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Value Creation or Value Destruction?

An empirical study of Nordic firms acquiring targets within the BRIC countries

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Abstract

This paper studies whether Nordic firms can improve their performance by acquiring firms within the BRIC countries. The BRIC countries has undergone several structural changes and experienced a rapid economic growth during the recent years, which has gained them a lot of attention from the rest of the economical world. However, few scholars have studied acquisition conducted within the BRIC countries, leaving it an unexplored area within the otherwise well studied M&A field. Hence, this paper intends to contribute to the academic literature by filling this gap. Therefore, the influence of the transaction on the bidders performances have been measured by implementing two event studies. First, the CAR was measured for 125 acquisitions made by Nordic firms within the BRIC countries between 1995 and 2011, during a three days event window [-1, 1]. Second, the AOP was measured for 67 acquisitions undertaken by Nordic bidders during the period 1995-2008, over a 5 years event window [-1, 3]. The results was two folded, an improvement of 1,33% was found when measuring the performance as CAR, while the AOP showed a performance loss of -5,13%. Moreover, it was found that CAR was positively affected by the GDP per capita within the target country and negatively influenced by the bidders' size and MTB ratio, while the AOP was found to increase with the bidders' amount of intangible assets.

Keywords:

Acquisitions, cross-border, BRIC, Cumulative Abnormal Return (CAR), Abnormal Operating Performance (AOP), long run, short run, performance, event study.

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1. Introduction

This chapter introduces the reader to the topic of the study where afterward the problematization is presented and specified.

1.1. Background

The reason for why firms engaging in mergers and acquisitions (M&A) can be many. Achieving synergies and market power, reducing cost and opportunity for growth, circumventing environmental uncertainty and managerial intrinsic, are just few of many aims in conducting M&As (Haleblian et al., 2009). And emerging market is perceived to provide these key characteristics for firms which prerequisite these aims.

The past and the expected future performance of the emerging market has and is expected to advance, this has been led by countries such as Brazil, Russia, India and China which are also known as the BRIC countries. These countries have been performing quite the contrary to the developed world. The combined GDP of the emerging markets is set to grow by 5.3% in 2012, and is expected to overtake the GDP of the developed economies as early as 2014. Moreover, the economic growth of the emerging market is expected to represent 70% of total world growth in the years coming ahead. For which half of this growth is predicted to be contributed by China and India (Ernst & Young, 2012).

The BRICs are in various ways unlike each other, together they offer firms with the benefits such as cheap and skilled labour. These countries has further an increasing middle class with an increasing average GDP since 1992, contributing to the booming consumer market (Watson Wyatt, 2009). In addition to this, the BRIC countries represented 47% of the world's population in 2008. Furthermore, these countries have started to realize their unique potential and collective standing in the global marketplace. Where in May 16, 2008 these four countries got together, for their first formal meeting, where the Brazilian foreign minister Celso Amorim said:

"We are changing the way the world order is organized" (Hult, 2009)

Whilst in the developing market, United States is expected to have a modest growth and possibly something below 2.5%. As for European countries the expected outlook is a flat growth in 2012, even if the sovereign debt crisis is resolved (Ernst & Young, 2012). Therefore, arguably firms domiciling within the developed market has been left with no room of neglecting the BRIC countries, especially, firms who are looking for further growth opportunity and increasing their market share. This has accordingly been resembled in the number of M&As deals performed within BRIC countries, which has been an increasing factor since 1988 (Watson Wyatt, 2009).

1.2. Problem discussion

Acquiring firms abroad has been the finding solution for firms perceiving a gap in their strategy. This has been especially a popular strategy among firms looking for strategic expansion as it offers the opportunity for a rapid exploration of the potential benefits within the target's market (Shimizu et al., 2004; Ma et al., 2009; Seth et al., 2000). Researchers have found that the success of these cross-border acquisitions is dependent on several factors.

Bakema and Bell (1996) found that bidders´ abnormal return was positively related to their previous experience of cross-border acquisitions and that more experienced bidders were able to create value for their shareholder. Since, they were better informed of the conditions within the target country and paid less premium for the target. While, Doukas and Travlos (1988) results indicated bidders already operating in the targets firms country did not create any significant value for their shareholder since the firm´s market value staid the same, because of not expanding their multinational network.

Bidders´ of greater size are also found to be better off when acquiring targets abroad. Since, larger firms can have both the information and the financial resource to undertake the pre-bid purchase process, including the due-diligence and negotiation, and the implementation of post-bid process efficiently (Graham et al, 2008). Conversely, Moeller et al. (2004) found that larger firms engaging in cross-border acquisitions experienced a lower abnormal return than smaller firms did, as they were often motivated by hubris.

A particular aspect that has attracted many scholars´ interests is that, firms with intense intangible assets seem to be the ones who create most value for their shareholder. Morck and Yeung (1992) and Markides and Ittner (1994) which result showed that bidders with intense R&D, advertising and management quality undertaking cross-border acquisition was positively

correlated to acquirers´ abnormal return. This has also been confirmed by Seth et al. (2000) which argued that, bidders acquiring targets within foreign markets can create value by leveraging their knowledge and intangible asset, by transferring them to the target firms.

But still, the heightened pressure on firms engaging in these type of transactions could led to none value creating deals (Hitt, 2000; Hitt et al., 1998a,b). Child et al. (2001) puts forward the tremendous challenges that is been imposed on firms executing cross-border acquisitions, in particular, at the post-acquisition stage, which is another aspect that can be added to the complex nature of cross-border acquisitions leading to none value crating deals. Denis et al. (2002) which studied a sample of 44,288 deals, between 1984-1997 documented that the bidders' excess value was negatively influenced by diversifying globally, due to the increase in global diversification by other firms. And this was further elaborated upon by Shimizu et al. (2004) which stated that this might be a consequence of the rapid globalization that is occurring within today´s economy. Previous evidence reported by KPMG has also showed that only 17% of cross-border acquisitions create value, while 57% destroys it (Shimizu et al., 2004).

However, none of these studies are based on emerging markets, which are increasing their part of contribution to the global economic growth (Ernst & Young, 2012). The BRICs are examples of these fast growing countries within the emerging market. The forecasted nominal GDP per capita for these countries between the year of 2011 and 2017are expected to increase by 32%, 81%, 97% and 79% for Brazil, Russia, India and China respectively (MarketLines). And are therefore offering lucrative investment opportunities for bidders domiciled within the developed market.

But, on the other hand, emerging market lacks the corporate standards and the legal infrastructure for minimizing the operational risk and the investment risk (Brouthers, 2002) which is important for the bidder in order to create value for their shareholders. Cultural distance is another problem that the bidder is been faced with, which causes poor knowledge sharing within the combined firm and an increasing cost of transferring knowledge, that consequently prohibits the bidder from achieving the expected synergies (Barkema et al., 1996).

Thus, there is a great need for further clarification of whether previous research can be applied to acquisitions made within the BRIC countries or if the benefit provided through their rapid growth out-weights the costs inherent within cross-border acquisitions. Hence, this study intends to answer the following question:

Can Nordic firms improve their performance by acquiring targets within the BRIC countries?

1.3. Purpose

As such, the purpose of this study will be focused on whether firms within Nordic countries have been able to improve their performance when acquiring targets domiciling within the BRIC countries. By implementing two types of measurements, one been stock based and the other accounting based, were each of them will allow for a comparison between the two method. And, also how performance improvement have been perceived and produced within the short- and long-run respectively. This in turn should explain the difference in previous researchers' findings, if any difference between and within these measurement are found.

1.4. Demarcations

Besides the fact that this study is limited to a given time frame the following aspects had to be excluded in order to keep the content of this study focused.

The aim of this study is to measure whether the performance of Nordic firms are improved by diversifying globally, thus a comparison with domestic acquisitions within the Nordic countries becomes irrelevant, and has therefore not been taken into consideration within this study.

Acquisitions made by Icelandic firms were not considered in this study either, since they only had undertaken one acquisition within the BRIC countries under the studied period. Hence the result would not have been generalizable to other Icelandic firms.

Other kind of entry modes such as alliances, joint ventures and green field investments has also been left out of this study since acquisition is considered to be a faster way of exploiting the opportunities within foreign markets (Shimizu et al., 2004; Ma et al., 2009; Seth et al. 2000) hence, only acquisitions are taken into consideration.

Also due to the lack of data on targets within emerging markets, one of the study's aim could not be fulfilled, thus the effect of relatedness of the bidders and targets could not be carried out.

1.5. Remainder of this thesis

The remainder of this thesis is structured as follows. Chapter 2 starts with discussing the relevant theories and present the hypotheses which are based on previous researchers' findings within cross-border M&A. Chapter 3 describes both short- and long-run methodology and the statistical tests that has been implemented in order to conduct the empirical study. The results are than presented and analyzed in chapter 4. Chapter 5 concludes the content of the study and presents the implication of the content of this study for future study.

2. Theoretical consideration

The objective of this chapter is to introduce an overall view of the literature discussing acquisitions, starting by introducing the reason behind acquisitions as it has an important influence on the performance of the transaction. Given the considered topic for this study, the focus will then be shifted to cross-border acquisition, and then further narrowed down to literatures on acquisitions conducted within the BRIC countries. Based on these theories presented within this chapter, 6 hypotheses will be formed, which will direct the structure of the following empirical study, presented in the next chapter.

2.1. Motives for Acquisitions

Previous research has found a wide range of motives for why firms chose to undertake acquisitions, below follows a presentation of the motives relevant for answering the research question within this study.

2.1.1. Market power

Considering the inherent economic problems within the developed world, firms are facing consolidation occurring within their respective industries and regions (Shimizu et al., 2004), which has consequently been resembled in the rising numbers of M&A deals (Barkema & Schijven, 2008). This activity can be reasoned by the market power hypothesis, where the idea is that the firms can increase their market position and pricing power by acquiring their competitors (Eckbo 1983; Stillman, 1983). And pave the way for the firm to achieve both economic of scope and scale.

2.1.2. Synergies

One common stated motive for acquisitions is the opportunity of achieving synergies. Synergies emerges when the cash flows of the combined firm is larger than the two separate firms (Chari et al., 2010). The combined firm can achieve synergies by reaching economic of scale in areas such as, production, marketing and fund raising. This in turn is dependent on the resource complementarily of the two firms (King et al., 2004). This opportunity for efficiency gains

makes firms to seek new markets where they can realize efficiency improvements and exploit high growth rate, without having to lower their margins. Hence, acquiring an already existing firm is a rapid way to exploit the opportunities of synergies within a desired market (Seth et al., 2000).

2.1.3. Market discipline

A firm could also be acquired as consequence of poor corporate governance or performance. The market discipline hypothesis, states that firms with ineffective and overcompensated top managers are targets of takeovers as they are perfect candidate for bidders with the intention of corporate turnaround (Agrawal & Walkling, 1994; Gaughan, 2005).

2.1.4. Managerial hubris

Managers who have access to internal financing and especially CEOs who overestimates their ability to create value, tend to engage in value destroying acquisitions as they overpay the target (Malmendier & Tate 2008). CEO compensations has also been found to be an influencing factor for acquisition decisions (Agrawal & Walkling, 1994), which in turn is in line with management entrenchment, where CEOs incentive is to increase their power and reduce their risk of employment (Gomez-,Mejia & Wiseman 1997; Haleblian & Finkelstein, 1993). However, in opposite to the hubris hypothesis, where the managers inadvertently overpay for the target firms, the managerialism hypothesis states that the managers knowingly overpay for the target in order to maximize their own wealth at the expense on the shareholders (Seth et al., 2000).

2.1.5. Imitation

Interindustrial imitation has also been found as motive for acquisitions. This argument is based on the assumption that firms tries to copy the success factors of other firms (Steatrns & Allan, 1996). This motive becomes more logical when it is been viewed from a resource dependence perspective. Where acquirers are more likely to become independent which in turns allows them to become future predators. As in contrast to their peers, which do not undertake acquisitions, and therefore might become future targets (Pefeffer, 1972). This can be arguably explained as an “implicit defense tactic”, which is been implemented as the predator is actively engaged in acquisitions, thus making the firm to big to swallow.

2.1.6. Firm strategy

Doukas and Travlos (1988) stated "*Becoming multinational is not a matter of choice but, rather, one of survival*", this is topical to the current market conditions, where firms are required to increase their speed and most importantly become innovative in order to succeed. Michael et al. (1998) also add to the argument by discussing the importance of flexibility to firms, as it enables them to respond to the discontinuous and unpredictable changes in their environment. And, states in general firms diversifying into international market tend to outperform their domestic competitors. Hence, firms' complements these needs through diversifying into different geographic locations and markets for the purpose of circumventing the turbulent and continuously changing environment (Shimizu et al. 2004).

2.2. Global Diversification

A firm can diversify in two ways, either into new lines of business (industrial diversification) or into new national markets (global diversification). Due to the purpose of this study, the focus will be on the later one as its also less studied area of diversification (Denis et al., 2002; Kim & Mathur, 2008). Previous empirical research has failed to provide a uniform answer to the question of whether global diversification improve shareholder value or not (Denis et al., 2002; Kim & Mathur, 2008). The similar view of how the global diversification affects shareholder value can also be found among the theoretical arguments, which provide evidence of global diversification both creating and destroying shareholder value (Denis et al., 2002). Henceforth, the following discussion will reflect on theoretical arguments for why global diversification can create or destroy value, by first starting off with the value creation arguments.

2.2.1. Macroeconomic factor

The fundamental idea behind cross-border acquisitions is based on notion of firms entering into emerging markets in order to exploit the targets' specific resources and take advantage of the imperfection in the market (Buckley & Casson, 1976; Morck & Yeung, 1992; Wilson, 1980). This further allows the firms to arbitrage institutional restrictions such tax codes, antitrust provisions and financial limitations (Doukas & Travlos, 1988); while simultaneously increasing the operational flexibility of the firms by providing them with the opportunity to exploit different market conditions (Kogut, 1983).

One way of identifying these possible opportunities is through measuring the size of the target country. Since, a large economic market can offer beneficial investment opportunities for the acquirers which have the resources to exploit them. A suitable way of measuring this would be the GDP per capita; as this measure has been implemented by Graham et al. (2008).

Hypothesis 1: GDP per capita of BRIC countries is expected to have a positive influence on the performance of the bidding firm, as it is an indication of the target nation's wellbeing.

2.2.2. Corporate governance standard

The corporate governance standard of the target is an influential aspect for bidders undertaking acquisitions, as it can be argued that it provides the shareholders with better protection, and therefore leaving no room for managerial entrenchment and agency problems. Since, La Porta et al. (2000) argue for strong corporate governance provide shareholder with a fair return on their investment. Therefore, more acquisitions are taking place within countries with higher corporate governance standard, this been higher accounting standard and stronger shareholder protection.

However in cross-border acquisitions, targets are often from countries with lower cooperate governance standard than the acquirer, since it allows the acquirer to gain from improving the corporate governance standard of the target and thereby raise capital to a lower cost (Rossi & Volpin, 2004). Moreover, Brouthers (2002) states that bidders entering emerging market are been faced with higher level of operational risk and investment risk as emerging market lack the legal infrastructure, sufficient property rights protection and an ineffective financial system.

Hypothesis 2: The corporate governance standard within the target country is expected to have a positive influence on the bidder performance.

2.2.3. Bidder´s experience

Previous research has found that the likelihood of an acquisition is affected by the acquirer's previous acquisition experience of similar transactions (Amburgey & Miner, 1992). This could be acquisitions of equals or acquisitions within the BRIC countries. However mixed evidence has been found for whether the performance of the acquisitions is affected by the bidders' previous experience or not (Haleblian et al., 2009). Zollo and Singh (2004) found that the performance of the bidding firms was not affected by its previous experience alone, but positively affected from the process of codifying the lessons learned from previous acquisitions.

Another result has been put forward by Haleblian and Finkelstein (1999) which found a U-shaped relationship between acquisition experience and acquisition performance. This relationship appears as relatively inexperienced acquirers do not have the ability to distinguish the specific characteristics of different acquisitions, and therefore inappropriately generalize experience from previous transactions to following dissimilar acquisitions. More experienced acquirers avoid these mistakes as they can identify the different characteristics of the each acquisition. Hence the best acquires, are those with either no experience or extensive experience of acquisitions.

Furthermore, Beckman and Haunschild (2002) which based their study on the networking theory found that bidders decision of acquiring the target or not, was influenced by their level of experience. Since, bidder with previous experience had better information and therefore pays lower premium for the target. This finding is similar to Delios and Beamish (1999) research, which result was based on Japanese firms expanding into East and South-East Asia, and could conclude those firms with experience of international markets and more experience within the targets country secured higher ownership level. But Doukas and Travlos (1998) provide contradicting evidence and argue that cross-border acquisitions does not create any value if the acquirer is already operating within the target country. Therefore, it is ambiguous whether experience is value enhancing or not.

Hypothesis 3: Bidders experience within the targets or within BRIC countries are expected to have a positive influence of the performance of the bidder.

2.2.4. Flexibility

Bidders acquiring targets within emerging market will have the benefit of been flexible. As it allows for the firm to operate in several different national markets and exploit the opportunity to respond to changes in local prices, taxes and other institutional differences, by relocating their purchase, production and sales to the market that offers the most beneficial conditions in terms of purchase prices, production cost and demand, and thereby create value for their shareholders. Moreover, if access to external capital differs among the different markets, the companies can choose to raise capital from the market with the lowest cost (Denis et al., 2002). Oxelheim and Wihlborg, (2008) refers to these opportunities as real options, which can be implemented for hedging if financial derivatives is not desired.

But on the other hand, it is also important to notice that the firms increases their exposure to risks such as, exchange rates, tariffs, political- and economic instability in the first place (Kim & Mathur 2008).

2.2.5. Intangible asset

The acquirers which benefits most from globally diversification tend to be those with high intensity of intangible assets. Morck and Yeung (1992), which findings were based on the transaction cost perspective, found that acquirers' R&D intensity, advertising intensity, and management quality was positively correlated with the acquirers' abnormal return. This is similar to the theory of multinational enterprise, were shareholders of firms with intense intangible assets are experiencing an increased value in their stock, when their firms becomes globally diversified (Moeller et al. 2004). The reason for this is that bidder can exploit the possibility of leveraging their knowledge and intangible assets, by transferring them to the target firm (Bhagat et al., 2011). Moreover, intangible assets are largely based on proprietary information, which cannot be transmitted easily from one firm to another. However, firms can overcome this problem by internalizing the market for their intangible assets. Hence, by expanding globally, acquirers are able to exploit these assets while still holding them within the organization, this is what Morck and Yeung (1992) call the Internationalization theory. Moreover, Graham et al. (2008) found that UK firms doing acquisitions within emerging markets have higher amounts of intangible asset than non-acquirers. It could therefore be argued that the

return of acquisitions within the BRIC countries is positively correlated with the bidders' amount of intangible assets

Hypothesis 4: Bidders performance is expected to be positively influenced by its amount of intangible assets.

2.2.6. Bidder´s size

The size of the bidding firm can affect the performance of cross-border acquisitions both positively and negatively. First, larger firms might have both the financial resources and knowledge to perform the pre-bid purchase process, including due-diligence and negotiation, and the implementation of post-bid process more efficiently. Hence they might have better capability to create value for their shareholder. Larger firms also have higher possibility of exploiting economies of scale and scope (Graham et al, 2008). Bhagat et al., (2011) found a positive relationship between relative size measured as transaction value divided by the bidder's market capitalization, and the acquirers' cumulative abnormal return during a tree day event window around the acquisition announcement, when they studied 698 cross-border acquisitions made by firms domiciled in emerging markets. This is in line with Graham et al, (2008) which studied 168 M&A transactions made in emerging markets, and found that larger firms are more likely to acquire firms in emerging markets.

Conversely, Jensen (1986) argues that larger firms tend to have a weaker ownership control and therefore more severe agency problem which destroys value. These arguments are further developed by Moeller et al. (2004) which found a negative relation between size and the acquirers' CAR. This was explained by managerial hubris as larger firms did offer larger premiums and completed a larger part of the offers.

Hypothesis 5: Size of the bidder is expected have a positive influence on the performance of the bidding firm.

2.2.7. MTB ratio

Rau and Vermaelen (1998) found that acquirers with high market-to-book ratio (MTB) as a result of their recent good performance and their beneficial future growth opportunities

experienced a higher CAR from the announcement of acquisitions, than acquirers with lower MTB ratio. The reason for this was that the investors become overoptimistic about these firms and overreact to good news about them. This is in line with Graham et al. (2008) findings that UK firms undertaking acquisitions within emerging markets had higher MTB ratio than non-acquirers. Since, they had better opportunities to exploit the possible market conditions within the emerging markets and thereby grow their business internationally. The opposite holds for the firms with a poor recent performance, where the investors become over pessimistic.

However, Rau & Vermaelen, (1998) states that the managers of firms with high MTB ratios, tends to get overconfidence as a result of as their recent strong performance. This leads them to pay too high premium as they overestimate their ability of achieving synergies. While on the other hand, managers of firms with lower MTB ratios and weaker track record face tougher scrutiny from shareholders and board members when arguing for an acquisition. Hence, these acquisitions tends to create more value as they are not motivated by hubris. Consequently, firms with low MTB ratio outperform the firms with high MTB ratio which is in line exploration hypothesis. This supports Moeller et al., (2004) argument that firms with low growth opportunities (i.e. low MTB ratio) can improve their future growth by undertaking acquisitions.

Hypothesis 6: The performance of the bidding firms is expected to be positively influenced by its MTB ratio.

2.2.8. Co-insurance

A benefit of becoming globally diversified is that the acquirers become less exposed to their original market. Hence, by acquiring a target operating in a market uncorrelated to its own, the acquirer could decrease the volatility of their cash flow and thereby decreases the potential risk they might be facing (Lewellen, 1971). Thus, the acquirer can achieve what is known as debt co-insurance. A company domiciled within the BRIC countries could be a suitable target for acquirers aiming to achieve debt co-insurance, since, the BRIC countries are believed to be less affected by a global economic downturn and to some extent uncorrelated to the developed world (Hult 2009).

Theoretically, debt co-insurance should increase the shareholder value since the lower risk should enable the bidders to lower their borrowing costs. However, the question whether debt co-

insurance create shareholder value or not, is well debated among academics. Higgins and Schall (1975) argue that debt coinsurance is a transfer of wealth from the shareholders to the bondholders, since, the bond prices increases when as an effect of the lower risk. But as they assume that the total value of the firm (the equity value plus the debt value) is unaffected by the merger, the value of the equity have to drop with the same amount. Another problem of debt co-insurance is that it can be motivated by management entrancement (Amihud & Lev 1981).

2.2.9. Target status

Aybar and Ficici (2009) discuss the notion of target status, and argue that private firms are more valuable target for creating shareholder value. As this is mostly the case for targets domiciled within emerging market. This has further been reasoned by Fuller et al. (2002) which emphasizes on the illiquid market for the private firms assets, which is imposing an illiquidity discount, resulting in higher returns for the acquirers. With that comes the absence of complex ownership structure within private firms, resulting in lower transaction costs as in contrast to public targets (Choi & Russell, 2004). In addition, based on what have been discussed, one could further argue for faster synergy realization when acquiring a private target, as a consequence better integration, which is a crucial success factor according to Larsson and Finkelstein (1999).

2.2.10. Sources of value destruction from global diversification

On the other hand, it is important to notice that these benefits do not come without any cost, since, been globally diversified comes with difficulties and shortcomings that have been discussed by many scholars; which will be discussed in the following section.

2.2.11. Increased complexity

Complexity is one of these challenges that the acquirers face when undertaking cross-border acquisitions. Therefore, the firm is exposed to higher cost of coordination within the organization, which subsequently prevents the firm from achieving the expected synergies (Kim & Mathur, 2008). The firm might also become less transparent, which reduces the ability of the board and external observer to monitor the managers (Denis et al., 2002). That could result in value destruction as a consequence of a diversification discount added to the share price (Moeller et al., 2004).

2.2.12. Cultural distance

With the opportunities of diversifying into new markets, comes the cost of cultural distance. That result in increased costs of transferring knowledge and dramatically decreasing the effectiveness of knowledge sharing (Malhotra et al., 2011). Many scholars have also argued that high cultural distance can prevent the bidder from succeeding in post-acquisitions and not allow the combined firm to integrate. (Brouthers & Brouthers, 2000; Hennart & Reddy, 1997; Kogut & Singh, 1988). Further, firms are been exposed to risks such as liability of foreignness (Zaheer, 1995) and double-layered acculturation (Barkema et al., 1996), which prohibits the firm from adjusting and leaning from the local market and the target firm.

2.2.13. Agency theory

Managers' personal incentive is one possible explanation for why bidders expose themselves to the difficulties inherent within cross-border acquisitions. This argument relies on an agency theory view, where there is a conflict between the interests of the managers and shareholders, as managers are expected to act in line with their own interest on the expense of the shareholders (Kim & Mathur 2008). Managers' incentive can be explained by several factors. Such as, the managers' quest for increasing their personal status and power, which can be achieved by enlarging the size of the firm, that is also known as empire building (Jensen 1986). Or, by managers' incentive to reduce the risk of their personal portfolio as it is mostly depended on the success of firms (Amihud & Lev 1981).

2.3. Cross-border acquisitions within emerging markets

Despite the vast amount cross-border M&A literature, few scholars have questioned whether previous researches are applicable to the performance of acquisitions within the BRIC countries that seem to provide the necessities for firms looking for expanding their business internationally. Thus, the following section intend to present literatures that have showed interest in acquisitions conducted within the emerging markets.

2.3.1. Advantages of foreign bidders in emerging markets

Chari et al. (2010) argues that the stock market would react more positively to a firm acquiring a target in an emerging market than it would if the target was domiciled in a developed country.

This because the bidder might have a better bargaining power in emerging markets than it would have in their domestic market, due to the bidder been faced with fewer competitors for the target, thus, lowering the risk of winner's course. And, targets with liquidity needs in the emerging countries might have problem finding external financing due to inefficient capital markets and are therefore traded at a discount.

Moreover the bidder might be able to exploit information asymmetries towards targets in emerging markets, since they have; both access to better information and the capability to process it. As the bidders domiciled within the developed market, might have superior valuation skills that allows them to better estimate the value of both the synergies and the standalone value of the target firms. And accordingly pick out undervalued targets (Chari et al,. 2010).

However, Xu et al. (2010) stats the opposite, as the seller might be the better informed part, due to the large information asymmetries within the emerging markets.

2.3.2. Access to capital

In emerging markets the cost of capital are likely to be higher than in the developed world, due to a less developed capital market. Therefore an acquisition of firms within the emerging markets can create value by providing the target with lower cost of capital. However, it should be pointed out that an inefficient internal capital market can result in sub-optimization and value destruction, if the capital is taken from good performing units to finance poor performing units within the organization (Chari et al. 2010).

2.4. Summary of previous cross-border acquisition literature

Scholar's interest and view on the M&A topic is wide and different, as it has been forwarded within this chapter. But, this becomes less true when searching for cross-border acquisitions and even more so when it comes to studies relating to BRIC countries, which is in line with Denis et al. (2002) and Kima & Mathur (2008). After searching for literatures relevant to this study, 233 articles were defined, from which *table 2.1* was based upon. The table contains mostly literature based on cross-border acquisitions within the developed world. Were most of them finds a positive CAR return and few have found negative CAR, depending on the length of the event window, and the choice of sample years. The implied methodologies are typically stock based measurements, except from Moeller et al (2004) which also implemented accounting based

measurement. More interestingly many of these articles emphasis that acquisitions are most feasible for firms with high amount of intangible assets.

There is though no articles in particular studying the BRIC countries and if it is profitable or not to acquire targets within these countries. Besides Moeller et al. (2004), most of this articles have implemented one type of measurement this been stock based, which is short-term measurement and this raises the question of whether this is a fear view been presented, considering the question of whether the market is efficient or not. Thus, making the content of this study more applicable, due to the lack of implementation of both stock based and accounting based methods in previous research.

Study	Obvserved sample year	Market	Key findings		Intangible assets
			AOP	CAR	
Harris & Ravenscraft (1991)	1970-1987	Developed → Developed	-	Positive**	Yes
Doukas & Travlos (1988)	1975-1983	Developed → Developed	-	0,74%**	Yes
Kang J (1993)	1975-1988	Developed → Developed	-	0,51 %**	Yes
Markides & Ittner (1994)	1975-1988	Developed → Developed	-	0,32%*/0,49%**	Yes
Morck & Yeung (1992)	1978-1988	Developed → Developed	-	0,05%**	Yes
Datta & Puia. (1995)	1978-1990	Developed → Developed	-	Positive**	Yes
Seth et al., (2000)	1981-1990	Developed → Developed	-	0,11%***	No
Seth et al. (2002)	1981–1990	Developed → Developed	-	Positive**	Yes
Cakici et al. (1996)	1983-1992	Developed → Developed	-	1,96%**	Yes
Denis et al. (2002)	1984-1997	Developed → Developed	-	-3,5%**	No
Moeller et al (2004)	1985-1995	Developed → Developed	-0.0067%	-0.886%*	No
Chari et al. (2010)	1988-2002	Developed → Emerging	-	1,65%**	No
Burns & Liebenberg (2009)	1988-2004	Developed → Developed/Emerging	-	2,41%**	No
Kim & Mathur (2008)	1990-1998	Developed → Developed	-	-5%**	Yes
Aybar & Ficici (2009)	1991-2004	Emerging→	-		No
Bhagat & Zhu (2011)	1991-2008	Emerging→	-	1,09**	No
Graham & Yawson (2008)	1992-2003	Developed → Emerging	-	-	Yes
Ma et al. (2009)	2000-2005	Emerging→	-	1,7%**	No

*Table 2.1. Previous studies of cross-border M&A, * = 3 days event window [-1, 1], ** = 5 days event window [-2, 2], 21 days event window [-10, 10].*

3. Methodology

This chapter starts with presenting the selection criteria used for the data collected for this study and then move on to the methodologies implemented for measuring the performance of acquirers, thereafter the reliability and validity of the study is discussed.

3.1. Research approach

The purpose of this study is to test whether firms within Nordic countries are improving their performance by acquiring firms within the BRIC countries. In addition to this, previous researchers´ findings will be applied to the performance of these acquirers and test if their research can explain the result from this study. Thus, this study has applied a deductive research approach, which is an approach that has been suggested by Bryman and Bell (2011).

A number of hypotheses were formulated accordingly, in order to satisfy the aim of this study, which in turn requested for the collection of qualitative data, from reliable databases such as Datastream, Reuters 300 Xtra, Marketline etc.. Other missing information regarding observed sample firms was collected from their respective annual report, which is considered as reliable, since, they are annually audit.

Based on this collected information, the data will be analyzed in order to answer the question raised in chapter 1. In this study the performance of the acquisition is measured through both Cumulative Abnormal Return (CAR) and Abnormal Operating Performance (AOP). Hence, two sets of event studies will be performed, which improves the validity of the study and reduces the study's dependence on each measurement. It also provides the possibility for a comparison between the two measurements and to evaluate the markets ability to estimate the long-run performance of the bidders undertaking acquisitions within the BRIC countries.

3.2. Data collection

The sample frame of the study consists of all Nordic firms that have completed an acquisition within in the BRIC countries between the years 1995 and 2011. This was collected from Reuters 3000 Xtra, a well-known financial database used by both academics and practitioners. The Nordic countries covers firms domiciled within Denmark, Finland, Norway and Sweden,

acquiring targets within countries Brazil, Russia, India and China (BRIC). However, Island was excluded from the sample due to their lack of acquisition activity within the BRIC countries.

The reason behind choosing Nordic countries as the sample for this study is because they have been less influenced by the economic problems in past few years. Thus making the finding result less bias against those problems, but this would be rather the case if countries such as Portugal, Italy, Ireland, Greek or Spain would have been chosen. The motive behind the chosen time period is to provide a balanced view of M&A through the business cycle. As the studied period contains two stock market peaks in form of the top of the dotcom bubble and the super conjunction prior to the financial crisis. And two market troughs, in form of the recession after the burst of the dotcom bubble and the financial crisis.

A shorter time period could make our results biased towards a specific period of the business cycle, which would hurt the generalizability of the study. The chosen time period will also allow for a more specific analysis of how the market reaction to acquisition within the BRIC countries has developed over the time and if there is any trend that can be found, in order to explain the different findings of previous researchers. The observations are limited to completed acquisitions and publicly trading firms only, due to the information needed for the two different type of performance measurements used for the purpose of the study.

The required information for calculating the two measurement for each sample firm was then collected form Datastream, which is a well-known database that is been used in many academic studies. These data includes stock price and index prices for measuring the cumulative abnormal return, and total asset and earnings before interest, tax, depreciation and amortization (EBITDA) for measuring abnormal operating performance.

The information for the variables measured is total asset, intangible assets, MTB ratio, Industry Classification Benchmark (ICB) codes, which was also collected from Datastream. Information about the bidders' previous experience of acquisition within the BRIC countries was collected form from Reuters 3000 Xtra. Data for Index of Economic of Freedom (IEF) and Corruption Perception Index (CPI) were collected from their respective webpage and data of the target countries gross domestic production (GDP) was collected from MarketLine Database. Moreover, respective firm’s annual report were used in the case of missing information on certain sample firms when it was not available in Datastreams database, this was done in order to minimize the loss of observations, a list of those observations can be find in appendix 1.

3.3. Cumulative abnormal return

In order measure the performance of cross-border acquisitions within the BRIC countries done by Nordic bidders, an event study was applied. The event study methodology assumes an efficient market, were the firm's asset prices are immediately adjusted to the release of new information, in line with the Efficient market hypothesis presented by Farma (1970). Hence the methodology can be applied to measure the effect of economic events such as acquisitions, by observing the change in asset prices over a limited period of time, called the event window. The most common approach of performing an event study is to measure the price change of the firm's common equity by estimating the Cumulative Abnormal Return (CAR) but the methodology can also be performed by studying the price change of the firm's outstanding debt (Campbell et all, 1997).

In this study the performance of the acquisition is measured as CAR. CAR measures the change in the stock price reaction to a specific event, which is in this case the announcement of Nordic firms acquiring target within the BRIC countries during the period 1995-2011. The CAR is also calculated for the observations during the period 1995-2008 in order to compare the difference between the CAR and AOP abnormal.

In order to calculate the market reaction to a specific event an event window must be defined, under which the abnormal return (AR) for each acquirer, *i*, will be calculated. (Campbell et al., 1997). The selection of the event window is a trade-off between missing early market reaction, such as information leakage prior to the announcement, by using a too narrow event window, and the risk of capturing the effect of unrelated events, by using a too long event window (Haleblian & Finkelstein 1999).

In this study the market reaction of acquisition announcements is measured over two different event windows consisting of 5 days [-2, +2] and 3 days [-1, +1]. These sizes of event windows have been used by several other researchers such as Aybar and Ficici (2009) and Ma et al. (2009), thus making our work reliable and comparable to previous studies. Firms that have undertaken more than one cross-border M&A within the BRIC countries during the event window have been dropped out of the study in order to isolate the effect of each specific event. The abnormal return for each day in the event window is calculated as the actual ex post return (R_{it}) minus expected normal return (R_{nt}) which would have occurred if the event have not take place.

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

To estimate the expected normal return for the firms, both the market model and the market adjusted return model has been applied in line with Brown and Warner (1980). The market model is a statistical model where the return of a specific stock is assumed to be linear to the return of the market portfolio as follows:

$$R_{nt} = R_{it} - (\alpha_i + \beta_i R_{mt})$$

Where R_{it} is the actual return on stock *i* during day *t* and R_{mt} is the return on the market portfolio for day *i*, α_i and β_i are the constant and beta of stock i. The market portfolio is represented by the all share index of the major stock exchange within the country where the bidding firm is domiciled. Hence the Danish market portfolio consists of OMXC, the Finish OMXH, the Norwegian OSEAX and the Swedish OMXS. To estimate the expected normal return, α_i and β_i are estimated during a 250 days estimation window [-252, -2] prior to the announcement. To reduce the risk that the expected normal return is being affected by the studied event, the estimation window is chosen to not overlap with the event studied (Campbell et al., 1997).

However as the study involve several frequently acquirers, the estimation window might involve the announcement of other M&As undertaken by the same acquirer and thereby affect the estimation of the expected normal return. To overcome this problem the expected normal return has also been estimated by the market adjusted return model.

The market adjusted return model use the return on the market portfolio as a proxy for the expected normal return. Hence the abnormal return for each firm is calculated as:

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

Since, the expected normal return is calculated as the return on the market portfolio, the estimation window is the same as the event window. This metrology is used by previous researchers which have been studying frequently acquirers such as Fuller et al. (2002).

By using two models to calculate the expected normal return, the correlation between those models can be calculated and thereby measure the validity of the results, even if, Campbell et al.,

(1997) states that the use of a more sophisticate model such as the market model does not improve the quality of the result significantly.

This is done for the purpose of avoiding the drawback of the market adjusted return model that is the expected normal return might be affected by the studied event as the model use an estimation window identical to the event window (Campbell et al., 1997). This might be particular problematic for this study since the all-share indexes used as proxies for the market portfolios, relates to relatively small stock exchanges were a couple of large firms, such as H&M, Maersk and NOKIA, can have a high influence of the total index.

In order conduct the statistical analysis of the market reaction, the cumulative abnormal return was calculated by first aggregating the abnormal return for each security over the event window and then aggregating the CAR across the securities. (Campbell et al., 1997). The CAR for security *i* during the event window $[\tau_1, \tau_2]$ is calculated as following:

$$CAR_i(\tau_1, \tau_2) = \sum_{\tau=\tau_1}^{\tau_2} AR_{it}$$

The average CAR for N events is calculated as follows:

$$\overline{CAR}(\tau_1, \tau_2) = \frac{1}{N} \sum_{\tau=\tau_1}^{\tau_2} CAR_i(\tau_1, \tau_2)$$

3.4. Abnormal operating performance

The long-run AOP is an accounting based event study methodology that is designed to capture the changes occurring in firm's operating performance in contrast to their respective benchmark, after corporate events such as acquisition is used (Barber & Lyon, 1995).

The abnormal operating performance of bidder *i* in year *t*, $AOP_{i,t}$, is measured as the realized performance of the acquirer, $P_{i,t}$, minus the expected performance of the bidder, if the bidder had not undertaken the acquisition, $E(P_{it})$:

$$AOP_{i,t} = P_{i,t} - E(P_{i,t})$$

Realized operating performance, $P_{i,t,}$ of the bidder is calculated as earnings before interest, tax, depreciation and amortization/total asset (EBITDA/TA). The operating performance could be influenced by several aspects such as special items, interest expense, tax considerations, and accounting for minority interests. Since, incurring this type transaction can cause changes in the capital structure, if for example the bidder would have to take on more debt in order to fund the deal, thus, an increased interest expense would be the consequence, resulting in lower earning net of interest expense, but, leaving the operating performance without changes. Hence, using EBITDA minimize such problem (Barber & Lyon, 1995).

Operating income scaled by operating assets would be a better alternative to use, but as this is not available in the financial statement the total book value of assets was used as alternative, in line with Tanriverdi and Uysal (2010) and Moeller et al (2004) which used a similar adjustments in their research. Therefore, operating income will be divided by beginning period book value of total assets to obtain EBITDA/TA.

Expected operating performance, $E(P_{i,t})$, is what the performance of the bidder would have been if the transaction would have not been carried out. This is calculated by using an industry benchmark, as a comparison to the sample firm. Differences in characteristic of firms can lead to differences in operating performance even before the occurrence the transaction. But utilizing an industry benchmark should address this problem (Barber & Lyon, 1995). The matching control for each bidder is identified through three stages.

First, for each sample firm a pool of control firms operating within the same industry were identified. This procedure will control for cross-sectional variations in operating performance that occurs within the industry. Thus any variation taking place during the sample period in an industry could also be experienced by the same sample firms in that industry (Barber & Lyon, 1995). The collection of control firms can be divided into several sub steps. To start with, each sample firm has to be classified with respect to what industry it is operating within. Barber and Lyon (1995) use SIC-codes for this classification, but as SIC-codes is not available for non US firms, hence, Industry Classification Benchmark (ICB) codes were used for the classification of the firms in this study, which has also been utilized by Graham et al (2008).

Alternative classification system has been used in previous research even when the studied firms has been US based, one example is Choi and Russel (2004) which criticize the validity of SIC-codes because of their inadequacy. The ICB codes classifies the industry according to a four

digit system similar to the SIC codes; hence the level of specificity of the classification can be selected by choice of collected digits. The choice is a trade-off between including fewer but more closely related firms and including more but less related firms (Barber & Lyon, 1995).

To be able to pick a control firm similar to the sample firms as possible, the firms in this study has been classified using the full four digit ICB code. The next sub step was to collect data EBITDA and Total Asset for all firms with the same ICB code in the whole Europe. When there are less than five firms with the same four digit classification code in Europe, the control group has been expanded to include all firms in Europe with the same three digit ICB code, in line with Barber and Lyon (1995). All European firms with the same ICB code were included for the control group, since the control group would have been too small if only Nordic firms were included, which resulted in a total number of 3188 control firms.

Second, to be able to measure the expected performance, firms within the control group that have undertaken an acquisition within +/- one year of the studied event has been dropped. Thus, the M&A record of each control firm has been investigated manually using Reuters 3000 Xtra.

Third, the sample firms' performances have been matched to the firms within the control group. Hence, the control firm in each control group with the closest pre-event performance has been selected. This adjustment should regulate for mean reversion problem in accounting data that reflects a transitory component of operating income. As transitory component is a result of manipulation of accounting figures, one-time effect of accounting changes, nonrecurring income or expense and temporary shifts in product/service demand. The transitory component is expected to "normalize" as the EBITDA/TA reverts to the population mean (Barber & Lyon, 1995).

If the bidder is performing well in term of EBITDA/TA before the transaction, wrong conclusion could be made as consequence of mean reversion, when in fact the measure is merely reverting to its mean in a predictable fashion. Pre-event performance also addresses problems such as firms performing well or bad due to managerial ability, corporate strategy and other unrelated factors with no relevance to the transaction. Thus, the results should provide well specified test statistics (Barber & Lyon, 1995).

When a control firm for each sample firm was selected, the expected operating performance $E(P_{i,t})$, of the sample firm is set to be equal to its control firm´s realized operating

performance, $P_{i,t,}$. The AOP is calculated over five year [-1, +3] event window. Consequently, due to the three years of post-acquisition data that is required for calculating the AOP, the number of observation was limited to the period between 1995 and 2008, as there was no data available for acquisition announced later than 2011. Thus, the formula for calculating the AOP for firm *i* during the event window $[\tau_1, \tau_2]$ is as follows:

$$AOP_{i,}(\tau_1, \tau_2) = (P_{i,\tau_2} - P_{i,\tau_1}) - (PI_{i,\tau_2} - PI_{i,\tau_1})$$

The average AOP for N events is calculated as follows:

$$\overline{AOP}(\tau_1, \tau_2) = \frac{1}{N} \sum_{\tau=\tau_1}^{\tau_2} AOP_i(\tau_1, \tau_2)$$

To avoid overlapping event windows and distorting results, only the first acquisition has been included in the study if a firm has undertaken more than one transaction under the five year event window.

3.5. Hypothesis testing

To test whether the result from the CAR (X_1) and the AOP (X_2) are statistically significance a t-test was performed for each event window. A two sided t-test have been selected as there is no consensus within the academic literature about whether a firm's performance is improved or worsen by undertaking acquisition. Since the aim of this study is to measure how the mean of the bidders performance is affected by the announcement of a cross-border acquisitions, without regards to how the variance is affected. The null hypothesis has been modified to ignore the variance effect by following Campbell et al. (1997). This was achieved by estimating the variance of the cross section CAR and AOP instead of basing the calculation on past returns.

But it is important to notice in order for the cross section variance assumption to hold, the event window for the CAR and AOP should not overlap. However, Brown and Warner (1985) found out that the assumption of cross section is still valid as long as the announcement of the

observed samples do not overlap, this making the observed samples within this study still valid. Hence, the hypothesis is calculated as fallowing:

H_0 : X = 0

H_1 : X ≠ 0

$$\widehat{VAR}[\overline{X}(\tau_1, \tau_2)] = \frac{1}{N^2}\sum_{i=1}^{N}(X_i(\tau_1, \tau_2) - \overline{\mathrm{X}}(\tau_1, \tau_2))^2$$

$$t_{X(\tau_1,\tau_2)} = \frac{\overline{X}(\tau_1, \tau_2)}{\sqrt{\widehat{var}[\overline{X}(\tau_1, \tau_2)]}}$$

3.6. Multi regression analysis

To further analyze the result and to determine what variables are influencing the performance of cross-border acquisition, a multi regression analysis has been performed for the following variables:

3.6.1. Depended variables

The depended variable of the study is the performance of the bidding firms after the announcement of a cross-border acquisition, which is measured in two different ways, as CAR and AOP. Hence, two sets of cross-sectional regression analysis have been carried out, one for each measurement. The CAR variable has been transformed into the natural logarithm of (1+CAR) in order to improve the normality distribution of the residuals.

3.6.2. Explanatory variables

3.6.2.1. GDP per capita

This variable test whether the performance of the bidding firm can be explained by the macro-economic conditions in the target country. A high GDP (GDP) can be seen as a sign of large economy offering beneficial investment opportunities for actors with the resources to exploit them.

3.6.2.2. Corporate governance standard

The Corruption perception index (CPI) is published every year by Transparency International, and ranks countries on a scale of one to ten (1-10) based on how corrupt the public sector is perceived to be, where lower scores indicates higher levels of corruption.

The Index of economic of freedom (IEF), measures the economic of freedom within countries based on 10 equally weighted factors such as government spending, monetary freedom and business freedom etc., and is published by The Heritage Foundations together with The Wall Street Journal, where low scores indicates low levels of economic of freedom. However, it is important to notice the complex nature of corporate governance, and that there is no "best" way of measuring it (Bhagat et al. 2008), therefore the result might not turn out as expected.

3.6.2.3. The bidder's previous experience within the targets and BRIC countries

The bidders experience is divided into two dummy variables; experience within the BRIC countries (B-DUM) and experience within the target country (T-DUM). This is done for the purpose of testing the robustness of the dummy variables; hence, the coefficient of these two dummy variables should have the same sign. This was created through assigning value 1 for bidders which has undertaken an acquisition within the targets or BRIC countries during a three year period prior to the announcement of the studied event and 0 otherwise.

3.6.2.4. Intangible assets

The intangible asset (INTAN) is measured as the bidder's intangible asset at the end of the year prior to the announcement divided by the bidder's total asset the same year.

3.6.2.5. Size of the bidder

The size of the bidder (SIZE) is measured as the natural logarithm of total asset at the end of the year prior to announcement, in line with Morck and Yeung (1992).

3.6.2.6. MTB ratio

The MTB ratio (MTB) at the end of the year prior to the announcement of the acquisition is collected from Datastream, where the ratio is defined as the firm's market capitalization over its book value of common shareholders equity.

Variable	Expected sign
GDP per capita (GDP)	+
Corruption perception index of (CPI)	+
Index of economic of feedom (IEF)	+
Experience within the BRIC countries (B-DUM)	+
Experience within the target country (T-DUM)	+
Intangible assets (INTAN)	+
Size of bidder (SIZE)	+
MTB ratio (MTB)	+

Table 3.1 Definition and Expected sign for the variables

3.6.3. The regression model

The explanatory power of the previously stated variables has been tested with the following regression model:

$$Y_t = \alpha + \beta_1 SIZE_{1t} + \beta_2 INTAN_{2t} + \beta_3 MTB_{3t} + \beta_4 B - DUM_{4t} + \beta_5 T - DUM_{5t} + \beta_6 CPI_{6t} + \beta_7 IEF_{7t} + \beta_8 GDP_{8t} + u_t$$

Where Y is the performance of the bidding firm, expressed as either AOP or CAR.

3.7. Reliability

The reliability measures to what extent the results of the study will be the same if the study is replicated at a later moment or by other authors. All data used in the study is collected from reliable and well known databases in from of Reuters 3000 Xtra and Thomson Reuters Datastream. Therefore the data used in the study should be the same if it was collected again, given that the same search criteria were applied. Moreover, the quantitative research approach

which have been used for this study, has an inherent high level of reliability as it relies on pre specified statistical test of qualitative data without any subjective interpretations. In order to achieve as high reliability as possible, all the assumption done during this study has been noted and presented.

When the requested information form the sample firm has been missing from Datastreams database, respective firms´ annual report has been utilized in order to minimize the loss of observations, this was considered as reliable information, as they are annually audit. Also, SPSS and EViews software were used to calculate the t-test and multiregression analysis for both AOP and CAR.

3.8. Validity

To assure that the result of our study reflects the true outcome of acquisition done by Nordic firms in the BRIC countries, two different measurements have been used to determinant the effect of the acquisitions in our sample, CAR and AOP. Furthermore, the time frame for the study has been chosen to provide a result representative for the whole business cycle. Considering Markides and Ittner (1994) which argued in order to provide an efficient study, future research should provide more target specific results. Thus, the result of this study cannot be generalized to acquisition of targets domiciled outside the BRIC countries and bidders outside the Nordic countries (at least not to its full value).

4. Empirical Result and Analysis

The content of this chapter starts by presenting the number of observation involved in each measurement, and then move on the result from CAR and AOP which will be presented and analyzed separately. In the end a comparison between the two measurements will be provided to evaluate how successful the stock market has been in estimating the long-run performance of bidders.

4.1. Number of deals.

The number observation included for the CAR resulted in 125 acquisitions carried out during the full study period i.e 1995-2011. However, due to the five year [-1, +3] event window the number of observation for the AOP resulted in 67 acquisitions. Since, three years of post-acquisition data was required for calculating the AOP. Thus, the number of observation was limited to the period between 1995 and 2008, as there was no data available for acquisition announced later than 2011. *Figure 4.1.* illustrates the number of acquisition for both measures and how they are distributed over time. From which an increasing number of acquisition can be observed, this resembles the search for future growth by the Nordic firms within the BRIC countries. This also confirms Watson Wyatt (2009) data, that the number of M&A within BRIC countries has been an increasing factor since 1988.

The acquisitions undertaken during this study period can also be categorized with respect to the target's home country. *Table 4.1.* presents the targets country in this study, where a overrepresentation of Russian targets can be observed, as 39.2% of the deals involves a Russian targets. However the bias against the Russian market is not surprising since Russia shares a common border with Finland, and is culturally and geographically closest located to the Nordic market. The acquirers' country is also biased toward Swedish firms, since they are the most frequent acquirers, representing 49.6% of the total number of observations (*table 4.2.*).

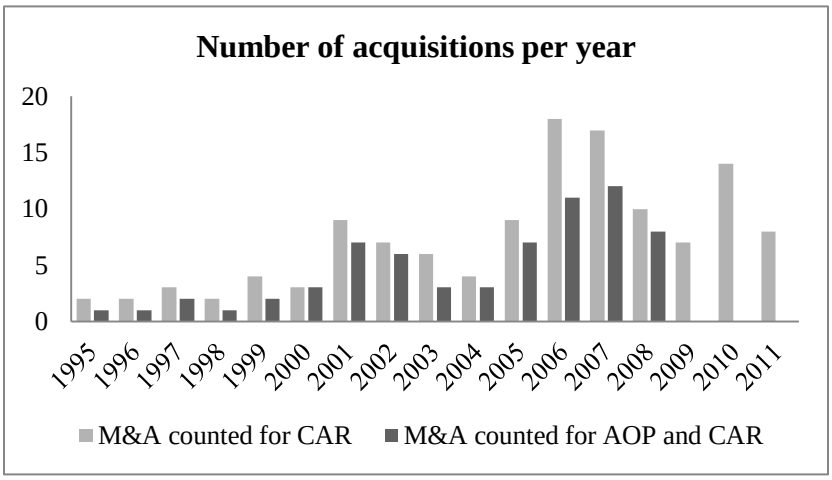

Figure 4.1.

Target's country	M&A counted for CAR	M&A counted for AOP & CAR
Brazil	32	17
Russia	49	27
India	18	10
China	26	13
Total	125	67

Table 4.1. Number of acquisitions categorized with respect to target country.

Bidder's country	M&A counted for CAR	M&A counted for AOP & CAR
Finland	34	24
Denmark	14	7
Norway	16	10
Sweden	61	26
Total	125	67

Table 4.2. Number of acquisitions categorized with respect to bidder country.

4.2. Cumulative Abnormal Return

4.2.1. Hypothesis test

Figure 4.2. shows the average daily abnormal return for each day within the event window calculated with both the market model and the market adjusted return model. The graph shows that the main market reaction to the acquisition announcements is clustered during the announcement day (day 0), hence the essential assumption of an efficient market used by the event study methodology, is confirmed (Campell et al., 1997), as the market seems to immediately incorporate the release of new information. This also supports the use of shorter event windows such as -1, +1, since it is sufficient to capture the effect of the acquisition announcement and minimize the risk of capturing the effects of unrelated events, which is discussed by Heleblian and Finkelstein (1999).

Moreover, the graph shows a strong correlation between the results provided by the market adjusted model and the more sophisticated market model. The statistical significance of this correlation is confirmed by a two sample t-test which resulted in a p-value of 0.738 (appendix 2) and therefore confirms that the results of the two models are significantly correlated. These results confirms the argumentation of Campbell et al. (1997) that the quality of the results is not improved by the use of a more sophisticated model for estimating expected normal return, also holds for cross-border acquisition between Nordic firms and targets domiciling within the BRIC countries.

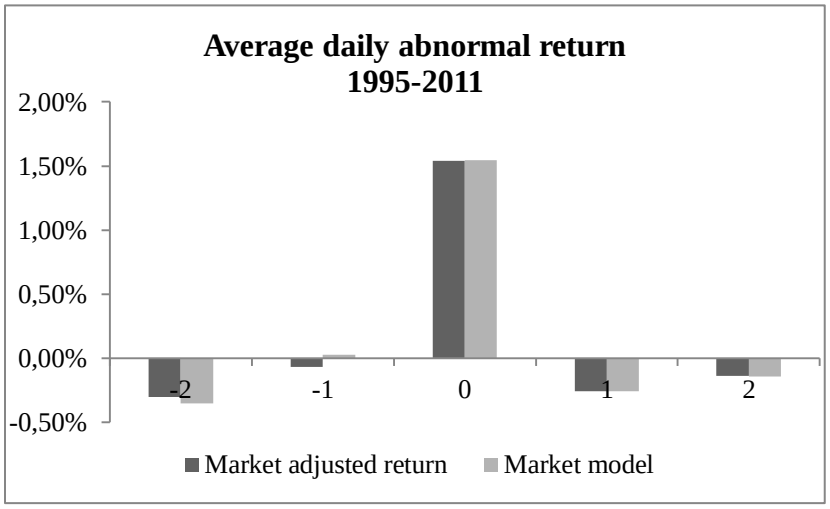

Figure 4.2.

To test whether the CAR showed in *figure 4.2.* can be statistically confirmed, a two sided t-test was performed for each estimation window and each estimation model. The results are presented in *table 4.3*. and *table 4.4.* The tables shows a positive CAR of 1,33% and 1,40% which was confirmed at a 1% significance level during the 3 days event window, for market adjusted return and market model respectively. Hence the null hypothesis could be rejected for the three days event window. However, the result for the five days event window was confirmed at 10% level. Henceforth, the following analysis will be based on the market adjusted return model for three days event window which have also been used in previous researchs (Moeller et al., 2004; Sudarsanam & Mahate, 2003), due to the high significance level and that it is also better suited for studies of frequently acquirers following the discussion in section 3.3..

	N	Mean	Std. Deviation	Std. Error Mean
CAR M.Adj 5 days	125	0,0090	0,0586	0,0052
CAR M.M 5 days	125	0,0095	0,0600	0,0054
CAR M.Adj 3 days	125	0,0133	0,0566	0,0051
CAR M.M 3 days	125	0,0140	0,0569	0,0051

Table 4.3. Statistical summary for the CAR, showing the result provided by both event widows and models for estimating expected normal return, M.Adj = market adjusted return model, M.M = Market model.

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
CAR M.Adj 5 days	1,7089	124	0,09	0,009	-0,0014	0,0193
CAR M.M 5 days	1,7641	124	0,0802	0,0095	-0,0012	0,0201
CAR M.Adj 3 days	2,6237	124	0,0098	0,0133	0,0033	0,0233
CAR M.M 3 days	2,7499	124	0,0069	0,014	0,0039	0,024

Table 4.4.Two sided t-test of the CAR, provided by both event widows and models for estimating expected normal return, M.Adj = market adjusted return model, M.M = Market model.

The result was further analyzed by dividing the full period into three equally sub periods that are presented in *table 4.5.* and *table 4.6.*. An interesting pattern could be clarified by this categorization; the CAR has increased over time. It starts at 0,18% for the first sub period, then it increases to 1,43% in the second period, and ends at 2.35% in the last period. However, in contrast to the first period, the second and the third period is significant at 10% and 5% respectively.

A reasonable explanation for this development would be that the CAR has increased as a consequence of the world becoming more globally integrated, which has in turn allowed for better cross-border communication and more international trade. The BRIC countries have also undergone several structural changes which have resulted in a dramatic economical growth during this period (Hult, 2009). This high growth rates have put the BRIC countries into the absolute focus for the rest of the economic world, whereof the increased market reactions to M&A within the area can be explained.

The increasing abnormal return form the CAR contradicts Denis et al. (2002) and Shimizu et al. (2004) argument of globalization reducing excess value. The result can be also a possible explanation for the difference result of previous researchers' findings, which is varying depending on the sample year chosen. Bris and Cabolis (2008) and Aybar and Ficici (2009) result which were negative can be arguably explained by the large losses the firms were making during the years between 1998 and 2001 (Moeller et al, 2005), as their observed sample year were within the years 1988-2004. This in turn can explain the negative market reaction. And therefore there argument of firms expanding into emerging markets been faced with diversification discount cannot be confirmed.

However, the result supports the result of Chari et al. (2010), Burns and Liebenberg (2009), Doukas and Travlos (1988) and Nusret et al. (1996) which found that bidders from developed markets experienced a positive CAR from the announcement of M&As within emerging markets. The results also show that the Nordic firms can also take advantage of the high growth within the BRIC countries.

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	N	Mean	Std. Deviation	Std. Error Mean
CAR 3 days *	41	0,0018	0,0419	0,0065
CAR 3 days **	42	0,0143	0,0523	0,0081
CAR 3 days ***	42	0,0235	0,0707	0,0109

*Table 4.5. Statistical summary for the CAR divided into three sub periods. The CAR is calculated over a three days event window [-1, 1], and the expected normal return is estimated through the market adjusted return model. * = 01Jan95-15Mar04, ** = 16Mar04-25Oct07 *** = 26Oct07-31Dec11.*

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
CAR Adj 3 days *	0,2691	40	0,7892	0,0018	-0,0115	0,0150
CAR Adj 3 days **	1,7746	41	0,0834	0,0143	-0,0020	0,0306
CAR Adj 3 days ***	2,1529	41	0,0373	0,0235	0,0015	0,0455

*Table 4.6.Two sided t-test of the CAR divided into three sub periods. The CAR is calculated over a three days event window [-1, 1], and the expected normal return is estimated through the market adjusted return model. * = 01Jan95-15Mar04, ** = 16Mar04-25Oct07 *** = 26Oct07-31Dec11.*

4.2.2 Regression model

A multi regression analysis has been performed for the variables discussed in *section 3.6.* to determine whether they can be used to explain the CAR. This section starts with a discussion of the test which have been undertaken in order to verify the robustness of the model. After which the result from the regression analysis is presented and analyzed.

4.2.2.1. Robustness of the model

The OLS regression model relies on a couple of fundamental assumptions, which have been tested for in order to verify robustness of the model. Hence the following tests have been performed:

The average value of the errors equals zero, $E(u_t) = 0$. This assumption is valid for this study as the regression model includes a constant term (Brooks, 2008).

Homoscedasticity, $var(u_t) = \sigma^2 < \infty$. A Breusch-Pagan-Godfrey test has been conducted to test whether the errors in the model are heteroscedastic. The model has been improved by using White's modified standard errors as heteroscedasticity was indicated in the first test. Moreover, all variables except the dummy variables are either formatted as ratios, percentage or the natural logarithm of the original value. The final Breusch-Pagan-Godfrey test, presented in appendix 3, shows that there is no heteroscedasticity within the updated model.

Autocorrelation, $cov(u_i,u_j) = 0$ for $i \neq j$. The Breusch-Godfrey Serial Correlation LM test, presented in appendix 4 confirms that there is no autocorrelation in this model.

Non-normality, ($u_t \sim N(0,\sigma^2)$). To improve the normality distribution of the residuals, the depended variable has been transformed into the natural logarithm of (1+CAR). Moreover, outliers were removed in an attempt to further improve the normality, but it had to be retained since this lead to further problem in form of heteroscedasticity. Appendix 5, shows that both the skewness and the kurtosis exceed the acceptance level for classifying the residuals as normal distributed. This could be improved by using the bootstrapping methodology.

Multicollinearity. Appendix 6 shows a correlation matrix for the independent variables in the model, where it can be seen that no variables has a stronger correlation coefficient than 0,6. Hence, it can be confirmed that neither perfect multicollinearity nor near multicollinearity exist in the model.

Non Linearity, by using a scatter plot, it could be confirmed that there is linearity between the dependent and independent variable as it can be seen from appendix 7.

4.2.2.2. Regression analysis

After verifying the appropriateness of the regression model, the results are now presented and analyzed. The output of the model is presented in *table 4.7* shows the CAR can be explained by three variables, Size, GDP per capita and MTB-ratio, at a significance level of 1, 5 and 10 percent respectively. The R^2 of 13,3% is considered to be satisfying since it is equal or better than previous studies such as Chari et al., (2010), Harris and Ravenscraft (1991). Moreover the F-statistic value is 2.23 with a p-value of 3%, which confirms that the CAR is explained by the model. The result for each variable will now analyze separately.

Dependent Variable: CAR
Method: Least Squares
Sample: 1 125
Included observations: 125
White heteroskedasticity-consistent standard errors & covariance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.011741	0.049334	0.237988	0.8123
GDP	0.010972	0.004882	2.247652	0.0265
IEF	-0.055543	0.181209	-0.306511	0.7598
CPI	0.001163	0.064235	0.018106	0.9856
B-DUM	-0.000563	0.007682	-0.073237	0.9417
T-DUM	-0.003612	0.011901	-0.303486	0.7621
INTAN	-0.002230	0.024011	-0.092879	0.9262
SIZE	-0.006422	0.002352	-2.730631	0.0073
MTB	-0.003295	0.001854	-1.777844	0.0780

R-squared	0.133435	Mean dependent var	0.011776
Adjusted R-squared	0.073672	S.D. dependent var	0.052279
S.E. of regression	0.050316	Akaike info criterion	-3.071700
Sum squared resid	0.293680	Schwarz criterion	-2.868062
Log likelihood	200.9813	Hannan-Quinn criter.	-2.988973
F-statistic	2.232726	Durbin-Watson stat	2.092659
Prob(F-statistic)	0.029749		

Table 4.7. Regression analysis of the CAR.

4.2.2.2.1. GDP per capita

Hypothesis 1 can be confirmed as there is a positive relation between GDP per capita and CAR at a 5% significance level. Thus, it can be argued that firms perform better when doing acquisition within a BRIC country with higher GDP per capita. This might be intuitive as GDP per capita is an indicator of the size of the targets economy and thereby the economic opportunities within the target country. This result is in line with Graham et al. (2008) which found that the value of the acquisition performed by UK bidders in emerging markets increased with the GDP growth of the target country. While at the same time the result contradicts Bhagat et al. (2011) which found an insignificant negative relation between the emerging market bidders' announcement effect and the target countries' GDP growth.

4.2.2.2.2. Corporate governance standard

None of the variables could explain the CAR as the result for both variables was insignificant. Thus hypothesis 2 could not be confirmed. However, this contradicts previous studies such as Rossi and Volpin (2004) which found that the acquisition activity was higher in countries with

stronger shareholder protection and accounting standards. A possible explanation for why the previous result cannot be applied to acquisition between Nordic bidders and BRIC country targets could be that the Nordic firms overlook the corporate governance standard in order to exploit investment opportunities within these fast growing economies. This explanation is supported by Graham et al. (2008) which found that UK firms makes more acquisitions in emerging markets with higher corruption.

4.2.2.2.3. Experience of acquisitions within the BRIC and target countries

The result is countering hypnosis 3 by showing a negative correlation between CAR and the bidders' previous experience of acquisition within the BRIC and target countries, but the variables cannot be used to explain the CAR, as the variables insignificantly high and contradict each other. This support Zollo and Singh (2004) which found that the acquisition performance was not affected by previous experience alone. Instead it was positively affected by the codifying process of the lessons from previous acquisitions. However, these findings about codification cannot be confirmed nor rejected by this study as it only investigates whether the bidder has previous experience or not.

Another finding that cannot be confirmed is Doukas & Travlos (1988) which states that firms already operating within the target countries experience an insignificant negative CAR. Which is further confirmed by Haleblian and Finkelstein (2002) which found that a firm's first acquisition often perform better than the second. One explanation to why the CAR cannot be explained by the bidders' experience within the BRIC or target countries might be the rapid economical change within the BRIC countries. Hence, experience generated from previous acquisitions cannot be applied to later acquisition as the conditions might have changed dramatically.

4.2.2.2.4. Intangible assets

Hypothesis 4 is rejected as it is negatively related to CAR, but the coefficient is not within the significance level. This finding contradict the Internationalization theory, which states that firms can create value by internationalizing the market for its intangible assets (Morck & Yeung, 1991). Moreover, Graham et al. (2008) found that UK firms acquiring targets domiciled within the BRIC countries has higher amounts of intangible assets than non acquirers. But as no positive

correlation between the bidders' announcement effect and its level of intangible asset was found in this study, it could be argued that, either the stock market undervalues the importance of intangible asset, when acquiring firms domiciled in the BRIC countries, or, the managers overvalues the synergies that can be achieved from intangible assets.

A possible explanation to why these theories and previous results cannot be applied to the acquisition between Nordic bidders within the BRIC countries might be that a large share of the firms investing in the BRIC countries are operating in intangible asset scare industries such as the commodity-, the natural recourses- or the manufacturing industry, as these industries contribute to a significant proportion of the economies within the BRIC countries (Watson Wyatt, 2009).

4.2.2.2.5. Size

Bidders' size has a negative impact on the CAR, which serves in contrast to the argument that larger firms are better acquirers, as they have more recourse and are better informed. Hence the hypothesis 5 is rejected at 1% significance level. The result support Jensen (1986) argumentation, that larger bidders destroy value when undertaking M&As due to more sever agency problems, caused by a weaker ownership control.

As size is measured as the natural logarithm of total assets, large firms in this study might be the once subjected to empire building. Hence, the conclusion of the result could be that the level of empire building and agency problem has a negative effect on the CAR. This spurious correlation could be overcome by measuring size as the natural logarithm of market capitalization. However, the natural logarithm of total asset is considered to be an appropriate proxy for size in this study as it has been applied by several previous researchers, including Morck and Yeung (1992).

4.2.2.2.6. MTB ratio

Hypothesis 6 can be rejected at a 10% significance level since result shows that the MTB ratio is inversely correlated with the CAR. This finding contradicts the ones put forward by Rau and Vermaelen (1998) where firms with higher MTB ratio experience better announcement effect but lower performance in the long run. The reason for better announcement effect is that the investors overreact to news about these firms because of their good recent- and future expected

performance. Other researchers have found result in line with the result from this study, such as Sudarsanam and Mahate (2003) which studied the announcement effect of acquisitions during three day [-1, 1] event window and found that high MTB ratio firms experience a lower CAR than low MTB ratio firms. A possible explanation for the result of this study and Sudersanam and Mahate (2003) could be that the market has learned that bidders with a high MTB ratio often pays to high premiums since they overestimate their ability to achieve synergies (Rau and Vermaelen 1998).

4.3. Abnormal operating performance

The result from the AOP between year 1995 and 2008 was rather unexpected, as it was found that on average firms in question performed -5.13% less than what would have been expected if they had not acquired their targets within BRIC countries. A two sided t-test was implemented, and the result for the AOP was confirmed at 5% significant level. This can be observed in *table 4.8.* and *table 4.9.* The result was then divided into two periods in order to observe a more specific picture of where most loss has occurred, and as it can be viewed in table *table 4.8.* and *table 4.9.* the loss is significantly higher in the later period. This can be partially explained by the recession occurring in 2008 which has been caught by the tree year event window that continues until year 2011. This results shows that the BRIC countries are not so uncorrelated to Nordic countries after all and rather interlinked.

	N	Mean	Std. Deviation	Std. Error Mean
AOP 5 years*	67	-5,1281%	17,63490%	2,15445%
AOP 5 years**	33	-1,8703%	16,44969%	2,86352%
AOP 5 years ***	34	-8,2902%	18,40305%	3,15610%

*Table 4.8. Statistical summary for the AOP calculated over a 5 years event window [-1, 3]. * = full period 1995-2008, * =first sub period, 01Jan95-21Nov05, ** = second sub period, 22Nov05-31Dec08.*

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
AOP 5 years*	-2,380	66	,020	-5,12814%	-9,4296%	-,8267%
AOP 5 years**	-,653	32	,518	-1,87030%	-7,7031%	3,9625%
AOP 5 years ***	-2,627	33	,013	-8,29016%	-14,7113%	-1,8690%

*Table 4.9. Two sided t-test of the AOP calculated over a 5 years event window [-1, 3]. * = full period 1995-2008, * =first sub period, 01Jan95-21Nov05, ** = second sub period, 22Nov05-31Dec08.*

Before starting to compare the result form the AOP with other previous research, it importantat to notice that the AOP is a long-rung accounting based measurement, thus, limiting the result to the fact that previous researchers findings are based on short-run stock based measurement (CAR). The result form AOP is also rather specific, as it measures the bidder performance within a specific event window, and do not consider the expected NPV of future cash flow, that is taken into account by measuring the CAR. Therefore, the result from to the AOP is not directly comparable to other previous researchers' findings which are based on CAR when studying cross-border M&A deals.

Having said that, the negative results from the AOP can be explained Kim and Mathure (2008) findings, stating firms' diversifying globally exposes themselves to exchange rates, economic instability, thus resulting in value destroying activity. They also elaborate on the aspect of firms becoming globally diversified become more complex to manage, which results in higher cost of coordination which do not allow for realizing the expected synergies. This in turn contradicts Seth et al. (2000) arguing for "*acquiring an existing foreign facility provides a means for the rapid exploitation of the potential synergies*".

Also in line with the above mentioned, the negative result could be a consequence of the decreased in knowledge sharing within the sample firms which Malhorta et al. (2011) argues for been the case for firms acquiring target abroad. Which is been caused by the culture distance between the bidder and the target (Brouthers & Brouthers, 2000; Hennart & Reddy, 1997; Kogut & Singh, 1988). Were the bidder is been prohibited from adjusting and learning from the local market and the target firm. Therefore, this supports the Zaheer (1995) argument of liability of foreignness and Barkema et al. (1996) argument of double-layered acculturation. This in turn

confirms Child et al. (2001) argument of the tremendous challenges that is been imposed on the sample firm undertaking cross-border acquisition, especially in the post-acquisition stage.

More importantly, this raises the question of whether debt co-insurance is achievable considering the results from the AOP. Since, the sample firms should have performed better by undertaking acquisition within the BRIC counties and be able to circumvent the losses in later period which was presented in *table 4.8.* and *table 4.9.*. This is if Hult (2009) argument of BRIC countries been uncorrelated to the developed economy is taken into account, however, this cannot be confirmed, as this study has not tested for whether debt co-insurance is achievable or not.

4.3.1. Regression model

A multi regression analysis was applied, in order to test if the considered variables in *section 3.6.* do explain the result behind AOP. Hence, the following section starts with a discussion of tests which have been undertaken in order to verify the robustness of the model. After which the result from the regression analysis is presented and analyzed.

4.3.2.1. Robustness of the model

The OLS regression model relies on a couple of fundamental assumptions, which have been tested in order to verify the robustness of the model. Hence the following tests have been performed:

The average value of the errors equals zero, $E(u_t) = 0$. This assumption is valid in this study as the regression model includes a constant term (Brooks, 2008).

Homoscedasticity, $var(u_t) = \sigma^2 < \infty$. A Breusch-Pagan-Godfrey test was implemented to test whether the errors in the model are heteroscedastic. Moreover, all variables except the dummy variables were tested in form of ratios, percentage and the natural logarithm of the original value for the purpose improving the result. Were the natural logarithm appeared to be most suitable for explaining the variables. Thus, final Breusch-Pagan-Godfrey test, presented in appendix 8, shows that there is no heteroscedasticity.

Autocorrelation, $cov(u_i,u_j) = 0$ for $i \neq j$. The Breusch-Godfrey Serial Correlation LM Test confirms also that there is no autocorrelation in the model, this can be observed in appendix 9.

Non-normality, ($u_t \sim N(0,\sigma^2)$). However, as it can be observed form appendix 10, the normality distribution of the residuals is not within the acceptance level, since this was been influenced by outliers. Hence, the outliers was exclude from the sample, but this in turn violated the above assumptions, other possible way of circumventing this problem would be Bootstraping, but due to the time frame this could not be carried out.

The variables do not seem to show any Multicollinearity, as the highest value is -0.62 (Appendix 11). Thus it can be said the variables are orthogonal (Brooks, 2008). Following the assumption requested for valid regression model.

Non Linearity, by using a scatter plot, it could be confirmed that there is linearity between the dependent and independent variable as it can be seen from appendix 12. Next the regression analysis will be presented.

4.3.2.2. Regression analysis

Table 4.10. illustrates the outcome of the regression analysis, from which a low R^2 can be observed but this is not so different from similar research been performed (Tranriverdi & Uysal, 2010). However, in order to conclude the reliability of the regression model the probability of F-statistic has to be within the significant level, but, this is not the case for this model. Since, the considered variables together cannot explain the dependent variable.

Despite the fact of not finding any significance besides in intangible asset at 10% level, analyses of the variables are necessary in order to understand the reason for why it could not be explained by these variables. Henceforth, the considered variables will be compared to previous researcher findings and analyzed separately, by first starting with the GDP per capita within the target country.

4.3.2.2.1. GDP per capita

The variable for GDP per capita resulted in a negative coefficient which is contradicting the hypothesis 1. This finding supports Seth et al. (2002) argumentation of managerialsim hypothesis, suggesting that mangers using GDP growth as a reason for pursuing their personal growth at the expense of its shareholders. However, they found no significance for their hypothesis either. Their argument cannot be confirmed here either, as the negative relationship is highly insignificant.

Dependent Variable: AOP
Method: Least Squares
Sample: 1 67
Included observations: 67

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.137156	1.667166	1.281910	0.2050
GDP	-0.008227	0.040570	-0.202788	0.8400
IEF	-0.564720	0.404453	-1.396258	0.1680
CPI	0.303720	0.209944	1.446669	0.1534
B-DUM	0.043469	0.114981	0.378052	0.7068
T-DUM	-0.032924	0.142199	-0.231535	0.8177
INTAN	7.54E-09	4.27E-09	1.766323	0.0826
SIZE	-0.014246	0.011510	-1.237655	0.2208
MTB	0.005217	0.011104	0.469799	0.6403

R-squared	0.131055	Mean dependent var	-0.051281
Adjusted R-squared	0.011200	S.D. dependent var	0.176349
S.E. of regression	0.175359	Akaike info criterion	-0.519559
Sum squared resid	1.783539	Schwarz criterion	-0.223407
Log likelihood	26.40524	Hannan-Quinn criter.	-0.402371
F-statistic	1.093447	Durbin-Watson stat	2.315548
Prob(F-statistic)	0.380917		

Table 4.10 Regression analysis of the AOP.

4.3.2.2.2 Corporate governance standard

The CPI is positively related to the result of AOP, but it is statistically insignificant. The positive correlation is in line with Rossi and Volpin (2004) which found that M&A are more likely in target countries with higher corporate governance. Whilst, in turn contradict their findings of cross-border transaction occurring in countries with lower corporate standard than the bidder, since, they could arbitrage the imperfection within the target firms and consequently raise equity at a lower cost later on.

However, IEF is inversely related to the result of AOP. The result could have been interpreted as bidders do not gain from targets domiciling within countries with better economic of freedom, but rather the opposite. This in turn would contradict Brouthers (2002) argument of the importance of legal infrastructure and property rights protection which is necessary for minimizing operational- and investment risk. This would also contradict La Porta et al. (1998) argument of the importance of political and economic freedom, which has been undermined by bidder acquiring their targets abroad. This interpretation would not have been far from true as previous research has found negative relationship between economic of freedom and abnormal

return at a significant level, such as Aybar and Ficici (2009). But, none of this argument can be supported as both variables are not significant; therefore hypothesis 2 cannot be confirmed.

4.3.2.3. Experience of acquisitions within the BRIC and target countries

Bidders experience within the targets country shows a negative correlation with AOP. This is in line with Doukas and Travlos (1998) argument, that firms already operating within the same country do not create value. Whilst, not supporting Bakema and Bell (1996) argument of firms with previous experience can expect better performance from acquisitions within the same country, which is logical if the result of the AOP is been considered.

At the same time viewing bidders experience within BRIC countries shows a positive coefficient correlation with the AOP. Thus the opposite of the above mentioned argument would be true. Thus considering the two different signs from the two variables, none of this argument can be confirmed, not just because the two variables are highly insignificant but also because of they do not match. Thus, hypothesis 3 cannot be confirmed.

4.3.2.4 Intangible asset

Hypothesis 4 is confirmed, which is in line with previous researchers finds, as intangible asset show a positive contribution to the result of the AOP, at 10% significance level. Similar positive correlation was found by researchers such as Morck and Yeung (1992), and Markides and Ittner (1994) findings were firms with advertising intensities, R&D intensities and management quality do benefit from acquiring targets within emerging markets. Since bidders from developed market has more potential of leveraging their knowledge and intangible assets (Bhagat et al., 2011). This further confirms Morck and Yeung (1992) internationalization theory were firms with intense intangible assets such as technological know-how and dedicated managers' benefit from expanding internationally. Hence, the argument that the managers overestimate the possibility to create synergies based on intangible, can be disproved as the opposite is found to be true.

4.3.2.5. Size

Hypothesis 5 cannot be confirmed, as firm's size shows an insignificant inverse relation to the AOP. However, the negative coefficient supports Graham et al. (2008) arguing for firms undertaking M&A can be motivated by incentives in contrast to agency cost theory. The result is

also in line with Moeller et al. (2004) findings, were larger firms destroys value, as it had been influenced by managerial hubris. Since, manager are overconfident of their ability, this leading them to overpay the target and consequently not been able to regain the incurred costs, at least not within the studied event window. Since, these managers tend to be frequently acquirers, as it is the case of this studied sample.

This could be also interpreted by Jensen (1986) free cash flow hypothesis. Since, larger firms with poor investment opportunities tend to engage in acquisitions rather than paying out excess cash to shareholders. Another possible explanation for the result of AOP is, larger firms are more likely to be faced with litigation problems resulting in cost that has not been taken into account. Moreover, due there complex structure larger firms might be slow in exploiting the possible benefit at that moment, as in contrast to small firms who are more dynamic in adapting to new environments (Moeller et al., 2004).

Publicly held firms are also been faced with more competition, hence, they tend to overpay the target in order to discourage other possible bidder in the industry and to some extent they might use tender offer, which is not likely in the case of smaller firms (Moeller et al., 2004). In contrast to small firms, larger firms tend to be faced with the problem of growth opportunities; hence, they tend to diversify geographically. Therefore, Doukas and Travlos (1988) argument of bidders actions might be matter of survival rather than a choice can be an possible explanation for why Nordic firms continues to diversify into the BRIC countries despite the negative AOP performance.

These results do not support Graham et al. (2008) argument of larger firms been better of undertaking M&As, nor Chari et al. (2010) that are firms been faced with less competition and they are better off in estimating synergies in undervalued firms in emerging markets. The result from the AOP is rather questioning these possibilities, and is more in line with Xu et al. (2010) argument of firms undertaking M&As within emerging market are been faced more information asymmetries.

4.3.2.6- MTB ratio

The result shows a positive coefficient as hypothesis 6, but it is not within the significance level. Considering the positive relation between the AOP and MTB ratio, Moeller et al., (2004) argument of firms with low growth using acquisitions for increasing their growth opportunities

cannot be supported. And, it is more in line with Graham et al (2008), stating that firms with high MTB ratio has the opportunity to further grow their business internationally and are therefore much better off in exploiting the possible market conditions within emerging markets. But a much more suitable explanation would be Rau and Vermaelen (1998) findings, who concluded in their research that firms with high MTB tend to have a positive relation the abnormal return, but, in the long-run they tend to perform badly. Since, the managers get overconfidence in their ability to create synergies and therefore pay to higher premiums which can explain the negative result from AOP. However, none of this can be confirmed as level of insignificance of the variable is quite high.

4.4. Comparison between CAR and AOP

As it has been previously mentioned the two type of measurement are not directly comparable as CAR is a short-run stock based measurement, measuring the NPV of future expected cash flow. Whilst, AOP is a long-run accounting based measurement, measuring the performance of the sample firm at a specific time. Thus, both measurements have their own respective pros and cons. But, by combining the two, a broader picture can be gained in order to provide a richer analysis, since, they complement each other shortages.

And accordingly by implementing the two measurements, a comparison could be carried out. This allowed for an evaluation how successful the stock market has been in estimating the long run performance of cross-border acquisitions within the BRIC countries. For this reason, the CAR sample year had to be shortened down from 1995-2011 to 1995-2008 and adjusted for the selection criteria as for the AOP.

The CAR resulted insignificant average abnormal return of 0,71% which can be seen in appendix 13. Despite the insignificant result, one could argue for the result been applicable for comparison between the CAR and the AOP, as this is a sample of the CAR between the period 1995 and 2011. The comparison between the measurement of CAR and AOP are in conflict with each other as the results shows that bidder attains on average CAR 0,71%. Whilst, AOP indicates bidders are -5,13% worse off by acquiring targets within BRIC countries.

The difference between the two methods which can be seen in *figure 4.3.* was statistically confirmed at 1% significance level by an implementing two sample t-test, that is presented in appendix 14. This difference shows that the market has overestimated the performance

improvements that could be gained by bidder acquiring targets within the BRIC countries. The overestimation might be an effect of fads and fashion as the economic world has shown a great interest in the BRIC countries and especially in China and India, due to their rapid economic growth that is published by reports such as Ernst & Young (2012).

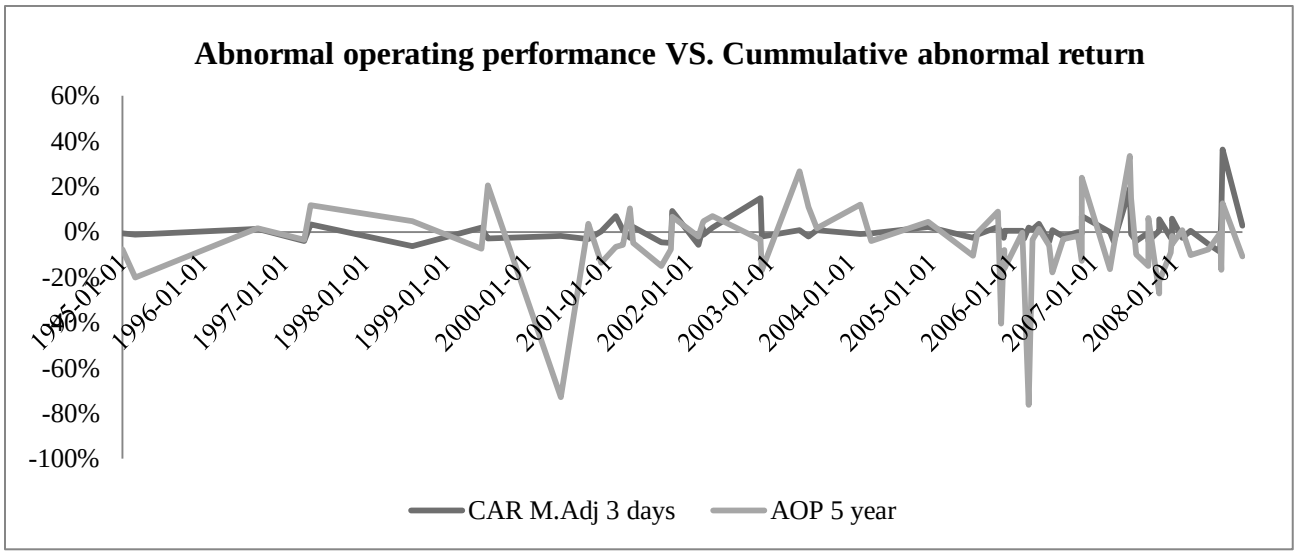

Figure 4.3.

5. Concluding remarks

The following chapter summarizes and concludes the result of this study and then discusses possible topics for future research

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5.1. Conclusion

During the recent years, the BRIC countries have experienced rapid economic growths which have resulted in increasing number of acquisition undertaken by Nordic firms. The rapid economic growth has also affected the stock market's reactions, which is positively increasing with the rising number of acquisitions within the BRIC countries.

This study shows that Nordic firms have been able to gain from the high growth and lucrative investment opportunities within the BRIC countries, and thereby creating an average CAR of 1,33%. As the literature on acquisition of emerging market is less explored by researchers, this result serves two purposes. First, as it is in line with the only article studying this field, this been Chari et al. (2010), consensuses are added and the trustworthiness of their result is strengthened. Second, further knowledge has been added by studying a more specific sample, both with respect to targets and acquirers.

The result also shows that bidders are better off from acquiring target within emerging markets, than acquiring targets abroad within the developed world. As previous researchers studying cross-border M&A within the developed world such as Kim and Ike (2008), Kang (1993) and Morck amd Yeung (1992) has found CAR of -5%, 0.51% and 0.05% respectively. The poor performance of cross-border acquisition within the developed world is further confirmed by a report published by KPMG that only 17% of cross-border acquisition created value for their shareholders, while 53% destroyed it (Shimizu et al, 2004). Thus, the result can be an interesting factor for both CEOs and investors.

Moreover, the study found that the bidders' CAR was positively affected by the GDP per capita within the target country, and negatively affected by the size and MTB ratio of the bidder. Hence it can be interpreted as small firms with poor internal growth opportunities are rewarded by the market for seeking growth within BRIC countries with high GDP per capita. Whilst, corporate governance, experience and intangible, hypotheses which were based on former

researchers findings, could not explain the result of CAR. This can be seen as evidence for the particular nature of the BRIC countries, which cannot be explained by current research, as it is mostly based on cross-border acquisitions within the developed world. And accordingly, this shows that more research is needed within the BRIC countries and that future research should concentrate on specific target countries, in order to provide more specific information, as it is also argument by Markides and Ittner (1994).

However, when measuring the AOP for period 1995-2008 the result was in contrast to the result from the CAR, as it showed an average performance loss of -5,13%. And when the result was divided into two separate parts it was found that Nordic firms' poor performance within the BRIC countries had worsened over the time, which is again in contrast to the increasingly positive stock market reactions. The drastic decreeing performance of the bidder can be a result of the economic downturn caused by the financial crises, as major part of the observations which has occurred within the period 2005-2008.

This result is in line with Moeller et al. (2004) which found an average performance loss -0.067% and CAR of -0.866% when US firms acquiring targets within the developed market. Hence, it could be concluded that the stock market reaction is a reasonable proxy for measuring changes in firms' performance. But their argument cannot be supported here, considering the two different results from CAR and AOP. The results from this study rather show that the stock market overestimates the performance of the bidders from acquiring targets within the BRIC countries. Thus, one could argue that the Nordic stock market is not as efficient as the US stock market, but, this cannot be confirmed here, since, this hypothesis is outside the range of this study. But, a more possible explanation could be that there is hype in the market created by reports such as Ernest & Young (2012) and Watson Wyatt (2009) regarding the possibility provided within the BRIC countries. While at the same time, the stock market is also exposed to information asymmetries within the emerging markets (Xu et al., 2010).

This seems to be also influencing managers' decisions, by overestimating the opportunities offered within the BRIC countries, whilst neglecting the complex nature of undertaking cross-border acquisitions. This confirms Hitt (2000) and Hitt et al. (1998a,b) argument of that there is a heightened pressure on firms undertaking this type of transaction. And that there is a tremendous challenge that is been imposed on the firms executing cross-border acquisitions, in particular, at the post-acquisition stage (Child et al., 2001).

In line with previous researcher findings such as Bhagat et al. (2011), Markides and Ittner (1994) and Morck and Yeung (1992), it was found that the performance of the bidder is positively correlated to its amount intangible asset, which was confirmed at a 10% significant level. This result shows that bidder with intense intangible are more likely to succeed in acquiring targets within the BRIC countries. This is an interesting finding for managers of these firms, and the stock market who does not seem to be appreciating the possible value that can be created by them.

And although, other variables were tested, none of them could explain the AOP, but a possible explanation could be that previous researchers' findings are based on CAR, which considers the NPV of all future cash flow caused by the studied events, whilst the AOP only reflect the earnings which has occurred during the event window, and ignores the effects which might appear later on.

But, by combining both short- and long-run performance as well as stock-based and accounting based measurement, a wider view of the bidder performance could be provided. As in contrast to, previous studies of cross-border M&A which mostly focuses on the short-run performance and stock based measurements, and thereby provided a more unilateral view of the bidders' performance. Thus, making the result of this study less biased towards one single measure measurement, and thereby more valuable to the literature of cross-border acquisition.

5.2. Proposal for future research

This study has shown that the shareholders of Nordic firms has gained a CAR of 1,33% from the announcement of an acquisition of a BRIC country target. However the result also showed that a -5,13% AOP. Hence, a study of the CAR during a longer event window would provide knowledge of whether the stock prices recoil after the initial positive reaction, in order to reflect the weak AOP. This knowledge would not only be of interest for academics but also investors, as it would confirm whether "buy and hold" investors can gain from acquisitions of BRIC country targets, or if the investors have to sell its shares after announcement, in order to gain from the acquisition.

Considering the fact that size was negatively correlated to the result of CAR and AOP, support was given to Jensen (1986) argument that larger firms creates lower value from M&A due to more severe agency problems. Thus, future research could further study whether

managerialism affects the decision of Nordic firms to acquire BRIC country targets, by using; operating cash flow less capital expenditures scaled by total assets, as proxy for the agency problems. This proxy has been used by previous researchers such as Graham et al. (2008). The variable could be further complemented with the change in management compensation after the transaction.

Another interesting factor which future research could look into, would be the reasons behind negative result of the AOP, by looking at post-acquisition stage and how it is been influenced by factors such as cultural distance, liability of forgiveness (Zaheer, 1995) and double-layered acculturation (Barkema et al., 1996).

6. References

6.1. Journal Articles

Agrawal A., and Walkling R. A. (1994). *Executive careers and compensation surrounding takeover bids*. Journal of Finance, 49: 985-1014.

Amburgey, T. and Miner, A (1992). *Strategic Momentum: The effects of repetitive, positional, and contextual momentum on merger activity*. Strategic Management Journal. 13(5), pp. 335-348.

Amihud Y. and Lev B. (1981). *Risk reduction as a managerial motive for conglomerate mergers*. Bell Journal of Economics, 12, 605−617.

Aybar B. and Ficici A. (2009). *Cross-border acquisitions and firm value: An analysis of emerging market multinationals*, Journal of International Business Studies, 40, 1317-1338.

Barber M.B. and Lyon D.J. (1996) *Detecting abnormal operating performance: The empirical power and specification of test statistics*, Journal of financial economics, 41, 359-399.

Barkema H.G., Bell J.H.J., Pennings J.M., (1996). *Foreign entry, cultural barriers and learning*. Strategic Management Journal. 17, 151–166.

Barkema, H. G. and Schijven, M. (2008). *How do firms learn to make acquisitions? A review of past research and an agenda for the future.* Journal of Management, 34: 594-634.

Beckman C.M., Haunschild P.R.. (2002). *Network learning: the effects of partners' heterogeneity of experience on corporate acquisition*s. Administrative Science Quarterly. Q. 47, 92–124.

Bhagat, S., Bolton, B. and Romano, R., (2008). *The promise and perils of corporate governance indices*. Columbia Law Review 108 (8), 1803–1882.

Bhagat S., Malhotra S., Zhu P. (2011). *Emerging country cross-border acquisitions: Characteristics, acquirer returns and cross-sectional determinants,* Emerging Markets Review, 12, p. 250-271

Bris A., Cabolis C., (2008). *The value of investor protection: firm evidence from cross-border mergers.* Review of Financial Economics 21 (2), 605–648.

Brouthers K. D. (2002). *Institutional, cultural and transaction cost influences on entry mode choice and performance.* Journal of International Business Studies, 33(2): 203–221.

Brouthers K.D., Brouthers L.E., (2000). *Acquisition or greenfield start-up? Institutional, cultural and transaction cost influences*. Strategic Management Journal. 21, 89–97.

Brown J.S. and Warner B.J. (1980) *Measuring Security Price Performance,* Journal of Financial Economics. 8. 205-258

Brown J.S. and Warner B.J. (1985). *Using daily stock returns, the case of Event studies*, Journal of Financial Economics, 14, p. 3-31

Cakici, N., Hessel, C., and Tandon K., (1996) *Foreign Acquisitions in the United States: effect on shareholder wealth of foreign acquiring firms.* Journal of Banking & Finance 20(2), 307-329

Chari A., Quimet P.P. and Tesar L.L. (2010). *Cross border mergers and acquistions in emerging markets: The stock market valuation of corporate control,* The Review of Financial Studies. 23. 4. 1741-1770

Choi J., and Russell J. S. (2004*). Economic gains around mergers and acquisitions in the construction industry of the United States of America*. Journal of Civil Engineering, 31(3): 513–525.

Datta D., 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 Revview. 35, 337–359.

Delios, A. and Beamish, P.W., (1999). *Ownership strategy of Japanese firms: transactional, institutional, and experience influence.* Strateg. Manage. J. 20, 915–933

Denis J.D., Denis K.D. and Yost K. (2002*). Global diversification, industrial diversification and firm value*, The journal of finance, V, LVII. N, 5.

Doukas J., and Travlos G.N. (1988). *The effect of corporate multinationalism on sharholders' wealth: Evidence from international acquisitions*, The journal of finance. 43. 43. 1164-1175.

Eckbo B.E. (1983). *Horizontal merger, collusion, and stockholder wealth*. Journal of Financial Economics, 11 241-273

Fama E. (1970). *Efficient Capital Markets: A Review of Theory and Empirical Work,* The Journal of Finance. 25. 2. 383-417.

Gomez-Mejia L., and Wiseman R. M. (1997). *Reframing executive compensations: An assessment and outlook*. Journal of Management, 23: 291-374.

Graham M., Martey E. and Yawson A. (2008), *Acquisition from UK firms into emerging markets*, Global Finance Journal, 19, p. 56-57

Haleblian J., & Finkelstein S. (1993). *Top management team size, CEO dominance, and firm performance—The moderating roles of environmental turbulence and discretion*. Academy of Management Journal, 36: 844-863.

Haleblian, J. and Finkelstein, S. (1999) *The Influence of Organizational Acquisition Experience on Acquisition Performance: A Behavioral Learning Perspective*. Administrative Science Quarterly, 44(29), pp. 29-56.

Haleblian, J. and Finkelstein, S (2002). *Understanding Acquisition Performance: The Role of Transfer Effects,* Organization Science 13(1), pp. 36-47.

Haleblian J., C. E. Devers, G. McNamara,; M. A. Carpenter & R. B. Davison (2009) *Taking Stock of What We Know About Mergers and Acquisitions: A Review and Research Agenda*, Journal of Management, 35. 3. 469-502.

Harris R.S., Ravenscraft D., (1991). *The role of acquisitions in foreign direct investment: evidence from the U.S. stock market*. J. Finance 46, 825–844.

Hennart J.-F., Reddy S., (1997). *The choice between mergers/acquisitions and joint ventures: the case of Japanese investors in the United States* Strategic Management Journal. 18, 1–12.

Higgins R. and Schall L. (1975) *Corporate Bankruptcy and Conglomerate Merger*, The Journal of Finance, 30, 1, 93-113.

Hitt M.A., (2000). *The new frontier: transformation of management for the new millennium.* Organizational Dynamics. 28, 6–17.

Hitt M.A., Harrison J.S., Ireland R.D., Best A., (1998a). *Attributes of successful and unsuccessful acquisitions of U.S. firms*. British Journal of Management. 9, 91–114.

Hitt M.A., Keats B.W., DeMarie S.M., (1998b). *Navigating in the new competitive landscape: building strategic flexibility and competitive advantage in the 21st century*. Academic Management of Executive. 12 (4), 22–42.

Jensen M.C. (1986). *Agency costs of free cash flow, corporate finance and takeover*, American Economic Review, 76, 323-329

Kang, J., (1993). *The international market for corporate control*. Journal of Finance and Economic. 34, 345–371.

Kim S.Y. and Mathur I. (2008). *The impact of geographic diversification on firm performance,* International review of financial analysis, 17, 747 – 766

King R.D., Dalton R.D., Daily M.C. and Covin G.J. (2004) *Meta-analyses of post-acqusition performance: Indication of unidentified moderators*, Strategic Management Journal, 25, 2, 187-200

Kogut B. (1983) *Managing political risk assessment*, Sloon management review,. 24.. 4. 71-74.

Kogut B. and Singh H. (1988) *The effect of national culture on the choice of entry mode*, Journal of International Business Studies,. 19,. 3 . 411-432

La Porta, R., Lopez de S., F., Shleifer, A., and Vishny R. (1998*). Law and finance*. Journal of Political Economy, 106(6): 1113–1155.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R., (2000). *Investor protection and corporate governance.* Journal of Financial Economics 58, 3–28.

Larsson R. and Finkelstein S., (1999). *Integrating strategic, organizational, and human resource perspective on mergers and acquisitions: a case survey of synergy realization*. Organization Science.10, 1–26.

Lewellen, G. (1971). *A Pure Financial Rationale for the Conglomerate Merger,* Journal of Finance, 26, 2, 521-537.

Ma J., Pagán J., and Chu Y. (2009). *Abnormal Returns to Mergers and Acquisitions in Ten Asian Stock Markets,* International Journal of Business 14(3), 2009

Malhotra S., Sivakumar K., Zhu P. (2011). *A comparative analysis of the role of national culture on foreign market acquisitions by U.SS firms and firms from emerging countries*, Journal of business reseach,. 64. 7. 714-722

Malmendier, U., and Tate, G. (2008). *Who makes acquisitions? CEO overconfidence and the market's reaction*. Journalof Financial Economics, 89: 20-43.

Markides, C.C., Ittner, C.D., (1994). *Shareholder benefits from corporate international diversification: evidence from U.S. international acquisitions*. Journal of International Business Studies. 25, 343–367.

Michael A.H., Barbara W.K., and Samuel M.D. (1998) *Navigating in the new competitive*

landscape: Building strategic flexibility and competitive advantage in the 21th century, Academy of management executive, 12. 4

Moeller S. B., Schlingemann F.P., Stulz R.M.. (2004). *Firm size and the gains from acquisitions*. Journal of Financial Economic. 73(2) 201–228.

Moeller S. B., Schlingemann F.P., Stulz R.M.. (2005). *Wealth destruction on a massive scale? A study of acquiring-firm returns in the recent merger wave*. Journal of Finance 60(2) 757–782.

Morck R. and Yeung B. (1991). *Why investors value Multinationaliy, The journal of business,* 64., 2. 165-187.

Morck R. and Yeung B. (1992). *Internalization: an event study test*. J. Int. Econ. 33, 41–56.

Pfeffer J. (1972). *Merger as a response to organizational interdependence*. Administrative Science Quarterly, 17: 382-394.

Rau R. and Vermaelen T. (1998*). Glamour value and the post-acquisition perfomance of acquiring firms*. Journal of Financial Economics 49, 223-253

Rossi S. and Paolo F.V. (2004). *Cross-country derminants of mergers and acquisitions,* Journal of finanacial economic, 74, 277-304

Seth A., Song K. and Pettit R. (2000*). Synergy, Managerialism or Hubris? An Empirical Examination of Motives for Foreign Acquisitions of U.S. Firms,* Journal of International Business Studies, Vol. 31, No. 3, pp. 387-405.

Seth A., Song K.P., Pettit R.R., (2002). *Value creation and destruction in cross-border acquisitions: an empirical analysis of foreign acquisitions of U.S. firms*. Strategic Management Journal 23, 921–940.

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

Stearns L.B., and Allan K.D. (1996). *Economic behavior in institutional environments: The corporate merger wave of the 1980s*. American Sociological Review, 61: 699-718.

Sudersanam S., and Mahate A. (2003) *Glamour acquirers, Method of payment and post-acquisition performance: The UK Evidence*, Journal of Business Finance & Accounting 30(1) & (2) Janyary/March 2003

Stillman R (1983). *Examining antitrust policy towards horizontal mergers*, Journals of

Financial Economics, 11 225-240

Tranriverdi H. and Uysal V. B. (2010). *Cross-business information technology integration and acquirer value creation in corporate mergers and acquisitions*, Information System Research, 22, 4, 1047-7047,. 703–720

Wilson, B.D., (1980). *The propensity of multinational companies to expand through acquisitions*. Journal of International Business Studies. 11, 59–64.

Xu D., Zhou C. and Phan H.P. (2010). *A real options perspective on sequential acquisitions in China, Journal of international business studies*, 41, 166-174

Zaheer S., (1995). *Overcoming the liability of foreignness*. Academic of Management Journal. 38, 341–363.

Zollo M., Singh H. (2004). *Deliberate learning in corporate acquisitions: Post-acquisition strategies and integration capability in US bank mergers*. Strategic Management Journal. 25(13) 1233–1256.

6.2. Working Papers

Burns N., Liebenberg I., (2009). *Developed market acquisitions of foreign targets: Do they impact emerging and developed markets differently*? Working paper, available at http://69.175.2.130/~finman/Turin/Papers/burns_moya_14nov08_turin.pdf

6.3. Printed sources

Brooks, C. (2008) "Introductory Econometrics for Finance" 2nd edition, Cambridge University Press, Cambrigde.

Bryman, A. (2012) "Social research methods", 4th edition, Oxford University Press, Oxford

Buckley, P., Casson, M., (1976). The Future of Multinational Enterprise. Macmillan, London.

Campbell, J., Lo, A. & Mackinlay, A., (1997) "The Econometics of Financial Markets", Princton University Press, Princton, New Jersey.

Child, J., Falkner, D., Pitkethly, R., 2001. The Management of International Acquisitions. Oxford Univ. Press, Oxford, UK.

Gaughan (2005) "Mergers, Acquisition and Corporate Restructurings", 5th edition, John Wiley & Sons, New Jersey

Oxelheim, L. and Wihlborg, C. (2008). "Corporate Decision-Making with Macroeconomic Uncertainty: Performance and Risk Management" Oxford University Press, New York.

6.4. Internet

Ernst & Young (January 2012) Globalization continues to advance despite uncertain economic outlook http://www.ey.com/GL/en/Newsroom/News-releases/Globalization-continues-to-advance-despite-uncertain-economic-outlook [accessed at 2012-04-12]

Garabato, N. (2009) BRIC & MENA countries: the emergence of M&A opportunities, *Watson Wyatt: GRS Montevideo Insight* [online]. February 2009. Available at: http://ssrn.com/abstract=1411749 [accessed at 2012-03-31]

Hult T. (2009). *The BRIC Countries*, GlobalEDGE BUSINESS review, [online] 3(4), pp. 1-2, Available at http://globaledge.msu.edu/newsandviews/businessreviews/gbr%203-4.pdf [accessed at 2012-04-03]

The Heritage Foundations & The Wall Street Journal http://www.heritage.org/index/faq. [accessed at 2012-04-12]

Transparency International, http://cpi.transparency.org/cpi2011/results/ [accessed at 2012-04-12]

6.5. Databases

MarketLine

Reuters 3000 Xtra

Thomson Reuters Datastream

Appendix

Appendix 1

Acquirer	Announcement date	Missing variable	Value of missing variable
RusForest AB	2010-05-24	Intangible assets 2009	148423
Central Asia Gold AB	2008-11-03	EBITDA year 2011	-34400
Tecnomen Oyj (Tecnotree)	2008-12-15	EBITDA year 2007	13533
Tecnomen Oyj (Tecnotree)	2008-12-15	EBITDA year 2008	17128

Sources:

- Central Asia Gold AB, 2012, *Annual report 2011* [Online], Available at <http://www.centralasiagold.ru/upload/iblock/d47/d4777d2b173f4a14a6acc8360ae28a9f.pdf > , [accessed 27 April 2011]
- RussForest AB, 2010, *Annual report 2009* [Online], Available at <http://www.rusforest.com/docs/PR%202010/AR%202009/RusForest_english_2009.pdf > , [accessed 27 April 2011]
- Tecnomen Oyj, 2008, *Annual report 2007*, [Online], Available at <http://www.tecnotree.com/content/download/1262/7979/file/Tecnomen_Annual_Report_2007_eng.pdf> [accessed 27 April 2011]
- Tecnomen Oyj, 2009, *Annual report 2008*, [Online], Available at <http://www.tecnotree.com/content/download/1261/7976/file/Tecnomen_Annual_Report_2008_eng.pdf > [accessed 27 April 2011]

Appendix 2

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CAR M.Adj 5 days	,8952%	125	5,85659%	,52383%
	CAR M.M 5 days	,9469%	125	6,00123%	,53677%
Pair 2	CAR M.Adj 3 days	1,3277%	125	5,65761%	,50603%
	CAR M.M 3 days	1,3984%	125	5,68548%	,50852%

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	CAR M.Adj 5 days & CAR M.M 5 days	125	,958	,000
Pair 2	CAR M.Adj 3 days & CAR M.M 3 days	125	,973	,000

Paired Samples Test

Paired Differences

		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	CAR M.Adj 5 days - CAR M.M 5 days	-,05172%	1,72654%	,15443%	-,35737%	,25394%	-,335	124	,738
Pair 2	CAR M.Adj 3 days - CAR M.M 3 days	-,07072%	1,31633%	,11774%	-,30375%	,16232%	-,601	124	,549

Appendix 3

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.877643	Prob. F(8,116)	0.0700
Obs*R-squared	14.33084	Prob. Chi-Square(8)	0.0735
Scaled explained SS	55.63557	Prob. Chi-Square(8)	0.0000

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Sample: 1 125
Included observations: 125

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.003356	0.008248	0.406893	0.6848
GDP	0.001147	0.000659	1.741050	0.0843
IEF	-0.029066	0.021327	-1.362878	0.1756
CPI	-0.000125	0.009036	-0.013829	0.9890
B-DUM	-0.001509	0.001796	-0.840343	0.4024
T-DUM	0.000332	0.002349	0.141217	0.8879
INTAN	0.000367	0.003455	0.106146	0.9156
SIZA	-0.000733	0.000279	-2.625332	0.0098
MTB	-0.000294	0.000348	-0.844349	0.4002

R-squared	0.114647	Mean dependent var	0.002349
Adjusted R-squared	0.053588	S.D. dependent var	0.007083
S.E. of regression	0.006891	Akaike info criterion	-7.048043
Sum squared resid	0.005508	Schwarz criterion	-6.844404
Log likelihood	449.5027	Hannan-Quinn criter.	-6.965315
F-statistic	1.877643	Durbin-Watson stat	2.143150
Prob(F-statistic)	0.069986		

Appendix 4

Breusch-Godfrey Serial Correlation LM Test:

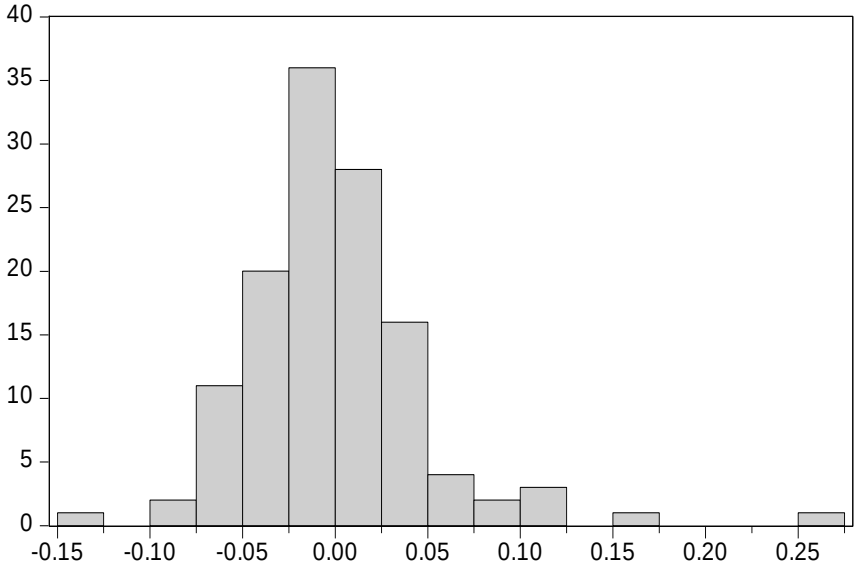
F-statistic	0.266147	Prob. F(2,114)	0.7668
Obs*R-squared	0.580944	Prob. Chi-Square(2)	0.7479

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Sample: 1 125
Included observations: 125
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.004943	0.061268	0.080685	0.9358
GDP	-0.000327	0.004895	-0.066858	0.9468
IEF	0.011936	0.158286	0.075407	0.9400
CPI	-0.001064	0.066430	-0.016011	0.9873
B-DUM	0.001105	0.013288	0.083193	0.9338
T-DUM	-0.002040	0.017558	-0.116172	0.9077
INTAN	9.59E-05	0.025436	0.003771	0.9970
SIZA	-0.000103	0.002057	-0.050129	0.9601
MTB	1.42E-05	0.002574	0.005531	0.9956
RESID(-1)	-0.051010	0.095487	-0.534202	0.5942
RESID(-2)	-0.050263	0.096365	-0.521596	0.6030

R-squared	0.004648	Mean dependent var	6.95E-17
Adjusted R-squared	-0.082664	S.D. dependent var	0.048666
S.E. of regression	0.050638	Akaike info criterion	-3.044359
Sum squared resid	0.292315	Schwarz criterion	-2.795467
Log likelihood	201.2724	Hannan-Quinn criter.	-2.943247
F-statistic	0.053229	Durbin-Watson stat	2.012063
Prob(F-statistic)	0.999990		

Appendix 5



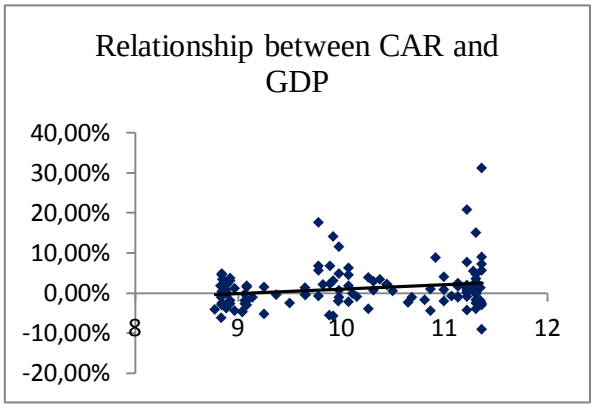
Series: Residuals
Sample 1 125
Observations 125

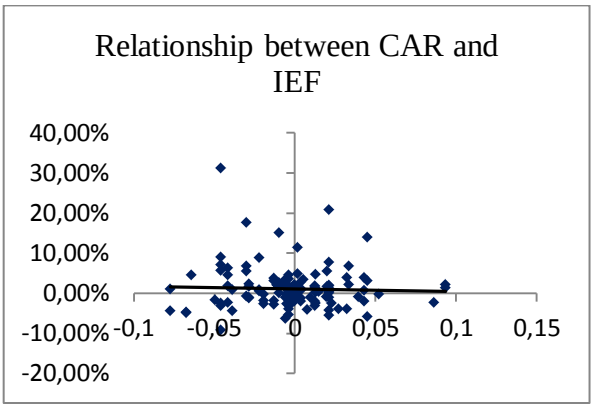
Mean	6.95e-17
Median	-0.007494
Maximum	0.265067
Minimum	-0.138497
Std. Dev.	0.048666
Skewness	1.625666
Kurtosis	10.01602
Jarque-Bera	311.4361
Probability	0.000000

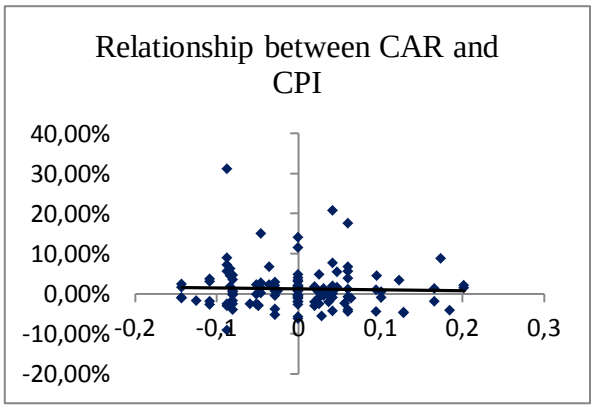
Appendix 6

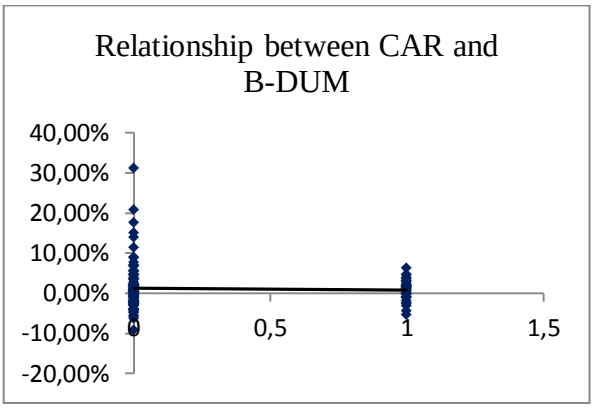
	GDP	MTB	IEF	CPI	INTAN	B-DUM	T-DUM	SIZE
GDP	1.000000							
MTB	0.019587	1.000000						
IEF	0.020520	-0.034139	1.000000					
CPI	-0.206284	-0.041279	0.317216	1.000000				
INTAN	0.042772	0.071952	-0.010036	0.007599	1.000000			
B-DUM	0.047891	-0.054796	0.002740	-0.076842	-0.026057	1.000000		
T-DUM	0.063524	-0.054401	0.015693	-0.032804	0.136348	0.598282	1.000000	
SIZE	-0.027369	-0.036219	0.053439	-0.032066	-0.013431	0.161588	0.106982	1.000000
Mean	10,44143	2,123573	-0,00896	-0,01159	0,206825	0,268657	0,119403	15,75960
STDEV	0,884363	1,564730	0,025147	0,067578	0,192255	0,446606	0,326709	2,473369
Min	8,925805	-3,42000	-0,00772	-0,10811	0	0	0	9,463664
Max	11,36587	7,200000	0,032567	0,166075	0,856488	1	1	21,84119

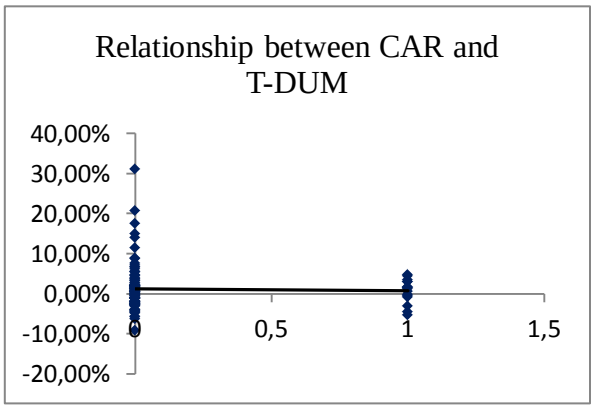
Appendix 7

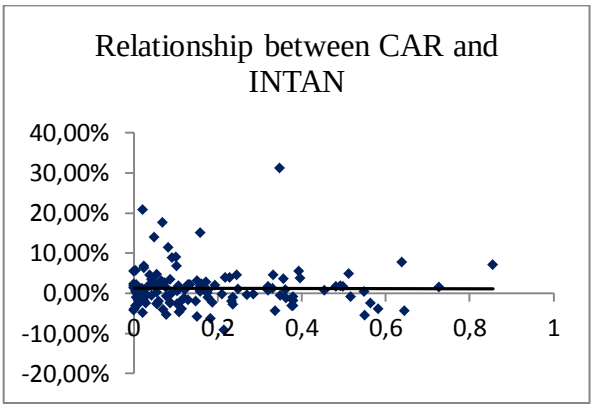

Relationship between CAR and GDP
40,00%
30,00%
20,00%
10,00%
0,00%
-10,00%
-20,00%
8
9
10
11
12

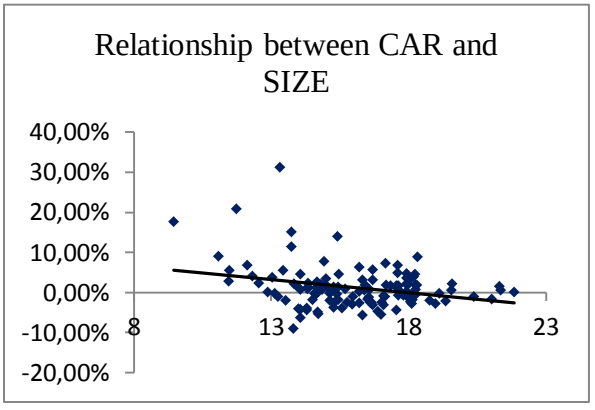

Relationship between CAR and IEF
40,00%
30,00%
20,00%
10,00%
0,00%
-10,00%
-20,00%
-0,1
-0,05
0
0,05
0,1
0,15

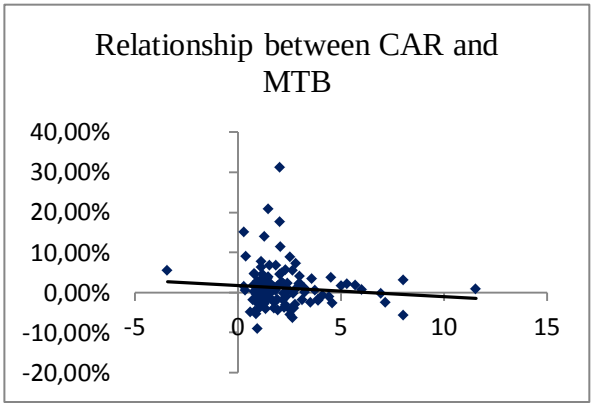

Relationship between CAR and CPI
40,00%
30,00%
20,00%
10,00%
0,00%
-10,00%
-20,00%
-0,2
-0,1
0
0,1
0,2
0,3


Relationship between CAR and B-DUM
40,00%
30,00%
20,00%
10,00%
0,00%
-10,00%
-20,00%
0
0,5
1
1,5


Relationship between CAR and T-DUM
40,00%
30,00%
20,00%
10,00%
0,00%
-10,00%
-20,00%
0
0,5
1
1,5


Relationship between CAR and INTAN
40,00%
30,00%
20,00%
10,00%
0,00%
-10,00%
-20,00%
0
0,2
0,4
0,6
0,8
1


Relationship between CAR and SIZE
40,00%
30,00%
20,00%
10,00%
0,00%
-10,00%
-20,00%
8
13
18
23


Relationship between CAR and MTB
40,00%
30,00%
20,00%
10,00%
0,00%
-10,00%
-20,00%
-5
0
5
10
15

Appendix 8

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.595457	Prob. F(8,58)	0.7777
Obs*R-squared	5.085190	Prob. Chi-Square(8)	0.7484
Scaled explained SS	11.21114	Prob. Chi-Square(8)	0.1900

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Sample: 1 67
Included observations: 67

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.670710	0.634272	-1.057448	0.2947
GDP	0.010766	0.015435	0.697504	0.4883
IEF	0.172188	0.153874	1.119019	0.2677
CPI	-0.060933	0.079873	-0.762867	0.4486
B-DUM	-0.024542	0.043745	-0.561028	0.5769
T-DUM	-0.010443	0.054100	-0.193041	0.8476
INTAN	-6.79E-10	1.63E-09	-0.418012	0.6775
SIZE	-0.001081	0.004379	-0.246852	0.8059
MTB	-0.003865	0.004225	-0.914782	0.3641

R-squared	0.075898	Mean dependent var	0.026620
Adjusted R-squared	-0.051564	S.D. dependent var	0.065059
S.E. of regression	0.066715	Akaike info criterion	-2.452363
Sum squared resid	0.258153	Schwarz criterion	-2.156211
Log likelihood	91.15418	Hannan-Quinn criter.	-2.335175
F-statistic	0.595457	Durbin-Watson stat	1.872231
Prob(F-statistic)	0.777663		

Appendix 9

Breusch-Godfrey Serial Correlation LM Test:

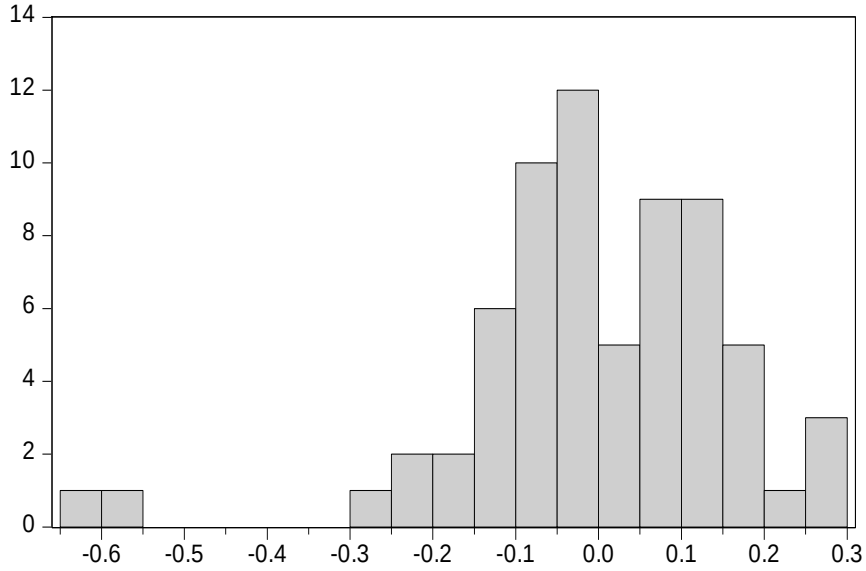
F-statistic	1.068017	Prob. F(2,56)	0.3506
Obs*R-squared	2.461714	Prob. Chi-Square(2)	0.2920

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Sample: 1 67
Included observations: 67
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.166820	1.671428	0.099807	0.9209
GDP	-0.001904	0.040995	-0.046442	0.9631
IEF	-0.040283	0.408292	-0.098663	0.9218
CPI	0.014072	0.215515	0.065294	0.9482
B-DUM	-0.012513	0.115242	-0.108576	0.9139
T-DUM	0.028323	0.143514	0.197354	0.8443
INTAN	1.89E-10	4.28E-09	0.044214	0.9649
SIZE	-0.000494	0.011517	-0.042889	0.9659
MTB	0.001829	0.011187	0.163469	0.8707
RESID(-1)	-0.184593	0.135718	-1.360124	0.1792
RESID(-2)	-0.101783	0.140577	-0.724038	0.4721

R-squared	0.036742	Mean dependent var	-3.07E-17
Adjusted R-squared	-0.135268	S.D. dependent var	0.164388
S.E. of regression	0.175153	Akaike info criterion	-0.497292
Sum squared resid	1.718008	Schwarz criterion	-0.135327
Log likelihood	27.65928	Hannan-Quinn criter.	-0.354062
F-statistic	0.213603	Durbin-Watson stat	2.009969
Prob(F-statistic)	0.994115		

Appendix 10



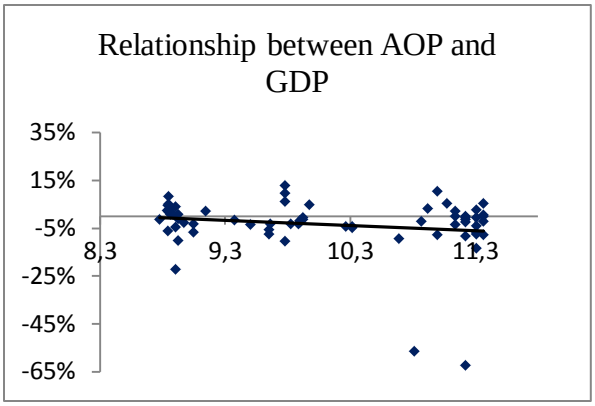
Series: Residuals
Sample 1 67
Observations 67

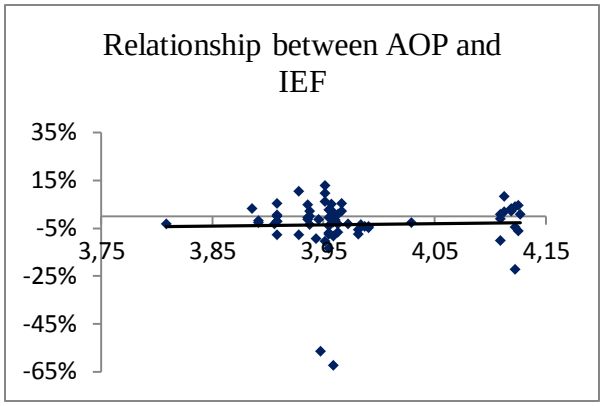
Mean	-3.07e-17
Median	-0.000220
Maximum	0.297696
Minimum	-0.645788
Std. Dev.	0.164388
Skewness	-1.382328
Kurtosis	6.883914
Jarque-Bera	63.44931
Probability	0.000000

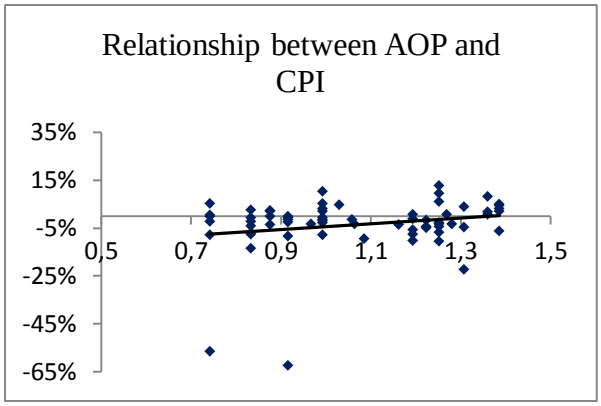
Appendix 11

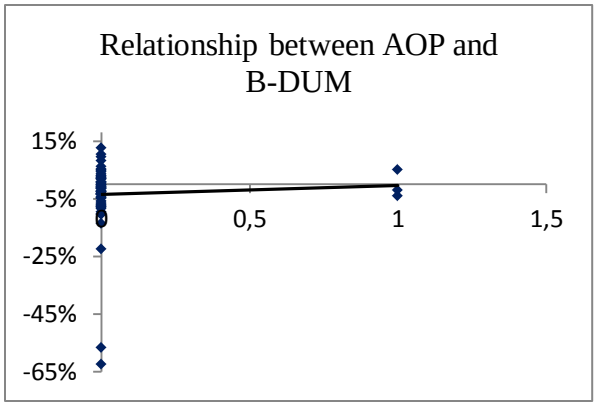
	T-DUM	B-DUM	MTB	GDP	SIZE	INTAN	IEF	CPI
T-DUM	1.000000							
B-DUM	0.386107	1.000000						
MTB	-0.105729	0.081839	1.000000					
GDP	0.048837	0.147663	0.106835	1.000000				
SIZE	0.011136	-0.010631	-0.036552	0.118971	1.000000			
INTAN	0.220675	0.134142	-0.048063	0.094313	0.585752	1.000000		
IEF	-0.011274	-0.118858	-0.010124	-0.621577	0.020129	0.026384	1.000000	
CPI	0.047868	-0.090374	-0.057892	-0.294018	-0.069842	-0.017908	-0.140782	1.000000
Mean	0,029851	0,044776	2,522427	10,08975	15,99726	0,163104	3,978834	1,070768
STDEV	0,171460	0,208373	2,001599	0,990297	2,363156	0,183008	0,075301	0,207095
Min	0	0	0,630000	8,776540	9,43664	0	3,808882	0,741937
Max	1	1	11,57000	11,36587	21,84119	0,856488	4,127134	1,386294

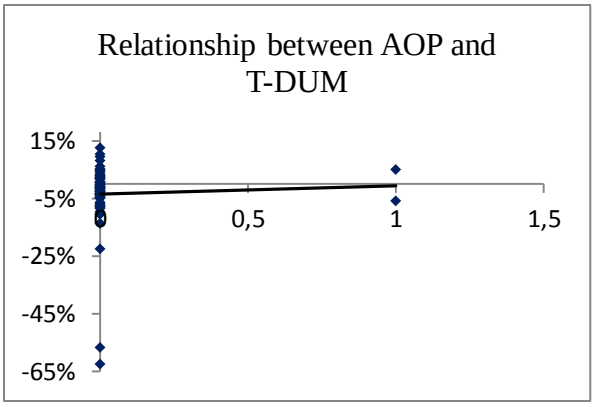
Appendix 12

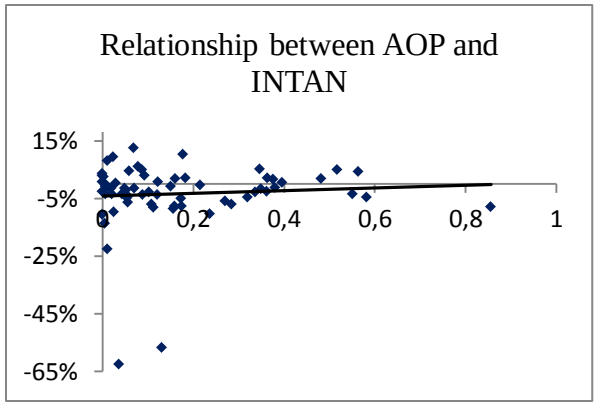

Relationship between AOP and GDP
35%
15%
-5%
-25%
-45%
-65%
8,3
9,3
10,3
11,3

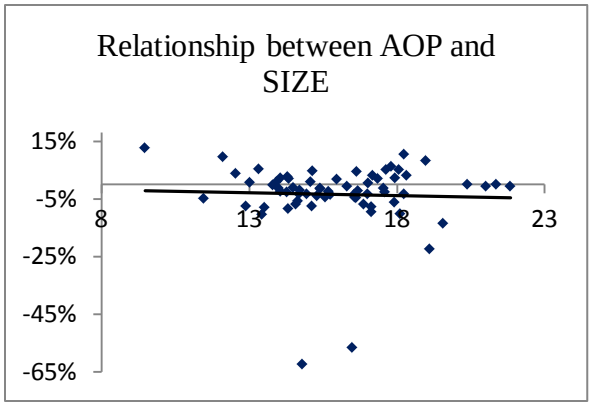

Relationship between AOP and IEF
35%
15%
-5%
-25%
-45%
-65%
3,75
3,85
3,95
4,05
4,15

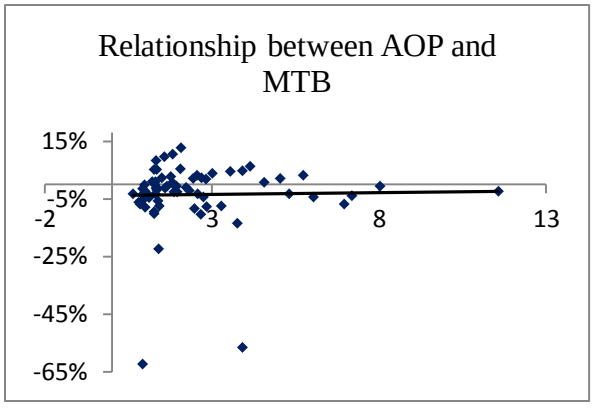

Relationship between AOP and CPI
35%
15%
-5%
-25%
-45%
-65%
0,5
0,7
0,9
1,1
1,3
1,5


Relationship between AOP and B-DUM
15%
-5%
-25%
-45%
-65%
0
0,5
1
1,5


Relationship between AOP and T-DUM
15%
-5%
-25%
-45%
-65%
0
0,5
1
1,5


Relationship between AOP and INTAN
15%
-5%
-25%
-45%
-65%
0
0,2
0,4
0,6
0,8
1


Relationship between AOP and SIZE
15%
-5%
-25%
-45%
-65%
8
13
18
23


Relationship between AOP and MTB
15%
-5%
-25%
-45%
-65%
-2
3
8
13

Appendix 13

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
CAR M.Adj 3 days	67	,7108%	6,32886%	,77319%

Test Value = 0

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
CAR M.Adj 3 days	,919	66	,361	,71084%	-,8329%	2,2546%

Appendix 14

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	CAR M.Adj 3 days & AOP 5	67	,205	,097

Paired Samples Test

Paired Differences

		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	CAR M.Adj 3 days - AOP 5	5,83899%	17,47499%	2,13491%	1,57650%	10,10147%	2,735	66	,008

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CAR M.Adj 3 days	,7108%	67	6,32886%	,77319%
	AOP 5	-5,1281%	67	17,63490%	2,15445%