Brands in M&A: Do brand-heavy acquisitions lead to value destruction?

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ABSTRACT

Brands are often considered to be a critical asset for companies, and according to previous research, this asset class represents almost 9.8% of the value in merger and acquisition (M&A) transactions. With a global M&A transaction value of over 4 trillion USD in 2007, it is interesting to note that the effect of brands in M&A has not attracted more attention within research, yet. This thesis aims to shed light on the effect brands have in M&A transactions, and more specifically identify whether acquisitions of relatively "brand-heavy" companies earn negative returns or not. To research this topic, an event study is carried out, where the cumulative abnormal returns (CAR) for acquirers in connection to M&A transaction are examined. The critical variable examined is the "brand-heaviness" of the targets, calculated based on historical advertising expenditures. The study includes 142 deals between listed companies in the US between 2002 and 2007.

The results of the study indicate that there is a significant negative relationship between abnormal returns and "brand-heaviness". The results suggest that acquisition of relatively "brand-heavy" companies destroys value to larger extent than M&A activity in general.

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1. INTRODUCTION

Do mergers and acquisitions with brand-heavy target companies lead to value destruction? A study by Arikan (2004) suggests that transactions with target companies being “intangible heavy” lead to substantial value destruction for the acquirer. One possible reason mentioned behind the results is that intangible assets are firm specific and therefore hard to imitate. So when a company acquires intangibles, because they are not easily “redeployed”, the transaction can destroy value.

“Intangible assets” can contain a lot of different assets, where the company brand is one of them. This study aims to investigate what effect this very asset, the brand, might have on the outcome in merger and acquisition (M&A) transactions.

WHY IS THIS IMPORTANT?

There are several reasons to why it is important to understand if and why acquisitions of brands can lead to value destruction in M&A transactions. First of all, brands often make up a substantial part of the average M&A transaction, a study by Bahadir, Bharadwaj, and Srivastava (2006) indicates that brands account for 9.8% of the transaction value (where the brand value in their case is estimated as the dollar value of the brand that the acquirer have reported post-deal). Coupled with the magnitude of the M&A activity in the global economy, which totaled at about 4.8 trillion USD globally in 2007 (Oxford Forecasting (2008)) this suggests that brands to a value of almost 480 billion USD changed owners during a single year.

Second, brands are important to companies. They are often considered a core asset since these enable them to take out a price premium on their products and services compared to no-name companies. The incremental cash flows which accrue from the price premium of branded products and companies over unbranded products companies are defined as the brand equity (Simon and Sullivan 1993). As it is possible to pick up significant value from it, firms allocate substantial effort both to building, maintaining and acquiring brands. However, the academic research on brands in the M&A context is scarce (Bandahir, Bharadwaj & Srivastava, 2006).

Third, brands, just like other intangible asset types, are hard to value and the valuations often rest heavily on assumptions set by the management. In a corporate finance textbook, Brealey, Meyers and Allen, (2006) present an argument that management is likely to be overconfident in M&A situations. They argue that this stems from an agency problem; managers are overconfident.

So, understanding if and why brands initially are overvalued by the buyers can prove to be an important lesson for the parties in future transactions.

THE PURPOSE OF THE THESIS

The purpose of this thesis is to shed light on the effect brands has on the outcome in M&A transactions. The focus is to discover whether or not acquisitions of relatively "brand-heavy" companies lead to value destruction in a higher magnitude than other transactions. This could prove to be an argument for whether or not companies can or should acquire brands, or if it is better to develop brands "organically".

In Richard Rolls article "The Hubris Hypotheses of Corporate Takeovers" (Roll 1986) he argues that companies are hard to value in general, and valuations can be both under and overestimated. However, a bid is only placed when the value happens to be "correct" or overestimated and this situation creates a sort of "winners curse" (most winning bids are value destructive). Our belief is that companies that are brand-heavy are particularly hard to value and could therefore lead to larger valuation errors than other companies.

Arikan (2004) has previously examined the effect of intangible assets in M&A transactions. She found that deals in which the target is relatively "intangible heavy" generally underperform compared to other deals. That is, acquiring intangible heavy companies is value destructive. In this thesis we want to take this research one step further and examine the effect brands (a specific part of intangible assets) have on M&A transactions. While intangible assets include a lot of different assets or "soft" values, we believe that brands are especially important for companies and should be examined further.

DISPOSITION

This thesis is structured as follows: First, in section 1, we have above presented a brief introduction to the topic and our purpose with this thesis. Section 2 will summarize a bit of the previous research that has been made on the subject and other research that could be relevant as a background to our research. In section 3 we state our hypotheses as well as our expected findings. Then, in section 4 there is an hypothetical example. This is followed by an explanation of the methodology of the thesis in section 5 describing how the dataset was obtained and how variables have been defined. In section 6 and 7 we present our results and discuss the findings and their possible implications.

2. THEORETICAL BACKGROUND

Do M&A-transactions create or destroy value? This is a question that has yielded a considerable amount of research over the years and to this date there is no clear answer to this question. Current consensus seems to indicate that M&A transactions yield zero abnormal return for shareholders of the acquirer, but actually gives positive abnormal returns for the target shareholders (Bruner, 2001).

But what are the factors affecting whether the transaction will be a success or failure? Intangible assets and the brand are factors that are increasingly more significant parts of the average company's assets. Nakamura (2001) estimated that the US corporate investment in intangibles was equivalent to US$ 1 trillion, making these comparable to the investments in property, plant and equipment together.

Intangible assets, however, are harder to value than any other assets. Are brand assets worth buying then? Can it be that acquirers tend to systematically overvalue companies that are relying heavily on their brand?

In this section we will make an effort to provide a brief summary of the prior research that has been performed in this field. We will focus on the articles that might provide a little more relevant background within the area of M&A and brands.

RESOURCE-BASED VIEW

Firms try to internalize growth opportunities. This means that companies try to create structures to make sure that growth stays within the company and cannot be copied by competition. The structures used to internalize growth opportunities may be built around processes, proprietary products, or know-how. But these can also rely on a brand that can drive the sales of the entire company.

The resource-based view implies that resources, being rare, valuable and inimitable, lead to competitive advantages (Barney 1991). Brands are considered to be rare as they distinguish companies, they are valuable as they can be used both internally as well as towards clients, and finally, brands are inimitable as they are time consuming to build up. One could therefore expect that companies are willing to internalize as much brand equity as possible, and intangible assets overall, as this leads to more growth opportunities. The natural consequence of this is that firms seek to acquire brand-heavy target companies. However, it is important to point out that mergers with these companies are more likely to lead to pricing, integration and maintenance problems.

INTANGIBLE-HEAVY COMPANIES

Arikan (2004) presents findings that suggest that deals involving “intangible-heavy” targets are value destructive. Using a long-run study (measuring the abnormal returns over a 5 year period), covering transactions made 1988-1991, she arrives at the conclusion that firms buying intangible-heavy companies earn negative abnormal returns. The abnormal returns for these companies are 12% lower than for other M&A transactions.

The conclusion Arikan (2004) draws is that taking ownership of a target company’s intangible assets is not associated with the equivalent economic value. She argues that this value destruction in intangible-heavy M&A transactions is due to the fact that intangible assets are not easily redeployed. Compared to a tangible product, a brand cannot simply be copied to create a new revenue stream. The same applies to intangible assets that are used by another company - they are not used in their natural habitat, and this second-best use then makes this asset class lose value.

IMPORTANCE OF BRANDS

The importance of brands in M&A can be illustrated by a popular case - the acquisition of the famous automaker Rolls-Royce in 1998. At that time Volkswagen invested £430 million in buying the company, excluding the brand itself. Instead BMW came to acquire the rights to the visual identity and brand of Rolls-Royce for £40 million. BMW started with no tangible assets, but by 2009 it is clear that they managed to find a success formula to grow the target company using just the brand as starting ground. This example clearly shows that the brand can be a very important asset.

Investments in the brand lead to the ability to take out a price premium compared to the competition. Simon and Sullivan (1993) define the value of a brand as “the incremental cash flows which accrue to branded products over and above the cash flows which would result from sale of unbranded products”. Aside from increasing cash flow for companies, brands are often considered to be strategic assets in M&A transactions. Bahadir et. al. (2006) refers to a transaction where Philip Morris acquired Kraft, where the CEO supposedly stated the following:

“The future of consumer marketing belongs to
the companies with the strongest brands”.

McAlister et. al. (2007) refer to several studies showing the positive effects from advertising. By increasing the differentiation of a brand's products, making them harder to substitute and creating the opportunity to take a price premium, advertising increases the profits and firm value. As advertising investments are allowed to be treated as immediate expenses in the US, this does also give brand-heavy companies an comparative advantage over other firms as it acts as an indirect tax subsidy (Chauvin and Hirschey 1993). This should be compared to companies investing in tangible assets that need to be capitalized, meaning that they have to distribute the expense over the lifetime of the asset, and thus get the tax-deductions further out in time.

ESTIMATION OF BRAND VALUE

Just like with any other intangible asset, estimation of brand value is hard to perform. There are three common methods used to valuate intangible assets; the market approach, income approach, and the cost approach. The market approach method tries to estimate comparable sales from companies having similar assets, but lacking the same brand asset. The income approach is similar to the discounted cash flow (DCF) model often used in finance. It takes into account the net present value of the future cash flows rendered by the brand. However, both these methods require underlying data from either a comparable set of competitors or ratings from the customers on their willingness to pay a price premium for a brand over another. Several quantitative studies have instead relied on the cost approach (Arikan (2004), Chauvin and Hirschey (1993), Lev and Sougiannis (1996) and Louis et. Al. (2001), McAlister et. al. (2007)). This technique tries to estimate the cost it takes to create a brand asset.

In order to estimate brand value using the cost approach, investors are helped by looking at advertising. Arikan (2004) calculates the brand value using advertising expenditures by summing five years of historical data and letting it decline linearly by 20% per year. This method is also used by Lev and Sougiannis (1996) and Louis et. al. (2001) in their respective studies. However investments in advertising are then replaced with research and development expenditures. An alternative to this is used by McAlister et. al. (2007), where a five-year moving average of advertising spend is calculated.

The main disadvantages with the cost approach are that it fails to approximate the economic benefit of the brand and that it does not reflect the consumer's view of the company. While it takes into account the cost of building a brand, it does not necessarily correlate with the economic impact this cost can give. This can be done by asking consumers how much they are willing to pay for a branded versus an unbranded product. In their review of measures of brand equity, Aliwadi et. al. (2003) name the Interbrand consultancy as one actor that combines this with financial market outcomes. However, this methodology is not applicable in a quantitative study of this kind. The cost approach is better, as it offers easy calculation, is readily available, and makes external validation possible.

It is interesting to note that companies investing heavily in advertising seldom invest heavily in R&D. Chaunvin and Hirschey (1993) conclude that companies that are willing to differentiate themselves invest in one or the other, but not in both advertising and R&D. One can argue that this facilitates the valuation of the total intangible assets in companies, as one does not have to focus on different classes of investments.

REASONS TO ACQUIRE A BRAND

It has been proven that brand equity has a positive effect on a company's return on investment (ROI). Kumar and Blomqvist (2004) state that companies seeing high growth in brand equity experience average ROI of 30%, while companies with brand equity shrinking most see a negative average ROI of 10%. This means that brands as such are a good investment – however, the equation might be altered if the brand is bought. One reason for buying a brand is if the existing becomes too large. In most cases there are limitations in how large brands can effectively grow (Kapferer (1992)). This might be a reason for companies that are willing to expand their sales without having to go through the time consuming process of building an additional brand, to consider acquiring another brand. The rationale behind this is that adding a brand to the company portfolio can facilitate quicker growth.

Furthermore, there are many cases when simply having one brand, what is referred to as a branded house in marketing research, is not optimal. Aaker and Joachimstahler (2000) mention several reasons for this, three of them being; First, it does not provide unique associations for different products. Second, it does not allow the company to retain and capture customer and brand relations. Third, it creates a channel problem as conflicts appear in how the distribution of differently priced products should be handled. These limitations in having one single brand can possibly tempt acquirers to pay higher premiums in brand-heavy M&A deals than the market would usually expect, as it might provide them an alternative to growing an existing brand.

DIFFICULTIES LINKED TO ACQUIRING BRANDS

Studies have previously pointed out that brands are more context dependent than other assets in a company (Capron and Hulland (1999) and, Anand and Delios (1997)). Redeploying a brand in a new structure is often coupled with difficulties as the transactions require appropriate management during the transfer and a corporate culture specific to that brand. Capron and Hulland (1999) pointed out that brands need specific routines, systems and culture in order to work properly. Acquiring executives might think that they will be able to handle these questions by finding an optimal resource combination between their managerial structure and the potential in the target brand. This could potentially drive acquirers to place higher bids than expected.

DEAL MOTIVATION

A study performed by Gerbaud et. al. (2006) on one of the most important intangible assets, knowledge, is congruent with the general findings of Arikan (2004). By comparing "property-motivated" acquisitions with "knowledge-motivated" acquisitions they conclude that there is an adverse market reaction to the latter. The short term performance of the bidder in knowledge-based transactions will be less favorable than in property-motivated acquisitions.

The agency problem is another well know phenomenon from the corporate finance literature. Self-interested managers are often driven by the thought of empire building. This fact, together with the fact that they often suffer from hubris, leads to overconfident decisions (Brealey et. al. 2006). Arikan (2004) argues that most managers want to be viewed favorable and therefore they have incentives to lower their personal risk by delaying or advancing project resolution by investing in what is referred to as exploratory projects (Hirshleifer et. al. 2001). It usually takes a long time before these exploratory projects can be assessed in terms of whether they have resulted in the expected outcome. By the time it is possible, the initiator of this kind of M&A transaction is in a position where he or she cannot longer be held accountable for the result.

Transactions with brand-heavy companies can be compared to projects as the one described above; they are resolved far into the future, as it is hard to see the full effect coming from a brand in the short term. This could mean that managers, especially those who are uncertain about their capabilities, would prefer to buy brand-heavy companies, rather than tangible-heavy companies. It is usually harder to "prove" that these transactions are not successful, as with time it becomes hard to isolate the performance when factors such as macro-economic influence might change the development of the company.

The agency problem described above is likely to be more severe in companies having excess cash reserves. Previous research has shown that cash-rich bidders tend to destroy value in greater extent than other companies (Harford 1999). It will therefore likely act as a lever to the agency problem, and cash reserves are therefore important to have as a control variable when studying this phenomenon.

3. HYPOTHESIS

The main purpose of this thesis is to explore what effect brands have in M&A transactions. Our belief is that transactions that involve a brand-heavy target are more likely to result in value destruction compared to other transactions. There is a number of reasons to why we have this belief and there has been some previous research supporting this.

PREVIOUS RESEARCH

First of all there has been research on the effect of intangible assets in M&A transactions that concluded that transactions involving "intangible heavy companies" earn negative abnormal returns (Arikan 2004). The main reason that Arikan states to explain her findings is that intangible assets in general are hard to redeploy, and thus not as valuable under a new owner as under their "natural habitat" in which they were created. As brands are part of what is called intangible assets we expect that our results will be similar to those of Arikan.

THE WINNERS CURSE

Second, Richard Rolls hypothesis about hubris includes reasoning about the winners curse in M&A transactions (Roll 2004). He believes that companies are hard to value in general and that bids only are placed when the valuation of a company is overestimated.

We, as stated earlier, believe that brands are hard to value in particular, so valuations of relatively brand-heavy companies are more likely to be erroneous. However, we do not believe that brands always are overvalued, but as Richard Roll's reasoning states: it will only be the overvaluations that result in a winning bid.

THE HYPOTHESIS

The following hypothesis will be tested using a regression, taking into account the brand-heaviness of the target as well as other factors known to impact the results in M&A transactions;

Main hypothesis: Acquirers of targets who are relatively brand-heavy earn negative abnormal returns around the date of announcement

4. HYPOTHETICAL EXAMPLE

To illustrate the main issues we believe are present in transactions where brands could play a major part we will describe a hypothetical example from the automotive industry, where brands are crucial. Car brands all have their distinct characteristics and most car brands signal more than just a difference in hardware in the cars. The brands often have very specific profiles that attract different types of buyers.

THE DEAL

In our example the target (Target Co) is a very successful, but fairly small car company. Their cars are considered to be of high quality and also very exclusive. They sell about 10,000 cars per year and have been growing steadily at a pace of about 5% per year.

Currently the company is owned by its founder who is still active as the CEO and is much respected within the industry. The company is for sale since the CEO and founder is of retirement age and has no family to take over the company.

A lot of companies have shown interest in acquiring the company, but in the end there are two reasonable candidates, with very different plans for the company.

The first candidate is a large international automotive group (Global Cars Co), a company with a CEO who has had a very aggressive acquisition strategy and built up a large portfolio of different car brands with different characteristics. The portfolio includes everything from a budget car brand to the most exclusive brand on the market. They plan to keep the company as a separate entity and to sell the cars under the old name, but see a lot of synergies in common procurement, manufacturing and R&D.

The second candidate (SportsCars Co) is a smaller automotive company, specialized in making sport cars. They currently sell more cars that Target Co, but they are a bit cheaper and have a more sporty profile. They do not see as many cost synergies as Global Cars Co do, but after the acquisition they plan to sell their own cars under the Target Co brand, since they believe that their prices could be raised with a more exclusive brand.

Both candidates estimate to sell equal amounts of cars in the future, the same number as Target Co have estimated in its current business plan. The candidates have also arrived to the exact same valuation of the company as the seller has.

THE ISSUES

In both deals we believe that there is an important issue, concerning the brand valuation. Even though both companies estimate to sell the same amount of cars as Target Co estimates to sell in its current state, there are a few things that might suggest that this should not be the case.

We believe that perhaps the most important issue, applying to both of the proposed deals, is that the brand is hard to redeploy.

In the first case, the brand could be diluted as just one in a large portfolio of brands. With combined manufacturing and R&D the consumer might lose confidence in the quality of the cars and what the brand previously had signaled. In this case another issue that might be obvious, is that the CEO has previously pursued a very aggressive acquisition strategy. This could indicate that he is overconfident, trying to grow his company, perhaps at the expense of making extensive due diligence.

In the second case, the SportsCars Co is planning to sell their own cars under the Target Co brand. Although both companies have been producing cars of high quality, the brand in terms of the name and the logo might not be worth much in itself, if the product does not reflect the brands identity.

Our hypothesis suggests that since it is hard to make a proper valuation of the brand in its new environment, the acquisition of the “brand heavy” Target Co will most likely be a bad deal for the acquirer. In line with this, there are two aspects that we mainly focus on in our hypothesis: (1) Brands are very hard to value, so there is a big chance of a valuation error. (2) The winner of the bidding process will be subject to a “winners curse”, saying that the winner will be the company who is likely to have made the largest positive valuation error by bidding too high.

Consider the Swedish car brands Volvo and SAAB as examples. Both brands could be considered to be quality cars, and fit roughly within the same price range. However, the brands have completely different identities. While Volvo is considered to be the Scandinavian, “safe” car, the SAAB brand tries to play on its Scandinavian design and fighter jet heritage.

If we assumed that the real value of the company would be the same for both candidates, the company winning the bidding process of the company would have made the largest error in its valuation. As our example is suggesting, the brand value might be the largest source of that valuation error.

5. DATA SELECTION AND METHOD

SELECTION CRITERION

This study covers the time period between the years 2002 and 2007. 2008 data have been excluded because of the turbulent economic environment during this year. The deals have also been limited to American companies in order to avoid any influences that cross border mergers and acquisitions might cause. The list of companies studied has also been limited to companies quoted on an American stock exchange. Table 1, below, includes a small sample of the deals included in this study.

Table 1. Sample deals

Announcement date	Acquiror	Target
2005-04-18	Adobe Systems Inc.	Macromedia Inc.
2005-05-10	ScanSoft Inc.	Nuance Communications Inc.
2005-05-10	Sun Microsystems Inc.	Tarantella Inc.
2005-06-28	Sun Microsystems Inc.	SeeBeyond Technology Corp.
2005-07-12	TD Banknorth Inc.	Hudson United Bancorp
2005-07-26	Fulton Financial Corporation	Columbia Bancorp Inc.
2005-07-28	Whitney Holding Corporation	First National Bancshares Inc.
2005-08-10	Whirlpool Corporation	Maytag Corporation, The
2005-08-11	ValueClick Inc.	Fastclick Inc.
2005-08-24	Johnson Controls Inc.	York International Corporation

Because of the nature of this study, the limitation to quoted companies was necessary to gather enough information as well as measure the stock market reaction caused by the deals. In addition, all deals where the acquired stake was smaller than 100% have been excluded in order to avoid erroneous adjustments for acquisitions that are executed over a longer time period. Delimiting to 100% acquisitions also eliminate the need to make adjustments to the stock market reaction for partial acquisition. The list of deals, given the restrictions mentioned above, was obtained using the Zephyr database (Bureau Van Dijk) and resulted in 547 transactions.

A prerequisite for this study to be carried out is that there is information available regarding the advertising expenditures (in order to estimate brand value). The list of companies has therefore been reduced to the companies that have stated this in their reports and registered this data in the COMPUSTAT database. The number of companies in our sample who stated their advertising expenditures was 217. Out of these 217 observations there were a number of companies for which there were missing values in one or several years. However, in order to keep as many observations as possible, we estimated the missing values for these companies based on values adjacent in time.

A reason to why so few companies have stated their advertising expenditures is that US accounting regulation changed in 1994, which resulted in that stating advertising expenditure was no longer mandatory (Vidolovska 2005). However, some companies still choose to separate advertising expenditures in their annual reports. It is thus companies choosing to be transparent in their accounting that have ended up in our sample.

Finally, a number of observations were eliminated due to missing or extreme values. Of these eliminated observations there were 8 which had extreme values in the return (> 2 Std. Deviations), and the rest was due to missing values in one or more of the variables. After all above-mentioned adjustments were made the dataset was consisting of 142 observations.

We recognize that the exclusion of companies that have not stated their advertising expenditures might cause a bias in our dataset since there is a strong possibility that the brand-heavy companies are more likely to state this information in their reports. The dataset does however allow us to compare between companies that do invest in their brands to different extent, thus making this piece of research relevant to the market.

In Table 2 below is a brief summary of the dataset. The table shows that the observations are quite evenly spread over the time period. Exactly half of the dataset consists of deals where the payment method was cash. Most of the deals, 96 out of 142, were between companies in related industries.

Table 2. Dataset statistics

Dataset statistics	Number of observations
2002	12
2003	20
2004	30
2005	26
2006	25
2007	29
Related industry	96
Cash payment	71
Total observations	**142**

EVENT STUDY

To measure the effect of the M&A transaction on the acquiring company's return, our method of choice is the event study. Event studies are good for measuring the impact of a specific event, such as an M&A transaction (MacKinlay 1997). Event studies provide what is referred to as a forward looking measure of the value creation/destruction by the event since an efficient market would immediately correct the share prices for over/under valuations.

The event window for this study contains both the announcement date and the date after (referred to as day 0, and day +1). The main reason behind this being that the time during the day when the announcement is released is unknown in most cases. It is therefore possible that the effect comes the day after. The day before the announcement is not included in order to avoid share price effects that are due to rumors, which can contain false information. However, in order to check for robustness of the results we also test with different event windows.

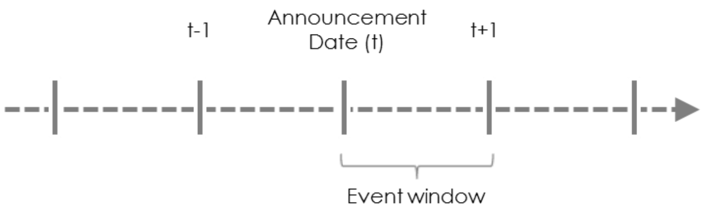
Other studies within the subject of M&A transactions, however, use a variety of event windows. Some include the day before the announcement and sometimes the event window is longer, for example 5 days prior to 5 days after the announcement.

In an event study one also needs to have an "estimation window" in which the normal return of the stock is estimated. In our case this window goes back one year from the event. This is in order to calculate the beta value of the stock, which will be used to compute the abnormal return.

Event studies do also have some weak points when studying effects of the kind that we are aiming to do. One possible criticism is that the market reaction to these kinds of events is characterized by uncertainty. It is hard to value the future effect of an M&A transaction overnight. With this point in mind, a long run study would seem to be the better method to measure the outcome of the transaction. However, with long run studies it can be difficult to separate the effect of the transaction from other events. As described earlier, long-run effects of M&A transactions with brand-heavy companies have also partially been described by Arikan (2004). These two are the main reasons to choose the event study method.

ABNORMAL RETURNS

The measure for abnormal returns is the cumulative abnormal return (CAR), including both the announcement date and the day after. To compute the abnormal return the actual return of the stock (between t to t+1, equivalent of day 0 and day +1) has been compared to the return it should have earned, according to the market model (CAPM). The return of S&P 500 is used as a proxy for the market return.



BRAND VALUATION METHOD

"The value of a brand, brand equity, stems from brand loyalty, brand awareness, perceived quality, and brand associations (...). Building and maintaining these aspects of brand equity is done, in most part, by advertising". – Smith (2002)

To measure the brand-heaviness the method of choice has been to add up historical advertising expenditures and divide by the average sales of the target for the same historical period. The advertising expenditures have been assumed to depreciate by 20% each year, so advertising expenditures for five years (the year before acquisition and four previous years) have been used. Where the most recent year is included with 100% and the others are included with 80, 60, 40 and 20% respectively. This method does not yield an exact approximation of the real brand value, but can provide an insight of the relative brand-heaviness among the companies included.

One possible critique of using five years of data is that the period is too short, since brands in most cases are long-lived assets and investments. Taking this into account we have still chosen to use a 5-year period in order to obtain a large enough data sample;

Further, the brand-heaviness variable has been adjusted for the relative size of the target and the buyer. It has simply been multiplied by the size ratio, which is defined as the "Target sales" in relation to "Buyer sales".

$$\frac{Sales_{Target}}{Sales_{Buyer}}$$

This adjustment has been made since the relative size of the companies should determine how significant the impact of the transaction should be on the share price. The share price reaction is probably smaller when a large company buys a small company compared to the situation where a company buys another of equal size. With this adjustment a measure of how much of a brand the acquirer is buying in relation to itself is obtained.

The reason why sales have been chosen as the size variable instead of market capitalization is due to a number of reasons. First of all, net sales is a more stable variable that market cap. The market cap of a company can fluctuate greatly, especially when the trading volume of a stock is low. These fluctuations might cause a bias if the stock is valued especially high or low during the date it is measured.

CONTROL VARIABLES

Relatedness

Previous research suggests that relatedness of the firms in M&A transactions is an important factor to examine. Coff (1999) suggests that acquirers in an industry unrelated to the target may require less information about the target company as they are less prone to seek synergies. However, not performing more advanced forms of post-acquisition integration, as usually is the case when companies are seeking synergy, puts the buyer especially at risk of over-bidding. This would suggest that companies in unrelated industries would underperform. To measure the buyer and target relatedness we have chosen to compare the first two digits in the four-digit Standard Industrial Classification (SIC) code that defines what industry a company is in. In our regression this will serve as a dummy variable, taking the value 1 if the companies are related and 0 if they are unrelated. The SIC codes have been obtained using the Zephyr (Beurau van Dijk) database in connection with our collection of deal data.

Payment method

Previous research suggests that the payment method in a deal affects its outcome. Studies made by for example Asquith, Bruner and Mullins (1987) as well as Huang and Walkling (1987) show that the shareholders of an acquiring firm using stocks as payment earn negative abnormal returns, whereas those using cash earn zero or positive returns. We have included a dummy variable into our regression, which takes the value 1 if the transaction was paid with cash and 0 when the transaction is paid with stocks. In line with the previous studies mentioned we expect to get a positive coefficient.

Cash reserves

The Cash reserves of the acquirer have also been included as a control variable. The reason why we have included this is that previous research in the field suggests that companies with excess cash perform acquisitions that earn negative returns (Bruner 2001). The variable that has gone into the regression is the relative cash position, which is defined as the cash reserves divided by the companies' sales.

Price/Book

The Price/Book ratio of the acquirer is also included as a control variable. Previous research by for example Rau and Vermaelen (1998) suggests that the Price/Book ratio can explain some of the abnormal returns related to a transaction. They argue that high Price/Book ratios lead to negative abnormal returns while low Price/Book rations lead to positive returns.

VARIABLE STATISTICS

In table 3 below, descriptive statistics for the deals are presented. First, as mentioned before, the dataset contains 142 observations. The mean of the abnormal returns is negative, suggesting that the deals make negative abnormal returns in general. However, the standard deviation on the abnormal returns is quite high.

For the "brand-heaviness" variable, our sample has a mean value of 1.26. This value suggests that the average estimated brand value of the target is 1.26% of the acquirers' revenues (the year before the deal).

In addition, 50% of the deals seem to be made with cash and 50% with stocks, and 68% of the deals are between companies in related businesses.

Table 3. Model descriptives

	Mean	Std. Dev.	N
CAR	-1.81	4.03	142
Brand_heaviness	1.26	1.85	142
Acquirer_cash	0.31	0.23	142
Relatedness	0.68	0.47	142
Payment_method	0.50	0.50	142
Price/Book	2.61	1.55	142

Below, in table 4, are the correlation statistics for the variables included in the main regression. Data indicates that there should be no problems with multicollinearity in the model, as there is no large correlation among the variables.

Table 4. Correlation coefficients

	CAR	Brand_heaviness	Acquirer_cash	Relatedness	Payment_method	Price_to_Book
CAR	1.00	-0.32	0.08	0.02	0.18	0.12
Relative_brand	-0.32	1.00	-0.08	-0.03	-0.09	0.14
Acquirer_cash	0.08	-0.08	1.00	0.21	-0.06	-0.17
Relatedness	0.02	-0.03	0.21	1.00	-0.12	-0.18
Payment_method	0.18	-0.09	-0.06	-0.12	1.00	0.12
Price/Book	0.12	0.14	-0.17	-0.18	0.12	1.00

MAIN REGRESSION

The main regression performed has the 2-day cumulative abnormal returns (CAR) as the dependent variable. The independent variables consist of first, the "brand-heaviness" (Brand_heaviness) variable and second, the above mentioned group of control variables; Cash reserves (Acquirer_cash), Relatedness (Relatedness), Payment method (Payment_method) and Acquirer Price/Book.

$$CAR = \alpha + \beta 1*Brand\_heaviness + \beta 2*Acquirer\_cash + \beta 3*Relatedness + \beta 4*Payment\_method + \beta 5*Price/Book$$

6. RESULTS

The results from the regression indicate that the hypothesis stated in this thesis is validated: Acquirers of brand-heavy targets seem to earn negative abnormal returns, and more so than others. As can be seen from table 5, the coefficient for brand-heaviness (Relative_brand) is negative and highly significant.

Table 5. The model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-3.37	1.01		-3.33	0.00
Brand_heaviness	-0.72	0.17	-0.33	-4.12	0.00
Acquirer_cash	1.89	1.44	0.11	1.31	0.19
Relatedness	0.29	0.70	0.03	0.41	0.68
Payment_method	1.09	0.65	0.14	1.69	0.09
Price/Book	0.43	0.21	0.17	2.04	0.04

The first observation we make is that the deals in general seem to earn negative abnormal returns, as indicated by the negative constant. This was quite expected since previous research has shown this to be the case.

When it comes to brand-heaviness, the coefficient is negative and significant, but we will not draw any conclusions about the magnitude of the effect. However, if one where to interpret the coefficient for “brand-heaviness”, one could say that for every percent higher the target’s brand value in relation to the acquirers revenues is, the outcome of the deal will be 0.72% worse. So for a deal where the brand value of the target is 1.26% of the acquirers revenues (as the mean in our sample), the returns could be about 0.9% worse than if the brand value was zero.

Since we do not claim that our way to estimate the brand value yields a correct valuation we do not want to draw too much conclusions about the economic effects that our model suggests. However, we do believe that our brand valuation method is capable of estimating brand-heaviness relationships among companies. With M&A transactions at a value of 4.8 trillion USD per annum (Oxford Forecasting (2008)), the suggested effect of 0.9% lower returns means that an equivalent of 43 billion USD potentially is at stake as a result of over-confidence in valuation of brand-heavy companies. This study is however not aiming at pinpointing the exact value lost due to poor due diligence, but the approximate figure of 43 billion USD per year shows that it is definitely a factor to take into account when doing M&A transactions.

The negative effect of brand-heaviness can be compared to the results that were found in the research made by Arikan (2004). She found that intangible-heavy targets yield negative abnormal returns for the acquirer. As the brand is a part of the intangible asset we can thus confirm that brands are no different than intangible assets as a whole. There are however differences between the studies; Arikan's study was a long run study measuring the performance over time while the study performed in this thesis is an event study examining the short term effect. As a whole, this brings even more robustness to the fact that acquiry of brand-heavy companies is likely to lead to value destruction.

In table 6 are the model statistics, from which one can draw conclusions about the strength of the model. Our main regression achieved an adjusted R Square value of 0.127. This suggests that our model is able to explain almost 13% of the abnormal returns resulting from the transaction events.

Table 6. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.397	0.158	0.127	3.769

THE CONTROL VARIABLES

Among the control variables, Price/Book is the only one that is significant. The coefficient is positive which would suggest that "glamour acquirers" actually are better off than "value acquirers". This is not consistent with the previous research performed by Rau and Vermaelen (1998).

Relatedness shows a positive coefficient suggesting that acquirers that are in related business to their targets are better off. Payment method also shows a positive coefficient indicating that cash payments would be the better choice. Both these control variables (relatedness and payment method) show the signs expected.

The acquirer cash reserves also showed a positive sign. This was not expected, as previous research suggests that companies with large cash reserves make bad decisions. However, as the variable was statistically insignificant we should not put any emphasis on this in the analysis.

ROBUSTNESS

To examine if our regression is robust, we have conducted a number of tests and re-specified regressions. First, to further test the hypothesis, the dataset was also divided into two groups, split up based on announcement date. For these two datasets the same regression was run. The results of both regressions show that the coefficient for brand-heaviness was negative and significant at the 95% confidence level. The results from the two additional regressions can be found in the Appendix. These results are reassuring and make the findings more robust, as the outcome is the same no matter what time interval is studied.

We have also run the regression when substituting the 2-day CAR for a 3-day CAR (adding the date before the announcement date). This regression does not achieve the same adjusted R square, but the coefficients all show the same signs and brand-heaviness is still significant.

7. DISCUSSION

As our results indicate, there is a negative relationship between abnormal returns and the brand-heaviness of the target companies. This supports our theory that brands are particularly hard to value. The results in this study suggest that the economic effect of over-valuation of brand-heavy companies is significant, and could well be approximately 43 billion USD per annum. However, as we have mentioned earlier, we have not come across a method to make an accurate valuation of brands in a quantified manner. We rather believe that the method we have used can estimate how brand-heavy companies are in relation to each other. So we can conclude that the more brand-heavy a target is, the more will a transaction destroy value (in general).

The strength of a model can be measured by its adjusted R square value. Our main regression achieved an adjusted R square value of 0.127. This could be considered to be low if we were aiming at explaining the outcomes of M&A transactions. However, the purpose of this thesis is rather to examine the effect brands have on the outcome. For this purpose, we do not believe that an adjusted R square of "just" 0.127 is challenging our findings.

Research by Arikan (2004) has shown that intangible-heavy targets yield negative abnormal returns for their acquirer. Our research separates a single component of the intangible assets (the brand) and we arrive at the same conclusion. Although Arikan's (2004) research also includes a brand equity estimate, we believe that our research adds to the insights by focusing on the brand and find that the brand on its own has a negative effect on returns in M&A transactions.

Another study, performed by McAlister et. al. (2007), suggests that investments in brand equity normally decrease a company's systematic risk on the stock market. We do believe that our research can add some insight to this as well, by showing that building brand equity through acquisitions might not be optimal.

Our belief is that the main reason for these results is the complexity of the brand-asset, which makes it hard to value. Since the brand-heavy companies are harder to value, the valuation errors should thus get larger. We believe that this, in combination with a "winners curse" phenomenon, yields the larger negative abnormal returns. One of the reasons to why we believe that valuation errors might be one of the main contributors to value destruction is that during our research, we have not found an accepted standard for performing brand valuations, like the Discounted Cash Flow model is a standard for company valuation. We have come across a number of brand valuation techniques but none seems to be developed with company valuation in mind. So we believe that, since there is no apparent accurate way to evaluate a brand in a corporate valuation setting, the valuation errors might get larger for brand-heavy targets.

M&A is often linked to a stressful and complex process. While negotiations are underway it is probably hard for the acquirers to maintain focus on how value will be created in the long run. Instead, focus during the deal process is shifted towards short-term survival of the new company. Possible initial thoughts on how to use the target brand might therefore be harmed by the executives being caught up by the M&A transaction itself.

We do not however believe that the complexity of the brand holds the whole explanation for negative returns. Brands as a topic is mostly associated with the marketing field and not with finance. We believe that much of the valuation errors could be mitigated if more time and effort actually went into the valuation and understanding of the brand, from a finance point of view.

IMPLICATIONS

We believe that the results our study has revealed can have several implications. One is that, since the brand-heavy acquisitions are more value destructive than others, companies should consider building brands organically instead of growing them artificially through acquisitions. While McAlister et. al. (2007) found out in their research that investments in brand equity could decrease a company's systematic risk (which should be considered valuable) we find that building brand equity through acquisitions is value destructive. We realize that there might be many reasons to why a transaction takes place, but when the brand happens to be the major reason for an acquisition the buyer should really be aware of the problems.

Another implication that we hope our results can yield is that brand valuations should get more attention in the field of corporate valuations, both academically and professionally. Students of finance might benefit from courses within branding and marketing and investment banks should perhaps spend some time exploring how to get more accurate valuations of brands and how the transaction might affect the brand itself.

We also hope that the results of our study should encourage decision makers to increase their transparency with regards to brands, and brand strategies. Most of the times, in financial reports, companies clearly state the value of their tangible assets and also how much have been invested in them, in addition it is not unusual to also find the investments in R&D. This is probably a result of accounting standards rather than the management's will to be transparent with their actions. However, in financial reports it is not as common to find the investments in brands. Advertising expenditures are not always stated, this has been very clear in the data gathering for this research.

SUGGESTIONS FOR FURTHER RESEARCH

One interesting point that we believe should be explored further is whether or not different types of methodology used for valuation of brands yield different end-results in M&A transactions. We have come across a number of different methodologies that are more or less extensive but we have not been able to compare the methodologies due to the lack of official data.

We also think it would be very interesting to examine corporate finance and corporate valuation literature and see how much is actually dedicated to valuation of brands. Our belief and experience is that the attention to the brand is extremely limited.

Another thing that we think would be interesting to research further is the results based on different characteristics of the buyer. Are some types of buyers better at handling brands than others? Does it have to do with experience of similar transactions? We believe that companies already holding portfolios of several brands might be better equipped, not least experience wise, to deal with the brand post transaction.

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Compustat, Standard & Poor's,

9. APPENDIX

ROBUSTNESS CHECK – CONSISTENCY OVER TIME

First half of observations (n=71)

Jan 2002 – Apr 2005

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-2.929	1.532		-1.912	.060
Acquirer_cash	.566	2.112	.031	.268	.789
Brand_heaviness	**-.729**	**.250**	**-.341**	**-2.915**	**.005**
Price/book	.251	.306	.097	.819	.416
Payment_method	1.086	.986	.127	1.102	.275
Relatedness	1.079	1.018	.123	1.059	.293

Second half of observations (n=71)

May 2005 – Oct 2007

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-3.665	1.351		-2.712	.009
Acquirer_cash	4.356	2.066	.251	2.109	.039
Brand_heaviness	**-.647**	**.247**	**-.290**	**-2.625**	**.011**
Price/book	.699	.309	.266	2.263	.027
Payment_method	.695	.900	.090	.772	.443
Relatedness	-1.056	1.021	-.125	-1.034	.305