroy acquirer's value when a deal flows from a BRICS to a developed market.

This result is echoed by Li et al. (2016) who analyze the negative impact of cultural differences on value creation of cross-border M&As initiated by companies from emerging countries. However, the results of our work are not consistent with the findings of Morosini et al. (1998), whose results support that cultural differences are beneficial in cross-border M&As. Also, our results are not in line with Ahammad et al. (2014) who conclude that cultural distance has no direct effect on cross-border M&A value creation.

If we look at the interaction variable between cultural distance and the direction of the deal, which shows the additional effect of the cultural distance in the case when a deal is flowing from a developed market to a BRICS market, we can see that it is also statistically significant at a 5% level. This means that if a deal is initiated by a company from a developed market, which is going to acquire a company from a BRICS country, it will decrease the negative impact of a cultural effect on CAR by 0.19%. Hence, the total effect of cultural distance on the cross-border M&A value creation in the case of a deal flowing from developed markets to emerging markets is 0.01%. This result is close to zero and probably not statistical significantly different from zero to have a positive effect for acquiring firm shareholders. In order to test that, we run the third model using the subsample Developed-BRICS consisting of 81 deals. Referring to Table 5, Model 3, we observe that cultural distance is not statistically significant. Thus, we cannot conclude that cultural distance destroys or creates value for the acquirer for deals in this particular deal direction. However, we can state that a negative effect of cultural distance for this particular subsample is less than for the subsample consisting of deals from BRICS to developed markets that it is not statistical significantly different from zero.

Thus, the results are consistent with the hypothesis, and the impact of cultural distance on acquirer's value is less when The cross-border M&A is initiated by a company from a developed market targeting a company from BRICS.

These findings can be explained that developed markets start their internationalization process earlier and, thus, they have more experience on how to deal with different cultures. Firms from emerging markets have limited experience on conducting cross-border M&As, which can cause errors in choice of target and its valuation (Malhotra et al. 2011). According to other literature, previous experience of cross-border deals creates value for the acquirer (Slangen & Hennart 2008; Li et al. 2016; Du & Boateng 2015; Collins et al. 2009). Narayan & Thenmozhi (2014) state that financial markets in emerging economies tend to move synchronously as a result of poor information intermediation. It leads to an inability by investors to distinguish well-performing companies from bad ones. It causes errors in the choice of target and its valuation.

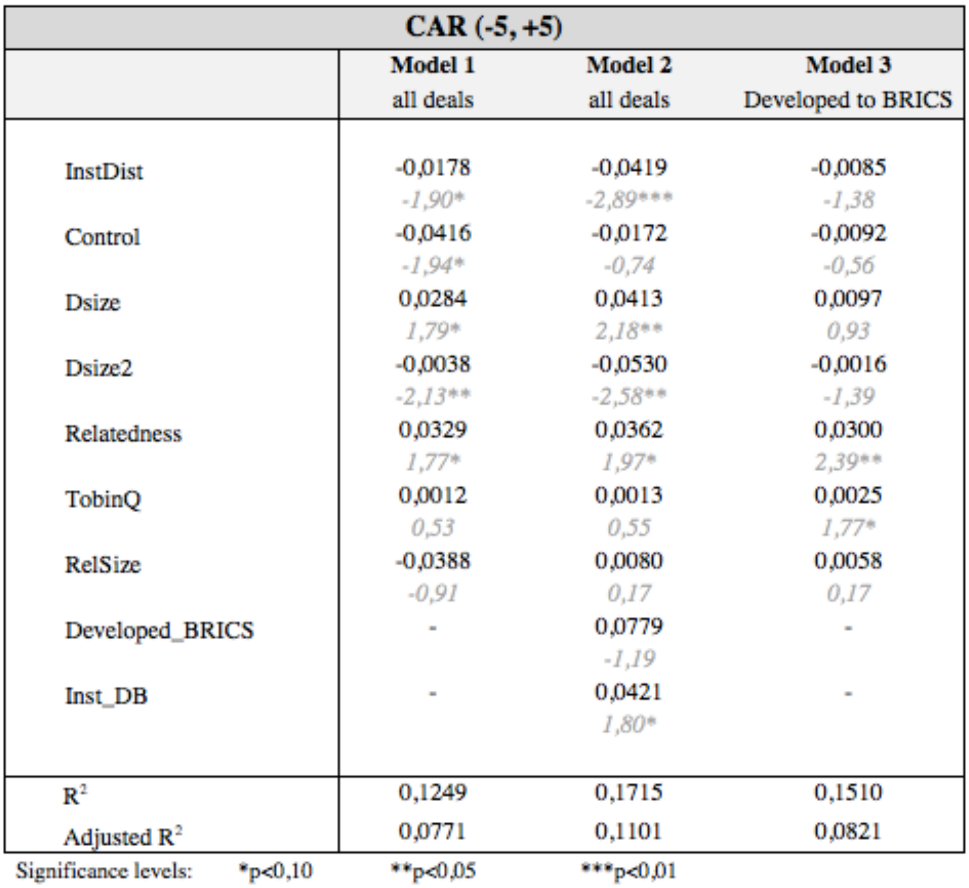
As for control variables included in Model 2, the logarithm of the *deal size* is a quadratic function in the model and it has a concave effect on CAR. Its influence on CAR is statistically significant at a 5% level. The logarithm of the deal size squared has a negative coefficient. It means that when the deal size increases, firstly, it increases the value of the acquirer, but when it reaches the saturation point, the opposite effect will occur. Hence if the deal size is too big, it will destroy value for the acquirer. This effect can be explained since high values of the deals are usually connected with overestimation of the target value. An acquirer pays a high price for the target, but synergies and other benefits from the deal do not offset this high price (Terhaar 2012; Roll 1986).

As for other control variables, all of them are statistically insignificant for the event window (-5, +5), and all of them have predicted signs of coefficients except the share of control (*Control*), which has the negative coefficient. We expected that if a company acquires more than 50% of target's shares, it will give the acquirer full control and the flexibility in management decisions and will increase the probability of a successful deal and the acquirer's value (Kiymaz 2004; Du & Boateng 2015). However, our result is in line with Aybar & Ficici (2009) who also find an insignificant negative impact of the acquired share in their regression model.

4.3 Impact of institutional distance on the cross-border M&A value creation

The next hypothesis stated in this paper assumes that institutional distance has a negative effect on the value creation in cross-border M&A deals initiated by companies from BRICS countries. The institutional sphere of two different countries can be substantially different in terms of legal or formal aspects. Acquirers from countries, which are different from their target countries in this particular sphere, might be challenged to adapt to the target´s institutional frame. Additional cost and time for negotiating might result from facing those challenges (Reis, Ferreira and Santos 2014). Hence, we expect that institutional distance, proxied by an index constructed with the Worldwide Governance Indicators, will have a negative stimulus on the cumulative average return.

Table 6. Regression of institutional distance influence on CAR in cross-border M&A involving BRICS



CAR (-5, +5)			
	Model 1 all deals	**Model 2** all deals	**Model 3** Developed to BRICS
InstDist	-0,0178 *-1,90**	-0,0419 *-2,89****	-0,0085 *-1,38*
Control	-0,0416 *-1,94**	-0,0172 *-0,74*	-0,0092 *-0,56*
Dsize	0,0284 *1,79**	0,0413 *2,18***	0,0097 *0,93*
Dsize2	-0,0038 *-2,13***	-0,0530 *-2,58***	-0,0016 *-1,39*
Relatedness	0,0329 *1,77**	0,0362 *1,97**	0,0300 *2,39***
TobinQ	0,0012 *0,53*	0,0013 *0,55*	0,0025 *1,77**
RelSize	-0,0388 *-0,91*	0,0080 *0,17*	0,0058 *0,17*
Developed_BRICS	-	0,0779 *-1,19*	-
Inst_DB	-	0,0421 *1,80**	-
R^2	0,1249	0,1715	0,1510
Adjusted R^2	0,0771	0,1101	0,0821

Significance levels: *p<0,10 **p<0,05 ***p<0,01

Firstly, we run the regression using all deals in the sample, and we retrieve from Table 6, Model 1 that institutional distance has a statistically significant negative impact on the CAR. In order to identify if this negative impact is mainly driven by any of the directional subsamples, we run the second specification of the model.

By looking at Model 2 in Table 6, if we consider a cross-border deal initiated by a BRICS country, the increase in the index for institutional distance by 1 unit would result in a decrease of the CAR by 4,19% in the (-5, +5) window and this result is statistically significant at the 1% significance level. This result is robust since the negative effect is statistically significant in all three observed windows, whereby the negative influence is increasing with the window size.

Thus, when companies from a BRICS country initiate a cross-border M&A deal, targeting a company from a developed country, the negative impact of institutional distance is statistically significant at the 1% level, and the hypothesis is supported by our results.

The results of the impact of institutional distance on the cross-border M&A performance in terms of value creation are consistent with the findings of Aybar and Ficici (2009), indicating that institutional distance has a negative effect on the acquirer's value in the cross-border M&A deal initiated by emerging markets because of additional costs and time for negotiation if the distance between institutional levels is high. Likewise, our results are not in line with the results of Du and Boateng (2015), stating that institutional distance stimulates a positive impact since when an emerging market company, facing a low level of institutions, enters into a developed market with a high level of institution quality, it will result in access to more high-quality resources and more opportunities for the acquirer.

To compare the effects of cultural and institutional distance on CAR, we have to compare a one-unit change in the standard deviation of cultural- and institutional indexes since they are not comparable in terms of units. The standard deviations of cultural- and institutional distance equal 20.07 and 0.75, and their coefficients are -0.002 and -0.04 respectively in the event window (-5, +5). Hence, a one-unit change in standard deviation will cause a decrease in CAR by 4% in the case of the regression dealing with culture and by 3% in the case of the regression dealing with institutions. Thus, cultural distance has a bigger negative impact on CAR than institutional distance when a cross-border M&A deal is initiated by companies from BRICS countries.

In the next stage of the analysis, we examine a subsample consisting of deals flowing from developed markets into BRICS countries. Based on Table 6, Model 2, the interaction variable between the direction of the deal and institutional distance is statistically significant. It has a positive impact on CAR and expresses the additional effect of institutional distance when a deal is flowing from a developed market to a BRICS market. Thus, if a deal is initiated by a company from a developed market and inflowing a BRICS country, it will reduce the negative effect of institutional distance in the (-5, +5) window to approximately 0.017%. The result is however not robust since the interaction variable is not significant in the windows (-10, +10) and (-15, +15). Again, this impact is very close to zero, thus, we run a regression by using only the subsample consisting of deals from developed markets to BRICS, in order to check the statistical significance of the results.

Model 3 in Table 6 shows that the impact of institutional distance is not statistically significant and hence we conclude that when a company from a developed market acquires a company from an emerging market there is no significant effect on the value for the acquirer.

The fifth hypothesis is consistent with our results and the impact of institutional distance on acquirers' value is less when M&As are initiated by companies from developed markets targeting companies from BRICS countries.

Again, as in the case of cultural distance, this lower impact can be explained by greater experience of developed markets who have started their process of global integration earlier than emerging economies for whom this process has just begun (Malhotra et al. 2011). There is a larger share of already globalized multinational companies among developed countries than in developing ones, and many companies from developed countries already have subsidiaries in a range of diverse locations (Slangen & Hennart 2008). Moreover, companies from developed markets have access to more experience investment-banking services, which can support the deal and better estimate all possible risks and suggest mechanisms to avoid them (Narayan & Thenmozhi 2014). All these factors make companies from developed markets more protected from value destruction for the acquirer in cross-border M&As in comparison with companies from emerging markets.

Furthermore, for control variables in Model 2 from Table 6, we find that as for the regression dealing with cultural distance, the logarithm of the *deal size* is a concave function in the model dealing with institutional distance. And this effect of *deal size* is statistically significant at a level of 5%.

There is only one significant variable in Model 2 from Table 6 for institutional distance in the event window (-5, +5), which is not significant in Model 2 from Table 5 dealing with cultural distance. This variable is *Relatedness.* It stimulates a positive effect on the cumulative average return of around 3,62% for the (-5, +5) window at a 10% significance level. If the dummy is one, the acquirer and target operate in a similar business. Operating in a similar industry and having a similar business might lower transaction and negotiation cost since the participants are familiar with business processes of each other. This is consistent with the findings of Du & Boateng (2015).

Furthermore, when we analyze the variables *Control, Tobin's Q, Relative Size,* and the dummy variable *Developed_Brics*, the signs of coefficients are the same as for the regression dealing with cultural distance, and again all of them have statistically insignificant impacts on the cumulative average return in the model.

5. Conclusion

The number of cross-border M&As has increased significantly in recent years as a result of globalization and integration of world markets. Emerging markets are becoming more and more involved in cross-border M&A deals on the acquirer as well as on the target side. The share of emerging market involvement has increased significantly and reached 27,1% of all cross-border M&A deals in 2015 in comparison with 15,5% in 2010 (Thomson Reuters 2015).

The main motives for conducting a cross-border M&A are value creation, improvement in efficiency, market leadership, marketing and strategic motives as well as synergistic gains (Tripathi & Lamba 2015). However, there are risks as well connected with those particular deals. An undesirable post-merger performance can result from risks like unsuccessful integration, which can be influenced by cultural- as well as institutional distance between countries (Weber et al. 2009; Du & Boateng 2015; Aybar & Ficici 2009). According to Malhotra et al. (2011), more than a half of all the cross-border M&A failures are explained by these two factors.

This study aims to empirically examine the effect of cultural- and institutional distance on the cross-border M&A value creation involving companies from emerging markets. The focus thereby will lie on two deal directions involving emerging markets: to emerging countries as targets and from emerging countries as acquirers.

According to Baker & McKenzie (2013), investment activities into the BRICS countries are the strongest among emerging markets, thus, BRICS is taken as representative of emerging markets. The United States as well as all developed economies in Europe are taken as developed markets in the study.

We set hypotheses and built a model of cross-border M&A value creation. We test hypothesis by using the sample of 117 observations consisting of completed cross-border M&As involving emerging markets from January 2000 to March 2017. There are two subsamples, whereby the first is consisting of deals where cross-border M&As are initiated by companies from developed markets targeting companies from BRICS countries, it consists of 81 observations. The second subsample contains 36 deals with cross-border M&A direction from BRICS to developed markets.

We use event study by calculating cumulative abnormal returns. By considering several papers that studied cross-border M&As involving emerging markets, we decided to use the estimation windows (-5,+5), (-10,+10) and (-15,+15) in this paper (Datta & Puia 1995; Aybar & Ficici 2009; Du & Boateng 2015).

This work has complemented empirical results of other researches about emerging markets as a participant of cross-border M&As. First of all, we found that cross-border M&As involving emerging markets are inefficient in terms of value creation for acquiring firm shareholders on average. In the case of the shortest window, (-5, +5), the negative CAR mean is insignificant, but in the two other windows we find statistically significant negative means. In consideration of the (-10, +10) period, the acquiring firm shareholders lose -2.89% on average at the 10% significance level, and for the longest period in the study (-15, +15) the negative mean of CAR is equal to -5.03% and it is significant at the 5% level. These findings are mainly driven by the statistically significant negative means of the subsample consisting of deals flowing from BRICS to developed markets and it is derogated by the effects of the subsample consisting of deals with the opposite direction, where the negative means are not statistically significant. Our findings present a paradox - while cross-border M&As have increased in popularity, such deals are not necessarily viewed as being positive net present value investments by investors. There are several explanations of the negative wealth effect and the belief that cross-border M&As are poor investments. Firstly, bidders usually overbid ad overpay for the target firm due to their overestimation of the benefits of the deal (Roll 1986), secondly, there can be difficulties associated with pricing target firms in unfamiliar market conditions with different accounting conventions (Davis et al. 1991). Furthermore, when the acquiring company´s management has already invested time and resources into the target selection, they may believe that the company will lose more if the acquisition will not be realized.

Moreover, we found that when a cross-border M&A deal is initiated by a company from a BRICS country, the cultural- and institutional distance destroy value for acquiring firm shareholders. The results are robust to the time window chosen, all results are statistically significant at the 5% level, and for longer windows the negative effect of cultural and institutional distance on CAR is higher.

When the acquiring firm is from a BRICS country, cultural distance destroys cumulative abnormal returns by 0.18% in the event windows (-5, +5). This result is echoed by Li et al. (2016) who analyze the negative impact of cultural differences on value creation of cross-border M&A initiated by emerging markets. The findings can be explained by cultural distance resulting in a misunderstanding of a foreign market and the foreign firm culture. Hence, this can lead to overpaying for a target because of administrative- and consolidation problems.

As for institutional distance, it decreases CAR by 4.19% in the (-5, +5) window when emerging markets act as acquirers in cross-border M&As. These results are consistent with the findings of Aybar and Ficici (2009), indicating that institutional distance has a negative effect on the cross-border M&A value creation because of additional costs and time for negotiation if the distance between institutional levels is high.

By considering a one-unit change in the standard deviation of cultural- and institutional indexes, we find that it causes a decrease in CAR by 4% in the case of the regression dealing with culture and by 3% in the case of the regression dealing with institutions. Thus, cultural distance has a bigger negative impact on CAR than institutional distance when a cross-border M&A deal is initiated by companies from BRICS countries.

According to our results, if the acquirer is from a developed market and the target is from a BRICS country, the negative effect of cultural- and institutional distance is lower than for deals with the opposite direction and not statistically different from zero. It means that cultural- and institutional distance neither create nor destroy value in cross-border M&A deals when the acquirer is from a developed market. This can be the case because developed markets have started their internationalization process earlier and, thus, they have more experience on how to deal with different cultures and act in conditions of different institutions. Firms from emerging markets have limited experience on conducting cross-border M&A, and it also can cause errors in choice of target and its valuation (Malhotra et al. 2011). Also, there is a larger share of already globalized multinational companies among developed countries than in developing ones, and many companies from developed countries already have subsidiaries in a range of diverse locations (Slangen & Hennart 2008). Moreover, companies from developed markets have access to more experience investment-banking services, which can support the deal and better estimate all possible risks and suggest mechanisms to avoid them (Narayan & Thenmozhi 2014).

This study offers a contribution to prior literature in terms of analyzing both, cultural- as well as institutional distance in one paper, and comparing their effect on the acquirer's value. Furthermore, we focus on cross-border M&As flowing into more than one direction. We compare the effect of cultural and institutional distance when deals are flowing from developed- into emerging markets and vice versa. Prior studies tend to focus on only one deal direction.

Practical relevance of this study is that the results can be used by the management and the board of directors of companies in order to help making important strategic decisions about cross-border M&As. It is worth to take into account that cultural- and institutional distance can cause high risk of deal failure. Furthermore, if the acquirer is from an emerging country and is aiming to acquire a company from a developed market, acquiring firm shareholders should be prepared for decreases in shares' value after the announcement about cross-border M&A.

While our research contributes to the exploration of cross-border M&As involving emerging markets, their value creation and impact of cultural- and institutional distance on it, its limitations should be noted. Firstly, although the method of event study is widely used in researches, it is worth to note that stock markets are semi-strong under the efficient market hypothesis. This means that in reality some companies' strategic actions can be not fully understood by market participants and thus can cause biased results. Secondly, the lack of data on the target firms can cause another limitation of the work. Due to this problem, we could not control for some variables in the regression model, such as relative size of companies. We believe that more companies from emerging countries will be listed in the future. This will allow making the sample bigger and taking into account more variables in future studies. Further, another suggestion for future researches is to use proxies of cross-border M&A experience by acquirer, e.g. number of previous cross-border deals as an acquirer, existing geographical scope of the business operations, etc. It would help to identify if a smaller impact of cultural- and institutional distance in the case of cross-border deals initiated by developed countries is a result of previous experience.

References

Ahammad, M.F. et al. (2014). Knowledge transfer and cross-border acquisition performance: The impact of cultural distance and employee retention, *International Business Review*, vol. 25, no.1, pp.66–75. Available at: http://dx.doi.org/10.1016/j.ibusrev.2014.06.015.

Aybar, B. & Ficici, A. (2009). Cross-border An analysis acquisitions and firm value : multinationals of emerging-market, *Journal of International Business Studies*, vol. 40, no. 8, pp.1317–1338.

Baker & McKenzie, (2013). Opportunities across high-growth markets: trends in cross-border M&A. Available online: http://www.bakermckenzie.co.jp/e/material/dl/supportingyourbusiness/newsletter/corporatema/FINALHGM_April22.pdf. (Accessed 13 April 2017)

Baker & McKenzie, (2015). Cross-border M&A index 2015. Available online: http://crossbordermaindex.bakermckenzie.com/. (Accessed 4 April 2017)

Baker & McKenzie, (2017). Cross-border M&A index 2017. Available online: http://crossbordermaindex.bakermckenzie.com/. (Accessed 4 April 2017)

Barkema, H.G. & Vermeulen, F. (1998). International expansion through start-up or acquisition: A learning perspective, *Academy of Management Journal*, vol. 41, no. 1, pp.7–26.

Bauer, F., Matzler, K. & Wolf, S. (2014). M&A and innovation: The role of integration and cultural differences-A central European targets perspective, *International Business Review*, vol. 25, no. 1, pp.76–86. Available at: http://dx.doi.org/10.1016/j.ibusrev.2014.07.010.

Brics (2015). BRICS in Numbers. Available online: http://brics2015.ru/. (Accessed 3 April 2017)

Brouthers, K.D. & Brouthers, L.E. (2000). Acquisition or greenfield start-up? Institutional, cultural and transaction cost influences, *Strategic Management Journal*, vol. 21, no. 1, pp.89–97. Available at: http://onlinelibrary.wiley.com.lama.univ-amu.fr/doi/10.1002/(SICI)1097-0266(200001)21:1%3C89::AID-SMJ85%3E3.0.CO;2-8/abstract%5Cnhttp://onlinelibrary.wiley.com.lama.univ-amu.fr/store/10.1002/(SICI)1097-0266(200001)21:1%3C89::AID-SMJ85%3E3.0.CO;2-8/asset/8.

Chakrabarti, R. & Jayaraman, N. & Gupta-Mukherjee, S. (2005). Mars-Venus Marriages: Culture and Cross-Border M&A, *Journal of International Business Studies*, vol. 40, no. 2, pp.216-236. Available at SSRN:https://ssrn.com/abstract=869307 orhttp://dx.doi.org/10.2139/ssrn.869307

Cho, H. & Ahn, H.S. (2016). Stock payment and the effects of institutional and cultural differences: A study of shareholder value creation in cross-border M&As, *International Business Review*, vol. 26, no. 3, pp. 461-475. Available at: http://linkinghub.elsevier.com/retrieve/pii/S0969593116302189.

Cording, M., Christmann, P. & King, D.R. (2008). Reducing causal ambiguity in acquisition integration: Intermediate goals as mediators of integration decisions and acquisition performance. *Academy of Management Journal*, vol. 51, no. 4, pp.744–767.

Danbolt, J. & Maciver, G. (2012). Cross-Border versus Domestic Acquisitions and the Impact on Shareholder Wealth. *Journal of Business Finance and Accounting*, vol. 39, no. 7–8, pp.1028–1067.

Datta, D.K. & Puia, G. (1995). Cross-border Acquisitions: An Examination of the Influence of Relatedness and Cultural Fit on Shareholder Value Creation in U. S. Acquiring Firms. *Management International Review*, vol. 35, no. 4, pp.337–359.

Davis, E., Shore, G. & Thompson, D. (1991). Continental Mergers Are Different, *Business Strategy Review*, vol. 2, no. 1, p.49. Available at: http://ludwig.lub.lu.se/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=6452156&site=eds-live&scope=site.

Du, M. & Boateng, A. (2015). State ownership, institutional effects and value creation in cross-border mergers & acquisitions by Chinese firms, *International Business Review*, vol. 24, no. 3, pp.430–442. Available at: http://dx.doi.org/10.1016/j.ibusrev.2014.10.002.

Gaughan, P.A. (2015). Mergers, Acquisitions and Corporate Restructurings, (6th edition), Hoboken: Wiley.

Goldman Sachs Global Economics Group, (2007). Brics and Beyond, Goldman Sachs, p.272. Available online: http://www.goldmansachs.com/our-thinking/archive/BRICs-and-Beyond.html. (Accessed 20 May 2017)

Harford, J. (2005). What drives merger waves?, *Journal of Financial Economics*, vol. 77, no. 3, pp.529–560.

Hasan, M.M., Yusnidah, I. & Mohan Uddin, M. (2015). Institutional Distance on Cross-border Mergers and Acquisition Performance : A Hypothetical Framework, *Proceedings of the Asia Pacific Conference on Business and Social Sciences 2015*, Kuala Lumpur, vol. 50, no. 6, pp.567–576. Available at: https://muse.jhu.edu/article/626815/pdf.

Heron, R. & Lie, E. (2002). Operating Performance and the Method of Payment in Takeovers, *The Journal of Financial and Quantitative Analysis*, vol. 37, no. 1, p.137.

Hofstede, G. (1980). Culture's consequences: International differences in work-related values. London: Sage Publications.

Hofstede, G. (2001). Culture's consequences (2nd ed.). Thousand Oaks, London, New Delhi: Sage Publications.

Hur, J., Parinduri, R.A. & Riyanto, Y.E. (2011). Cross-border m&a inflows and quality of country governance: Developing versus developed countries, *Pacific Economic Review*, vol. 16, no. 5, pp.638–655.

Kale, P., Dyer, J.H. & Singh, H. (2002). Alliance capability, stock market response, and long-term alliance success: The role of the alliance function, *Strategic Management Journal*, vol. 23, no. 8, pp.747–767.

Kaufmann, D. & Kraay, A. (1999). Worldwide Governance Indicators, The World Bank Group. Available online: http://info.worldbank.org/governance/wgi/#home. (Accessed 19 April 2017)

Kim, B. & Jung, J. (2016). Cross-Border M & As Involving an Emerging Market, *Emerging Markets Finance and Trade*, vol. 52, no. 11, pp.2454–2472.

Kiymaz, H. (2004). Cross-border acquisitions of US financial institutions: Impact of macroeconomic factors, *Journal of Banking and Finance*, vol. 28, no. 6, pp.1413–1439.

Kogut, B. & Singh, H. (1988). The Effect of National Culture on the Choice of Entry Mode, *Journal of International Business Studies*, vol. 19, no. 3, pp.411–432.

Krugman, P. (2000). Thinking About the Liquidity Trap, *Journal of the Japanese and International Economies*, vol. 14, no. 4, pp.221–237. Available at: http://linkinghub.elsevier.com/retrieve/pii/S0889158300904581.

Lanine, G. & Vander Vennet, R. (2007). Microeconomic determinants of acquisitions of Eastern European banks by Western European banks, *Economics of Transition*, vol. 15, no. 2, pp.285–308.

Li, J., Li, P. & Wang, B. (2016). Do cross-border acquisitions create value? Evidence from overseas acquisitions by Chinese firms, *International Business Review*, vol. 25, no. 2, pp.471–483. Available at: http://dx.doi.org/10.1016/j.ibusrev.2015.08.003.

Linn, S.C. & Switzer, J. A. (2001). Are cash acquisitions associated with better postcombination operating performance than stock acquisitions?, *Journal of Banking and Finance*, vol. 25, no. 6, pp.1113–1138.

Luo, Y. & Tung, R.L. (2007). International expansion of emerging market enterprises: A springboard perspective, *Journal of International Business Studies*, vol. 38, no. 4, pp.481–498.

Malhotra, S., Sivakumar, K. & Zhu, P. (2011). A comparative analysis of the role of national culture on foreign market acquisitions by U.S. firms and firms from emerging countries, *Journal of Business Research*, vol. 64, no. 7, pp.714–722. Available at: http://dx.doi.org/10.1016/j.jbusres.2010.08.003.

Mcwilliams, A. & Siegel, D. (1997). Event studies in management research: Theoretical and empirical issues, *Academy of Management Journal*, vol. 40, no. 3, pp.626–657.

Mergermarket (2012). Cross-border M&A Growth and Risk. Available online: http://mergermarketgroup.com/publication/cross-border-ma-growth-and-risk/#.WSQNJSOLRD1. (Accessed 16 April 2017)

Meyer, K.E. & Peng, M.W. (2005). Probing Theoretically into Central and Eastern Europe: Transactions, Resources, and Institutions, *Journal of International Business Studies*, vol. 36, no. 6, pp.600–621.

Morosini, P., Shane, S. & Singh, H. (1998). National Cultural Acquisition Distance and Cross-Border Performance, *Journal of International Business Studies*, vol. 29, no. 1, pp.137–158. Available at: http://www.jstor.org/stable/155592.

MSCI (2017). MSCI Europe. Available online: https://www.msci.com/europe. (Accessed 15 April 2017)

Narayan, P.C. & Thenmozhi, M. (2014). Do cross-border acquisitions involving emerging market firms create value, *Management Decision*, vol. 52, pp.1451–1473. Available at: http://www.emeraldinsight.com/doi/abs/10.1108/MD-04-2014-0227.

Neuhauser, K. & Gregoriou, G.N. (2007). Mergers and Acquisitions, Basingstoke: Palgrave Macmillan.

Ojala, A. & Tyrväinen, P. (2007). Market Entry and Priority of Small and Medium-Sized Enterprises in the Software Industry: An Empirical Analysis of Cultural Distance, Geographic Distance, and Market Size, *Journal of International Marketing*, vol. 15, no. 3, pp.123–149. Available at: http://journals.ama.org/doi/abs/10.1509/jimk.15.3.123%5Cnhttp://journals.ama.org/doi/pdf/10.1509/jimk.15.3.123.

Olie, R. (1990). Culture and integration problems in international mergers and acquisitions, *European Management Journal*, vol. 8, no. 2, pp. 206-2015.

Olie, R. (1994). Shades of culture and institutions in international mergers, *Organization Studies*, vol. 15, no. 3, pp. 381–405.

Rahim, K.F. & Ahmad, N. & Ahmad, I. & Rahim, F.A. (2013). Determinants of Cross Border Merger and Acquisition in Advanced Emerging Market Acquiring Firms. *Procedia Economics and Finance*, vol.7, pp.96–102. Available at: http://linkinghub.elsevier.com/retrieve/pii/S2212567113002232.

Reis, N.R., Ferreira, M.P. & Santos, J.C. (2014). Institutional distance and cross-border mergers and acquisitions completion : A conceptual framework, Presented at the 9th Iberian International Business Conference. Available at: http://www3.eeg.uminho.pt/economia/nipe/iibc2013/4.2.pdf.

Roll, R. (1986). The Hubris Hypothesis of Corporate Takeovers. *The Journal of Business*, vol. 59, no. 2, p.197.

Rui, H. & Yip, G.S. (2008). Foreign acquisitions by Chinese firms: A strategic intent perspective, *Journal of World Business*, vol. 43, no. 2, pp.213–226.

Servaes, H. (1991). Tobin's Q and the Gains from Takeovers, *The Journal of Finance*, vol. 46, no. 1, pp.409–419.

Sivakumar, S. & Nakata, C. (2001). The Stampede Toward Hofstede´s Framework: Avoiding the Sample Design Pit in Cross-Cultural Research, *Journal of International Business Studies*, vol. 32, no. 3, pp. 555-574.

Slangen, A.H.L. & Hennart, J.-F. (2008). Do multinationals really prefer to enter culturally distant countries through greenfields rather than through acquisitions? The role of parent experience and subsidiary autonomy, *Journal of International Business Studies*, vol. 39, pp.472–490.

Terhaar, L. (2012). The impact of competition, deal size, and the information content of deal withdrawals on shareholder gains in mergers and acquisitions. University of Reading, Available at: http://ludwig.lub.lu.se/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsble&AN=edsble.577775&site=eds-live&scope=site.

Thomson Reuters (2015). Emerging Markets M&A Review. Available online: http://dmi.thomsonreuters.com/Content/Files/1Q2015_Emerging_Markets_MandA_Financial_Advisory_Review.pdf. (Accessed 6 April 2017)

Tripathi, V. & Lamba, A. (2015). What drives cross-border mergers and acquisitions?: A study of Indian multinational enterprises, *Journal of Strategy and Management*, vol. 8, no. 4, pp.384-414.

Visic, J. & Peric, B.T. (2011). The determinants of value of incoming cross-border mergers & acquisitions in European transition countries, *Communist and Post-Communist Studies*, vol. 44, pp.173–182.

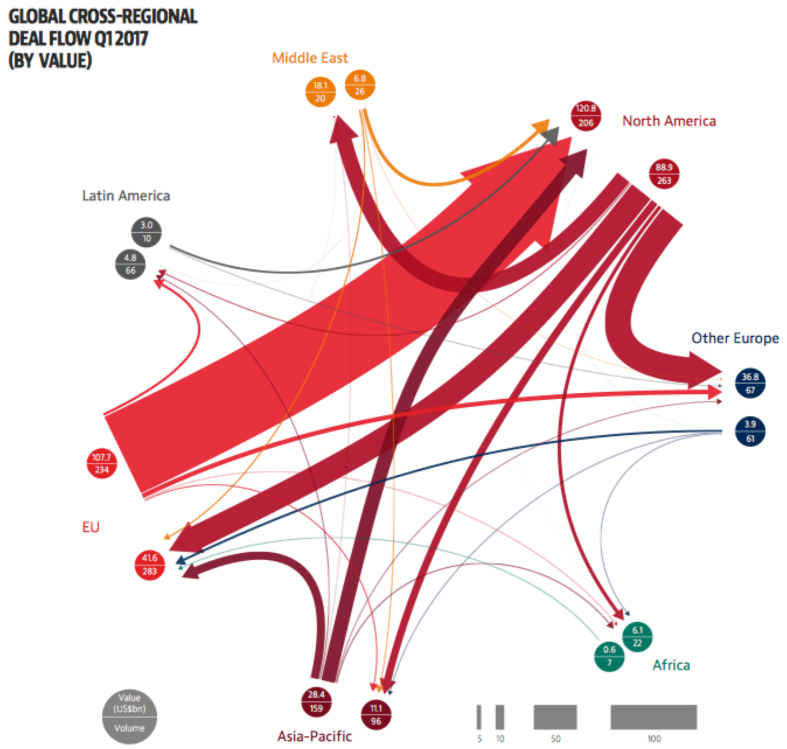
Weber, Y., Tarba, S.Y. & Reichel, A. (2009). International mergers and acquisitions performance revisited - The role of cultural distance and post-acquisition integration approach, in Cooper, C.L. & Finkelstein, S. Advances in Mergers and Acquisitions (Advances in Mergers and Acquisitions, Volume 8) Emerald Group Publishing Limited, pp.1 - 17.

Yamakawa, Y. et al. (2013). Venturing from emerging economies, *Strategic Entrepreneurship Journal*, vol. 7, no. 3, pp.181–196.

Zollo, M. & Meier, D. (2008). What Is M&A Performance?, *Academy of Management Perspectives*, 22(3), pp.55–77.

Appendix

Appendix 1. Cross-Border M&A flow (Baker & McKenzie, 2017)



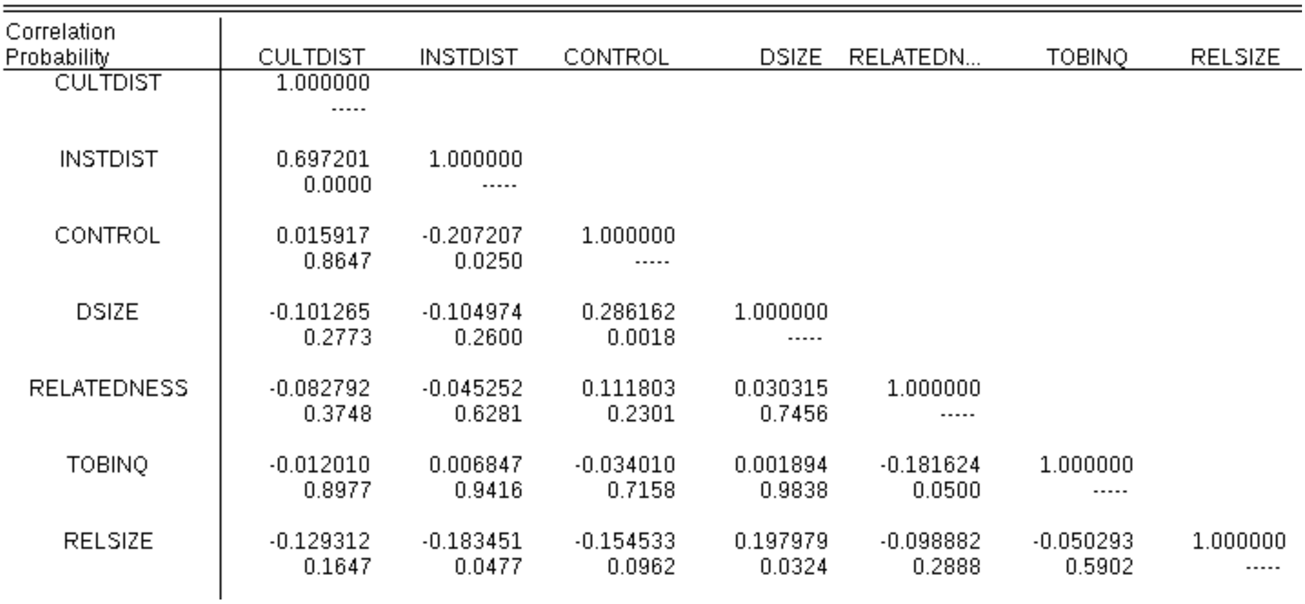
Appendix 2. Hofstede Index (Source: https://geert-hofstede.com/)

	Country	Power Distance	Individualism	Masculinity	Uncertainty Avoidance
BRIC	Brazil	69	38	49	76
	Russia	93	39	36	95
	India	77	48	56	40
	China	80	20	66	30
	South Africa	49	65	63	49
Developed markets	Austria	11	55	79	70
	Belgium	65	75	54	94
	Czech Republic	57	58	57	74
	Denmark	18	74	16	23
	Finland	33	63	26	59
	France	68	71	43	86
	Germany	35	67	66	65
	Iceland	30	60	10	50
	Ireland	28	70	68	35
	Italy	50	76	70	75
	Luxembourg	40	60	50	70
	Malta	56	59	47	96
	Netherlands	38	80	14	53
	Norway	31	69	8	50
	Portugal	63	27	31	99
	Spain	57	51	42	86
	Sweden	31	71	5	29
	Switzerland	34	68	70	58
	United Kingdom	35	89	66	35
	United States	40	91	62	46

Appendix 3. Worldwide Governance Indicators **(Source: http://www.govindicators.org/)**

Country		Voice and Accountability	Political Stability and Absence of Violence/Terrorism	Government Effectiveness	Regulatory Quality	Rule of Law	Control of Corruption
BRIC	Brazil	0,38	-0,38	-0,19	-0,21	-0,19	-0,43
	Russia	-1,07	-1,05	-0,18	-0,52	-0,72	-0,86
	India	0,39	-0,92	0,1	-0,39	-0,06	-0,38
	China	-1,58	-0,56	0,42	-0,27	-0,34	-0,27
	South Africa	0,63	-0,18	0,27	0,3	0,06	-0,04
Developed markets	Austria	1,4	1,19	1,47	1,43	1,85	1,49
	Belgium	1,39	0,6	1,44	1,28	1,42	1,58
	Czech Republic	1,02	0,96	1,05	1,08	1,12	0,39
	Denmark	1,57	0,89	1,85	1,73	2,04	2,23
	Finland	1,56	1,04	1,82	1,83	2,07	2,28
	France	1,18	0,27	1,44	1,15	1,41	1,28
	Germany	1,43	0,72	1,74	1,67	1,78	1,82
	Iceland	1,4	1,27	1,5	1,27	1,67	1,95
	Ireland	1,35	0,93	1,54	1,81	1,79	1,64
	Italy	1,01	0,34	0,45	0,73	0,25	-0,05
	Luxembourg	1,52	1,41	1,72	1,67	1,86	2,12
	Malta	1,18	1,04	0,85	1,17	1,15	0,92
	Netherlands	1,57	0,93	1,84	1,77	1,93	1,89
	Norway	1,7	1,15	1,86	1,63	2,02	2,26
	Portugal	1,12	0,87	1,23	0,94	1,14	0,92
	Spain	1,02	0,29	1,18	0,79	0,9	0,49
	Sweden	1,6	0,97	1,81	1,81	2,04	2,25
	Switzerland	1,58	1,31	2,01	1,76	1,97	2,17
	United Kingdom	1,27	0,56	1,74	1,86	1,81	1,87
	United States	1,08	0,7	1,46	1,3	1,6	1,38

Appendix 4. Correlation Matrix



```
Correlation
Probability    CULTDIST   INSTDIST    CONTROL      DSIZE  RELATEDN...     TOBINQ    RELSIZE
  CULTDIST     1.000000
                  -----

  INSTDIST     0.697201   1.000000
                 0.0000      -----

  CONTROL      0.015917  -0.207207   1.000000
                 0.8647     0.0250      -----

   DSIZE      -0.101265  -0.104974   0.286162   1.000000
                 0.2773     0.2600     0.0018      -----

RELATEDNESS   -0.082792  -0.045252   0.111803   0.030315   1.000000
                 0.3748     0.6281     0.2301     0.7456      -----

  TOBINQ      -0.012010   0.006847  -0.034010   0.001894  -0.181624   1.000000
                 0.8977     0.9416     0.7158     0.9838     0.0500      -----

  RELSIZE     -0.129312  -0.183451  -0.154533   0.197979  -0.098882  -0.050293   1.000000
                 0.1647     0.0477     0.0962     0.0324     0.2888     0.5902      -----
```

Appendix 5. Indexes of Different Countries

Country	Index
Brazil	IBOV
Russia	MICEX
India	BSE Sensex
China	Hang Seng
Austria	ATX
Belgium	BEL 20
Czech Republic	CTX
Denmark	OMX Copenhagen 20
Finland	OMX Helsinki 25
France	CAC 40
Germany	DAX
Iceland	OMX Iceland
Ireland	ISEQ
Italy	FTSE MIB
Luxembourg	LUXX
Malta	Dow Jones Malta
Netherlands	AEX
Norway	Oslo OBX
Portugal	PSI 20
Spain	IBEX 35
Sweden	OMX Stockholm 30
Switzerland	SMI
United Kingdom	FTSE 100
United States	DOW JONES

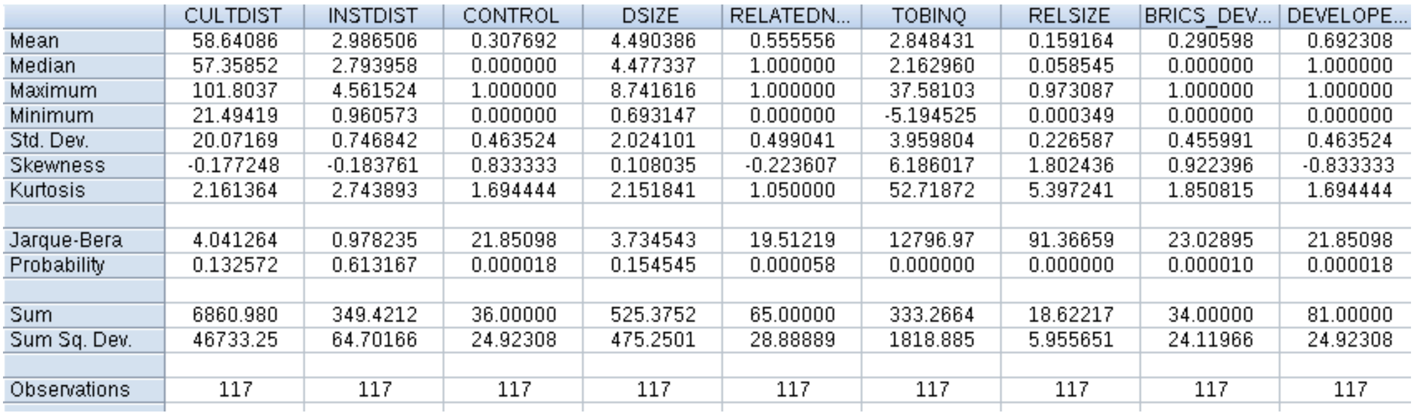
Appendix 6. Number of Deal in the Sample Relating to Countries

Country	Acquirer	Target
Brazil	5	20
Russia	2	8
India	12	32
China	11	11
South Africa	6	13
Austria	0	1
Belgium	0	0
Denmark	1	0
Finland	2	0
France	7	0
Germany	3	2
Ireland	0	0
Italy	1	0
Luxembourg	0	1
Malta	2	0
Netherlands	7	0
Norway	0	1
Portugal	5	1
Spain	6	0
Sweden	7	0
Switzerland	7	0
United Kingdom	13	7
United States	20	20

Appendix 7. Number of Deals Relating to the Direction of the Deal

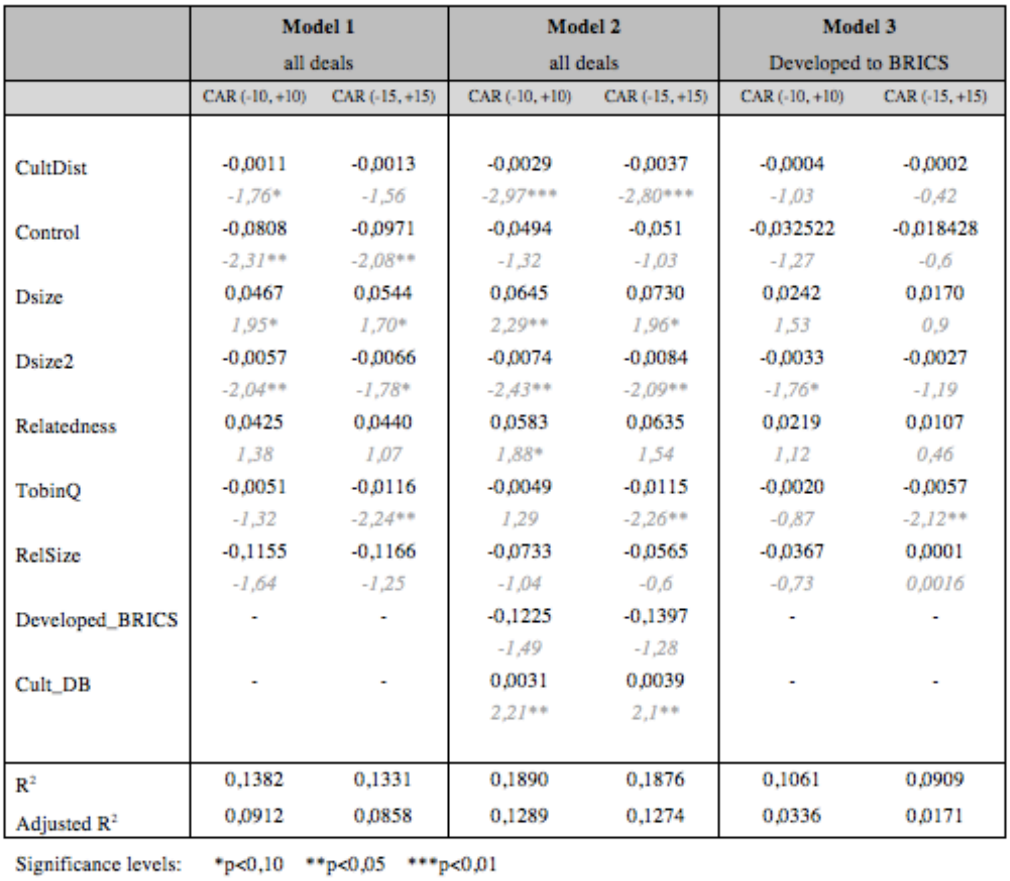
Direction	# of deals
BRICS -> Developed markets	36
Developed markets -> BRICS	81

Appendix 8. Descriptive Statistics



	CULTDIST	INSTDIST	CONTROL	DSIZE	RELATEDN...	TOBINQ	RELSIZE	BRICS_DEV...	DEVELOPE...
Mean	58.64086	2.986506	0.307692	4.490386	0.555556	2.848431	0.159164	0.290598	0.692308
Median	57.35852	2.793958	0.000000	4.477337	1.000000	2.162960	0.058545	0.000000	1.000000
Maximum	101.8037	4.561524	1.000000	8.741616	1.000000	37.58103	0.973087	1.000000	1.000000
Minimum	21.49419	0.960573	0.000000	0.693147	0.000000	-5.194525	0.000349	0.000000	0.000000
Std. Dev.	20.07169	0.746842	0.463524	2.024101	0.499041	3.959804	0.226587	0.455991	0.463524
Skewness	-0.177248	-0.183761	0.833333	0.108035	-0.223607	6.186017	1.802436	0.922396	-0.833333
Kurtosis	2.161364	2.743893	1.694444	2.151841	1.050000	52.71872	5.397241	1.850815	1.694444
Jarque-Bera	4.041264	0.978235	21.85098	3.734543	19.51219	12796.97	91.36659	23.02895	21.85098
Probability	0.132572	0.613167	0.000018	0.154545	0.000058	0.000000	0.000000	0.000010	0.000018
Sum	6860.980	349.4212	36.00000	525.3752	65.00000	333.2664	18.62217	34.00000	81.00000
Sum Sq. Dev.	46733.25	64.70166	24.92308	475.2501	28.88889	1818.885	5.955651	24.11966	24.92308
Observations	117	117	117	117	117	117	117	117	117

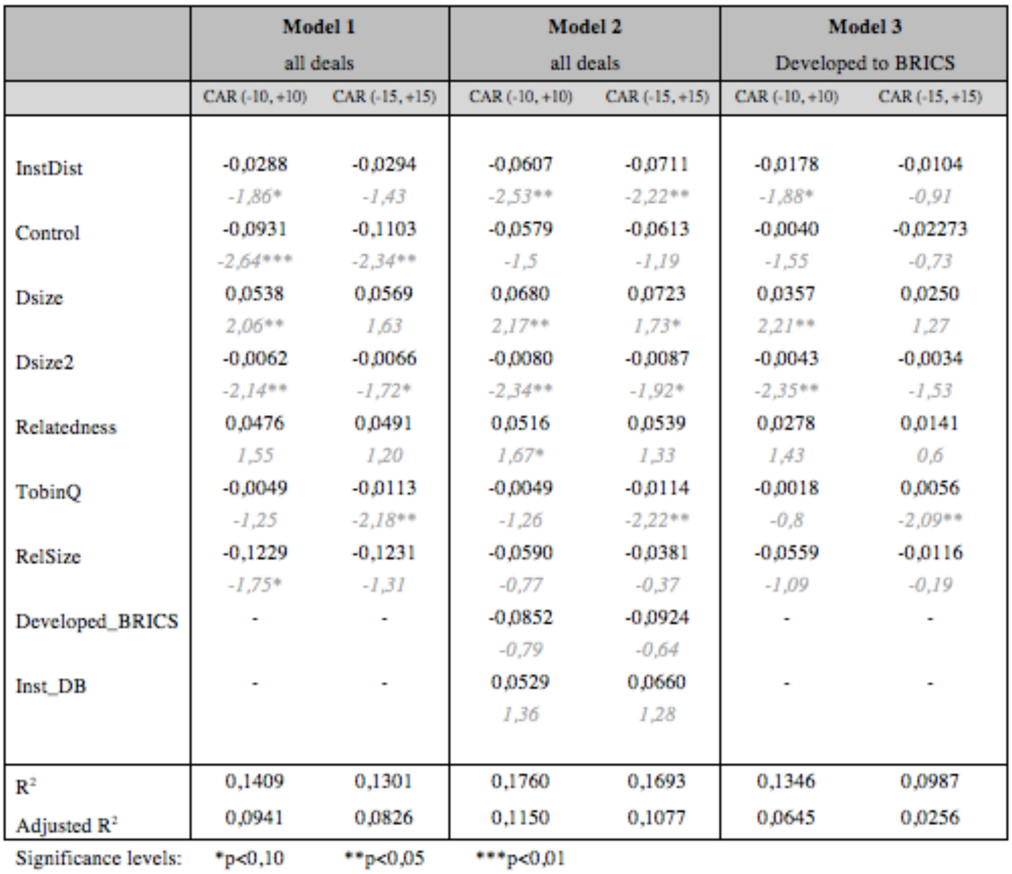
Appendix 9. Regressions of the Cultural Distance Influence on CAR in Cross-border M&A Involving BRICS for (-10, +10) and (-15, +15) Event Windows



	Model 1 all deals		Model 2 all deals		Model 3 Developed to BRICS	
	CAR (-10, +10)	CAR (-15, +15)	CAR (-10, +10)	CAR (-15, +15)	CAR (-10, +10)	CAR (-15, +15)
CultDist	-0,0011	-0,0013	-0,0029	-0,0037	-0,0004	-0,0002
	*-1,76**	*-1,56*	*-2,97****	*-2,80****	*-1,03*	*-0,42*
Control	-0,0808	-0,0971	-0,0494	-0,051	-0,032522	-0,018428
	*-2,31***	*-2,08***	*-1,32*	*-1,03*	*-1,27*	*-0,6*
Dsize	0,0467	0,0544	0,0645	0,0730	0,0242	0,0170
	*1,95**	*1,70**	*2,29***	*1,96**	*1,53*	*0,9*
Dsize2	-0,0057	-0,0066	-0,0074	-0,0084	-0,0033	-0,0027
	*-2,04***	*-1,78**	*-2,43***	*-2,09***	*-1,76**	*-1,19*
Relatedness	0,0425	0,0440	0,0583	0,0635	0,0219	0,0107
	1,38	*1,07*	*1,88**	*1,54*	*1,12*	*0,46*
TobinQ	-0,0051	-0,0116	-0,0049	-0,0115	-0,0020	-0,0057
	-1,32	*-2,24***	*1,29*	*-2,26***	*-0,87*	*-2,12***
RelSize	-0,1155	-0,1166	-0,0733	-0,0565	-0,0367	0,0001
	-1,64	*-1,25*	*-1,04*	*-0,6*	*-0,73*	*0,0016*
Developed_BRICS	-	-	-0,1225	-0,1397	-	-
			-1,49	*-1,28*		
Cult_DB	-	-	0,0031	0,0039	-	-
			*2,21***	*2,1***		
R^2	0,1382	0,1331	0,1890	0,1876	0,1061	0,0909
Adjusted R^2	0,0912	0,0858	0,1289	0,1274	0,0336	0,0171

Significance levels: *p<0,10 **p<0,05 ***p<0,01

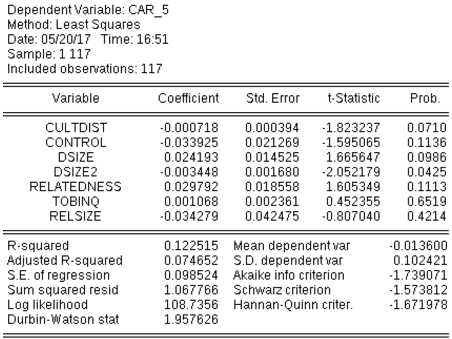
Appendix 10. Regressions of the Institutional Distance Influence on CAR in Cross-border M&A Involving BRICS for (-10, +10) and (-15, +15) Event Windows



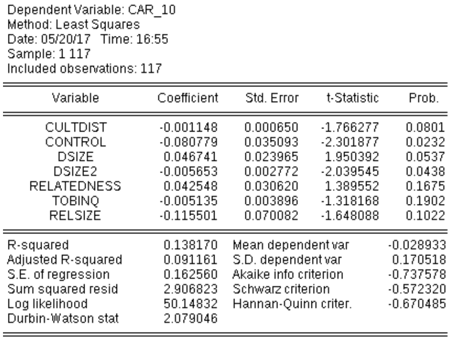
	Model 1 all deals		Model 2 all deals		Model 3 Developed to BRICS	
	CAR (-10, +10)	CAR (-15, +15)	CAR (-10, +10)	CAR (-15, +15)	CAR (-10, +10)	CAR (-15, +15)
InstDist	-0,0288	-0,0294	-0,0607	-0,0711	-0,0178	-0,0104
	*-1,86**	*-1,43*	*-2,53***	*-2,22***	*-1,88**	*-0,91*
Control	-0,0931	-0,1103	-0,0579	-0,0613	-0,0040	-0,02273
	*-2,64****	*-2,34***	*-1,5*	*-1,19*	*-1,55*	*-0,73*
Dsize	0,0538	0,0569	0,0680	0,0723	0,0357	0,0250
	*2,06***	*1,63*	*2,17***	*1,73**	*2,21***	*1,27*
Dsize2	-0,0062	-0,0066	-0,0080	-0,0087	-0,0043	-0,0034
	*-2,14***	*-1,72**	*-2,34***	*-1,92**	*-2,35***	*-1,53*
Relatedness	0,0476	0,0491	0,0516	0,0539	0,0278	0,0141
	1,55	*1,20*	*1,67**	*1,33*	*1,43*	*0,6*
TobinQ	-0,0049	-0,0113	-0,0049	-0,0114	-0,0018	0,0056
	-1,25	*-2,18***	*-1,26*	*-2,22***	*-0,8*	*-2,09***
RelSize	-0,1229	-0,1231	-0,0590	-0,0381	-0,0559	-0,0116
	*-1,75**	*-1,31*	*-0,77*	*-0,37*	*-1,09*	*-0,19*
Developed_BRICS	-	-	-0,0852	-0,0924	-	-
			-0,79	*-0,64*		
Inst_DB	-	-	0,0529	0,0660	-	-
			1,36	*1,28*		
R^2	0,1409	0,1301	0,1760	0,1693	0,1346	0,0987
Adjusted R^2	0,0941	0,0826	0,1150	0,1077	0,0645	0,0256

Significance levels: *p<0,10 **p<0,05 ***p<0,01

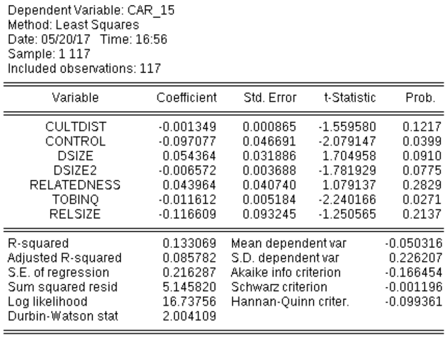
Appendix 11. EViews Output for the Cultural Distance Impact for the Model 1



```
Dependent Variable: CAR_5
Method: Least Squares
Date: 05/20/17   Time: 16:51
Sample: 1 117
Included observations: 117
=====================================================================
        Variable        Coefficient   Std. Error   t-Statistic   Prob.
=====================================================================
        CULTDIST        -0.000718     0.000394     -1.823237     0.0710
        CONTROL         -0.033925     0.021269     -1.595065     0.1136
        DSIZE            0.024193     0.014525      1.665647     0.0986
        DSIZE2          -0.003448     0.001680     -2.052179     0.0425
      RELATEDNESS        0.029792     0.018558      1.605349     0.1113
        TOBINQ           0.001068     0.002361      0.452355     0.6519
        RELSIZE         -0.034279     0.042475     -0.807040     0.4214
=====================================================================
R-squared               0.122515   Mean dependent var       -0.013600
Adjusted R-squared      0.074652   S.D. dependent var        0.102421
S.E. of regression      0.098524   Akaike info criterion    -1.739071
Sum squared resid       1.067766   Schwarz criterion        -1.573812
Log likelihood          108.7356   Hannan-Quinn criter.     -1.671978
Durbin-Watson stat      1.957626
=====================================================================
```

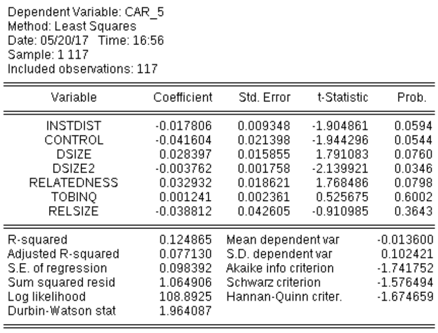


```
Dependent Variable: CAR_10
Method: Least Squares
Date: 05/20/17   Time: 16:55
Sample: 1 117
Included observations: 117
=====================================================================
        Variable        Coefficient   Std. Error   t-Statistic   Prob.
=====================================================================
        CULTDIST        -0.001148     0.000650     -1.766277     0.0801
        CONTROL         -0.080779     0.035093     -2.301877     0.0232
        DSIZE            0.046741     0.023965      1.950392     0.0537
        DSIZE2          -0.005653     0.002772     -2.039545     0.0438
      RELATEDNESS        0.042548     0.030620      1.389552     0.1675
        TOBINQ          -0.005135     0.003896     -1.318168     0.1902
        RELSIZE         -0.115501     0.070082     -1.648088     0.1022
=====================================================================
R-squared               0.138170   Mean dependent var       -0.028933
Adjusted R-squared      0.091161   S.D. dependent var        0.170518
S.E. of regression      0.162560   Akaike info criterion    -0.737578
Sum squared resid       2.906823   Schwarz criterion        -0.572320
Log likelihood          50.14832   Hannan-Quinn criter.     -0.670485
Durbin-Watson stat      2.079046
=====================================================================
```

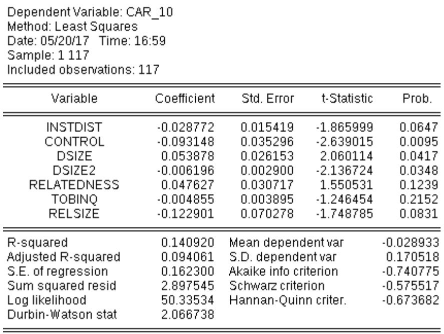


```
Dependent Variable: CAR_15
Method: Least Squares
Date: 05/20/17   Time: 16:56
Sample: 1 117
Included observations: 117
=====================================================================
        Variable        Coefficient   Std. Error   t-Statistic   Prob.
=====================================================================
        CULTDIST        -0.001349     0.000865     -1.559580     0.1217
        CONTROL         -0.097077     0.046691     -2.079147     0.0399
        DSIZE            0.054364     0.031886      1.704958     0.0910
        DSIZE2          -0.006572     0.003688     -1.781929     0.0775
      RELATEDNESS        0.043964     0.040740      1.079137     0.2829
        TOBINQ          -0.011612     0.005184     -2.240166     0.0271
        RELSIZE         -0.116609     0.093245     -1.250565     0.2137
=====================================================================
R-squared               0.133069   Mean dependent var       -0.050316
Adjusted R-squared      0.085782   S.D. dependent var        0.226207
S.E. of regression      0.216287   Akaike info criterion    -0.166454
Sum squared resid       5.145820   Schwarz criterion        -0.001196
Log likelihood          16.73756   Hannan-Quinn criter.     -0.099361
Durbin-Watson stat      2.004109
=====================================================================
```

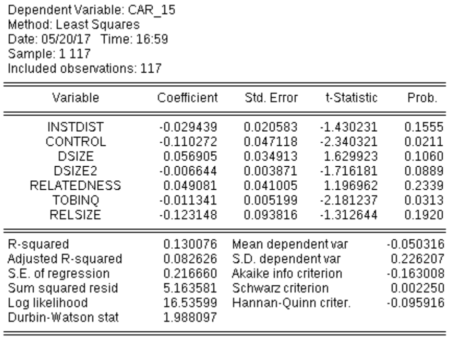
Appendix 12. EViews Output for the Institutional Distance Impact for the Model 1



```
Dependent Variable: CAR_5
Method: Least Squares
Date: 05/20/17   Time: 16:56
Sample: 1 117
Included observations: 117
=====================================================================
        Variable        Coefficient   Std. Error   t-Statistic   Prob.
=====================================================================
        INSTDIST        -0.017806     0.009348     -1.904861     0.0594
        CONTROL         -0.041604     0.021398     -1.944296     0.0544
        DSIZE            0.028397     0.015855      1.791083     0.0760
        DSIZE2          -0.003762     0.001758     -2.139921     0.0346
      RELATEDNESS        0.032932     0.018621      1.768486     0.0798
        TOBINQ           0.001241     0.002361      0.525675     0.6002
        RELSIZE         -0.038812     0.042605     -0.910985     0.3643
=====================================================================
R-squared               0.124865   Mean dependent var       -0.013600
Adjusted R-squared      0.077130   S.D. dependent var        0.102421
S.E. of regression      0.098392   Akaike info criterion    -1.741752
Sum squared resid       1.064906   Schwarz criterion        -1.576494
Log likelihood          108.8925   Hannan-Quinn criter.     -1.674659
Durbin-Watson stat      1.964087
=====================================================================
```

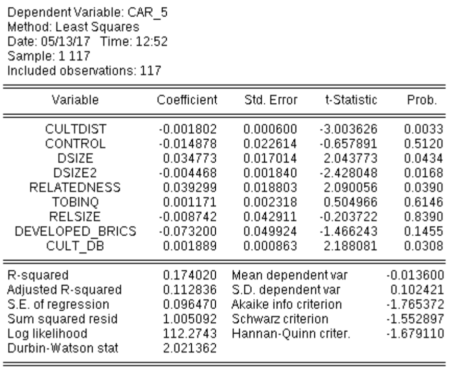


```
Dependent Variable: CAR_10
Method: Least Squares
Date: 05/20/17   Time: 16:59
Sample: 1 117
Included observations: 117
=====================================================================
        Variable        Coefficient   Std. Error   t-Statistic   Prob.
=====================================================================
        INSTDIST        -0.028772     0.015419     -1.865999     0.0647
        CONTROL         -0.093148     0.035296     -2.639015     0.0095
        DSIZE            0.053878     0.026153      2.060114     0.0417
        DSIZE2          -0.006196     0.002900     -2.136724     0.0348
      RELATEDNESS        0.047627     0.030717      1.550531     0.1239
        TOBINQ          -0.004855     0.003895     -1.246454     0.2152
        RELSIZE         -0.122901     0.070278     -1.748785     0.0831
=====================================================================
R-squared               0.140920   Mean dependent var       -0.028933
Adjusted R-squared      0.094061   S.D. dependent var        0.170518
S.E. of regression      0.162300   Akaike info criterion    -0.740775
Sum squared resid       2.897545   Schwarz criterion        -0.575517
Log likelihood          50.33534   Hannan-Quinn criter.     -0.673682
Durbin-Watson stat      2.066738
=====================================================================
```



```
Dependent Variable: CAR_15
Method: Least Squares
Date: 05/20/17   Time: 16:59
Sample: 1 117
Included observations: 117
=====================================================================
        Variable        Coefficient   Std. Error   t-Statistic   Prob.
=====================================================================
        INSTDIST        -0.029439     0.020583     -1.430231     0.1555
        CONTROL         -0.110272     0.047118     -2.340321     0.0211
        DSIZE            0.056905     0.034913      1.629923     0.1060
        DSIZE2          -0.006644     0.003871     -1.716181     0.0889
      RELATEDNESS        0.049081     0.041005      1.196962     0.2339
        TOBINQ          -0.011341     0.005199     -2.181237     0.0313
        RELSIZE         -0.123148     0.093816     -1.312644     0.1920
=====================================================================
R-squared               0.130076   Mean dependent var       -0.050316
Adjusted R-squared      0.082626   S.D. dependent var        0.226207
S.E. of regression      0.216660   Akaike info criterion    -0.163008
Sum squared resid       5.163581   Schwarz criterion         0.002250
Log likelihood          16.53599   Hannan-Quinn criter.     -0.095916
Durbin-Watson stat      1.988097
=====================================================================
```

Appendix 13. EViews Output for the Cultural Distance Impact for the Model 2

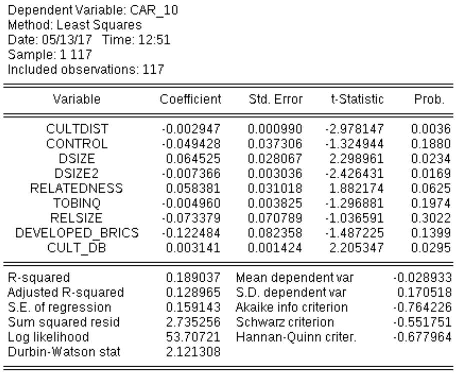


```
Dependent Variable: CAR_5
Method: Least Squares
Date: 05/13/17   Time: 12:52
Sample: 1 117
Included observations: 117

Variable            Coefficient   Std. Error   t-Statistic   Prob.

CULTDIST            -0.001802     0.000600     -3.003626     0.0033
CONTROL             -0.014878     0.022614     -0.657891     0.5120
DSIZE                0.034773     0.017014      2.043773     0.0434
DSIZE2              -0.004468     0.001840     -2.428048     0.0168
RELATEDNESS          0.039299     0.018803      2.090056     0.0390
TOBINQ               0.001171     0.002318      0.504966     0.6146
RELSIZE             -0.008742     0.042911     -0.203722     0.8390
DEVELOPED_BRICS     -0.073200     0.049924     -1.466243     0.1455
CULT_DB              0.001889     0.000863      2.188081     0.0308

R-squared            0.174020   Mean dependent var      -0.013600
Adjusted R-squared   0.112836   S.D. dependent var       0.102421
S.E. of regression   0.096470   Akaike info criterion   -1.765372
Sum squared resid    1.005092   Schwarz criterion       -1.552897
Log likelihood       112.2743   Hannan-Quinn criter.    -1.679110
Durbin-Watson stat   2.021362
```

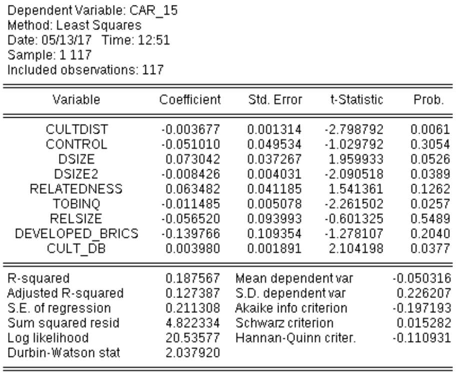


```
Dependent Variable: CAR_10
Method: Least Squares
Date: 05/13/17   Time: 12:51
Sample: 1 117
Included observations: 117

Variable            Coefficient   Std. Error   t-Statistic   Prob.

CULTDIST            -0.002947     0.000990     -2.978147     0.0036
CONTROL             -0.049428     0.037306     -1.324944     0.1880
DSIZE                0.064525     0.028067      2.298961     0.0234
DSIZE2              -0.007366     0.003036     -2.426431     0.0169
RELATEDNESS          0.058381     0.031018      1.882174     0.0625
TOBINQ              -0.004960     0.003825     -1.296881     0.1974
RELSIZE             -0.073379     0.070789     -1.036591     0.3022
DEVELOPED_BRICS     -0.122484     0.082358     -1.487225     0.1399
CULT_DB              0.003141     0.001424      2.205347     0.0295

R-squared            0.189037   Mean dependent var      -0.028933
Adjusted R-squared   0.128965   S.D. dependent var       0.170518
S.E. of regression   0.159143   Akaike info criterion   -0.764226
Sum squared resid    2.735256   Schwarz criterion       -0.551751
Log likelihood       53.70721   Hannan-Quinn criter.    -0.677964
Durbin-Watson stat   2.121308
```



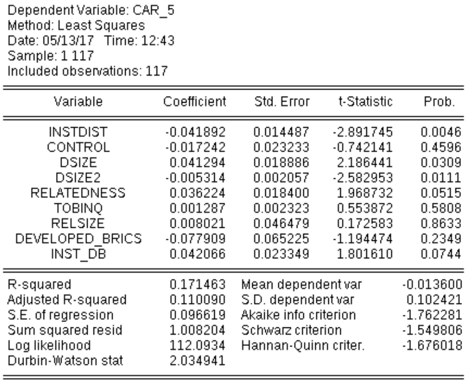
```
Dependent Variable: CAR_15
Method: Least Squares
Date: 05/13/17   Time: 12:51
Sample: 1 117
Included observations: 117

Variable            Coefficient   Std. Error   t-Statistic   Prob.

CULTDIST            -0.003677     0.001314     -2.798792     0.0061
CONTROL             -0.051010     0.049534     -1.029792     0.3054
DSIZE                0.073042     0.037267      1.959933     0.0526
DSIZE2              -0.008426     0.004031     -2.090518     0.0389
RELATEDNESS          0.063482     0.041185      1.541361     0.1262
TOBINQ              -0.011485     0.005078     -2.261502     0.0257
RELSIZE             -0.056520     0.093993     -0.601325     0.5489
DEVELOPED_BRICS     -0.139766     0.109354     -1.278107     0.2040
CULT_DB              0.003980     0.001891      2.104198     0.0377

R-squared            0.187567   Mean dependent var      -0.050316
Adjusted R-squared   0.127387   S.D. dependent var       0.226207
S.E. of regression   0.211308   Akaike info criterion   -0.197193
Sum squared resid    4.822334   Schwarz criterion        0.015282
Log likelihood       20.53577   Hannan-Quinn criter.    -0.110931
Durbin-Watson stat   2.037920
```

Appendix 14. EViews Output for the Institutional Distance Impact for the Model 2

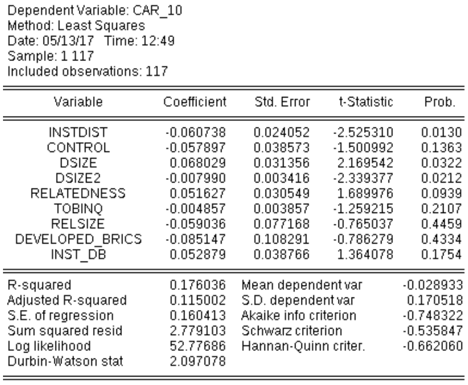


```
Dependent Variable: CAR_5
Method: Least Squares
Date: 05/13/17   Time: 12:43
Sample: 1 117
Included observations: 117

Variable            Coefficient   Std. Error   t-Statistic   Prob.

INSTDIST            -0.041892     0.014487     -2.891745     0.0046
CONTROL             -0.017242     0.023233     -0.742141     0.4596
DSIZE                0.041294     0.018886      2.186441     0.0309
DSIZE2              -0.005314     0.002057     -2.582953     0.0111
RELATEDNESS          0.036224     0.018400      1.968732     0.0515
TOBINQ               0.001287     0.002323      0.553872     0.5808
RELSIZE              0.008021     0.046479      0.172583     0.8633
DEVELOPED_BRICS     -0.077909     0.065225     -1.194474     0.2349
INST_DB              0.042066     0.023349      1.801610     0.0744

R-squared            0.171463   Mean dependent var      -0.013600
Adjusted R-squared   0.110090   S.D. dependent var       0.102421
S.E. of regression   0.096619   Akaike info criterion   -1.762281
Sum squared resid    1.008204   Schwarz criterion       -1.549806
Log likelihood       112.0934   Hannan-Quinn criter.    -1.676018
Durbin-Watson stat   2.034941
```

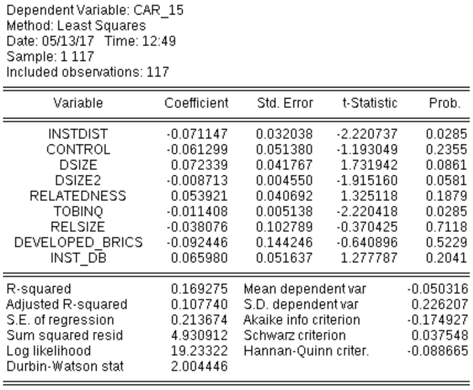


```
Dependent Variable: CAR_10
Method: Least Squares
Date: 05/13/17   Time: 12:49
Sample: 1 117
Included observations: 117

Variable            Coefficient   Std. Error   t-Statistic   Prob.

INSTDIST            -0.060738     0.024052     -2.525310     0.0130
CONTROL             -0.057897     0.038573     -1.500992     0.1363
DSIZE                0.068029     0.031356      2.169542     0.0322
DSIZE2              -0.007990     0.003416     -2.339377     0.0212
RELATEDNESS          0.051627     0.030549      1.689976     0.0939
TOBINQ              -0.004857     0.003857     -1.259215     0.2107
RELSIZE             -0.059036     0.077168     -0.765037     0.4459
DEVELOPED_BRICS     -0.085147     0.108291     -0.786279     0.4334
INST_DB              0.052879     0.038766      1.364078     0.1754

R-squared            0.176036   Mean dependent var      -0.028933
Adjusted R-squared   0.115002   S.D. dependent var       0.170518
S.E. of regression   0.160413   Akaike info criterion   -0.748322
Sum squared resid    2.779103   Schwarz criterion       -0.535847
Log likelihood       52.77686   Hannan-Quinn criter.    -0.662060
Durbin-Watson stat   2.097078
```



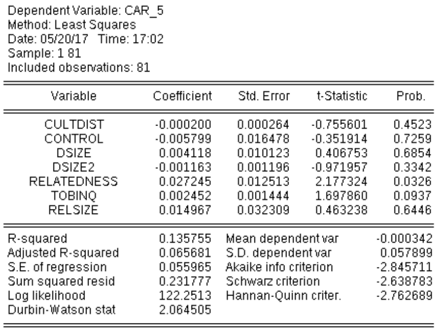
```
Dependent Variable: CAR_15
Method: Least Squares
Date: 05/13/17   Time: 12:49
Sample: 1 117
Included observations: 117

Variable            Coefficient   Std. Error   t-Statistic   Prob.

INSTDIST            -0.071147     0.032038     -2.220737     0.0285
CONTROL             -0.061299     0.051380     -1.193049     0.2355
DSIZE                0.072339     0.041767      1.731942     0.0861
DSIZE2              -0.008713     0.004550     -1.915160     0.0581
RELATEDNESS          0.053921     0.040692      1.325118     0.1879
TOBINQ              -0.011408     0.005138     -2.220418     0.0285
RELSIZE             -0.038076     0.102789     -0.370425     0.7118
DEVELOPED_BRICS     -0.092446     0.144246     -0.640896     0.5229
INST_DB              0.065980     0.051637      1.277787     0.2041

R-squared            0.169275   Mean dependent var      -0.050316
Adjusted R-squared   0.107740   S.D. dependent var       0.226207
S.E. of regression   0.213674   Akaike info criterion   -0.174927
Sum squared resid    4.930912   Schwarz criterion        0.037548
Log likelihood       19.23322   Hannan-Quinn criter.    -0.088665
Durbin-Watson stat   2.004446
```

Appendix 15. EViews Output for the Cultural Distance Impact for the Model 3

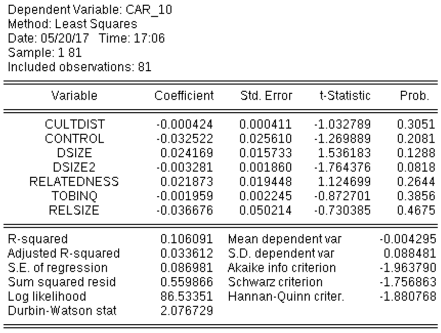


```
Dependent Variable: CAR_5
Method: Least Squares
Date: 05/20/17   Time: 17:02
Sample: 1 81
Included observations: 81

Variable            Coefficient   Std. Error   t-Statistic   Prob.

CULTDIST            -0.000200     0.000264     -0.755601     0.4523
CONTROL             -0.005799     0.016478     -0.351914     0.7259
DSIZE                0.004118     0.010123      0.406753     0.6854
DSIZE2              -0.001163     0.001196     -0.971957     0.3342
RELATEDNESS          0.027245     0.012513      2.177324     0.0326
TOBINQ               0.002452     0.001444      1.697860     0.0937
RELSIZE              0.014967     0.032309      0.463238     0.6446

R-squared            0.135755   Mean dependent var      -0.000342
Adjusted R-squared   0.065681   S.D. dependent var       0.057899
S.E. of regression   0.055965   Akaike info criterion   -2.845711
Sum squared resid    0.231777   Schwarz criterion       -2.638783
Log likelihood       122.2513   Hannan-Quinn criter.    -2.762689
Durbin-Watson stat   2.064505
```

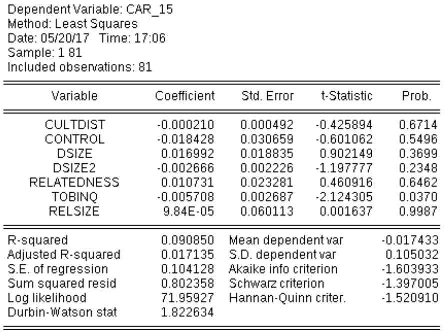


```
Dependent Variable: CAR_10
Method: Least Squares
Date: 05/20/17   Time: 17:06
Sample: 1 81
Included observations: 81

Variable            Coefficient   Std. Error   t-Statistic   Prob.

CULTDIST            -0.000424     0.000411     -1.032789     0.3051
CONTROL             -0.032522     0.025610     -1.269889     0.2081
DSIZE                0.024169     0.015733      1.536183     0.1288
DSIZE2              -0.003281     0.001860     -1.764376     0.0818
RELATEDNESS          0.021873     0.019448      1.124699     0.2644
TOBINQ              -0.001959     0.002245     -0.872701     0.3856
RELSIZE             -0.036676     0.050214     -0.730385     0.4675

R-squared            0.106091   Mean dependent var      -0.004295
Adjusted R-squared   0.033612   S.D. dependent var       0.088481
S.E. of regression   0.086981   Akaike info criterion   -1.963790
Sum squared resid    0.559866   Schwarz criterion       -1.756863
Log likelihood       86.53351   Hannan-Quinn criter.    -1.880768
Durbin-Watson stat   2.076729
```



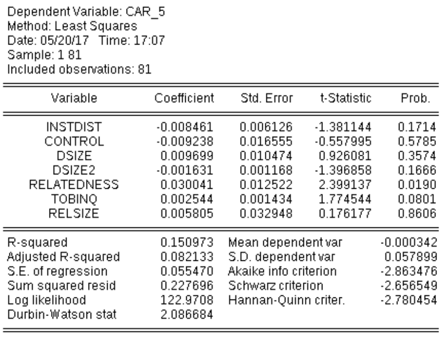
```
Dependent Variable: CAR_15
Method: Least Squares
Date: 05/20/17   Time: 17:06
Sample: 1 81
Included observations: 81

Variable            Coefficient   Std. Error   t-Statistic   Prob.

CULTDIST            -0.000210     0.000492     -0.425894     0.6714
CONTROL             -0.018428     0.030659     -0.601062     0.5496
DSIZE                0.016992     0.018835      0.902149     0.3699
DSIZE2              -0.002666     0.002226     -1.197777     0.2348
RELATEDNESS          0.010731     0.023281      0.460916     0.6462
TOBINQ              -0.005708     0.002687     -2.124305     0.0370
RELSIZE              9.84E-05     0.060113      0.001637     0.9987

R-squared            0.090850   Mean dependent var      -0.017433
Adjusted R-squared   0.017135   S.D. dependent var       0.105032
S.E. of regression   0.104128   Akaike info criterion   -1.603933
Sum squared resid    0.802358   Schwarz criterion       -1.397005
Log likelihood       71.95927   Hannan-Quinn criter.    -1.520910
Durbin-Watson stat   1.822634
```

Appendix 16. EViews Output for the Institutional Distance Impact for the Model 3

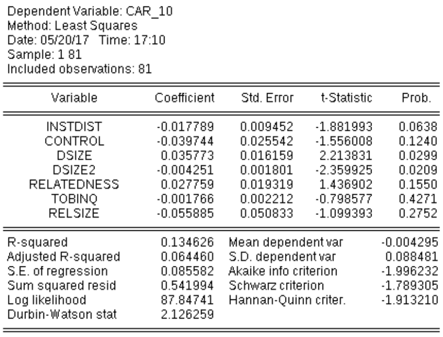


```
Dependent Variable: CAR_5
Method: Least Squares
Date: 05/20/17   Time: 17:07
Sample: 1 81
Included observations: 81

Variable            Coefficient   Std. Error   t-Statistic   Prob.

INSTDIST            -0.008461     0.006126     -1.381144     0.1714
CONTROL             -0.009238     0.016555     -0.557995     0.5785
DSIZE                0.009699     0.010474      0.926081     0.3574
DSIZE2              -0.001631     0.001168     -1.396858     0.1666
RELATEDNESS          0.030041     0.012522      2.399137     0.0190
TOBINQ               0.002544     0.001434      1.774544     0.0801
RELSIZE              0.005805     0.032948      0.176177     0.8606

R-squared            0.150973   Mean dependent var      -0.000342
Adjusted R-squared   0.082133   S.D. dependent var       0.057899
S.E. of regression   0.055470   Akaike info criterion   -2.863476
Sum squared resid    0.227696   Schwarz criterion       -2.656549
Log likelihood       122.9708   Hannan-Quinn criter.    -2.780454
Durbin-Watson stat   2.086684
```

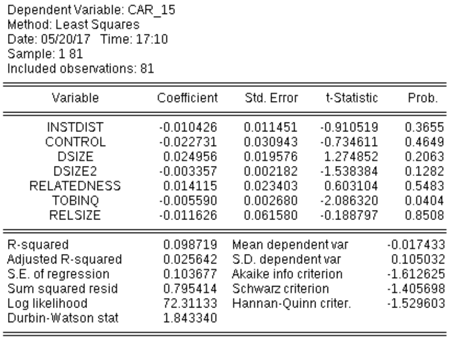


```
Dependent Variable: CAR_10
Method: Least Squares
Date: 05/20/17   Time: 17:10
Sample: 1 81
Included observations: 81

Variable            Coefficient   Std. Error   t-Statistic   Prob.

INSTDIST            -0.017789     0.009452     -1.881993     0.0638
CONTROL             -0.039744     0.025542     -1.556008     0.1240
DSIZE                0.035773     0.016159      2.213831     0.0299
DSIZE2              -0.004251     0.001801     -2.359925     0.0209
RELATEDNESS          0.027759     0.019319      1.436902     0.1550
TOBINQ              -0.001766     0.002212     -0.798577     0.4271
RELSIZE             -0.055885     0.050833     -1.099393     0.2752

R-squared            0.134626   Mean dependent var      -0.004295
Adjusted R-squared   0.064460   S.D. dependent var       0.088481
S.E. of regression   0.085582   Akaike info criterion   -1.996232
Sum squared resid    0.541994   Schwarz criterion       -1.789305
Log likelihood       87.84741   Hannan-Quinn criter.    -1.913210
Durbin-Watson stat   2.126259
```



```
Dependent Variable: CAR_15
Method: Least Squares
Date: 05/20/17   Time: 17:10
Sample: 1 81
Included observations: 81

Variable            Coefficient   Std. Error   t-Statistic   Prob.

INSTDIST            -0.010426     0.011451     -0.910519     0.3655
CONTROL             -0.022731     0.030943     -0.734611     0.4649
DSIZE                0.024956     0.019576      1.274852     0.2063
DSIZE2              -0.003357     0.002182     -1.538384     0.1282
RELATEDNESS          0.014115     0.023403      0.603104     0.5483
TOBINQ              -0.005590     0.002680     -2.086320     0.0404
RELSIZE             -0.011626     0.061580     -0.188797     0.8508

R-squared            0.098719   Mean dependent var      -0.017433
Adjusted R-squared   0.025642   S.D. dependent var       0.105032
S.E. of regression   0.103677   Akaike info criterion   -1.612625
Sum squared resid    0.795414   Schwarz criterion       -1.405698
Log likelihood       72.31133   Hannan-Quinn criter.    -1.529603
Durbin-Watson stat   1.843340
```