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”The Branded Delusion”

-Does a strong brand create value in M&As?

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Abstract

Title:	”The Branded Delusion – Does a strong brand create value in M&As?”
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Authors:	Ina Ristola and Viktoria Skara
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Key words:	M&A, brand, value creation, intangible asset, event study, “The Branded Delusion”
Purpose:	<p>The purpose of this research paper is to answer the following two questions:</p> <ol style="list-style-type: none">1. Does a strong brand have an effect on the shareholder value upon the announcement of an M&A?2. Does the value creation effect within M&As depend on the firm’s size?
Method:	<p>We have conducted an empirical study including a quantitative analysis of how brands affect the value creation within M&As. An event study has been used, to calculate abnormal returns for firms acquiring strong brands. The abnormal returns have been analyzed with a multiple regression model.</p>
Theoretical framework:	<p>This study’s primary theories regard M&A, brands and value creation through M&As. The agent theory and hubris hypothesis is thoroughly presented, amongst other theories concentrating on motives behind M&As. Theories on brand’s effect on the value creation within M&As are also presented, which are followed by the hypothesis formulation.</p>
Empirical foundation:	<p>A sample containing 182 M&A transactions conducted by our treatment group, as well as by our control group, within the time period of 2005-2014.</p>
Conclusion:	<p>Our results show that strong brands affect the cumulative abnormal returns upon the announcement of M&As when the size effect is taken into consideration. This effect weakens as the size of a firm increases. This suggests that strong brands could be valuable for smaller firms when conducting M&As and that the larger firms with stronger brands are associated with less profitable M&As. A reason for this could be over confident managers, who according to the hubris hypothesis might overestimate the value of the target, thus pay high premiums and consequently suffer from the winners curse. These conclusions have led us to formulate a new hypothesis called “The Branded Delusion”.</p>

Preface

“It is our conclusion that most businesses engaged in M&A have not devoted the attention to brand considerations that is commensurate with their importance in all phases of the deal process. This attention gap needs to be addressed to ensure that mergers and acquisitions deliver the value expected.”

Kumar, S., Blomqvist, K.H. (2004)

We would like to acknowledge the people that have helped us during this process. A special thanks to our supervisor Håkan Jankensgård, who has given us his support and extraordinary guidance. We will forever be grateful.

Kind regards,

Ina Ristola and Viktoria Skara

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1. Introduction

The introductory chapter reviews the research problem and its purpose. The chapter provides a brief discussion of the research delimitations and the thesis's outline.

1.1 Background

M&A is not a new phenomenon even though it has experienced a strong growth in recent decades (Koller et Al., 2010). M&As constitute an important source of growth for today's firms, and more firms take on projects of this kind in order to create value for the shareholders, through value enhancements in brand assets (Kumar et Al., 2004). Nevertheless, most of M&A transactions are value destroying for the acquiring firm's shareholders (Koller et Al., 2010).

Within the process of conducting an M&A, brands play a vital role (Keller, 1993). Research shows that many companies pay a substantial amount of money in able to acquire a specific brand. Examples such as when Philip Morris bought the brand Kraft, they paid a price of 12.9 billion dollars, which was four times what the brand was worth. Hewlett Packard made a similar deal when acquiring Compaq's brands for 1.5 billion dollars more than the brands were worth, and ended up paying 24 billion dollars for them (Bahadir, Bharadwaj, Srivastava, 2008). In 1994, Quaker Oats conducted an M&A and acquired the brand Snapple, which they had to pay 1.7 billion dollars for. This was a premium price, much higher than what Coca Cola offered (Deighton, 2002). Consequently, Quaker Oats suffered from the Winner's curse.

The importance of strong brands within M&As is apparent in the example when Coca Cola and Pepsi Co. started a bidding war against each other and both companies fought to acquire the brand Quaker Oats. The war was won by Pepsi Co. which acquired Quaker Oats for the premium price of 13.4 billion dollars in stocks, and with that received control of Quaker Oat's renowned brand Gatorade (Sorkin and Winter, 2000).

1.2 Problem discussion

Despite the knowledge that most M&As are value destroying, firms decide to conduct them. By making this strategic decision, the acquiring firms obtain everything from cost reductions due to efficiency improvements, larger distribution channels, scale of economies etc.

There is comprehensive literature that discusses value creation of M&As, however, there is a knowledge gap of if and how firms create value by acquiring brands (Varadarajan, DeFanti, Busch, 2006). The brand variable is at many times overseen by managers as well as by research, but is an important factor to keep in mind when conducting an M&A.

The American multi-billion dollar firm ConAgra has carried 48 different brands in their brand portfolio, but only developed 3 out of these themselves. This is one example out of many that shows how many firms make a business out of acquiring and disposing brands. Despite this, there is lack of both information and knowledge when conducting these important strategic decisions (Bahadir, Bharadwaj, and Srivastava, 2008).

We will take into account current literature that regards value creation within M&As, however, little is known about the brand's impact. Therefore, we will take a new approach on current literature and contribute with an addition of how brands affect the value creation within M&As.

1.2.1 Previous research

Previous research concerning M&As has focused on the strategic factors affecting the transaction and decision-making. Since every M&A is unique it has been difficult to achieve consensus about underlying motives, success- and failure rates. (Cartwright and Schoenberg, 2006)

Prior research shows that brands are one the most valuable intangible assets a firm possess, and that many managers nowadays invest heavily in developing their brands (Keller and Lehmann, 2006). Wiles, Morgan and Rego (2012) have studied brand acquisitions as a strategic marketing tool to see if companies improve their performance by purchasing brands from others, and with that see which effect brand acquisitions have on stock returns.

1.3 Purpose and research questions

In this study, we address the abovementioned knowledge gap by concentrating on two questions of specific theoretical importance and managerial interest. The purpose of this research paper will therefore be to contribute to existing literature concerning value creating M&As, with a new approach, and by that answer the following two questions:

1. Does a strong brand have an effect on the shareholder value upon the announcement of an M&A?
2. Does the value creation effect within M&As depend on the firm's size?

1.4 Delimitations

Since this research paper focuses on strong brands, it became natural for us to not delimit ourselves to one specific country, but instead to include the strongest brands there are worldwide. Every year, a brand consultancy called Interbrand, presents a list of the 100 strongest brands in the world. These reports have served as a basis for our collected treatment group, a list where the strongest brands in the world are presented. We are aware of that the trustworthiness from using a sample based on results from a commercial brand consultancy in an academic research paper might be criticized. However, Interbrand happens to be the number one brand consultancy in the world, and its methodology and results have been used and referred to in many academic research papers. Therefore, we feel that we have enough support to provide a credible result from using Interbrand as our main data sample resource.

We have chosen to use a time frame for our data sample, from 2005 until this date. The reason for this is that the data base Zephyr, which we have exported all our transactions from, does not contain data that goes further back in time.

1.5 Thesis outlines

This thesis will start with an introduction into the subject of M&As, and how significant brands are for the value creation within M&As. After the introduction, the thesis will continue with the theoretical framework; containing a definition and background of M&As, motives behind M&As, definition of brands and their contribution to the shareholder value within M&As and finishes off with a hypothesis formulation. The third chapter thoroughly explains our method, and with that, our data sampling process, and the statistical tests. The results of this study are presented in the fourth chapter, analyzed in the fifth, and then we present our

conclusion in the sixth chapter. The thesis is finalized by giving suggestions on continuing research areas.

2. Theoretical framework

This chapter provides an insight into the theories that explain the M&A phenomena and the development and definition of brands. Furthermore, the importance of brand in strategic decision-making concerning M&As will be discussed. Lastly, a hypothesis formulation is presented.

2.1 What are mergers and acquisitions?

2.1.1 Definition of M&As

Mergers and acquisitions are an important part of today's economy that managers take on in order to create value for diverse stakeholders (Koller et Al., 2010). In a merger, the assets of the acquirer or bidder and the target firm are combined into one entity. The bidder acquires the target firm with stock or cash or with an arrangement of both these. Then, the bidder's own stock remains outstanding after the transactions, whereas the targets shares disappear. Both "merger" and "acquisition" means practically the same thing, but the expression "acquisition" is employed to designate the deal per se. If the acquisition is not friendly and not wished by the target's board and shareholder, the acquisition is said to be a hostile takeover. A more important distinction is between "M&A" and "consolidation", in which the assets of two different firms are combined in a way that they create a completely new company (Ogden et Al., 2003). Another manner to purchase other firms is through buyouts. In a buyout, a group of individuals (eg. a firm or a private equity firm) acquires and takes the control over an entire firm. Normally, these kinds of acquisitions are financed by a large amount of debt, in which case the transaction is called leverage buyout (Ogden et Al., 2003).

An M&A can be either horizontal, vertical or conglomerate merger depending on the characteristics. In a horizontal merger, the bidder and the target operate in the same industry. That is, a firm acquires its competitors. In a vertical merger, the bidder acquires either its customer or supplier. If the bidder and the target operate in unrelated industries, the M&A is a conglomerate merger (Berk and DeMarzo, 2011).

2.1.2 M&As: Background

M&As are not a new phenomena even though they have experienced a strong growth in recent decades. However, most of the M&A transactions have been value destroying for the acquiring firm's shareholders (Koller et Al., 2010).

The historical development of M&A transactions is normally divided into several waves with diverse characteristics. Typically, these waves have started when firms have had a strong capital liquidity and access to capital markets – during economic expansion – and finished once the periods of depression have begun (Gaughan, 2007). Various other reasons have affected the development of M&A activities, such as changes in regulatory or economical factors and progress in technology (Gaughan, 2007).

2.2 Motives behind M&As

This section provides a review on the current empirical findings explaining M&As.

2.2.1 Best owner and the market for corporate control

Koller et Al. (2010) discuss that the owner of a firm is most likely to change during the firm's life cycle. The founder of a firm might not be the best person to manage a large international firm. He or she might not have adequate managerial skills or he might lack the capability to penetrate new markets. Instead, the founder discovered a gap in the market and had the enthusiasm to take a risk and establish a business. When the firm expands, someone with more experience in managing large firms might be better off taking the hold on the firm. This is in line with Henry G. Manne's (1965) finding. He described the corporate control as a valuable asset and successful mergers as a product of an efficient market for corporate control. He argued that if a company's managers' performances were weak, the market would punish them and it would be incorporated in the stock price. According to him, the most efficient mechanism for the corporate control were M&As. The underlying assumption for the market of corporate control was a positive relationship between the managerial efficiency and share price. Furthermore, Jensen and Ruback (1983) came to the same conclusion and argued that the M&As, especially takeovers, do not create value through an increased market power, but rather through the competition in the market for corporate control. They related the corporate control with managerial labor market, in which the managers compete for the control, and create value through economies of scale as well as synergies. M&As remove excess capacity and restructures resources, which is an indication of a vital and dynamic industry (Ogden et Al, 2003; Koller et Al., 2010). Consequently, the best owner of a firm changes during the firm's life cycle to respond to its specific needs (Koller et Al., 2010).

2.2.2 Growth strategy

Most of the firms acquiring other firms seek to grow faster than the organic growth would allow them (Das & Kapil, 2012 ; Gaughan, 2007). Firms might strengthen their own market position by acquiring competitors in the same industry, by expanding in other industries or by escalating operations outside the native country (Gaughan, 2007).

If a firm decides to expand into another industry, it also diversifies its operations and the firm as a whole, becomes more difficult to manage. Besides, large firms often possess sizeable portfolios of businesses before engaging in acquiring other firms (Koller, et Al. 2010). It is extensively discussed within the field of finance whether the diversification really contributes to the value creation (Gaughan, 2007). Some companies like, General Electric Company, have managed to pursue several successful conglomerate mergers (Bartlett, 2006). Still, empirical findings have often proved the contrary. Dennis et Al. (2002) argues that industrial and global diversification is associated with lower stock returns. Doukas et Al. (2002) studied Swedish takeovers between 1980 and 1995 and made similar conclusions that the diversification does not create additional value. This is rationale, as it is cheaper for the investors (shareholders) to diversify their portfolios than it is for firms to diversify their operations (Gaughan, 2007).

Luypaert and Huyghebaert (2008) pointed out that one important driver for growth through diversifying M&As is intangible capital as it gives access to new expertise. They also found that the acquirers often are large, which they motivated with an easier access to capital markets.

It is often assumed that firms must grow in order to survive and managers thus might act after these expectations (Gaughan, 2007). Therefore, they might subconsciously seek growth constantly to beat the treadmill expectations, especially if the firm has had a successful past performance (Koller et Al., 2010).

2.2.3 Synergy Hypothesis

According to the synergy hypothesis, the acquirer's management can achieve value enhancements by reallocating the targets assets. These enhancements can be operational and/or financial (Gaughan, 2007).

The operational synergies are higher incomes and/or cost reductions in the form of improvements in production processes, economies of scale, access to new resources, and an increased bargaining power (Bradley et Al., 1983). Thus, the acquirer aims to create value through combining and restructuring the operations and assets (Ogden et Al., 2003). Healy et Al. (1990) studied large M&A transactions in the U.S between 1979 and 1984 and found that combined cash flows improve as a result of a more efficient use of assets. Powell et Al. (2005) made similar conclusions when they studied takeovers in the UK, using a regression and change model between 1985 and 1993.

Financial synergy is a result of an M&A when the market value of the combined firm is higher than the values of two separate firms together (Ogden et Al., 2003). This can be the case when, for example, an M&A decreases the bankruptcy risk and thus, increases the debt capacity. The traditional trade-off theory of optimal capital structure, states that a firm's optimal capital structure balances out the expected value of future financial distress costs and benefits of the tax shield (Ogden et Al., 2003). This is in line with Bruner's (1988) finding. He found that the acquirers have relatively low debt-to-equity ratios before the acquisition and they take on more debt after acquisition. Consequently, as the risk of a bankruptcy and the cost related to financial distress decrease after an M&A, the merged firm can create value by increasing the debt-equity ratio and benefits of tax shield. According to the Modigliani and Miller's (1958) first proposition, a firm's market value does not depend on its choice about the capital structure and thus, this could not constitute a motive for M&As. This presumes that the capital market has no transaction cost or taxes, which is violated.

2.2.4 Hubris Hypothesis

The Hubris Hypothesis states that the bidder's managers are overconfident and overestimate their knowledge and capabilities. That's why; they might overestimate the value of synergies and subsequently overpay for the acquisition. Therefore, overconfident manager are more often exposed to the winner's curse, which can also provide an explanation for high premiums paid (Roll, 1986). Roll (1986) continues to argue that the acquisition will not occur if the val-

uation is under the market value of the firm. This obligates the acquirer to overpay for the target since the target's managers would not accept a bid that is below the market value. Consequently, Roll (1986) states that it is expected that the acquirers stock price declines and the target's increases due the allocation of the value. Agrawal et Al., (1992) proved this empirically and found that the acquirer experience a loss of approximately 10 % upon the announcement of an M&A.

2.2.5 Agent Theory

The premise of the principal-agent theory is the separation between ownership and control of a firm (Ogden, 2003). Managers, "agents", are to act on the behalf of shareholders and their primary task is to maximize the market value of equity. In reality, there is an interest conflict between the two parties and managers might act in their own interest (Shefrin, 2005). Managers of the bidding firm can engage in empire building. The agent theory gives likewise a motive for M&As, as managers might seek to acquire other firms in order to expand their empire at the expense of the shareholders (Ogden, 2003). Jensen's (1986) free cash flow hypothesis also provides a motive for M&As. He argues that managers of cash rich firms tend to overinvest and thus engage in M&A activities. He explains that managers have personal reasons to increase the firm's size as it enforces their managerial power and increases their compensation. In turn, M&As can function as a device that mitigates the principal-agent –problem by removing the target's incompetent or self-interest managers (Andrade et Al. 2001).

After having discussed current literature that regards motives behind M&As from a financial perspective, we will now continue with an introduction into the subject of brands.

2.3 The development and definition of brands

The definition of brands has changed at several occasions through times. Every definition exposes an idea at a specific time in history. Changes occur when new competitors arise, which demands different management measures.

Kapferer (2012) claims that when the concept of brands first started to develop, the original thought behind brands originated from the law. Brands were created to mark cattle in the Wild West of America, in order to establish which cattle belonged to which farmer, so that none would get stolen. The mark on the cattle, which developed to be the brand, ensured the heritage of the cattle and distinguished one cattle originating from one ranch. Chernatony and Dall'Olmo-Riley (1998) agrees with this and claims that brands originating from the law can be seen in our modern society of today. Brands are assets, and to protect these, businesses seek legal ownership to protect their brands, against imitating firms. They continue by discussing the example of the branding strategy for Absolute Vodka. This strategy highlights the importance of constantly observing competitors' brand movements, to be able to prevent any firm from imitating Absolut Vodka's name or design of the bottle.

Kapferer (2012) continues with the developments of brands, and states that brands were later on in history seen as a set of mental associations, which together enhanced the value of a product. Examples such as blind tests with the soft drinks Pepsi and Coke, show proof of this since people tend to prefer Pepsi instead of Coke, when doing blindfolded tastings. However, majority claims to prefer Coke over Pepsi when they are aware of what brand they taste. This suggests that brands are not only in the product, but also in people's minds.

The definition of brands has taken new approaches in the later years, and researchers now state that brands add value to the consumers. Clark (1987) agrees upon this and states that the important link between consumers and marketers are value-adding brands.

2.4 Value creation through M&As

2.4.1 Value creation

Koller et Al., use the following equation to describe the value creation for the bidder:

$$\begin{aligned} & \text{Value created for the acquirer} \\ & = \\ & \text{(Stand Alone Value of Target + Value of performance improvements)} \\ & - \\ & \text{(Market Value of Target + Acquisition premium)} \end{aligned}$$

Thus, M&As create value if the value improvements exceed the acquisition premium (Koller et Al., 2010).

The empirical research has showed that most of all M&A deals are value destroying for the bidders' shareholders (Koller et Al., 2010). Cartwright and Schoneberg (2006) argue that the failure rate lies somewhere between 44 and 45 percent. Agrawal et Al. (1992) studied M&A of NYSE and AMEX listed companies during 1955 and 1987 and found the shareholders of the bidders experienced a loss of 10 percent over the first post merger years.

Still, some researchers have argued the contrary. Jensen and Ruback (1983) claim that the shareholders of the bidder do not experience losses upon the announcement of an M&A. Asquith, Bruner, Mullins (1983) found that the bidders' shareholders actually received a return of 5.2 percent when they adjusted the data for the size of the target firm. That is, they propose that the shareholder returns are contingent on the relative size of the target.

Overall, M&As are value creating for the economy as a whole and the target firm's shareholders usually benefit from the takeovers (Jensen and Ruback, 1983). The important feature here is the allocation of the value, which occurs through high premiums that the bidders pay (Asquith et Al., 1982; Roll 1986). Roll argues that the premium paid for the target firm, is a measurement error made by the managers of the bidding since there are no possible synergy gains under the market efficiency hypothesis.

There is no common consensus in the field of finance on why managers execute M&As even though they tend to fail very often (Lubatkin, 1983).

2.4.2 Brands contribution to the shareholder value in M&As

Successful M&As that have been conducted in the past, all have different strategic underlying purposes. In many cases, brands have played important factor, which have contributed to a positive outcome on the shareholder value.

According to Kaplan and Norton (1992, 1993) the gap between marketing and finance has lately been decreasing, since it has become more common to assess how different marketing activities, such as branding, affect the financial aspect of shareholder value.

Gruca and Rego (2005) claim that by investing in brands with the help of marketing and advertisement, channels of distribution and customers can be affected, which impacts a firm's cash flows, and as a result affects shareholder value. According to Srivastava, et Al. (1998), brands can have an affect on shareholder value if one fosters and invests in them. This can have many benefits such as contributing to increasing cash flows and a firm's market value.

Wiles, et Al., (2012) argue that brands can have a significant impact on the shareholder value. Dacin and Smith (1994) agree, and claim that brands are one of a company's most valuable resources.

2.6 Hypothesis formulation

With the help of the abovementioned theoretical framework, we will now discuss the hypotheses that will be used in this study.

Based on discussed theories, we have concluded that M&A is not a new phenomenon and that they are conducted to a great extent in able for firms to expand and create value for their shareholders. However, majority of all M&As that are conducted are value destroying for the firm's shareholders (Koller et Al., 2010). Many renowned M&As are conducted by large, global firms such as Coca Cola, Apple, Microsoft etc. These firms are not only big in size and revenues, but also hold the strongest brands in the world.

Keller and Lehmann (2006) state that brands are critically important to the firms owning them. Wiles et Al., (2012) have done research to see if firms improve their performance by purchasing brands, and how the stock prices react when conducting M&As. Lane and Jacobson (1995) claim that brands enable firms to make profits that are greater than they would be by merely tangible assets. Madden et Al. (2006) suggest that shareholder value can be created, in the form of abnormal stock returns, by developing firm's brands. His findings show that American firms with strong brands that have been ranked in the list "Top 100 Most Valuable Global Brands" by BrandZ, Millward Brown's brand equity database, have produced additional returns when compared to other brands. Hsu et Al., (2013) has found in their research that there is a positive correlation between stock performance and the value of brands.

Based on this information, we studied whether or not the brand has an effect on M&As. Thus, our first hypothesis was developed as follows:

H1: Strong brands have an effect on the cumulative abnormal returns upon an announcement of an M&A

The firms holding, not only strong but the strongest, brands in the world are on a yearly basis reported by the brand consultancy called Interbrand. The brands that year after year top the list of the world's 100 strongest brands, are the cash cows Apple, Coca Cola, Microsoft etc. These firms hold the strongest brands in the world, and naturally, they are also extremely large in size. Hitt, et Al., (2009) claim that the acquirer's size and the relative size are important variables and the most commonly used in the research of M&As. Equally, Luypaert and Huyghebaert (2008) argue that the size of a firm plays an important role when conducting M&As and that large firms more often conduct M&As since they have an easier access to the capital markets. Asquith et Al., (1983) and Fröhls et Al., (1998) suggest that the abnormal returns are lower for larger firms than for smaller firms. The abnormal returns for the acquirer are related to the relative size of the deal (Asquith et Al., 1983). That is, we expect the abnormal returns to be lower for the firms in the treatment group than for the firms in the control group. Bearing this information in mind, we have developed our second hypothesis:

H2: The value creation effect of a strong brand depends on the size effect

3. Method

This chapter will present our research process, by first explaining our method - event study. The collection of data is thoroughly described, to continue into a presentation of the statistical significance testing and of the regression analysis.

3.1 Research design and strategy

The research design that we have used within our work is out of a deductive approach. A deductive methodology means that hypotheses have been created, based upon already existing theories, which in our case have been focusing on brands and value creation within M&As. Our process of work has followed what Bryman and Bell (2013) calls “the deductive process” (p. 31) and with that our hypotheses have laid the foundation for our empirical collection of data. We have used quantitative research as a research strategy, which means to collect numerical data.

We have used an event study accordingly to Tuch and O’Sullivan (2007) who describe event studies as a measurement of how share price perform for acquiring firms upon the announcement of an M&A. By doing this, we will be able to analyze what kind of impact M&As have on the shareholder value in the short run. This is well suited for our research, since we will study if a strong brand has an effect on the shareholder value upon the announcement of M&A. In addition, an event study is significantly suited for us, since event studies have been used for a long time in able to help firms quantify the value of different marketing actions, such as investments in brands (Wiles, et Al., 2012).

3.2 Treatment and control group

The first step in our method was to gather a list of firms holding the strongest brands in the world. These firms have been collected from yearly reports produced by the brand consultancy Interbrand¹. The reports by Interbrand present the 100 strongest brands in the world on a yearly basis, measured in US dollars. From these reports, we have collected a list consisting of all of the strongest brands in the world between the years of 2005 until this day. This list ended up to be 47 firms all together.

The reason for why we could not use 100 firms was since some of the brands that were not actual firms, solely brands. Such as the brand Gillette belonging to the firm Procter & Gamble. Another reason for why we could not include some firms, such as Pepsi, was because they had conducted several M&As within the same event window. In this case, we could not have separated the individual effect of both transactions on the stock prices. Lastly, some firms on the Interbrand list, such as IKEA, could not be used since they are not publicly traded and the stock prices were not available.

The 47 firms that made it to our list will serve as our “treatment group“ and which we will refer to as “strong brands”.

Further on, we have studied whether the firms with strong brands execute M&As, which have an effect on the shareholder value. To be able to test if these strong brands are likely to execute M&As that contribute to the value creation, a “control group” was created. This group contains 47 firms with “inferior brands”.

The control group has been selected so that one firm from the control group shall serve as an equivalent firm to one from the treatment group, i.e. an “inferior brand” has been matched

¹ Interbrand is the world’s largest and leading brand consultancy, which started its business in 1974 and have today nearly 40 offices around the world. Interbrand has developed its very own brand valuation methodology, which they have been using since 1988. With the help of this methodology, Interbrand tries to determine how a brand affects a client’s business result, both in financial and customer terms. The methodology takes specific factors into account, such as strong brands’ impact on customers choice and loyalty, how strong brands attract and motivate talent, as well as how brand lowers the cost of capital. Up to this day, Interbrand has performed thousands of brand valuations, and their ways of doing it has been recognized and praised by businesses, standard setting authorities, academic and regulatory bodies, and accountancy and legal practices. This gives the business great knowledge, and fundamental market trustworthiness. (source: <http://www.interbrand.com/en/>)

with a “strong brand”. Every firm from the control group has been selected from the same industry that its match in the treatment group operates, meaning that they share the same SIC code. We have controlled for the SIC code for each and every company with the help of the program Capital IQ.

Treatment group	Control group	Treatment group	Control group
3M	St. Jude Medical Inc.	HP	Toshiba Corporation
Accenture	WPP Plc.	HTC	Harris Corporation
Adidas	Deckers Outdoor Corp	IBM	Vmware, Inc
Adobe	Monitise Plc.	Intel	Broadcom Corp.
Amazon	Liquidity Services Inc.	Kellogg's	Post holdings
American Express	Cowen Group Inc.	L'oréal	Kao Corporation
Avon	McBride Plc	Marriott	Hyatt Hotels Corp.
Axa	Legal & General Group Plc	MasterCard	Western Union Company
Burberry	PVH Corp.	Microsoft	Activision Blizzard, Inc.
Campell's	Bonduelle SA	Nestlé	Cloetta
Caterpillar	MSC Industrial Direct Co Inc.	Discovery communication	Dish Network Corporation
Cisco	Lexmark International Inc.	Novartis	Actavis plc.
Coca cola	Suntory Beverage & Food Limited	Oracle	The Priceline Group Inc.
Colgate-Palmoliv	Revlon	Pfizer	Takeda Pharmaceutical Co., Ltd
Danone	Premier Foods plc	Phillips	ASML Holding NV
Disney	CBS Corporation	Ralph Lauren	Perry Ellis International Inc.
Ebay	IHS Inc.	SAP	Hexagon AB
Facebook	United Online.Inc.	Starbucks	Darden Restaurants Inc.
Fedex	Southwest Airlines Company	Thomson Reuters	Houghton Mifflin Harcourt Company
Ford	Group 1 Automotive Inc.	Visa	Total System Services Inc.
GAP	Nordstrom Inc.	Volkswagen	Continental AG
Goldman Sachs	Raymond James Financial, Inc	Xerox	Salesforce.com Inc.
Google	CenturyLink, Inc.	Yahoo	Symantec Corporation
Hertz	Avis Budget Group, Inc	Σ 47	Σ 47

Table 3.2

Other variables that have been considered, however not been able to match perfectly between the treatment and control groups are:

- Stock exchange: where the firm is traded
- The country of origin of the acquiring firm

The firms from the control group have been selected based on approximately how many firms from the treatment group that are exchanged on the same stock exchange. So if there are approximately 24 firms from the treatment group that are exchanged at NYSE, then the control group contains approximately 24 firms that are exchanged at NYSE.

3.2.1 List of where the companies are traded

STOCK EXCHANGE	Nb of firms, Treatment group	%	Nb of firms, Control group	%
EURONEXT	4	9%	2	4%
LSE	1	2%	5	11%
NASDAQ	12	26%	10	21%
NYSE	24	51%	23	49%
SIX	1	2%	0	0%
SWX	1	2%	0	0%
TSEC	1	2%	0	0%
XETRA	3	6%	1	2%
OMX	0	0%	2	4%
TSE	0	0%	4	9%
Total	47	100%	47	100%

Table 3.2

The same goes for country of origin for the acquiring firm. If there are approximately 34 firms from the treatment group originating from the United States, then the control group contains approximately 34 firms originating from the United States.

3.2.2 List of the companies' origin

Country	Nb Treatment group	%	Nb Control group	%
Canada	1	2%	0	0%
France	3	6%	1	2%
Germany	3	6%	1	2%
Ireland	1	2%	1	2%
Netherlands	1	2%	1	2%
Switzerland	2	4%	0	0%
Taiwan	1	2%	0	0%
United Kingdom	1	2%	5	11%
United States	34	72%	32	68%
Japan	0	0%	4	9%
Sweden	0	0%	2	4%
Total	47	100%	47	100%

Table 3.3

3.3. Interbrand in academic research

Every year, Interbrand publishes a report, where they financially value the 100 strongest brands in the world. We have used this report for our research and listed the strongest brands between the years 2005-2013. Since this list plays a significant role in our thesis work, we find it important to present previous academic research that has incorporated Interbrand's valuation methodology in their work, to be able to provide a credible and reliable result. Interbrand's methodology regarding brand valuation is commonly used and referred to in academic research. A research paper by Fehle, et Al., (2008), called "Brand value and asset pricing", has used Interbrand's annual list of the World's most valuable brands in their data sample. In addition, Hsu, et Al., (2013) also refer to Interbrand in their article "The Impact of Brand Value on Financial Performance", where they explore if financial brand values reported by Interbrand have an effect on the brand portfolio return for firms. Johansson et Al., (2012) have used Interbrand's methodology to financially measure brand value in their article "The performance of global brands in the 2008 financial crisis: A test of two brand value measures".

3.4 Data collection and selection criteria

A large amount of data collection has been needed to perform this kind of research. The most suitable database for this purpose, just like Le Nadant and Perdreau (2006) used in their research, has been Zephyr's database for M&As, which provides detailed information about M&A transactions.²

The selection of M&A data has been conducted between the years of 2005 until today. The database Zephyr only holds information from 2005, and therefore we were not able to go further back in time.

When searching for M&As within the Zephyr database, we used the following search criteria:

- Deal type: Acquisition, Merger
- Percentage of stake: Initial 49.9%, Final stake 100%
- Deal status: Announced, Pending, Completed
- Time period: 2005-until current date

When having filled out these search criteria we did a manual search for each and every firm within our treatment group and control group respectively. For each firm, we exported all their conducted M&A transactions within our chosen time period, from Zephyr.

The next step was to manually control all the exported M&As and see how many of the transactions that composed 5% of the acquiring firm's total equity. The reason for this was that the deal had to be large enough in able to affect the acquirer's stock price. A similar method has been used from authors such as Gupta and Misra (2007), however, they chose to test which transactions composed 10% of the acquiring company's total assets. We chose to set the percentage at 5% since we did not want to loose too much of the transaction sample we had left.

² Zephyr is the most comprehensive database of deal information and contains information on M&A, IPO, private equity and venture capital deals and rumours. The coverage on Zephyr increases daily - in July 2012 Zephyr covered around one million deals and rumours. (Zephyr, 2014)

All of our collected transactions have then manually been controlled for twice, to ensure that no mistakes were made, and to ensure that all of them lived up to the selection criteria. Some of the transactions had to be dropped because of the reason that the deals did not exceed the limit of 5% of the acquiring firm's total equity. This was to ensure that the deal was large enough to affect the acquirer's stock price.

Another reason for loss of transactions was if two or more deals were announced within the same event or estimation windows.

When all the transactions had been controlled for errors, and the ones that would not meet the requirements dropped, we ended up with a sample containing 182 M&A transactions.

When the sample was controlled and cleared, we used the program Thomson Reuters Datastream Advanced to export all the stock prices for each and every company from both our treatment group as well as our control group.

3.5. The efficient market model and event study

Fama (1970, p. 383) defines the main role of capital markets as follows: "The primary role of the capital market is allocation of ownership of the economy's capital stock". Under the conditions of efficient market model, at any point in time, all assets are fairly priced and security prices should represent the rational values. Fama categorizes market efficiency into three groups depending on the sources of information: weak, semi-strong and strong efficient. In a weak efficient market security prices reflect only information about the historical prices. If the market is semi-strong, the security prices incorporate all publicly available information. Finally, in a strong efficient market, the security prices adapt to both publicly available information and privately held information. Though, the efficient market model has its limitations, as the markets only are efficient if sufficiently many investors manage to collect and analyze the data and compound it the accurate stock prices (Fama, 1970).

In this study, we have captured the value creation upon the M&A announcements with an event study. The basic assumption on the event study methodology is the efficient market model, in which the security prices incorporate all information available to investors (Fama, 1970).

3.6 How to study the announcement effect of an M&A? Event studies

The idea of an event study is to study the changes in the market value of a firm or evolution of security prices upon an announcement of an event such as, M&As, dividends and earnings changes (MacKinlay, 1997). Fama, et Al., (1969) first used this methodology in the late 1960's and since this, the event study methods have been widely used in the field of finance (MacKinlay, 1997). In an event study, the market "benchmark" return is isolated from the actual return to analyze the effect of the announcement on the studied stock's performance (Agrawal, et Al., 1992). The underlying assumptions behind an event study are the following: (Srinivasan and Bharadwaj, 2004)

- A. Financial markets are efficient; securities are fairly priced
- B. Shareholders are the only relevant group of stakeholders for a firm
- C. Researchers can isolate the share price reaction to the event of interest
- D. An appropriate benchmark model is used to compute the abnormal returns

3.6.1 The event study analysis

The effect of an event on the shareholder value is captured by the stock's abnormal returns (MacKinlay, 1997). Thus, the purpose of an event study is to separate firm specific events from the market events and analyze whether the event of interest generates significant abnormal returns (Benninga, 2008). The abnormal return is the difference between the stock's actual return and the expected return. It is necessary to aggregate the abnormal returns both through cross and time sections to assess the event of interest (MacKinlay, 1997). As an event study relies on the assumption that the markets are efficient, it is presumed that the stock prices quickly adjust to the announcement. The execution of an event study is as follows: (Srinivasan and Bharadwaj, 2004)

1. Event identification
2. Defining of criteria for inclusion of the event
3. Calculation of normal and abnormal returns
4. Estimation of the normal performance model
5. Performance of statistical and hypotheses tests.

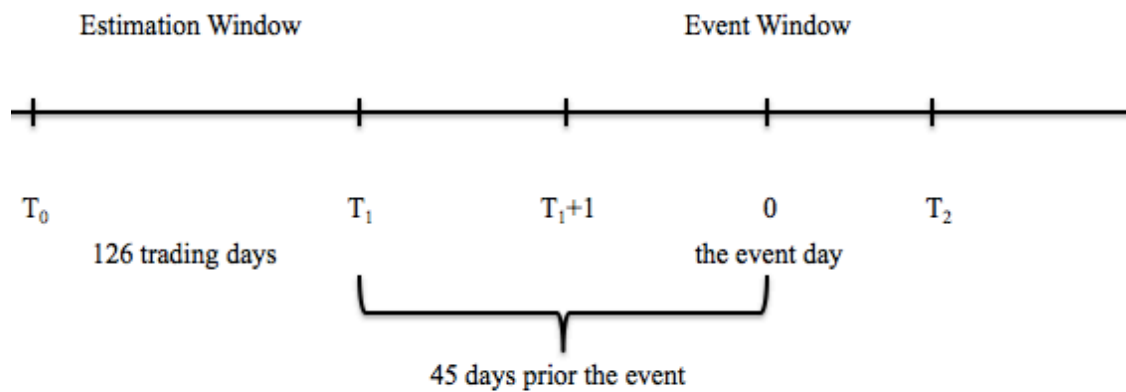


Figure 3.1 The time line of an event study

3.6.2 Event identification and definition of criteria for inclusions of the event

This research analyzes M&A announcements with an event study and how these affect the firm value. We concentrate on the assessing whether a strong brand has an effect on the shareholder value. The selection criteria and presentation of the treatment and control group were defined and stated in the chapter 3.2.

3.6.3 Calculation of normal and abnormal returns

3.6.3.1 Choice of event window

The event day is the central date of an event study and is denoted as 0 in the figure 3.1. When the event of interest is an M&A, it is common to assess the stock price movements upon the announcement compared to the market (Benninga, 2008). This is also accurate for this research paper. The purpose is to analyze the abnormal returns around the announcement during the chosen event window and capture the effect of the event on the shareholder value (MacKinlay, 1997).

The event study relies on the assumption of the effective market hypothesis and the stock prices should, thus, incorporate the value creation rapidly (Fama, 1970). The event windows often extend to a period of a couple of days prior and after the event (MacKinlay, 1997). It is necessary to study the stock price movements before the event as the market might have anticipated the announcement of the event (Bradley, et Al., 1988). The usual length of the event window is three, five, or ten days (Benninga, 2008). However, long-term event studies might extend from 20 days prior the event to the closing of the merger (Andrare et Al., 2001).

Brandley et Al., (2001) and Brown and Warner (1980) used an event window of 11 days in their researches whereas Asquith et Al., (1983) cumulated the returns 20 days before and after the event. When conducting an event study, the event windows are fairly narrow (Andrade et Al., 2001). Andrade et Al., (2001) argue that the short event windows give more reliable results. In fact, Agrawal et Al., (1992) claim that a long-run analysis does not explain better the long-term performance after an M&A. In this paper, we have chosen to assess cumulative daily abnormal returns during an 3-day event window. Andrare et Al., (2001) also used this event window in their research. Besides, seven, 11 and 21-days cumulative abnormal returns are regressed against independent variables to increase the robustness of the study

3.6.3.2 Estimation window

The estimation window defines a stock's normal return compared to the market return (Benninga, 2008). It is important that the estimation window does not overlap with the event window. If so, the announcement effect would be incorporated in the calculation of the normal return (MacKinlay, 1997). Schwert (1996) argues that the market anticipates the announcement roughly 42 days before the announcement and this is why Gerbaud and York (2007) estimated the normal performance 45 days prior to the event. This procedure is also used in this research to secure that the M&A announcements do not affect the normal return.

The commonly used estimation window is 252 trading days, which is approximately one calendar year (Benninga, 2008). The estimation window should be at least 126 trading days, as a shorter period would not represent the true relationship between the stock and market return and would thus not give robust estimation coefficients (Benninga, 2008). MacKinley (1997) proposes that an estimation window of 120 days is appropriate. Consequently, the estimation window used in this research extends to 126 trading days, counted backwards from 45 days before the event day, until 45 days prior to the event. This is illustrated in the figure 3.1.

3.6.3.3 The market model

The normal return can be compounded with both statistical and economical models. The statistical models are, among others, constant-mean-return model, market model or multifactor model and the economic models are capital asset pricing model (CAPM) and the arbitrage pricing theory (APT) (MacKinlay, 1997). The most common statistical model, which is also used in this research paper, is the market model (1).

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \quad (1)$$

$$E(\varepsilon_{it} = 0) \text{ and } \text{var}(\varepsilon_{it}) = \sigma_{\varepsilon_i}^2$$

Where:

R_{it} = return of security i at time t

R_{mt} = market return at time t

α_i = intercept of the regression, the historical performance of security i

β_i = stock's the systematic firm specific risk, a security i 's sensitivity to market risk

ε_{it} = the error term

The α and β coefficients are firm and transaction specific and compounded by the Ordinary Least Squares (OLS) over the estimation window (Benninga, 2008). As all of the firms in both the treatment and control groups are large and operate internationally, the market return should be a value-weighted, well-diversified market index (Koller et Al., 2010). We selected the Morgan Stanley Capital International world index (MSCI) as Koller et Al. (2010) propose.

The expected return (2) for a security is denoted as:

$$E[R_i] = \alpha_{it} + \beta_{it} R_{mt} \quad (2)$$

The expected returns are compounded for each day during the event window.

3.6.3.4 Abnormal returns

The abnormal returns are

$$AR_{it} = R_{it} - \alpha_{it} - \beta_i R_{mt} \quad (3)$$

or

$$AR_{it} = R_{it} - E[R_i] \quad (4)$$

Where:

R_{it} = the actual return of security i at time t

R_{mt} = the actual market return at time t

α_i = intercept of the regression, the historical performance of security i

β_i = stock's the systematic firm specific risk, a security i 's sensitivity to market risk

In fact, the abnormal return is equal to the error term of in the market model.

3.6.4 Aggregation of abnormal returns

The returns should be aggregated through cross and time sections, in order to analyze the sample (MacKinlay, 1997).

First, aggregation is the cumulative abnormal return (5), which is only through time for every transaction (cross sections) separately.

$$CAR_{it} = \sum AR_{it} \quad (5)$$

Secondly, the abnormal returns are aggregated only through transactions for each day during the event window. The average abnormal return (6) is compounded as follows:

$$ARR_t = 1/N \sum AR_{it} \quad (6)$$

The last aggregation, cumulative average abnormal return (7) is both through transactions and time.

$$CAAR_{t1,t2} = \sum ARR_t \quad (7)$$

3.6.5 Significance testing

As the 182 M&A transactions form a sample of a “population”, it is important to test whether the abnormal returns are significant enough to make conclusions about the population (Westerlund, 2008).

First, it was tested if the abnormal returns are significantly different from zero with a student t-test. We also tested with a two-sample t-test if the mean values between the variables were statistically different from each other. This test was done both on all CARs and on the independent variable of the regression models. This parametric test requires that the variables are normally distributed (Westerlund, 2008).

Secondly, we performed a Shapiro-Wilks test to exam whether the different values of CAR were normally distributed. The test disclosed that the CARs do not follow the normal distribution. In this case, the statistical significance could be tested with a non-parametric Mann-Whitney test. This test compares the median values between the two groups instead of the mean value (Pallant, 2010).

3.7 The multiple regression analysis

To analyze the abnormal returns profounder, we have studied the explanatory power and the relationship between dependent variables and independent control variables. The main regression model of interest is the one with CAR 3 as a dependent variable. We have also decided to analyze regression models with CAR 7, 11 and 21 as dependent variables in order to obtain a more robust result and enforce the result from the main regression model. According to the Fama's effective market hypothesis (1970), the market should react to the announcement news quickly and adjusts the security prices within a very short event window.

As described in the chapter 2.6, the size of the firm might have an effect on the abnormal returns. In this case, the intercept would be different for the treatment and control groups (Westerlund, 2008). Creating an additional dummy variable controls for the size effect. First, we have run a regular OLS on the modeled regression. Then, the same model is performed again but this time the interaction dummy is added. Lastly, the two results are compared and if the interaction term is statistically significant and the R-squared value is improved, the interaction term should be included into the regression model (Westerlund, 2008).

The interaction term turned out to be significant, meaning that the size effect needs to be taken into consideration. Thus, it is highly necessary to analyze the cumulative abnormal returns with a regression analysis and control for the size effect.

3.7.1 Characteristics influencing the value creation within M&As

Based on theories within value creation connected to brands, different variables have been examined to study their impact on the value creation upon the announcement of M&As.

3.7.1.1 Strong brand as a variable

See theory part 2.4.2.

3.7.1.2 Intangible assets as a variable

Hsu, et Al., (2013) describe intangible assets as certain non-monetary assets absent of material substance. Keller and Lehmann (2006, p. 740) claim that “brands are one of the most valuable intangible assets a firm has”.

The intangible assets are affected by brands to such an extent, that the term of “brand intangibles” has developed. This term describes different characteristics of a brand’s image, which do not include tangible, physical or specific traits or advantages (Levy, 1999).

Many researchers have studied how intangible assets affect stock market performance, and Madden et Al., (2006) has found through his research that strong brands originating from the United States, contributes with superior long-term stock returns and contain a smaller amount of risk. Lane and Jacobson (1995) claim that intangible assets, such as brands, generate greater profits than profits generated by solely tangible assets.

3.7.1.3 Relative size as a variable

According to Servaes (1991), earlier research shows that the relative size of the acquiring firm, is an important determinant in the takeover gains. Asquit et Al., (1983) agrees, and specifies that the relative size of the target to the acquiring firm plays a significant role for the acquirer’s profits when the deal is announced. Tuch and O’Sullivan (2007) continue to discuss the importance of the relative size, and how larger targets create more value for the acquiring company, than smaller targets do.

3.7.1.4 Size of acquirer as a variable

To use total assets as a variable is important according to Grimpe and Hussinger (2008) since, when tested if this specific variable has an impact on the result, the coefficient proved to be positive and significant across all the models that were tested.

Luypaert and Huyghebaert (2008) argue that the firm's size plays a significant role within M&As and that large firms are more probable to acquire other firms since they presumably have more cash, borrowing capacity and negotiation power.

Hitt, et Al., (2009) has done research on mergers and acquisitions over the last 25 years, and from this produced a list of the most common variables studied within M&As. From this list it is evident that the second most commonly used variable is the acquirer's size and the relative size. These variables were used in 52% of all the studies.

Every year, Forbes, an American business magazine, produces a list of 100 of the largest firms in the world. The list of the largest firms in May 2014, contained several of the same firms that were ranked to be the strongest brands in the world on the Interbrand list. Apple, GE, Samsung etc. are only to name a few. This confirms the idea that strong brands also are large in size (Forbes, 2014).

The table 3.4 summarizes and presents the definitions of all variables.

Variable in the OLS-regression

The table summarizes the variable in the OLS-regression and presents their definitions

Dependent variable	Definition	Source
CAR	$CAR_{it} = \sum AR_{it}$	Datastream
Independent variables		
Strong Brand (a dummy variable)	1 if the transaction is performed by a firm in the treatment group 0 if the transaction is performed by a firm in the control group	Interbrand list
Firm Size	A natural logarithm of the total assets	S&P Capital IQ
Intangible assets	A natural logarithm of intangible assets divided by total assets	S&P Capital IQ
Relative size	The deal value divided by the firm total equity	Zephyr S&P Capital IQ
Interaction	Strong brand variable multiplied by the total assets	Interbrand list S&P Capital IQ

Table 3.4

3.7.2 Multiple regression

The multiple regression model with 5 independent variables will take the following form:

$$CAR = \beta + \beta \text{ Strong brand} + \beta \text{ Firm size} + \beta \text{ Intangible assets} \\ + \beta \text{ Relative size} + \beta \text{ Interaction term} + \varepsilon$$

Where:

CAR = Cumulative abnormal return during 3/7/11/21 days respectively

β = Coefficients that quantify the partial effect of each variable

ε_{it} = Error term

The regression model was tested and all assumptions for classical linear regression model are fulfilled (see appendix 3).

3.8 Reliability

We have strived to be as accurate and detailed as possible during the research process, to give this thesis credibility and a high amount of reliability. Bryman and Bell (2005) claims that reliability describes how consistent and accurate results are. All the information that has been used, has originated from dependable and acknowledged databases such as: Zephyr, Thomson Reuters Datastream Advanced and S&P Capital IQ. The main goal has been to provide accurate results, and if this study would be recreated, the same results would have been attained.

Due to this, we have had to determine certain search criteria that have been followed thoroughly. The firms in the control group have been matched with the treatment group, based on the industry where the firms operate. One “match” therefore share the same SIC code. Stock exchange, and country of origin are also variables that we have tried to match, however, not been able to do to a full extent due to the lack of equivalent firms matching our treatment group. We are aware that since the SIC code is the only variable that has been matched between the treatment and control group, this might be criticized. However, we feel that the SIC code was the most important variable to match, so that the lists of the firms would have the same industry structure. The country of origin as well as the stock exchange were secondary since the world’s largest firms are global.

We have only excluded information when we have been forced to do so, when we have collected our sample of M&As, but have tried to keep a restricted approach to this. The authors that have been referred to within this thesis have been published in a mixture of printed books and articles, which have all kept a high degree of reliability and accreditations.

Since we have used an event study, the research has required a great deal of needlework, and we have manually treated all our 182 transactions since the event window for each transaction has been unique. All transactions have specific estimation and event windows. Therefore we have controlled the announcement dates and compounded the market model's beta and alpha coefficients and expected returns individually, for each transaction. Every transaction has been verified twice, to exclude potential errors. No errors could be found.

Since the event study has required a great amount of needlework, the possibility for human mistakes cannot be ruled out, however, we have been as exact as one can be, in able to show a reliable result.

3.9 Validity

The accuracy of the collected data is crucial for the credibility of this study. The validity depends on if a measurement of a concept accurately portrays what the concept designates (Bryman and Bell, 2005). Within our data collection process, we have used relevant variables, which have been used by authors published in accredited journals before, in similar research methods. Solely scientific articles and recognized journals have been used as sources of reference. This provides the thesis with a high degree of validity.

Prior research has used the same kind of research method as we have, an event study. This method is very well suited for our research purpose, since it has been used to quantify company's marketing related actions, such as brands, in the past by acknowledged authors (Srinivasan and Bharadwaj, 2004).

The databases that have been used, Zephyr, Datastream and Capital IQ are all well established with a high degree reliability, which contributes to a valid result that has been gained.

The primary source of data for our treatment group, has been the yearly reports produced by the brand consultancy Interbrand. Interbrand are the number one brand consultancy in the world, and have developed their own brand valuation methodology in able to value the

strongest brands in the world. We are aware of that this is a lucrative firm that we are basing our research sample upon, which could be criticized due to the lack of academic level. However, we have found a wide range of authors such as Fehle et Al., (2008), Hsu et Al., (2013) and Johansson et Al., (2012), to name a few, who have used and referred to Interbrand in their academic research articles. This gives academic strength and validity to using Interbrand in our research paper.

4. Empirical results and analysis

The empirical result chapter summarizes the data used in this research and presents the obtained result. First, the characteristics of the data will be presented and then the result from the empirical tests and regression analysis.

4.1. Presentation of the data

The sample consists of 182 observations between 2005 and 2014. See the detailed selection criteria in chapter 3.4.

4.1.1 Aggregated abnormal returns

To obtain a better insight into abnormal returns and to draw conclusions, it is important to aggregate the abnormal returns through time and securities (MacKinlay, 1997).

Aggregated - average abnormal returns						
<i>The table shows the abnormal return for the event study on all M&A transactions. The sample consists of 182 observations between 2005 and 2014. AAR denotes the aggregated average abnormal return for the data on a specific date; ten days prior and after the announcement of M&A.</i>						
Sample						
day	Nb.obs.	AAR	CAAR	Standard deviation	Nb. pos. returns	Nb. neg.returns
-10	182	0.053%	0.053%	1.716%	93	89
-9	182	0.057%	0.110%	1.803%	102	80
-8	182	0.005%	0.062%	1.618%	96	86
-7	182	-0.109%	-0.105%	1.885%	79	103
-6	182	0.135%	0.026%	1.781%	92	90
-5	182	0.099%	0.234%	1.861%	87	95
-4	182	0.157%	0.256%	2.066%	83	99
-3	182	-0.210%	-0.053%	1.868%	84	98
-2	182	-0.136%	-0.347%	2.079%	86	96
-1	182	-0.140%	-0.277%	1.697%	88	94
0	182	0.511%	0.371%	4.091%	97	85
1	182	0.275%	0.786%	3.116%	95	87
2	182	-0.093%	0.182%	1.837%	86	96
3	182	0.180%	0.088%	1.525%	86	96
4	182	-0.145%	0.035%	1.694%	90	92
5	182	-0.065%	-0.210%	1.874%	89	93
6	182	0.063%	-0.002%	1.865%	78	104
7	182	-0.030%	0.034%	1.665%	90	92
8	182	-0.041%	-0.071%	1.821%	88	94
9	182	-0.139%	-0.181%	1.511%	78	104
10	182	-0.009%	-0.149%	1.745%	85	97

Table. 4.1

It can be read from table 4.1 that, on average, the firms on the sample have experienced positive returns on the announcement day and on the following day. Thus, the market has reacted positively to the M&A announcement news and the effect is immediately incorporated in the stock prices. This is in line with Fama's (1970) theory on the effective market model. Besides, the distribution between positive and negative returns seems to be quite even and the abnormal returns do not exceed one percent. As this research concentrates on assessing whether there are differences between the treatment and control group, it is also of interest to divide the sample into two sub-groups.

Aggregated - average abnormal returns						
<i>The table shows the abnormal returns for the M&A transactions for the treatment group. The sample consists of 89 observations between 2005 and 2014. AAR denotes the aggregated average abnormal return for the data on a specific date; ten days prior and after the announcement of M&As.</i>						
Treatment group - Interbrand						
day	Nb.obs.	AAR	CAAR	Standard deviation	Nb. pos. returns	Nb. neg.returns
-10	89	0.065%	0.065%	1.666%	50	39
-9	89	0.206%	0.271%	1.287%	53	36
-8	89	0.232%	0.439%	1.921%	53	36
-7	89	0.009%	0.242%	1.647%	38	51
-6	89	-0.006%	0.003%	1.532%	38	51
-5	89	-0.142%	-0.148%	1.696%	41	48
-4	89	0.086%	-0.056%	1.436%	44	45
-3	89	-0.067%	0.019%	1.414%	43	46
-2	89	-0.339%	-0.407%	1.763%	37	52
-1	89	-0.269%	-0.608%	1.357%	41	48
0	89	-0.021%	-0.290%	2.506%	43	46
1	89	0.153%	0.132%	1.962%	45	44
2	89	-0.173%	-0.020%	1.548%	43	46
3	89	0.205%	0.031%	1.471%	47	42
4	89	-0.227%	-0.022%	1.566%	44	45
5	89	-0.218%	-0.445%	1.806%	40	49
6	89	0.094%	-0.124%	1.937%	40	49
7	89	-0.024%	0.070%	1.332%	47	42
8	89	-0.107%	-0.132%	1.627%	48	41
9	89	-0.221%	-0.328%	1.411%	37	52
10	89	0.017%	-0.203%	1.573%	43	46

Table 4.2

The abnormal returns, on average, were slightly below zero for the treatment group on the announcement day. After the announcement day, the abnormal returns were quite unstable,

being both negative and positive. However, the abnormal returns do not exceed the one percentage unit.

Aggregated - average abnormal returns						
<i>The table shows the abnormal return for the M&A transactions for the control group. The sample consists of 93 observations between 2005 and 2014. AAR denotes the aggregated average abnormal return for the data on a specific date; ten days prior and after the announcement of M&As.</i>						
Control Group						
day	Nb.obs.	AAR	CAAR	Standard deviation	Nb. pos. returns	Nb. neg.returns
-10	93	0.040%	0.040%	1.772%	43	50
-9	93	-0.086%	-0.045%	2.184%	49	44
-8	93	-0.214%	-0.299%	1.235%	43	50
-7	93	-0.223%	-0.436%	2.091%	41	52
-6	93	0.270%	0.047%	1.990%	54	39
-5	93	0.330%	0.600%	1.988%	46	47
-4	93	0.225%	0.554%	2.532%	39	54
-3	93	-0.347%	-0.122%	2.216%	41	52
-2	93	0.058%	-0.289%	2.335%	49	44
-1	93	-0.018%	0.040%	1.968%	47	46
0	93	1.021%	1.003%	5.137%	54	39
1	93	0.392%	1.412%	3.923%	50	43
2	93	-0.016%	0.376%	2.082%	43	50
3	93	0.157%	0.141%	1.582%	39	54
4	93	-0.067%	0.090%	1.813%	46	47
5	93	0.081%	0.014%	1.936%	49	44
6	93	0.034%	0.116%	1.804%	38	55
7	93	-0.035%	-0.001%	1.939%	43	50
8	93	0.022%	-0.013%	1.996%	40	53
9	93	-0.062%	-0.040%	1.604%	41	52
10	93	-0.035%	-0.097%	1.903%	42	51

Table 4.2

The average abnormal returns were positive on the announcement day and exceeded one percent. It might be so that the market has reacted more strongly to the announcement of M&As for the control group. It will be tested statistically whether the average mean values differ significantly.

To conclude, the results on the tables 4.1 and 4.2 show the opposite of our hypothesis that the abnormal returns are greater for firms with strong brand. The market has reacted positively to the announcement of M&A for firms in the control group, whereas firms in the treatment group are punished with a slightly negative result.

The average cumulative abnormal returns are also plotted out on the figure below. It is clear that the market has responded to the announcement news on the event day.

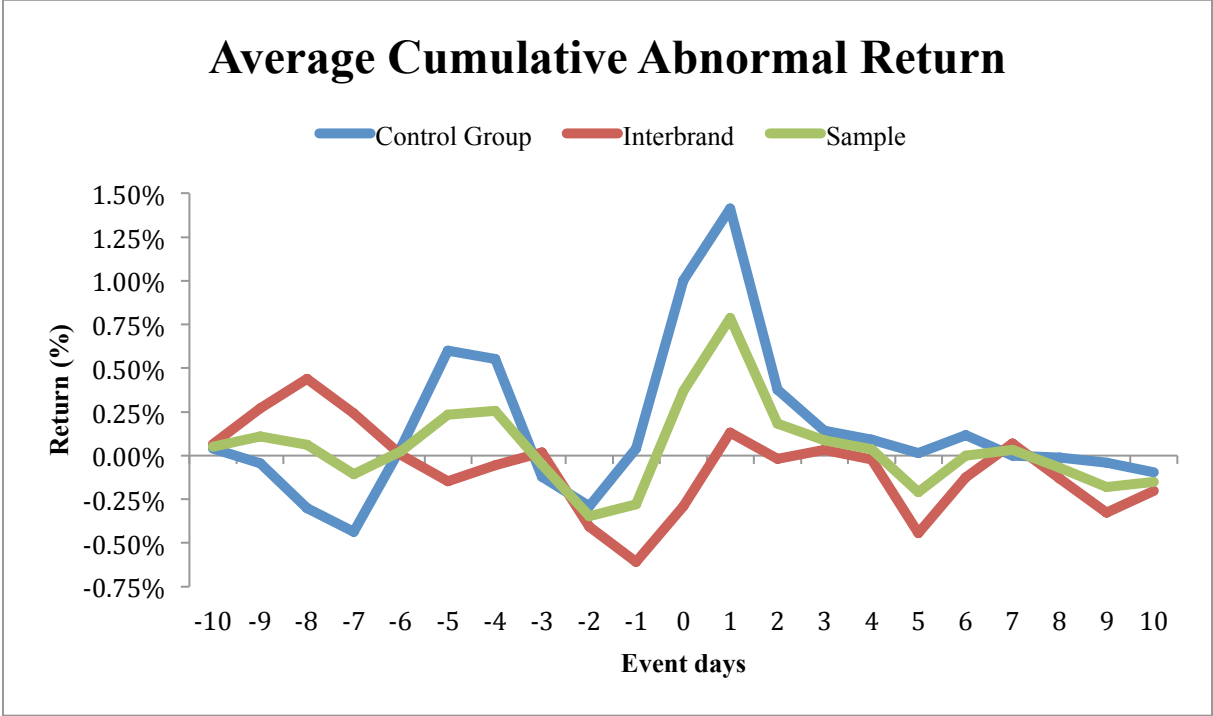


Figure. 1

As the market reacted strongly on the announcement on the event day and on the day after, it seems like the market did not anticipate the announcement long before the event day. If this would have been the case, we could have seen an increase with a longer duration in average cumulative abnormal returns. The stock prices started to incline heavily on the day -1, and began to decline after the day 1. This confirms that the three-day event window is appropriate.

4.1.2 Descriptive statistics for regression model

The table 4.3 shows the descriptive statistics for the dependent and independent variables used in the multiple regressions.

<u>Descriptive statistics</u>							
The table presents the characteristics for the data used in the multiple regression							
	Observations	Minimum	Maximum	Median	Mean	St. dev.	Jarque-Bera
CAR 3 Days	170	-210554.00	0.2508	0.0011	0.0065	0.0555	266.79 ***
CAR 7 Days	170	-0.2444	0.3621	0.0011	0.0027	0.0644	384.8148***
CAR 11 Days	170	-0.2730	0.3247	-0.0008	0.0032	0.0774	103.13***
CAR 21 Days	170	-0.2893	0.3286	-0.0030	0.0017	0.0910	44.64 ***
Strong brand	170	0.0000	1.0000	1.0000	0.5059	0.5014	28.33 ***
Total Assets	170	4.1897	13.9287	9.3866	9.2837	1.8322	0.69
Intangible assets	170	-9.7985	-0.7957	-2.9755	-3.1254	1.3540	119.60 ***
Relative size	170	-6.6065	7.7598	-1.3181	-0.5235	2.3337	31.99 ***

Table 4.3

Descriptive statistics								
The table presents the characteristics for the data divided into two sub-groups, treatment and control groups.								
	Treatment Group				Control Group			
	Obs.	Median	Mean	JB.	Obs.	Median	Mean	JB.
CAR 3 Days	89	-0.0012	-0.0014	0.6725	93	0.0024	0.0139	62.29 ***
CAR 7 Days	89	-0.0062	-0.0051	18.84 ***	93	0.0061	0.0125	114.28 ***
CAR 11 Days	89	-0.0052	-0.0101	29.61***	93	0.0071	0.0071	22.08 ***
CAR 21 Days	89	-0.0038	-0.0075	3.0825	93	0.0032	0.0151	12.09 ***
Strong brand	89	1.0000	1.0000	1.6725	93	0.0000	0.0000	0.0000
Total Assets	89	10.4288	10.4094	1.2885	93	8.1778	8.15	0.4269
Intangible as- sets	88	-3.3018	-3.4529	6.47 **	89	-2.7278	-2.6454	318.36 ***
Relative size	87	-1.8997	-1.3520	67.55	88	-0.5127	0.2043	8.3421 **

Table 4.4

As many of the firms in the treatment group are also the largest firms in the entire world, it was not possible to match these firms with as large firms in the control group (Forbes, 2014). The descriptive statistics for the two separate groups reveal that there are quite large differences in mean values for all variables. We will test if these differences are statistically significant as they can have a great effect on the interpretation of the result.

4.2 Empirical tests

First, the results from the event study (e.g. AAR & CARs) are analyzed to test our hypothesis. Then, the cumulative abnormal returns are regressed against independent control variables.

4.2.1 Test of statistical significance

First, the average abnormal returns for every day on the event window were tested with the student's t-test.

$$H_0: AARs = 0$$

$$H_1: AARs \neq 0$$

<u>Average abnormal returns</u>						
The entire sample includes 182 observations and treatment and control groups include 89 and 93 respectively.						
Sample			Treatment group		Control group	
day	AAR	T-test	AAR	T-test	AAR	T-test
-10	0.00053	0.1182	0.00065	0.1182	0.00040	0.71779
-9	0.00057	0.3611	0.00206	0.3611	-0.00086	0.99954
-8	0.00005	0.2678	0.00232	0.2678	-0.00214	0.01106**
-7	-0.00109	0.5209	0.00009	0.5209	-0.00223	0.98489
-6	0.00135	0.6844	-0.00006	0.6844	0.00270	0.37305
-5	0.00099	0.9867	-0.00142	0.9867	0.00330	0.06058*
-4	0.00157	0.7262	0.00086	0.7262	0.00225	0.80768
-3	-0.00210	0.9430	-0.00067	0.9430	-0.00347	0.71101
-2	-0.00136	0.3208	-0.00339	0.3208	0.00058	0.30649
-1	-0.00140	0.1905	-0.00269	0.1905	-0.00018	0.46818
0	0.00511	0.2380	-0.00021	0.2380	0.01021	0.14210
1	0.00275	0.6354	0.00153	0.6354	0.00392	0.65268
2	-0.00093	0.4621	-0.00173	0.4621	-0.00016	0.61798
3	0.00180	0.4881	0.00205	0.4881	0.00157	0.79611
4	-0.00145	0.1752	-0.00227	0.1752	-0.00067	0.11716
5	-0.00065	0.6363	-0.00218	0.6363	0.00081	0.81174
6	0.00063	0.8368	0.00094	0.8368	0.00034	0.28309
7	-0.00030	0.9868	-0.00024	0.9868	-0.00035	0.23830
8	-0.00041	0.6325	-0.00107	0.6325	0.00022	0.86554
9	-0.00139	0.1359	-0.00221	0.1359	-0.00062	0.04501**
10	-0.00009	0.8926	0.00017	0.8926	-0.00035	0.35540

Table 4.5

The probabilities from the t-test indicate that the average returns for each day are not significantly different from zero for the sample. That is, the null hypothesis is accepted. Control group has earned significant average return on days -8, -5 and 9. Though. It is uncertain whether these average abnormal returns are engendered due to the M&A announcements as these have occurred well before and after the event and not precisely around the event day. Other events, e.g. noise, might have produced these average abnormal returns (Brooks, 2008). Nevertheless, the abnormal returns must be aggregated both through time and securities in order to analyze the event study and make conclusions (MacKinlay, 1997).

The statistical significance was tested on the cumulative abnormal returns. According to the null hypothesis the cumulative abnormal returns do not differ significantly from zero. If this hypothesis is rejected, the firms have experienced significant cumulative abnormal returns during the event window.

$$H_0: CARs = 0$$

$$H_1: CARs \neq 0$$

<u>CAR Mean values</u>				
This table shows the mean values for all dependent variable in the regression analysis with associated p-values. Mean values are presented from the entire sample and separately for treatment and control groups. Statistic significance: * 10 % level, ** 5 % level and *** 1% level				
	CAR 3 days	CAR 7 days	CAR 11 days	CAR 21 days
<u>Sample</u>				
Mean	0.0065	0.0039	0.0043	0.0041
T-test	0.1129	0.4120	0.4446	0.5418
<u>Treatment group</u>				
Mean	-0.0014	-0.0051	-0.0101	-0.0075
T-test	0.7126	0.2720	0.0648	0.3110
<u>Control Group</u>				
Mean	0.01392	0.0125	0.01814	0.01507
T-test	0.0503*	0.1225	0.06087 *	0.16783

Table 4.6

According to the two-tailed t-test, the null hypothesis is accepted for all mean values meaning for the treatment group. The null hypothesis is rejected for CAR 3 and CAR 11 for the control group, meaning that the cumulative abnormal returns are significantly different from zero. This test was performed with MS excel.

We also performed a two-sample t-test for means in order to check whether the mean values differ statistically between the treatment and control groups. This test was also performed with MS excel.

H_0 : There are no differences in variables' mean values between the groups

H_1 : There are differences in variables' mean values between the groups

T-test on mean differences						
This table shows the mean values and differences for all variables in the regression analysis with associated p-values. Mean values are presented for the entire sample and separately for treatment and control groups. t-Test: Two-Sample Assuming Unequal Variances. Statistic significance: * 10 % level, ** 5 % level and *** 1% level						
	Control group	Treatment group	Mean diff.	T-stat	t Critical two-tail	p-value
CAR 3 Days	0.0139	-0.0014	0.0153 *	-1.9269	1.9772	0.056
CAR 7 Days	0.0125	-0.0051	0.0176 *	-1.9027	1.9762	0.059
CAR 11 Days	0.0181	-0.0101	0.0283 **	-2.5729	1.9765	0.0111
CAR 21 Days	0.0151	-0.0075	0.02253 *	-1.7224	1.9749	0.0869
Strong brand	0.0000	1.0000	-1.0000	n.a	n.a	n.a
Total Assets	8.1513	10.4094	-2.2581 ***	10.6672	1.9733	7.08E-21
Intangible assets	-2.7278	-3.4529	0.7251 ***	-3.7065	1.9737	0.0003
Relative size	0.2043	-1.3520	-1.5563 ***	-4.7042	1.9746	5.41E-06

Table. 4.7

The null hypothesis is rejected for CAR 11 at 5% -level, and at 10% -level for CAR 3, CAR 7 and CAR21. That is, the differences in cumulative abnormal returns between the two groups are statistically significant.

The mean difference is highly significant for all independent variables at 1% -level. This means that it is necessary to control for the size effect as it can have an effect on the cumulative abnormal returns.

However, the regular t-test requires that the cumulative abnormal returns are normally distributed. It is possible to test whether the mean values are normally distributed with a Shapiro-Wilks test. This test was performed with SPSS 20.0.0 program.

$$H_0 = u_t \sim N(0, \sigma^2)$$

$$H_1 \neq u_t \sim N(0, \sigma^2)$$

Test of normality		
This table presents the results from the Shapiro-Wilks test for normality		
	Statistic	Significance
CAR 3	0.876	0.0000
CAR 7	0.888	0.0000
CAR 11	0.927	0.0000
CAR 21	0.951	0.0000

Table 4.8

The p-values reject strongly the null hypothesis meaning that the mean values for cumulative abnormal returns are not normally distributed. Thus, the result from the t-test might be biased and should be analyzed this in mind.

As the values for the cumulative abnormal returns are not normally distributed, the statistical significance can be assessed with Mann-Whitney U test that does not require a normal distribution.

Mann Whitney U		
The table shows the result from the Mann Whitney U test. This non-parametric test assesses the median values for CARs between the treatment and control group.		
Statistic Significance: * 10 % level, ** 5 % level		
Dependent variable	Mann Whitney U	Asymp. Sig. (2-tailed)
CAR 3	3707	0.225
CAR 7	3517	0.08*
CAR 11	3204	0.009***
CAR 21	3637	0.158

Table 4.9

It appears on the table 4.9 that there is a statistically significant difference in cumulative abnormal return for CAR 11 between treatment and control groups at 1% -level. Additionally, the difference is significant for CAR 7 at 10 % -level.

Mann-Whitney test				
Ranks				
CAR 11 days	N	Median	mean rank	sum of ranks
Treatment	89	-0.0052	81	7209
Control	93	0.0071	101.55	9444
CAR 7 days	N		mean rank	sum of ranks
Treatment	89	-0.0062	84.52	7522
Control	93	0.0061	98.18	9131

Table 4.10

For both CARs, the cumulative abnormal return is higher for the control group since the mean rank is higher compared to that of the treatment group's.

The null hypothesis cannot be rejected for CAR 3 and CAR 21, which mean that there are no statistical differences in abnormal returns between these groups.

4.2.2 Regression of CAR

OLS regression				
<p>The table shows the result of OLS in which the CAR 3 is the dependent variable. The model 1 includes only the independent and control variables. The model 2 includes the interaction term that controls for the size effect.</p> <p>White heteroskedasticity-consistent standard errors & covariance</p> <p>Statistic significance: * 10 % level, ** 5 % level and *** 1% level</p>				
Model	1		2	
	Coefficient	P-value	Coefficient	P-value
c	0.057578	0.0244**	0.093443	0.0138**
Strong brand	0.003853	0.7265	0.006366	0.4986
Total Assets	-0.002984	0.3251	-0.006622	0.1168
Intangible Assets	0.007363	0.0226**	0.009714	0.0028***
Relative Size	0.0044	0.0221**	0.004429	0.0418**
Total assets* Strong brand			8.72E-08	0.0026***
R-squared	0.097821		0.128542	
F-statistic	4.472616		4.838057	
Prob(F-statistic)	0.001859		0.000374	

Table 4.11

The model has clearly a better fit when the interaction term is added. On the first model, only intangible assets and relative size are significant at 5% -level and the R-squared is fairly poor, only approximately 10 percent. After adding the interaction term, the relative size is still significant at 5% level but intangible assets become more strongly significant at 1% level. The total assets become almost significant 10 % level. The dummy variable for the strong brand is not significant in neither of cases, though, its p-value declines heavily by 20 percentages on

the second model. The interaction term is highly significant at 1% level, which basically means that total assets have a stronger relationship to cumulative abnormal returns for firms with strong brands than for those with inferior brands. The R-squared increases by 3 percent and the model's explanation power improves. Consequently, the interaction term should be included on the regression.

OLS -regression

The table presents the results from the OLS regressions with different CARs as dependent variables. The data is balanced and 170 observations are included into the regression models.

White heteroskedasticity-consistent standard errors & covariance
 Statistic significance: * 10 % level, ** 5 % level and *** 1% level

Dependent variable	CAR 3		CAR 7		CAR 11		CAR21	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
c	0.093443	0.0138**	0.082404	0.0629*	0.095601	0.0475**	0.098132	0.0684*
Strong brand	0.006366	0.4986	0.00278	0.8103	-0.006731	0.6257	0.002555	0.8765
Total Assets	-0.006622	0.1168	-0.005805	0.2765	-0.00713	0.1996	-0.009542	0.1124
Intangible Assets	0.009714	0.0028***	0.009509	0.0082***	0.008299	0.0591*	0.004285	0.406
Relative Size	0.004429	0.0418**	0.004701	0.0218**	0.006878	0.0222**	0.007139	0.0387**
Total assets* Strong brand	8.72E-08	0.0026***	1.08E-07	0.0008***	1.46E-07	0.0006***	1.73E-07	0.0001***

It can be seen that all regression models have a R-squared around 0,10. CAR 3 has the best fit as almost 13 % of variation in cumulative abnormal returns can be explained by the independent variables. The null hypothesis that the beta coefficients are jointly zero is rejected at 1% -level for all regression models.

Moreover, the coefficients on intangible assets and the interaction term are positive and significant at 1% level. The relative size has also a positive and statistically significant relationship to cumulative abnormal returns at 5%-level. The coefficient on the total assets is negative, but only significant at 12% - level. The dummy variable “strong brand” has a positive coefficient but it is not statistically significant.

Since the residuals were not perfectly normally distributed, though close (see appendix 3), we also wanted to run the regression model without taking the extreme value into consideration. Removing the outliers can improve the distribution of the residuals and thus, the result from the regressions become more reliable (Brooks, 2008). This can be done by creating dummy variables that take the value 1 for an outlier. It is necessary to create a distinct dummy variable for each outlier (Brooks, 2008). A more specified list on the outliers and the deal numbers is presented on the appendix 4.

OLS regression - removed outliers

This table presents the result from the OLS regressions after removing the outliers' effect on the result.

CAR3 and CAR7: Outliers that were removed experience an abnormal return of +/- 10 %

CAR11 and CAR21: Outliers that were removed experience an abnormal return of +/- 15 %

See appendix 4 for a detail list of the outliers

White heteroskedasticity-consistent standard errors & covariance

Statistic significance: * 10 % level. ** 5 % level and *** 1% level

Dependent variable	CAR 3		CAR 7		CAR 11		CAR 21	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
c	0.077678	0.0007	0.065565	0.0044	0.055785	0.0449	0.005833	0.8505
Strong brand	0.008907	0.288	0.003527	0.7066	-0.006563	0.5999	-0.018121	0.2114
Total Assets	-0.005492	0.0303 **	-0.004518	0.1066	-0.003959	0.253	-0.000499	0.9004
Intangible Assets	0.0096	0.0001 ***	0.009092	0.0002 ***	0.004778	0.0805 *	-0.000717	0.8605
Relative Size	0.003136	0.0145**	0.004871	0.0001***	0.007436	0.0001 ***	0.006459	0.0111 **
Total assets* Strong brand	7.93E-08	0.0006 ***	1.04E-07	0.0001***	1.14E-07	0.0019 ***	1.21E-07	0.0014 ***
R-squared	0.600611		0.667157		0.583298		0.565369	
F-statistic	19.67506		20.57875		15.49773		10.91228	
Prob(F-statistic)	0.000000		0.000000		0.000000		0.000000	

Table 4.13

At first glance, it is obvious that the R-squared values improve considerably. CAR 21 –model has the lowest fit at 0.57 and CAR 7 the best at 0.67. Not only the R-squared values improve extensively but also the F-statistics; CAR 3 and 7 have F statistics close to 20. The associated p-values for F-statistics are 0.0000 for all models. Consequently, the null hypothesis that the beta coefficients are jointly zero is again rejected at the 1% -level for all regression models.

When taking a closer look at the CAR 3 model, it is apparent that all of the control variables are significant at least at the 5% -level. Intangible assets, interaction term and relative size are all positive and significant at the 1% -level and 5% -level. This supports our hypothesis that strong brands contribute to value creation through shareholder value as many companies book brands in “intangible assets” –post (Keller and Lehmann, 2006). However, the dummy variable “strong brand” is not significant, nonetheless the coefficient is positive. Still, the associated p-value improves from 0,49 to 0,29 after removing outliers’ effect on the result. The coefficient on the interaction term is positive and highly significant at 1% -level. This indicates that total assets have a stronger positive relationship to cumulative abnormal returns for firms with strong brands than for those with inferior brands. The coefficient on the firm size is negative and significant at 5%-level.

4.3 Summary of the empirical results

H1: Strong brands have an effect on the cumulative abnormal returns upon an announcement of an M&A

The tables 4.2 and 4.3 on the aggregated cumulative abnormal returns showed that the control group had gained higher abnormal returns than the treatment group. This was then challenged and the student t-test showed that the control group had experienced statistically significant cumulative abnormal returns on the days -8, -5 and 9. It could not be proved that the treatment group had gained abnormal returns that were different from zero. We also tested the mean differences between the groups and found that these differences were significantly different from each other. However, as the cumulative abnormal returns were not completely normally distributed, we performed a Mann-Whitney U test to control whether there were statistically significant differences between the two groups. The Mann-Whitney test indicated that the abnormal returns were higher for the control group for the CAR 7 and CAR 11. No significant result was found for CAR 3. This result is in line with the findings of Asquith et Al., (1983). They claim that large acquirers are likely to gain only insignificant abnormal returns if the relative size is low. This can explain the difference in cumulative abnormal returns between the two groups, as the firms in the treatment group are significantly larger and their acquisitions' relative sizes are significantly smaller.

It is necessary to regress the CARs against control variables, since the result shows that there are significant differences in mean values for firm characteristics. After eliminating the outliers' effect on the result, it emerged that all control variables were significant at least at the 5% -level. The dummy variable for strong brand was positive but not statistically significant. The interaction term (strong brand *total assets) is positive and highly significant at the 1% level, which suggests that the total assets have a stronger relationship to cumulative abnormal returns for firms with strong brands than for those with inferior brands. This indicates that strong brands can have a positive effect on the cumulative abnormal returns. As the coefficient on the total assets was negative and significant and the coefficient on the relative size is positive and significant, the result must be assessed with carefulness.

The total assets were significantly larger and the relative size significantly lower for the treatment group. An increase in relative size results in an increase in cumulative abnormal returns, whereas an increase in total assets yields in a decline in cumulative abnormal returns. The latter effect is stronger for the firms with strong brands. This result indicates that a strong brand could be advantageous for smaller firms conducting M&A activities and larger firms with strong brands are associated with less profitable M&As.

H2: The value creation effect of a strong brand depends on the size effect

The empirical result verified that there are statistically significant differences in the mean values for all variables between the treatment and control groups. The total assets were significantly larger for the treatment group and the relative size was lower. We expected this to affect the cumulative abnormal returns for the treatment group negatively, which the result enforced.

The result from the regression analysis shows that the control variable “total assets” was negative and significant and that the variable “relative size” positive and significant. Hence, these variables have the predicted effect on the cumulative abnormal returns and we can conclude that the value creation effect depends on the size effect.

Moreover, we created a dummy variable that allowed different intercepts for the two groups and, thus, controlled for the size effect between the two groups. The interaction term is positive and statistically significant at 1% -level, showing that the firm size has different effect on the firms in the two groups. As the coefficient on the total assets is negative, and the coefficient on the strong brand variable positive, the result suggest that the strong brands might have a positive relationship with the cumulative abnormal return, but this effect weakens as the size of a firm rises.

To conclude, the null hypothesis for H2 is rejected and hypothesis that the value creation effect of a strong brand depends on the size effect is accepted.

5. Analysis and discussion

In our analysis and discussion we start by analyzing the results connected to our hypotheses. We finish off with a presentation of “The Branded Illusion Hypothesis”, to give the reader an overall review of what our analysis has contributed with.

5.1 Strong brands have an effect on the shareholder value upon the announcement of an M&A

The coefficient on the “strong brand” dummy variable is positive, but not significant at the 5% level. On its own, it does not support our hypothesis but together with the size effect it does. We suggest that strong brands actually have an effect on the cumulative abnormal returns. However, this is not the case for the treatment group since the relative size has a positive relationship with cumulative abnormal returns and an increase in total assets yields in a decline in cumulative abnormal returns. The total assets were significantly larger, and the relative size lower for the treatment group. The interaction term indicates that the firm size’s negative effect on the cumulative abnormal returns is stronger for the firms in the treatment group, which explains why the treatment group did not gain an as high cumulative abnormal return as the control group did.

To sum up, this indicates that strong brands have an effect on the shareholder value upon the announcement of an M&A, but the significant size-effect must be considered when assessing the result.

5.2 Why large firms fail to exploit brand assets?

The negative and significant coefficient for the total assets suggests that the large firms with strong brands are associated with less profitable M&As. This signals that larger firms actually fail to exploit their brands in an M&A context. Nevertheless, Luypaert and Huyghebaert (2008) claim that large firms are more likely to acquire other firms since they presumably have more financial slack and borrowing capacity.

One possible explanation could be that managers engage in M&A activities if they believe that they could improve target’s business processes and bring about opera-

tional synergies. As Bradley et Al., (1983) found, the acquirers experience higher returns from M&As, if they succeed in reallocating the assets in a more profitable way. Large firms with strong brands could perhaps aim to extend their brand on the targets products or provide more extensive marketing and distributions channels in order to engender higher cash flows.

However, large firms are often diversified and operate in several branches, which can make it harder for them to realize these gains. It might be so that large firms often need to grow outside their main business area if they already are market leaders. The larger the company gets the harder it becomes to find a firm that would be suitable for the acquirer's portfolio of businesses. It becomes harder to combine and manage the new asset portfolio, especially if the acquirer and the target are not operating in the same industry. In this case, managers might not have the needed knowledge about the industry and its requirements and thus, do not contribute with anything new. In worst-case scenario, it can be even harmful for the merged firm. Managers of well-known brands might be under the impression that the brand assets will give them advantages and additional power. Still, we find it hard to believe that large firms would be the best owner for several firms that operate in uncorrelated industries at the same time. Large well-known diversified firms might lack the flexibility to quickly adjust to the market demands and to respond to customers' constantly changing demands. The negative coefficient on the firm size support this hypothesis, as large firms with strong brands do not succeed as well as smaller firms with strong brands do.

Furthermore, the hubris hypothesis could provide an explanation to the abovementioned problem. Overconfident managers might engage in acquiring other firms because they overestimate the target's value and their own managerial capabilities (Roll, 1986). Thus, they are persuaded that the target's market value does not reflect its true economic value and that they are capable of making the required enhancements in the target's operations. It could be so that managers of larger firms often are experienced and have a long and successful career, which could contribute to the confirmation bias that they have when bidding for the target. This could be very likely if large firms already are diversified and the managers do not have enough knowledge about the branch. Due to the information asymmetry problem, it is likely that the overconfident managers are optimistic, rely on the brand's market power and overestimate the tar-

get's market value. Consequently, the managers, who overpay for the target, need to take the dilution cost of the acquisition. The dilution cost is equal to the additional value that overconfident managers believe they provide for the shareholders (Shefrin, 2005). Large firms with well-known brands must have had a successful historical performance; as otherwise, their market position and recognized brand would not have been established. This success is often a result of skills and pure luck. Overconfident managers might overestimate their contribution and suffer from the illusion of control (Shefrin, 2005). They might overemphasize their managerial skills and believe that they will be able to steer the M&A process.

Additionally, the hubris hypothesis presumes that the acquirer must over pay for the target as otherwise the target's management would not approve to sell. They need to pay high premiums and suffer from the winner's curse. The target's management might equally be overconfident and overestimate the target's future prospects. This could also increase the premiums paid and thus, the target's management's negotiation power constitutes a critical aspect in this context. In other words, the target could exploit its brand. Among others, Facebook's WhatsApp acquisition and Google's Motorola acquisition are included in the sample. If a market leader acquires a strong competitor, it is barely possible that the premium paid is low.

We also considered that Jensen's (1986) free cash flow hypothesis could provide a partial explanation for why large firms fail to exploit their brand assets. When managers have a lot excess cash available, they tend to spend it on unnecessary and unprofitable investments. Bruner (1988) argues that the acquirers have a lot more financial slack than firms generally have. Bate et Al., (2009) found that S&P 500 firms hold 50% more cash in their balance sheet in 2006 than in 1998 and firms in the treatment group also belong to S&P 500 firms. Large firms with strong brands might engage in M&A activities not only for strategic reasons but also for disposing the financial slack. On the other hand, excessive amounts of financial slack can result in less disciplined managers. Such managers might be eager to extend their own empire on the shareholders' cost. Of course, out of self-interest, it is better for the manager's career to hold control of a large firm containing multiple well-known brands. It looks good on the résumé, opens up other career possibilities and might even give additional acknowledgement within the manager's social circuits. If they acquire other compa-

nies in order to improve their own personal position and power, they are not acting on the behalf of the shareholders.

5.3 The Branded Delusion hypothesis

The analysis above indicates that managers might rely on the market power of the brands when they engage in M&A activities. They might be delusional and believe that “the bigger the brand is, the greater the outcome will be”. Consequently, they succumb under the branded delusion.

Despite this belief, our result shows that the smaller firms exploit brand assets in a more efficient manner in the M&A context than large firms do.

Conclusion

In the conclusion, we connect our research purpose, results and analysis in able to make an overall conclusion of our study. Continuing, we will introduce our academic contribution. Lastly, we will recommend areas for further research.

6.1 Conclusion

The purpose of this study was to study if strong brands have an effect on the shareholder value upon the announcement of an M&A. In addition to this, we have studied if the value creation effect within M&As depend on the company's size.

Our results show, that brands might have an effect on the value creation in M&As, but it must be analyzed with the size-effect. The total assets variable had not only a smaller effect on the cumulative abnormal return, but also a negative one for the treatment group. The interaction term indicates that the total assets' negative effect on the cumulative abnormal returns is stronger for the firms in the treatment group. This indicates that the variable has a different effect on the firms with strong brands, than on those with weaker brands. This means that larger firms with strong brands are associated with less successful M&As, than smaller firms with strong brands. A reason for this could be due to over confident managers, which is in line with the hubris hypothesis. Another reason could be that the large firms are too diversified and cannot benefit from the synergy gains.

These conclusions have led us to formulate a new hypothesis called "The Branded Delusion". This hypothesis claims that managers might be so blinded by their capabilities and the brand's greatness that they get delusional when engaging in M&A activities.

Academic contribution

We contribute to academic research by providing a new aspect of analyzing value creation within M&As. Our results indicate that brands have an effect on the value creation within M&As, and that managers should take this into consideration when acquiring other firms. In addition, we contribute with “The Branded Delusion”, a hypothesis saying that managers could get delusional by their capabilities and the brand’s greatness when engaging in M&A activities.

6.2 Further research

Our academic contribution has led to some further questions that should be studied:

1. Since large firms holding multiple brands often are diversified, it would be out of interest to control if the target firm operates in the same industry as the acquirer. This would be added to the regression model to remove the effect of diversification.
2. The dummy variable has its weaknesses, as it does not measure the real value of brands. It would therefore be beneficial if future researchers would find a proxy to measure the financial value of brands and assess it in the regression model.
3. It would be of interest to test whether our hypothesis “The Branded Delusion” could be applied on one specific industry, to show whether there are differences between industries.

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Appendix 1. Interbrand group transactions

Acquiring firm	Target firm	Event day	CAR 3 days	CAR 7 days	CAR 11 days	CAR 21 days	Deal value
3M COMPANY	CUNO INC.	12/05/05	0.0759%	0.9993%	0.6018%	-1.2580%	1298.4
3M COMPANY	AEARO TECHNOLOGIES INC.	15/11/07	0.9265%	3.4856%	-0.2971%	-2.5124%	1200
ACCENTURE PLC	ACQUITY GROUP LTD	17/05/13	1.6316%	2.0735%	2.8772%	3.1078%	316.00
ADIDAS-SALOMON AG	REEBOK INTERNATIONAL LTD	03/08/2005	7.3426%	3.8993%	3.9867%	0.3964%	3800
ADOBE SYSTEMS INC.	MACROMEDIA INC.	18/04/2005	-6.5321%	-7.3509%	-8.0355%	-12.2353%	3400
ADOBE SYSTEMS INC.	NEOLANE SA	27/06/13	0.9752%	0.5364%	1.8953%	7.0338%	600.00
AMAZON.COM INC.	ZAPPOS.COM INC.	22/07/09	3.6586%	-6.3481%	-3.7484%	-0.3234%	930.10
AMAZON.COM INC.	KIVA SYSTEMS INC.	19/03/12	4.4949%	5.4443%	8.9668%	11.1401%	775.00
AMAZON.COM INC.	QUIDSI INC.	08/11/10	0.8747%	1.2417%	-6.3761%	-2.4069%	545.00
AMERICAN EXPRESS COMPANY	GE CONSUMER FINANCE INC'S COM-MERCIAL CARD AND CORPORATE PURCHASING BUSINESS UNIT	27/03/08	-8.0118%	-2.2259%	4.4678%	3.5793%	1100.00
AVON PRODUCTS INC.	SILPADA DESIGNS INC.'S ASSETS	09/07/10	0.3324%	2.3112%	2.1231%	6.3550%	727.00
AVON PRODUCTS INC.	PREPARACIONES DE BELLEZA	07/10/05	-0.1408%	1.5890%	4.7164%	4.9021%	154
AXA SA	WINTERTHUR SWISS INSURANCE COM-PANY	14/06/2006	-2.2420%	-0.6182%	-3.0189%	-2.1175%	11010.68
AXA SA	AXA ASIA PACIFIC HOLDINGS LTD'S ASIAN BUSINESSES	30/03/2010	-0.2875%	2.7049%	2.6457%	5.8290%	9760.87
AXA SA	FINAXA SA	29/06/2005	-0.0013%	-1.7421%	1.8920%	2.6817%	7 146.38

Acquiring firm	Target firm	Event day	CAR 3 days	CAR 7 days	CAR 11 days	CAR 21 days	Deal value
BURBERRY GROUP PLC	BURBERRY ASIA LTD	16/07/2010	4.0664%	6.7146%	5.0836%	-0.7928%	109.26
CAMPBELL SOUP COMPANY	WILLIAM BOLTHOUSE FARMS INC.	09/07/2012	-1.0444%	-0.6540%	-0.5081%	2.2840%	1550.00
CAMPBELL SOUP COMPANY	ECCE PANIS INC.	02/04/2009	-6.9900%	-5.6373%	-8.2964%	-13.0247%	66.00
CATERPILLAR INC.	BUCYRUS INTERNATIONAL INC.	15/11/2010	1.3274%	3.0786%	2.4269%	4.6732%	8800.00
CATERPILLAR INC.	PROGRESS RAIL SERVICES CORPORAT- ION	16/05/2006	-3.7357%	-13.4563%	-11.8795%	-10.2651%	1000.00
CISCO SYSTEMS INC.	SCIENTIFIC ATLANTA LLC	18/11/2005	-3.1615%	-1.8614%	-0.1027%	-1.4539%	6900.00
CISCO SYSTEMS INC.	NDS GROUP LTD	31/07/2012	2.1355%	2.4494%	3.1357%	4.0796%	5000.00
CISCO SYSTEMS INC.	WEBEX COMMUNICATIONS INC.	15/03/2007	1.0409%	-1.4323%	-3.2699%	-8.8774%	3200.00
CISCO SYSTEMS INC.	STARENT NETWORKS CORPORATION	13/10/2009	-0.8169%	-1.6316%	-1.7890%	-0.7704%	2900.00
CISCO SYSTEMS INC.	SOURCEFIRE INC.	23/07/2013	-1.5585%	-2.5269%	-2.8747%	-0.8687%	2700.00
COCA-COLA COMPANY, THE	ENERGY BRANDS INC.	25/05/2007	1.8067%	2.0879%	-0.4708%	-1.3512%	4100.00
COLGATE-PALMOLIVE COM- PANY	UNILEVER NV'S SANEX BUSINESS	23/03/2011	2.2053%	4.2727%	4.1421%	6.1226%	960.08
DISCOVERY COMMUNICATIONS INC.	PROSIEBENSAT.1 MEDIA AG'S NORDIC TV OPERATIONS	14/12/2012	0.8234%	1.3640%	-0.0812%	1.8994%	1700.00
EBAY INC.	SKYPE TECHNOLOGIES SA	12/09/2005	-1.7664%	-6.3858%	-8.7034%	-4.4034%	3900.00
EBAY INC.	GSI COMMERCE INC.	28/03/2011	-2.5991%	0.2498%	-2.1337%	-4.7028%	2400.00
EBAY INC.	GMARKET INC.	15/04/2009	-2.3239%	-4.5183%	6.6981%	20.4214%	1200.00

Acquiring firm	Target firm	Event day	CAR 3 days	CAR 7 days	CAR 11 days	CAR 21 days	Deal value
FACEBOOK INC.	WHATSAPP INC.	19/02/2014	1.8529%	0.0391%	-0.8648%	-2.7766%	19000.00
FEDEX CORPORATION	WATKINS MOTOR LINES INC.	26/05/2006	-1.7803%	-1.3078%	1.1135%	-0.0087%	780.00
FORD MOTOR COMPANY	VISTEON CORPORATION'S UNPROFIT- ABLE AUTO PARTS MANUFACTURING PLANTS, OFFICES, RESEARCH CENTERS AND OTHER FACILITIES	13/09/2005	2.9618%	-0.6737%	0.1586%	0.9489%	1150.00
GAP INC.	ATHLETA INC.	22/09/2008	-3.7374%	-8.1074%	-1.3132%	-0.2935%	150.00
GOLDMAN SACHS GROUP INC.	LEG NRW GMBH	11/06/2008	5.4652%	9.3385%	13.5258%	16.1457%	5287.71
GOOGLE INC.	MOTOROLA MOBILITY HOLDINGS INC.	15/08/2011	-5.5956%	-10.3661%	-8.9228%	-0.6768%	12500.00
GROUPE DANONE SA	KONINKLIJKE NUMICO NV	20/08/2007	6.3890%	2.6699%	-2.3298%	-4.9170%	10 437.69
HERTZ GLOBAL HOLDINGS INC.	DOLLAR THRIFTY AUTOMOTIVE GROUP INC.	26/08/2012	10.7376%	16.1376%	10.9702%	17.2206%	2600.00
HERTZ GLOBAL HOLDINGS INC.	DONLEN CORPORATION	17/07/2011	1.8570%	-1.2734%	-6.3213%	-13.7887%	947.00
HEWLETT-PACKARD COMPANY	ELECTRONIC DATA SYSTEMS CORPO- RATION	13/05/2008	-8.2831%	-4.8591%	-5.1965%	-4.3104%	13900.00
HEWLETT-PACKARD COMPANY	MERCURY INTERACTIVE CORPORAT- ION	25/07/2006	2.1495%	-3.5717%	-2.3814%	2.4712%	4500.00
HEWLETT-PACKARD COMPANY	3COM CORPORATION	11/11/2009	-0.5145%	-0.0916%	0.1720%	0.8696%	2700.00
HEWLETT-PACKARD COMPANY	OPSWARE INC.	23/07/2007	-0.6303%	1.4649%	0.3889%	7.0545%	1600.00
HTC CORPORATION	S3 GRAPHICS COMPANY LTD	06/07/2011	-4.6145%	0.8345%	-21.4677%	-16.6324%	300.00
INTEL CORPORATION	MCAFEE INC.	19/08/2010	-0.7214%	-1.8083%	-3.5893%	-10.6677%	7680.00

Acquiring firm	Target firm	Event day	CAR 3 days	CAR 7 days	CAR 11 days	CAR 21 days	Deal value
INTERNATIONAL BUSINESS MACHINES CORPORATION	COGNOS INC.	12/11/2007	-0.2422%	-6.8796%	-8.9817%	-9.2386%	5000.00
INTERNATIONAL BUSINESS MACHINES CORPORATION	SOFTLAYER TECHNOLOGIES INC.	04/06/2013	-1.2303%	0.4348%	0.7695%	0.8086%	2000.00
INTERNATIONAL BUSINESS MACHINES CORPORATION	FILENET CORPORATION	10/08/2006	0.5962%	1.8373%	3.7081%	4.1928%	1600.00
INTERNATIONAL BUSINESS MACHINES CORPORATION	STERLING COMMERCE INC.	24/05/2010	1.5989%	-0.9161%	-1.6626%	5.8555%	1400.00
INTERNATIONAL BUSINESS MACHINES CORPORATION	KENEXA CORPORATION	27/08/2012	-0.4155%	-1.5431%	-2.8614%	-1.2468%	1300.00
INTERNATIONAL BUSINESS MACHINES CORPORATION	SPSS INC.	28/07/2009	-0.4862%	-2.1647%	-4.5608%	0.4805%	1200.00
INTERNATIONAL BUSINESS MACHINES CORPORATION	ASCENTIAL SOFTWARE CORPORATION	14/03/2005	-0.6447%	-0.6229%	-0.5455%	0.9827%	1100.00
KELLOGG COMPANY	PROCTER & GAMBLE COMPANY'S PRINGLES MANUFACTURING DIVISION	15/02/2012	5.1303%	4.4469%	3.4041%	4.4569%	2695.00
KONINKLIJKE PHILIPS ELECTRONICS NV	AVENT HOLDINGS LTD	23/05/2006	3.0177%	2.5845%	2.1348%	-3.8668%	876.19
L'ORÉAL SA	YSL BEAUTÉ SAS	30/04/2008	0.0660%	0.9253%	1.5883%	-11.0036%	1812.85
MARRIOTT INTERNATIONAL INC.	CTF HOTEL HOLDINGS INC.' 32 HOTELS	28/04/2005	-5.4460%	-6.3512%	-2.6877%	-14.2973%	1450.00
MARRIOTT INTERNATIONAL INC.	RYMAN HOSPITALITY PROPERTIES INC.'S GAYLORD HOTELS BRAND AND MANAGEMENT COMPANY	31/05/2012	-2.3858%	-2.9505%	-3.3677%	-4.4307%	210.00
MARRIOTT INTERNATIONAL INC.	PROTEA HOTEL GROUP (PTY) LTD	22/01/2014	0.2605%	0.1322%	1.7589%	2.7102%	186.43
MARRIOTT INTERNATIONAL INC.	HOTEL AC DIPLOMATIC SL	16/03/2011	0.1672%	1.2142%	-1.2615%	-4.0721%	58.68
MARRIOTT INTERNATIONAL INC.	HOTEL DRUZHBA	18/03/2009	0.5988%	-4.8027%	-0.7385%	2.8528%	1.88

Acquiring firm	Target firm	Event day	CAR 3 days	CAR 7 days	CAR 11 days	CAR 21 days	Deal value
MASTERCARD INC.	TRAVELEX HOLDINGS LTD'S CARD PROGRAM MANAGEMENT OPERATIONS	09/12/2010	2.7593%	0.7834%	-12.7615%	-10.9951%	474.25
MICROSOFT CORPORATION	SKYPE GLOBAL SARL	10/05/2011	-1.7674%	-1.9853%	-0.1519%	-2.3663%	8500.00
MICROSOFT CORPORATION	AQUANTIVE INC.	18/05/2007	-0.2488%	-1.8222%	-0.4080%	-1.7241%	6000.00
MICROSOFT CORPORATION	NOKIA OYJ'S DEVICES AND SERVICES OPERATIONS	03/09/2013	-8.4810%	-7.9891%	-8.1032%	-0.3778%	4999.12
NESTLÉ SA	PFIZER INC.'S INFANT NUTRITION BUSINESS	23/04/2012	-2.2401%	-1.6744%	0.0025%	0.0420%	11850.00
NESTLÉ SA	GERBER PRODUCTS COMPANY	12/04/2007	-1.0288%	-2.2727%	-0.5206%	-1.2012%	5500.00
NESTLÉ SA	KRAFT FOODS INC.'S US AND CANADA FROZEN PIZZA BUSINESS	04/01/2010	-2.0175%	-6.1292%	-4.5520%	-3.7096%	3700.00
NOVARTIS AG	HEXAL AG	21/02/2005	5.1581%	3.1171%	3.7872%	-0.3294%	6863.46
NOVARTIS AG	CHIRON CORPORATION	03/04/2006	-0.2204%	1.0897%	0.8413%	-1.2886%	5315.63
ORACLE CORPORATION	PEOPLESOFT INC.	13/12/2004	-0.4990%	-0.7665%	-0.9185%	-2.2546%	10300.00
ORACLE CORPORATION	BEA SYSTEMS INC.	16/01/2008	3.2514%	9.9506%	7.4466%	-0.8078%	7200.00
ORACLE CORPORATION	SIEBEL SYSTEMS INC.	12/09/2005	2.1301%	-0.8954%	-1.5357%	-5.9296%	5850.00
ORACLE CORPORATION	SUN MICROSYSTEMS INC.	20/04/2009	3.1687%	2.1913%	-1.0599%	-14.4264%	5600.00
ORACLE CORPORATION	HYPERION SOLUTIONS CORPORATION	01/03/2007	3.8259%	3.0784%	-1.3189%	1.4233%	3300.00

Acquiring firm	Target firm	Event day	CAR 3 days	CAR 7 days	CAR 11 days	CAR 21 days	Deal value
PFIZER INC.	WYETH LLC	26/01/2009	0.2853%	3.1221%	0.6331%	2.2644%	68000.00
POLO RALPH LAUREN CORPORATION	SUN APPAREL INC.	23/01/2006	1.1479%	0.3763%	0.5281%	1.2241%	355.00
SAP AG	BUSINESS OBJECTS SA	07/10/2007	-4.4889%	-8.2096%	-8.1280%	-11.9616%	6164.69
SAP AG	HYBRIS AG	05/06/2013	1.4448%	2.0808%	2.1042%	0.3576%	1500.00
STARBUCKS CORPORATION	TEAVANA HOLDINGS INC.	14/11/2012	-4.8625%	-2.3363%	-3.1348%	11.9537%	620.00
THOMSON REUTERS CORPORATION	THOMSON REUTERS PLC	22/06/2009	-4.6340%	-4.6859%	-8.9009%	-12.4578%	5497.08
VISA INC.	CYBERSOURCE CORPORATION	21/04/2010	1.6558%	1.1741%	0.7266%	-6.9437%	2000.00
VOLKSWAGEN AG	PORSCHE AG	04/07/2012	6.5639%	5.1567%	4.9116%	5.6316%	5521.76
WALT DISNEY COMPANY, THE	PIXAR ANIMATION STUDIOS INC.	24/01/2006	-1.3031%	-1.1861%	-0.5573%	10.3700%	7400.00
WALT DISNEY COMPANY, THE	LUCASFILM LTD	30/10/2012	-2.4464%	-3.0226%	-3.6226%	-6.1339%	4060.00
WALT DISNEY COMPANY, THE	MARVEL ENTERTAINMENT INC.	31/08/2009	-2.6590%	-2.1551%	-3.7874%	2.1894%	3924.39
XEROX CORPORATION	AFFILIATED COMPUTER SERVICES INC.	28/09/2009	-5.5693%	0.7775%	0.4462%	-0.2963%	8700.00
XEROX CORPORATION	GLOBAL IMAGING SYSTEMS INC.	02/04/2007	-0.1237%	-1.2038%	-1.9252%	-0.0457%	1500.00
YAHOO! INC.	TUMBLR INC.	20/05/2013	0.4115%	-4.0155%	-4.8383%	-0.5676%	1100.00

Appendix 2. Control group transactions

Acquiring firm	Target firm	Event day	CAR 3 days	CAR 7 days	CAR 11 days	CAR 21 days	Deal value
ACTAVIS LTD	WARNER CHILCOTT PLC	20/05/2013	4.7120%	5.2699%	5.7392%	15.0615%	8529.52
ACTAVIS PLC	FOREST LABORATORIES INC.	18/02/2014	8.7245%	11.7555%	12.7756%	11.8953%	24244.51
ACTIVISION BLIZZARD INC.	AMBER HOLDING SUBSIDIARY COMPANY	25/07/2013	14.7707%	16.4988%	15.8072%	10.6186%	5830.00
ACTIVISION INC.	VIVENDI GAMES INC.	02/12/2007	21.0172%	16.3400%	29.5209%	30.6628%	8120.75
ASML HOLDING NV	CYMER INC.	17/10/2012	-4.5712%	-2.2265%	-0.5716%	0.5022%	2557.20
AVIS BUDGET GROUP INC.	ZIPCAR INC.	02/01/2013	4.1200%	6.0621%	2.0497%	-0.3131%	500.00
BONDUELLE SA	FRANCE CHAMPIGNON HOLDING SA	03/02/2010	-2.8046%	-6.2936%	-9.1394%	-5.9615%	141.53
BROADCOM CORPORATION	NETLOGIC MICROSYSTEMS INC.	12/09/2011	4.0199%	4.5027%	7.0048%	10.1465%	3700.00
CBS CORPORATION	CNET NETWORKS INC.	15/05/2008	-6.3379%	-6.1569%	-5.4086%	-2.3574%	1750.57
CENTURYLINK INC.	QWEST COMMUNICATIONS INTERNATIONAL INC.	22/04/2010	-6.0562%	-6.0788%	-4.8399%	-2.9239%	22400.00
CENTURYLINK INC.	SAVVIS INC.	27/04/2011	1.2601%	1.5077%	0.3944%	3.0996%	3200.00
CLOETTA AB	LEAF HOLLAND BV	16/12/2011	5.8570%	14.8334%	15.4325%	9.6104%	1010.72
CLOETTA AB	ALRIFAI NUTISAL AB	09/12/2013	0.5599%	-0.4309%	-1.1361%	-3.8010%	62.92
CONAGRA FOODS INC.	RALCORP HOLDINGS INC.	27/11/2012	3.9280%	5.1310%	4.5927%	4.0301%	6800

Acquiring firm	Target firm	Event day	CAR 3 days	CAR 7 days	CAR 11 days	CAR 21 days	Deal value
CONTINENTAL AG	SIEMENS VDO AUTOMOTIVE AG (NEW)	25/07/2007	1.0198%	3.2957%	5.7047%	-3.7493%	16827.56
CONTINENTAL AG	VEYANCE TECHNOLOGIES INC.	10/02/2014	0.2314%	1.2899%	0.3194%	-2.9327%	1906.95
CONTINENTAL AG	MOTOROLA INC'S AUTOMOTIVE ELECTRONICS BUSINESS	03/04/2006	5.6260%	3.5748%	4.8460%	6.5145%	1000.00
COTT CORPORATION	CLIFFSTAR CORPORATION	07/07/2010	0.6227%	0.6133%	4.8720%	-5.7839%	569
COWEN GROUP INC.	BEL RÉ SA	31/12/2010	1.1699%	0.4058%	3.9446%	-2.2346%	292.96
DARDEN RESTAURANTS INC.	RARE HOSPITALITY INTERNATIONAL INC.	16/08/2007	-1.9669%	-2.2249%	-0.4007%	-2.8216%	1400.00
DARDEN RESTAURANTS INC.	YARD HOUSE USA INC.	12/07/2012	-1.5498%	0.3078%	0.6785%	-0.3871%	585.00
DECKERS OUTDOOR CORPORATION	SANUK BRAND	19/05/2011	-1.1351%	-3.0048%	-4.6188%	-8.7191%	120.00
DISH NETWORK CORPORATION	DBSD NORTH AMERICA INC.	01/02/2011	1.9276%	2.9252%	-0.6529%	10.2798%	1400.00
DISH NETWORK CORPORATION	TERRESTAR NETWORKS INC.'S ASSETS	12/03/2012	-0.8956%	3.1698%	4.4757%	11.0227%	1375.00
ENIRO AB	FINDEXA LTD	26/09/2005	-4.0250%	-4.2535%	-0.0767%	0.3200%	970.46
ENIRO AB	RESPONS AB	27/03/2003	-1.0328%	-1.6717%	-3.1118%	3.1079%	125.69
GROUP 1 AUTOMOTIVE INC.	UAB MOTORS PARTICIPAÇÕES SA	24/01/2013	2.7239%	1.7408%	1.9854%	0.3000%	208.07
HARRIS CORPORATION	STRATEX NETWORKS INC.	05/09/2006	2.1188%	-0.5341%	-3.2153%	-4.2733%	479.50
HARRIS CORPORATION	LEITCH TECHNOLOGY CORPORATION	31/08/2005	-0.6745%	-3.6809%	5.8153%	1.6710%	451.71
HARRIS CORPORATION	MULTIMAX INC.	31/05/2007	-2.8726%	0.2745%	2.6216%	5.5498%	400.00

Acquiring firm	Target firm	Event day	CAR 3 days	CAR 7 days	CAR 11 days	CAR 21 days	Deal value
HARRIS CORPORATION	CAREFX CORPORATION	22/02/2011	-2.7717%	-3.0076%	-5.7323%	-2.9707%	155.00
HARRIS CORPORATION	TYCO ELECTRONICS WIRELESS SYSTEMS	16/04/2009	-6.8002%	-8.9426%	-6.9081%	-9.2342%	675.00
HARRIS CORPORATION	CAPROCK COMMUNICATIONS CORPORATION	21/05/2010	-3.5284%	-3.8443%	-1.8256%	-4.2775%	525.00
HEXAGON AB	INTERGRAPH CORPORATION	06/07/2010	4.9722%	3.5157%	14.2246%	13.0736%	2125.00
HYATT HOTELS CORPORATION	PEABODY ORLANDO, THE	28/08/2013	-0.0483%	-1.8545%	1.0410%	1.0931%	717.00
IHS INC.	RL POLK & COMPANY	10/06/2013	5.4261%	4.7985%	5.4046%	-2.1736%	1400.00
IHS INC.	SMT HOLDING CORPORATION	26/07/2011	-4.4985%	-7.0719%	-9.1266%	-2.2482%	500.00
IHS INC.	JANE'S INFORMATION GROUP (HOLDINGS) LTD	12/06/2007	5.6998%	6.2402%	8.5769%	16.5667%	183.50
IHS INC.	GLOBAL INSIGHT INC.	18/09/2008	-21.0554%	-22.5004%	-24.3918%	-21.0752%	164.67
IHS INC.	GLOBALSPEC INC.	12/06/2012	0.1448%	0.9305%	-0.5612%	0.1616%	135.00
IHS INC.	ATRION INTERNATIONAL INC.	22/09/2010	0.2789%	1.7466%	2.5270%	-0.1232%	80.00
KAO CORPORATION	MOLTON BROWN LTD	15/07/2005	2.4313%	-1.5669%	-2.9997%	-3.3528%	298.51
LEGAL & GENERAL GROUP PLC	NATIONWIDE UNIT TRUST MANAGERS LTD	07/02/2007	-0.0026%	1.1832%	-0.3059%	-4.7936%	584.25
LEXMARK INTERNATIONAL INC.	BDGB ENTERPRISE SOFTWARE (LUX) SÀRL	05/03/2012	-0.9364%	-2.6069%	-4.3150%	-13.2862%	148.00
LEXMARK INTERNATIONAL INC.	SAPERION AG	20/08/2013	-0.7837%	-7.6685%	-13.3899%	-12.8742%	72.00

Acquiring firm	Target firm	Event day	CAR 3 days	CAR 7 days	CAR 11 days	CAR 21 days	Deal value
LIQUIDITY SERVICES INC.	JACOBS TRADING COMPANY'S CONSUMER GOODS REMARKETING BUSINESS	01/09/2011	25.0766%	36.2086%	32.4732%	31.8342%	170.00
LIQUIDITY SERVICES INC.	GENEVA INDUSTRIES LTD	10/04/2008	3.2159%	1.2588%	6.8025%	-2.0359%	20.10
LIQUIDITY SERVICES INC.	BURNS ENTERPRISES LTD	01/11/2012	-1.9111%	-3.1418%	0.4186%	-5.8503%	18.00
LIQUIDITY SERVICES INC.	NETWORK INTERNATIONAL INC.	09/06/2010	-0.5613%	0.1873%	-0.6606%	-0.7922%	15.00
MCBRIDE PLC	DASTY ITALIA SPA	12/02/2007	-0.5636%	-1.4449%	-1.4396%	7.0785%	38.31
MCBRIDE PLC	SANMEX INTERNATIONAL LTD	03/04/2006	-0.5215%	0.4143%	0.3290%	-0.7648%	12.87
MONITISE PLC	CLAIRMAIL INC.	26/03/2012	2.3474%	4.7211%	3.5345%	-2.1273%	170.45
MONITISE PLC	GRAPPLE MOBILE LTD	04/09/2013	9.1620%	10.6562%	21.7942%	23.0043%	56.14
MSC INDUSTRIAL DIRECT COMPANY INC.	BARNES DISTRIBUTION	22/02/2013	-0.6590%	-0.2123%	0.7138%	3.8950%	550.00
MSC INDUSTRIAL DIRECT COMPANY INC.	KENNAMETAL INC.'S J&L INDUSTRIAL SUPPLY BUSINESS	17/10/2011	2.0805%	1.4492%	0.6923%	3.2553%	349.50
NORDSTROM INC.	HAUTELOOK INC.	17/02/2011	0.3477%	-0.9150%	1.4811%	8.5838%	270.00
PERRY ELLIS INTERNATIONAL INC.	TROPICAL SPORTSWEAR INTERNATIONAL CORPORATION	16/12/2004	4.3142%	9.7511%	9.1743%	9.6163%	8 500.00
PERRY ELLIS INTERNATIONAL INC.	RAFAELLA APPAREL GROUP INC.'S ASSETS	07/01/2011	14.9070%	1.9394%	2.0850%	2.4865%	80.00
PERRY ELLIS INTERNATIONAL INC.	PARLUX FRAGRANCES INC.'S PERRY ELLIS BRAND	06/12/2006	1.4796%	4.5390%	1.2995%	3.4383%	63.00
PERRY ELLIS INTERNATIONAL INC.	LIZ CLAIRBORNE INC'S C&C CALIFORNIA BRAND	08/01/2008	21.5663%	5.4312%	9.6815%	32.8585%	37.00
POST HOLDINGS INC.	DAKOTA GROWERS PASTA COMPANY INC.	16/09/2013	5.1302%	-1.3952%	-1.8577%	-11.9887%	370.00
PRICELINE.COM INC.	KAYAK SOFTWARE CORPORATION	08/11/2012	0.5029%	3.0434%	13.1026%	15.6878%	1650.00

Acquiring firm	Target firm	Event day	CAR 3 days	CAR 7 days	CAR 11 days	CAR 21 days	Deal value
PVH PHILLIPS-VAN HEUSEN CORPORATION	TOMMY HILFIGER BV	15/03/2010	11.4592%	15.0716%	20.4781%	21.0446%	2948.21
PVH PHILLIPS-VAN HEUSEN CORPORATION	SUPERBA INC.	11/10/2006	3.3421%	6.1438%	7.5123%	2.0836%	180.00
PVH CORPORATION	WARNACO GROUP INC., THE	31/10/2012	22.6758%	19.7472%	20.1715%	19.3436%	2900.00
RAYMOND JAMES FINANCIAL INC.	MORGAN KEEGAN & COMPANY INC.	11/01/2012	-2.1847%	-2.7148%	0.0483%	-0.0132%	930.00
REVLON INC.	MIRAGE COSMETICS INC.'S CERTAIN ASSETS	08/11/2012	-2.0497%	-0.2925%	0.2303%	2.6322%	60.00
SALESFORCE.COM INC.	EXACTTARGET INC.	04/06/2013	-8.9042%	-3.8026%	-11.5127%	-17.3901%	2500.00
SALESFORCE.COM INC.	BUDDY MEDIA INC.	04/06/2012	-1.5461%	-6.5833%	-12.3647%	-11.8365%	688.00
SALESFORCE.COM INC.	JIGSAW DATA CORPORATION	21/04/2010	6.5604%	6.1508%	9.3313%	12.5062%	156.20
SOUTHWEST AIRLINES COMPANY	AIRTRAN HOLDINGS INC.	27/09/2010	9.5646%	7.0970%	7.2652%	5.9967%	3420.00
ST JUDE MEDICAL INC.	AGA MEDICAL HOLDINGS INC.	18/10/2010	1.2965%	-2.1891%	-4.7065%	-6.5930%	1300.00
ST JUDE MEDICAL INC.	ADVANCED NEUROMODULATION SYSTEMS INC.	16/10/2005	7.6783%	7.0147%	4.7408%	0.7315%	1 300.00
ST JUDE MEDICAL INC.	ENDONSENSE SA	19/08/2013	0.0056%	-1.6431%	-3.2990%	-4.2640%	333.13
ST JUDE MEDICAL INC.	ENDOCARDIAL SOLUTIONS INC.	23/09/2004	4.4067%	4.3813%	5.2820%	4.4178%	272.00
SYMANTEC CORPORATION	VERITAS SOFTWARE CORPORATION	16/12/2004	-7.4074%	-24.4444%	-27.3002%	-28.9262%	13500.00
SYMANTEC CORPORATION	ALTIRIS INC.	29/01/2007	-2.4412%	1.1643%	-0.9767%	-16.6915%	830.00

Acquiring firm	Target firm	Event day	CAR 3 days	CAR 7 days	CAR 11 days	CAR 21 days	Deal value
SYMANTEC CORPORATION	MESSAGELABS LTD	08/10/2008	-6.3131%	-4.0731%	-15.0490%	-6.2130%	695.00
SYMANTEC CORPORATION	CLEARWELL SYSTEMS INC.	19/05/2011	-2.0493%	-4.2375%	1.2149%	-1.6487%	390.00
SYMANTEC CORPORATION	VONTU INC.	05/11/2007	-5.4733%	-5.2730%	-3.9407%	-10.7483%	350.00
SYMANTEC CORPORATION	PGP CORPORATION	29/04/2010	-0.9097%	-3.2298%	3.9056%	1.3097%	300.00
TAKEDA PHARMACEUTICAL CO., LTD	NYCOMED INTERNATIONAL MANAGEMENT GMBH	19/05/2011	0.1496%	0.6419%	-1.2748%	0.0176%	12851.52
TOSHIBA CORPORATION	SONY SEMICONDUCTOR KYUSHU CORPORATION'S 300MM WAFER LINE FABRICATION FACILITIES AT THE NAGASAKI TECHNOLOGY CENTRE	20/02/2008	-2.2839%	4.3836%	9.6465%	3.8830%	979.86
TOTAL SYSTEM SERVICES INC.	NETSPEND HOLDINGS INC.	01/07/2013	0.8731%	2.7948%	6.9112%	7.6195%	1400.00
UNITED ONLINE INC.	FTD GROUP INC.	17/07/2008	3.7188%	4.9093%	9.9163%	9.6986%	754.00
UNITED ONLINE INC.	CLASSMATES ONLINE INC.	25/10/2004	-8.4195%	-9.3988%	-10.3609%	3.5343%	100
UNITED ONLINE INC.	MYPOINTS.COM INC.	11/04/2006	0.2412%	3.6549%	3.5732%	0.9099%	56.00
VMWARE INC.	AIRWATCH LLC	22/01/2014	-0.3346%	-3.3383%	-2.9091%	-2.0039%	1545.00
VMWARE INC.	NICIRA NETWORKS INC.	23/07/2012	-0.7262%	14.8148%	6.3882%	8.0352%	1260.00
VMWARE INC.	SPRINGSOURCE GLOBAL INC.	10/08/2009	-3.7219%	-4.1930%	-7.2578%	-17.0110%	420.00
WESTERN UNION COMPANY, THE	CUSTOM HOUSE LTD	31/08/2009	-7.0238%	-2.7276%	-4.4905%	1.6421%	370.00
WESTERN UNION COMPANY, THE	ANGELO COSTA SRL	31/12/2010	1.0874%	1.5120%	4.5293%	1.1947%	130.38
WPP PLC	AKQA HOLDINGS INC.	20/06/2012	3.2340%	-0.0770%	-4.2483%	-3.9072%	600.00

Appendix. 3 Classical linear regression model assumptions

The multiple regression model must respect the six underlying assumptions of classical linear regression (Westerlund, 2008). If the assumptions are not fully met, the coefficients will be biased and OLS cannot be applied.

1. The model must be linear in the parameters

The assumption was tested with the Ramsey Reset test. The null hypothesis was not rejected and thus, it can be concluded that the model is correctly specified.

Ramsey RESET Test
Equation: UNTITLED
Specification: CAR_3_DAYS C STRONG_BRAND LTOTAL_ASSETS
LOGINTANGBLEASSETS LRELATIVE_SIZE INTERACTION_TERM__T
OTAL_
Omitted Variables: Squares of fitted values

	Value	df	Probability
t-statistic	1.701179	163	0.0908
F-statistic	2.894010	(1, 163)	0.0908
Likelihood ratio	2.991812	1	0.0837

F-test summary:

	Sum of Sq.	df	Mean Squares
Test SSR	0.007908	1	0.007908
Restricted SSR	0.453286	164	0.002764
Unrestricted SSR	0.445378	163	0.002732
Unrestricted SSR	0.445378	163	0.002732

LR test summary:

	Value	df
Restricted LogL	262.5781	164
Unrestricted LogL	264.0740	163

Unrestricted Test Equation:
Dependent Variable: CAR_3_DAYS
Method: Least Squares
Date: 04/25/14 Time: 12:21
Sample: 1 182
Included observations: 170

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.066415	0.033006	2.012181	0.0458
STRONG_BRAND	0.005561	0.010839	0.513038	0.6086
LTOTAL_ASSETS	-0.004529	0.003544	-1.278033	0.2031
LOGINTANGBLEASSETS	0.009019	0.003307	2.726892	0.0071
LRELATIVE_SIZE	0.002343	0.002233	1.048936	0.2958
INTERACTION_TERM__TOTAL_ FITTED^2	6.38E-08	3.86E-08	1.651829	0.1005
	13.35609	7.851078	1.701179	0.0908

R-squared	0.143744	Mean dependent var	0.006504
Adjusted R-squared	0.112226	S.D. dependent var	0.055478
S.E. of regression	0.052272	Akaike info criterion	-3.024400
Sum squared resid	0.445378	Schwarz criterion	-2.895278
Log likelihood	264.0740	Hannan-Quinn criter.	-2.972004
F-statistic	4.560611	Durbin-Watson stat	1.902188
Prob(F-statistic)	0.000264		

Table 1: Ramsey Reset test

2. The mean value for the errors must be zero

$$E(u_t) = 0$$

As a constant term is included in the equation, the assumption is not violated.

3. The variance of the error must be constant

$$\text{Var}(u_t) = \sigma^2 < \infty$$

The assumption was tested with White's and Breuch-Pagan-Godfrey tests. Both test reject the null hypothesis about homoscedasticity. In order to respect this assumption, the regressions are run with heteroscedasticity-robust standard errors and the standard errors are adjusted.

Heteroskedasticity Test: White			
F-statistic	1.957652	Prob. F(18,151)	0.0153
Obs.*R-squared	32.16542	Prob. Chi-Squared (18)	0.0210
Scaled explained SS	122.3372	Prob. Chi-Squared (18)	0.0000

Table 2. White Specification test, Dependent variable: CAR3

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	4.176256	Prob. F(5,164)	0.0013
Obs.*R-squared	19.20052	Prob. Chi-Squared (5)	0.0018
Scaled explained SS	73.02684	Prob. Chi-Squared (5)	0.0000

Table 3. Breusch-Pagan-Godfey test, Dependent variable: CAR3

4. The errors must be linearly independent of each other

$$\text{Cov}(u_i, u_j) = 0$$

The sample neither is nor time series or in chronologic order over time. Here-with, the assumption is not violated.

5. The independent variable must be non-stochastic

$$\text{Cov}(u_i, x_j) = 0$$

Assessing the Pearson Correlation matrix tested the assumption. The matrix did not show any track of multicollinearity and the assumption is not violated.

Pearson correlation					
The table shows the correlation between the variables. Statistic signifinace: * 10 % level, ** 5 % level and *** 1% level					
Variable	1.	2.	3.	4.	5.
CAR 3 days	1				
Strong Brand	-0,143784 *		1		
Total Assets	-0,193959 **	0,649280 ***		1	
Intangible assets	0,226557 ***	-0,273061 ***	-0,303302 ***		1
Relative size	0,232268 **	-0,354082 ***	-0,343045 ***	0,142903 *	1

Table. 4

Pearson correlation					
The table shows the correlation between the variables. Statistic signifinace: * 10 % level, ** 5 % level and *** 1% level					
Variable	1.	2.	3.	4.	5.
CAR 7 days	1				
Strong Brand	-0,124349		1		
Total Assets	-0,138737 *	0,649280 ***		1	
Intangible assets	0,174791 **	-0,273061 ***	-0,303302 ***		1
Relative size	0,202517 ***	-0,354082 ***	-0,343045 ***	0,142903 *	1

Table. 5

Pearson correlation					
The table shows the correlation between the variables. Statistic signifinace: * 10 % level, ** 5 % level and *** 1% level					
Variable	1.	2.	3.	4.	5.
CAR 11 days	1				
Strong Brand	-0,180507 **		1		
Total Assets	-0,164328 **	0,649280 ***		1	
Intangible assets	0,132491 *	-0,273061**	-0,303302 ***		1
Relative size	0,250248 **	-0,354082 ***	-0,343045 ***	0,142903 *	1

Table. 6

Pearson correlation					
The table shows the correlation between the variables. Statistic signifinance: * 10 % level, ** 5 % level and *** 1% level					
Variable	1.	2.	3.	4.	5.
CAR 21 days	1				
Strong Brand	-0,106314	1			
Total Assets	-0,115716	0,64928 ***	1		
Intangible assets	0,037906	-0,273061 ***	-0,303302 ***	1	
Relative size	0,201420***	-0,354082 ***	-0,343045 ***	0,142903 *	1

Table. 7

6. The error terms are normally distributed

$$H_0 = u_t \sim N(0, \sigma^2)$$

This assumption was tested with Jacque Bera –test and by detecting a histogram over the residual, which showed that the residuals do not follow the normal distribution. However, as the sample is large and the residuals are very close to the normal distribution, it will not bias the result (Westerlund, 2008). Thus, the assumption is not violated in a way that would bias the result.

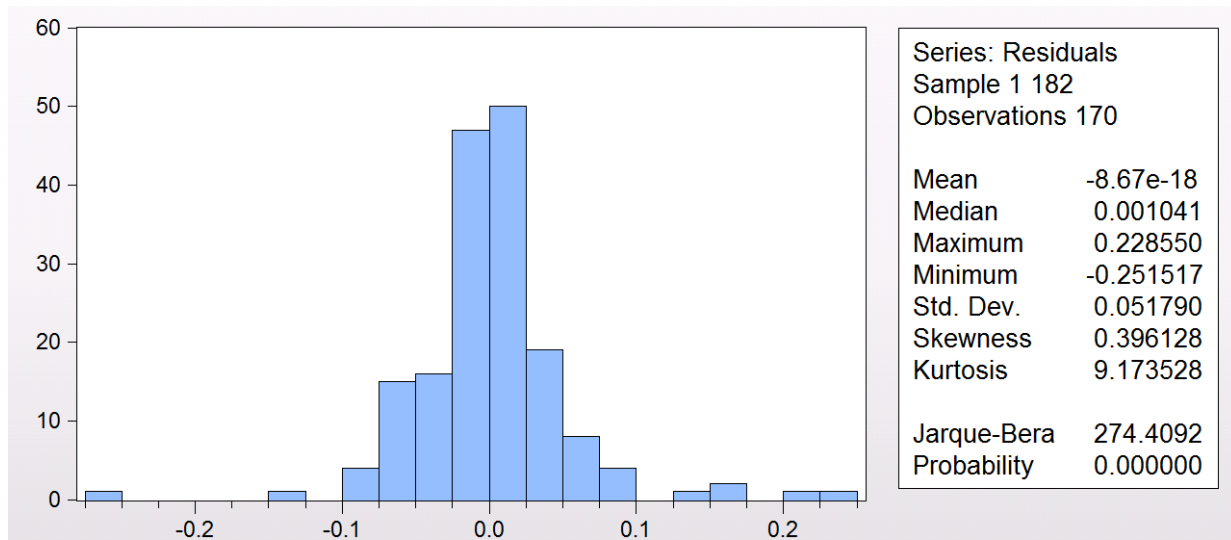


Table. 8: Residuals normality test, CAR3

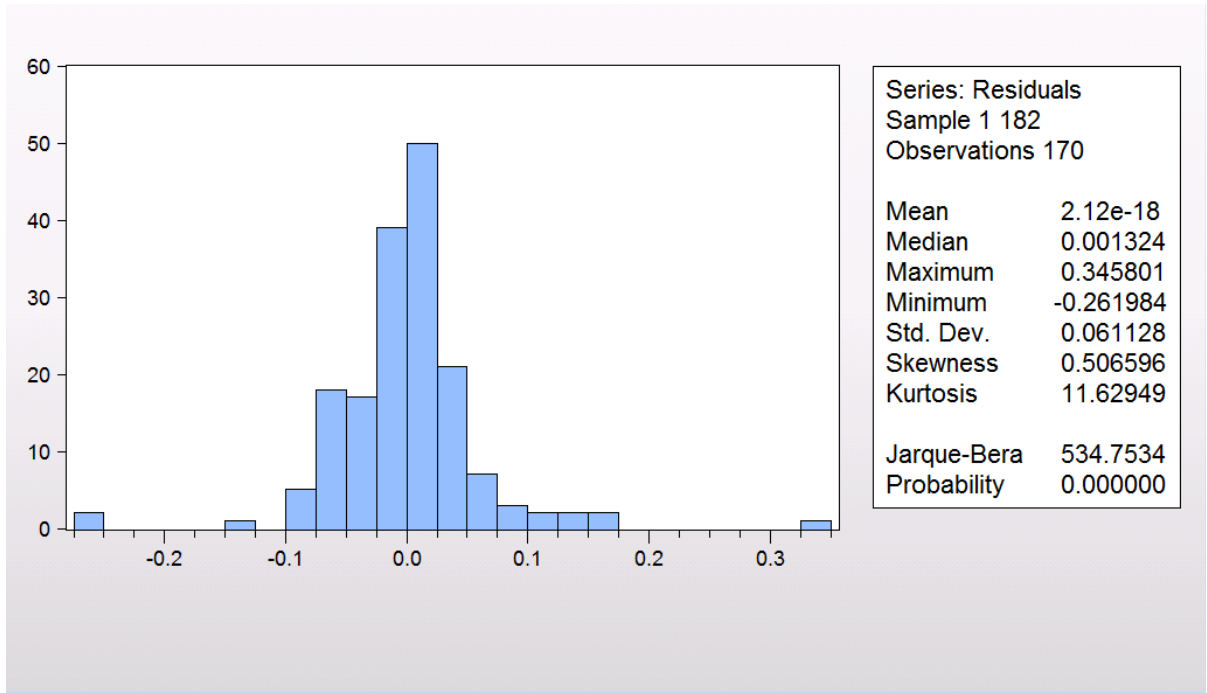


Table. 9: Residuals normality test, CAR7

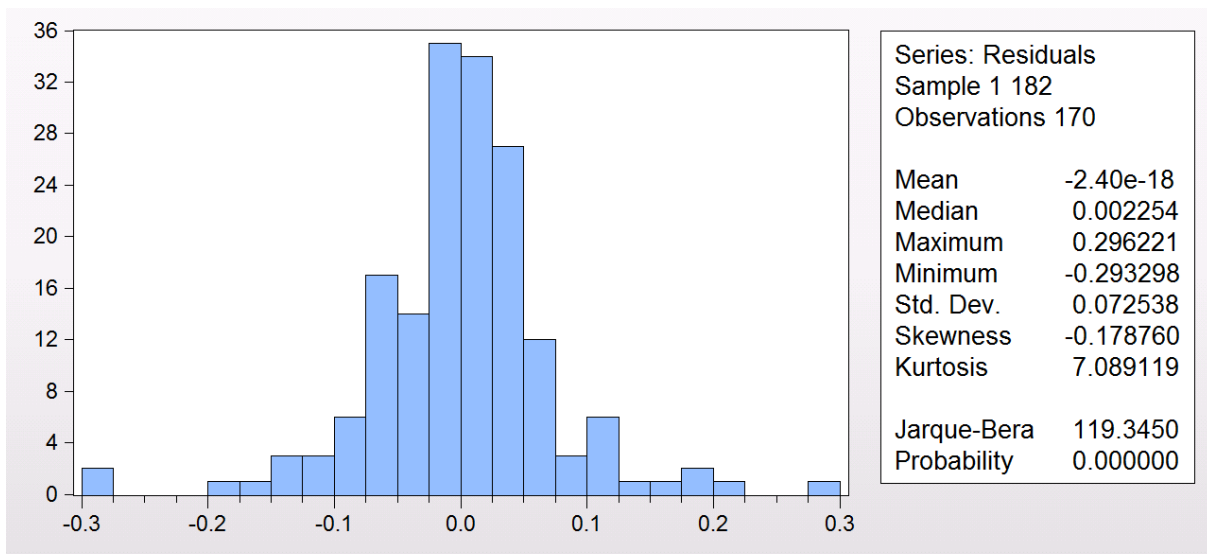


Table. 10: Residuals normality test, CAR11

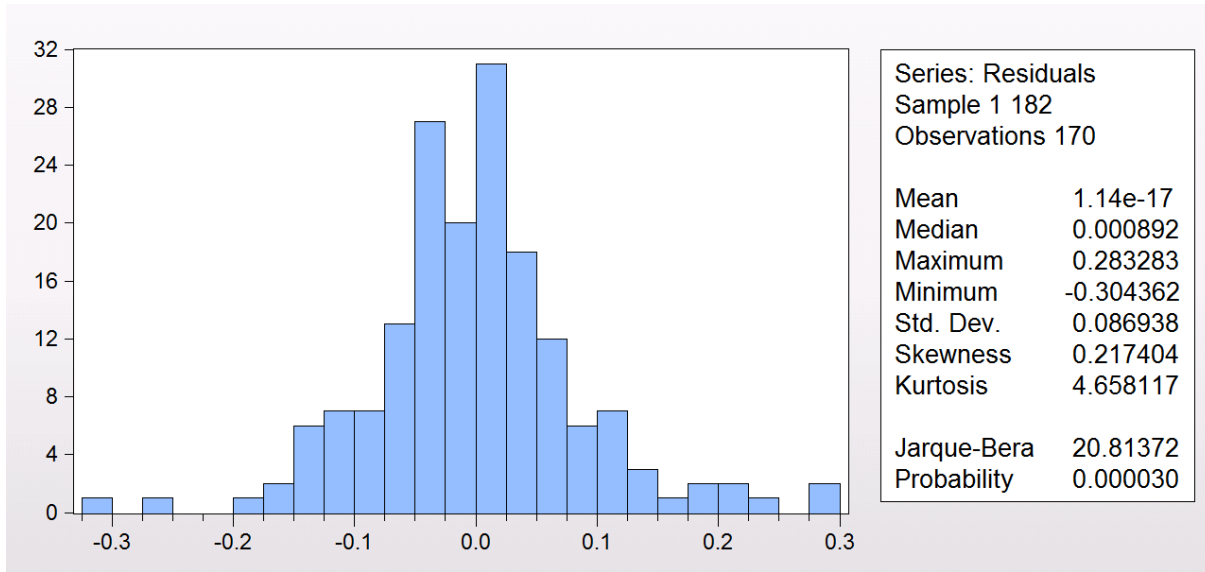
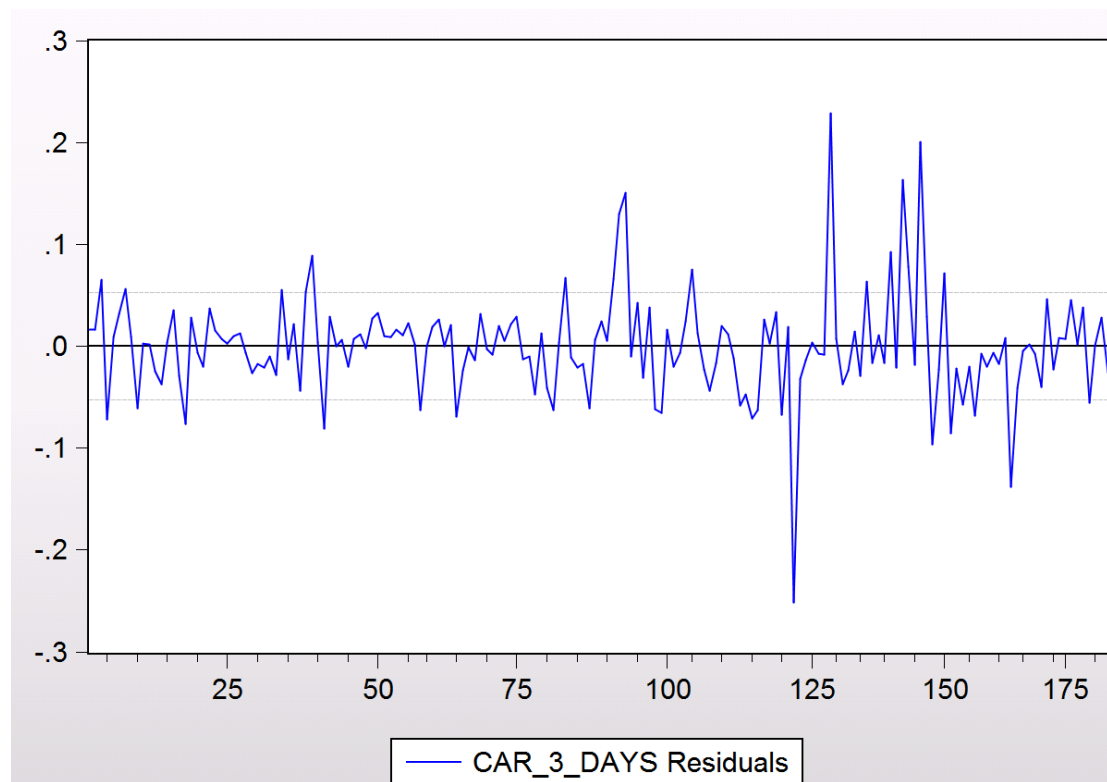


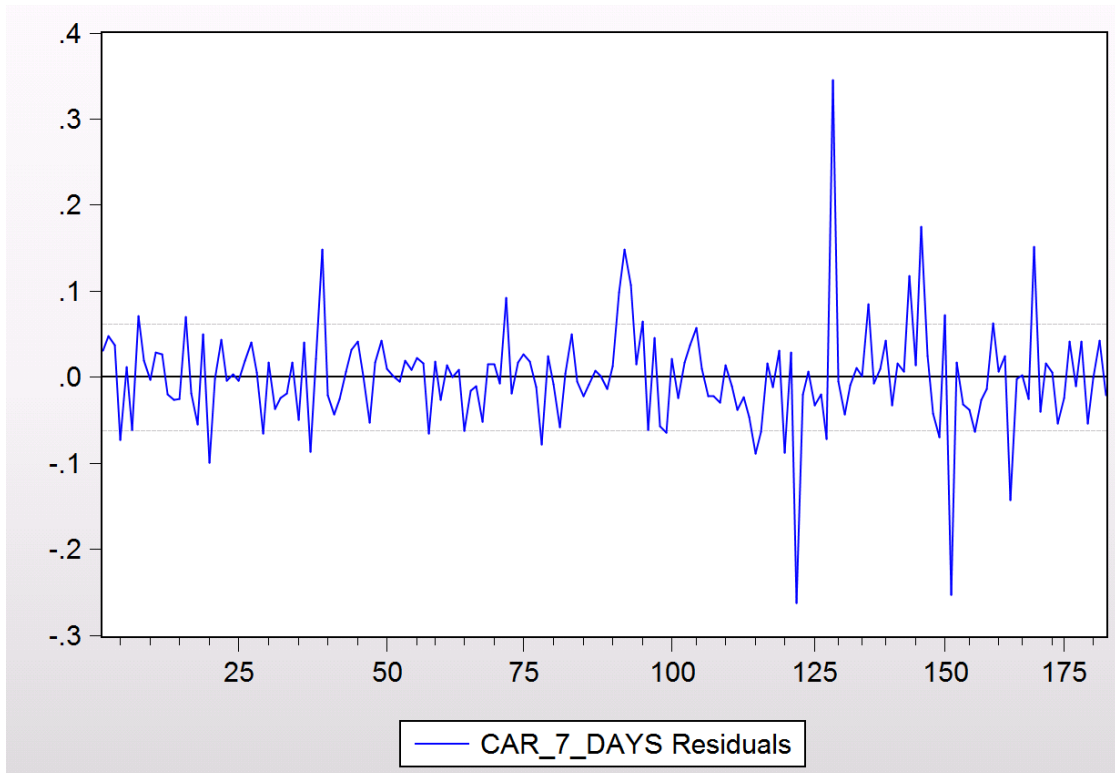
Table. 11: Residuals normality test, CAR21

Appendix 4. List of the outliers in the regression model

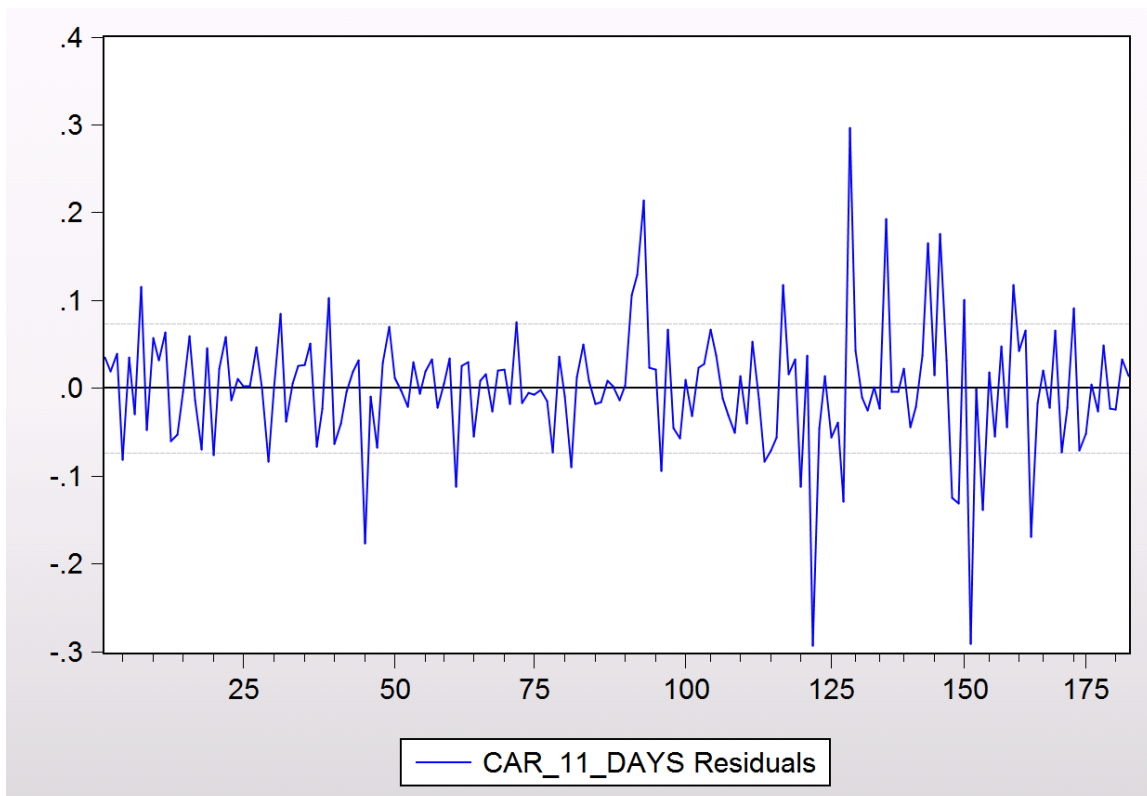
CAR 3			
A table over the outliers that exceed +/- 10 % on CAR 3 regression			
Observation	residual	Outliers	Deal nb.
92	0.12993	ACTIVISION BLIZZARD INC.	1601473789
93	0.15058	ACTIVISION INC.	598748
122	-0.25152	IHS INC.	1601017929
129	0.22855	LIQUIDITY SERVICES INC.	1601297178
143	0.16348	PERRY ELLIS INTERNATIONAL INC.	610061
146	0.20029	PVH CORPORATION	1601416237
162	-0.13802	UNITED ONLINE INC.	288739



CAR 7			
A table over the outliers that exceed +/- 10 % on CAR 7 regression			
Observation	Residual	Outliers	Deal nb.
39	0.14872	HERTZ GLOBAL HOLDINGS INC.	1601397617
92	0.14874	ACTIVISION BLIZZARD INC.	1601473789
93	0.10675	ACTIVISION INC.	598748
122	-0.26198	IHS INC.	1601017929
129	0.34580	LIQUIDITY SERVICES INC.	1601297178
		PVH PHILLIPS-VAN HEUSEN	1601164956
144	0.11825	CORPORATION	
146	0.17460	PVH CORPORATION	1601416237
152	-0.25259	SYMANTEC CORPORATION	303064
162	-0.14282	UNITED ONLINE INC.	288739
167	0.15157	VMWARE INC.	1601389313



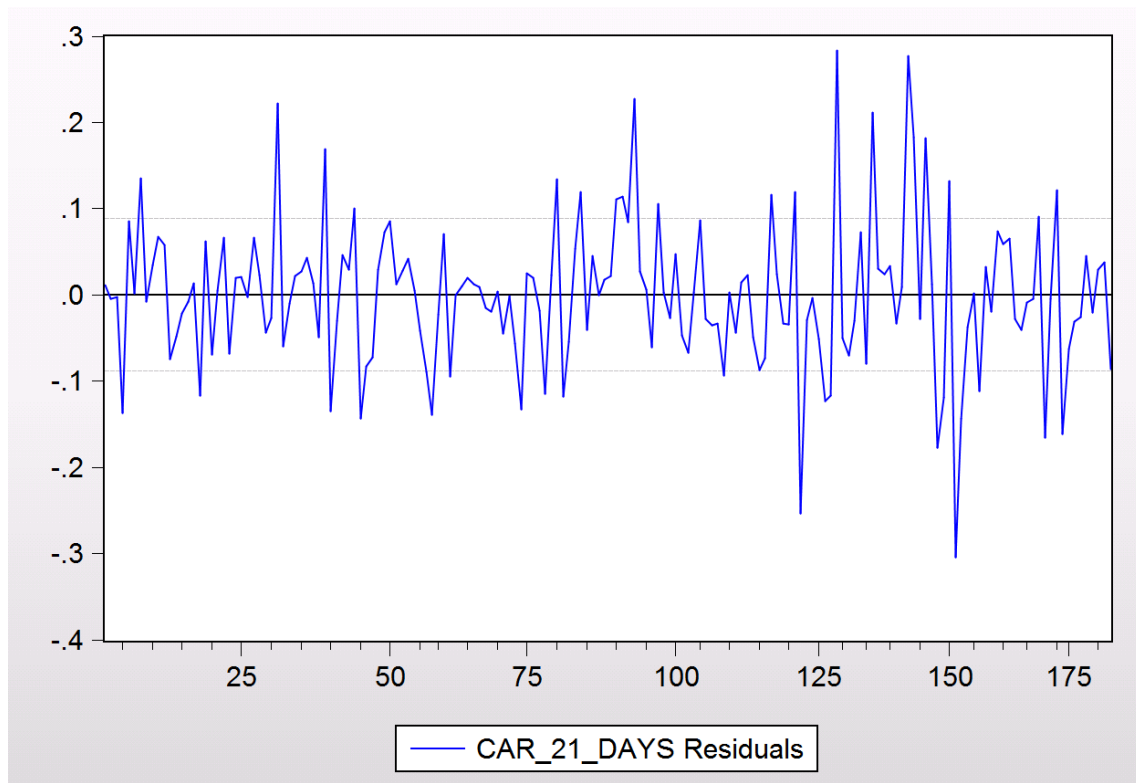
CAR 11			
A table over the outliers that exceed +/- 15 % on CAR 11 regression			
Observation	Residual	Outliers	Deal nb.
45	-0.17669	HTC CORPORATION	1601283560
93	0.21440	ACTIVISION INC.	598748
122	-0.29330	IHS INC.	1601017929
129	0.29622	LIQUIDITY SERVICES INC.	1601297178
136	0.19319	MONITISE PLC	1909017020
		PVH PHILLIPS-VAN HEUSEN COR-	1601164956
144	0.16564	PORATION	
146	0.17579	PVH CORPORATION	1601416237
152	-0.29122	SYMANTEC CORPORATION	303064
162	-0.16891	UNITED ONLINE INC.	288739



CAR 21

A table over the outliers that exceed +/- 15 % on CAR 21 regression

Observation	Residual	Outliers	Deal nb.
31	0.22190	EBAY INC.	1600001000
39	0.16897	HERTZ GLOBAL HOLDINGS INC.	1601397617
93	0.22764	ACTIVISION INC.	598748
122	-0.25357	IHS INC.	1601017929
129	0.28328	LIQUIDITY SERVICES INC.	1601297178
136	0.21117	MONITISE PLC	1909017020
143	0.27693	PERRY ELLIS INTERNATIONAL INC.	610061
144	0.18268	PVH PHILLIPS-VAN HEUSEN COR- PORATION	1601164956
146	0.18237	PVH CORPORATION	1601416237
148	-0.17742	SALESFORCE.COM INC.	1601481515
152	-0.30436	SYMANTEC CORPORATION	303064
168	-0.16513	VMWARE INC.	1601102954
174	-0.16119	POST HOLDINGS INC.	1601494965



Den varumärkta illusionen

Coca Cola, Apple, Microsoft, listan kan göras lång. Världens starkaste varumärken genomför årligen åtskilliga förvärv av nya företag. Men bidrar starka varumärken till värdeskapande vid företagsförvärv?

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Företagsförvärv sker i allt större utsträckning. Forskningen kring förvärvs värdeskapande är extensiv. Dock finns det viktiga faktorer som har förbisetts i nuvarande litteratur. En av dessa faktorer heter varumärken.

Forskarna Ristola och Skara har undersökt om starka varumärken har en bidragande effekt på värdeskapandet vid företagsförvärv. Undersökningen har utförts genom en event studie, där företagsförvärv utförda utav världens starkaste varumärken, har jämförts med förvärv gjorda av mindre starka varumärken.

Genom att kontrollera för hur den onormala avkastningen förändras efter utannonseringen av förvärvet, kan de från sina resultat utläsa att varumärken har en påverkan på värdeskapandet vid förvärv. Dock inte på egen hand.

Den intressanta aspekten är att varumärken endast har en påverkan på värdeskapandet i kombination med företagets storlek.

Resultaten i studien visade att varumärken har en positiv påverkan på värdeskapandet för mindre bolag med starka varumärken. De stora kassakossorna så som Coca Cola, Apple etc. visade sig ha en negativ påverkan på värdeskapandet vid förvärv.

- Detta kan ha många olika förklaringar, hävdar Ristola. Företagsledare kan lida av storsjansvansinne vid förvärv och värdera målföretaget på ett orealistiskt sätt. De innehar inte heller den kunskap som det nya bolaget kräver, om detta verkar inom en ny bransch.

För att sammanfatta, starka varumärken har en påverkan på värdeskapandet vid företagsförvärv när det uppköpande företagets storlek beaktas.

Till mångas förvåning har dock de stora och starka varumärkena en negativ påverkan på värdeskapandet vid företagsförvärv. Detta kan uttryckas som "den varumärkta illusionen".