



LUND UNIVERSITY
School of Economics and Management

BUSM36

Spring 2010

Does the young European Internet Gambling Industry follow the Traditional rules of M&A theory?

- A study of M&A drivers, size and affect



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Abstract

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Seminar Date: 7th of June 2010

Course: BUSM 36 Spring 2010

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Size: 65 pages

Key words: Mergers and Acquisitions (M&A), Nominal Logistic Regression, M&A Drivers, internet gambling industry,

Purpose: The purpose of our thesis is to test theories surrounding the drivers of M&A; of their occurrence, size and affect, and from that derive their applicability on the European internet gambling industry.

Methodology: This thesis uses deductive methods in which it tests theories with hypotheses by quantitative measures. Financial data have been gathered of companies in the internet gambling industry between the years 2004 and 2010. Testing of independent variables followed this to explain two dependent variables; one by Nominal Logistic Regression analysis and the second through Multiple Regression analysis. T-Pair Test analysis is made on the independent variables themselves for search of mean-differences before and after acquisitions. The three serves as the base for our empirical findings and analysis.

Theoretical Perspective: This paper has covered the M&A theory deemed most relevant to our study. Focusing on theories surrounding drivers of M&A including size and affect

together with theories that serves as an explanatory for our findings. This includes both literature and academic perspectives in published papers.

Empirical Findings: The hypotheses were divided in sections of three and later tested for acceptance. Our results were somewhat inconclusive in finding evidence that supported the chosen theories of M&A; occurrence, size and performance, and in the opposite in the wanted results of some hypotheses' regressions.

Conclusion: The European gambling industry is concluded in this paper as a unique industry based on its inconsistency in compliances with the stated theories of M&A activity. Excess Cash prior to M&A increases its likelihood, while Debt and Return-on-Equity both had a negative effect on the size of M&A, were the main factors found supporting theory of M&A.

Preface:

The authors would like to start this thesis with gracefully thanking all the people who have assisted us in creating this paper. First and foremost we would like to thank our supervisor Rikard Larsson for his guidance and mentoring in during the entire period. We would also to thank Pierre Carbonnier at the statistic institution and Sara Henderson for their effort in assisting us with the statistics of this thesis.

We hope to see this paper assisting in the further study of the M&A activities within the European internet gambling industry.

Finally we would like to thank our families for their support throughout this paper and through the years of education, from primary school to our final Masters graduation in Corporate and Financial Management from Lund School of Economics and Management.

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1. Introduction

This chapter presents a discussion of the problem together with our purpose that sets the foundation of this research. This chapter aims to attract the interest of the reader through an overview of the problem and our perspective.

1.1 Background

The Greek Mythology Gods Zeus, Hades and Poseidon are said to have split the universe by dividing heaven, hell and the sea with the throw of a dice. The history of Gambling can be traced back to the beginning of civilization. The internet gambling internet industry is however a particular new phenomenon that emerged in the mid 1990s' as the use of internet increased rapidly. The exact figures of the industry are hard to estimate, as many gambling corporations aren't public and operate from tax havens with less pressure on disclosing information.¹ The new industry is estimated to have generated a net gambling turnover of \$3 billion during 2001 and during 2005 this figure was just about \$12 billion and predicted to double by 2012.²

The gambling industry's high growth is slowly starting to lessen as the industry is heading for maturity with a high number of actors starting to experience fierce competition.³ This can be seen in the high number of mergers and acquisitions in the online gambling industry, from here on referred to as M&As.⁴

1.2 Problem discussion

During past years there has been extensive research on the subject of M&A with major emphasis on whether they create value or not. The research have been focused on evaluating how shareholders respond to M&A decisions at the time of announcement and the period

¹ Hammer 2001

² Christian Capital Advisors 2005

³ Hammer 2001

⁴ Neurath 2010

afterwards, but studies have not been focusing on the financial drivers of M&A to the same extent. Our research will address the latter problem, emphasizing internal financial factors behind M&A engagement with focus on the acquirer and not on the acquired party.

Jensen's discusses in his 1976 article that excess cash leads to M&A because management rather uses cash to invest in new projects than to pay it out to the company shareholders. Jensen also argued that low debt leads to M&A because of equity capital's lack in discipline compared to debt. This does not only lead to more M&As but also to more value destructive deals since management don't pay as much attention to the expected return. But do high degrees of excess cash or low debt results in companies conducting M&A and does these factors affect the M&A size? Another aspect presented by Gaughan 2007 is that the reason to conduct M&A is to achieve synergies, to improve operational and/or financial performance. This reason should lead to that poor performing firms are more likely to M&A activity than well performing firms that might have less pressure on showing results. Does this make poor performance a driver for M&A, and does it affect the acquisition size?

High Market Return boost M&A activities are a well-known factor in M&A theory. It is common knowledge that years with economic boom drive M&A both in increasing the premium for acquiring firms and in the number and total acquisition value for those years in comparison to years with regression.⁵ But is this applied for the gambling industry as well?

The view that M&A activity is highly value-destructive is a popular view.⁶ When focusing on bidders and targets combined, with abnormal stock market return, there has been shown that some value is created. When only examining bidders however one study shows a more negative result, that 60-70% of transactions fails to create normal return.⁷ Jensen and Ruback 1983 showed that the targets benefited, but that the bidders shareholders at least did not lose on the transactions. Conclusions that have been drawn surrounding M&A performance varies a lot, and results may depend on what view the researcher has had.⁸ Is poor performance the result for bidders when measuring accounting data instead of stock prices?

The online gambling industry is a fairly new industry and academic research on this area has, to our knowledge, been rather limited. Even though M&A theories are many and extensive there aren't any "one truths" in the area. The motives behind M&A and the value that they

⁵ Basenese 1 2009

⁶ Bruner 2002

⁷ Bruner 2002

⁸ Larsson 41-45

create are especially difficult to assess, the variables that seem to be of most essence are under constant debate. The theories of M&A haven't been applied and tested on the online gambling industry to the same extent as in other industries, even though this industry has shown a strong commitment towards M&As. In this thesis we intend to examine the internal financial drivers of M&A in this industry, and study the affect on the internal financial operations instead of the traditional approach, examining abnormal returns of share prices. What drives M&A decisions? What makes some conduct large and some small M&As relative their size? And what performance effect does conducted M&As have?

1.3 Purpose

The purpose of our thesis is to test theories surrounding the drivers of M&A: their occurrence, size and affect, and from that derive their applicability on the European internet gambling industry.

1.4 Demarcations

The thesis will focus on established M&A theory. We will not include theory surrounding corporate governance, which perhaps could assist in determining the success and failures of M&As through board composition and the regulatory framework. Corporate social responsibility theory will also be excluded, but briefly mentioned in purpose in understanding the industry characteristics. CSR in the gambling industry is of importance as the industry have been profoundly questioned ethically; suspicion about firms and the connection to the money laundering business and other public concerns of the industry could qualify as a stand-alone study subject.

A popular discussed motive for engaging in M&A activity is the management hubris hypothesis. This theory is based on that the motives behind M&A could be other than value creation and internal financial capabilities. According to this hypothesis managers tend to engage firms in acquisition for self satisfaction and personal motives, this could be driven by the pride behind a larger entity or the potential benefits in the form of manager compensation

that could be derived from a larger corporation.⁹ This theory has been very popular M&A driver to explain mainly value destroying transactions. It has often been considered to be one of the motives behind large premiums of firms that the market values differently.¹⁰ This theory is relevant when studying the drivers of M&A from a bidder's perspective but is excluded on the basis that it is too difficult to measure by examining the internal financial drivers of M&A which will be the base data used in this thesis. The management hubris theory can be seen as a more abstract driver, hard to measure and created outside the internal finance of the acquirers' boardrooms.

Another theory that could be of relevance in this thesis is the theory regarding poor management in consistency with the efficient market hypothesis, which states that a possible motive behind acquisitions of firms is the need of replacing management in poorly managed firms, who operate under their full potential.¹¹ This is an interesting factor that probably is applicable in the industry that we have chosen to study. We have however chosen to disregard this explanation as a driver of M&A because we interpret poor management as being a driver of the acquired party and not a direct driver within the internal finance of the acquirer, but we will use the efficient market hypothesis theory in another context in our analysis.

We have also disregarded the different type of research on payment methods for M&A, in the forms of cash, debt or shares. Also excluded in this research are theories around the different types of M&A that a firm can engage in, as this study focuses on the drivers towards engaging in an M&A and not a long-term after period, which usually are the case for such research with the share price as measurement.

1.5 Chapter Summary

Recent trends in the internet gambling industry have shown an increased activity of M&A and high growth. Still, the research on the M&A activity of the online gambling industry have been limited and we believe that there is a space for testing existing theories applicability on the internet gambling industry. Before a description theoretical framework we want to assist the reader in gaining understanding of this unique industry. The following chapter presents a

⁹ Gaughan 2007 pages 157-162

¹¹ Gaughan 2007 page 158

more cohesive description of the industry, which aims to give a deeper insight of the industry chosen to research.

2. The Online Gambling Industry

This chapter aims to give a description of the gambling industry and relevant regulatory factors that affect the structure of the online gambling industry. This followed by a description of M&A activities in the European gambling industry.

2.1 Industry overview

As previously mentioned, the gambling industry is not a new industry but have roots back to ancient days with strong presence in history around the world from Las Vegas to Macau. The online gambling industry emerged and grew with the wide use of internet during the mid 1990s'. This created space for gambling across borders, from home computers at any time and in any fashion. The internet gambling industry arose from the traditional gambling industry to form a market place of it's on and has grown in a rapid pace ever sense, with different actors struggling for market share and power. ¹²

2.2 European Regulatory framework

There have been several studies made on the political and cultural resistance and on legislation against gambling. A book by Matt Viren and co-author Martin Paldam 2009 introduces the following three reasons behind regulations in the gambling industry:

i) Gambling is often assessed morally as a *vice* (like liquor, tobacco and cars) that deserves especially high *taxes*. The moral assessment is often religiously based, and regulation goes back to the Middle Ages.

¹² Örnberg 2006

(ii) Due to the long history, regulation has a strong path dependency – and it has created *stakeholders*. If for some reason regulation had to start all over, it would probably be done differently.

(iii) The rational reason for the special treatment of gambling is that it creates the *gambling problem* of addiction for a small fraction of the population. The problem is an *externality* which should be regulated.¹³

Martin Paldam gives a present and historical background to the strong resistance by the anti-gambling opposition. This creates a special type of market for the gambling industry fighting several social factors and heavy reliance on Corporate Social Responsibility.

Moving forward to the regulatory framework of the European market we see a divergence among the European Union. All EU members are a part of a custom union, which means that they under EU law are prohibited of having individual customs and restrictions. The law incorporates the free movement of products, services and capital between the member states. With these basic laws one can assume that the online gambling industry would either be allowed or restricted in all of the EU member states, but this is not the case.^{14 15}

The internet gambling industry has been given a special legislation of the European court of justice and placed the responsibility of restriction to each individual state. The European court simultaneously ruled in favor of gambling players' right to consumer protection and indirectly recognizing the business of internet gambling. These complicated laws have led to a divergence between EU member states. This has caused a different set of regulations amongst EU member states.¹⁶ A clear example of this is that many Nordic founded gambling companies such as Unibet and Betsson among others currently operate from Malta, Gibraltar and Isle of Man where there is lighter restrictions. There is a system licensing out gambling rights that differs from the traditional gambling monopoly often seen in the Nordic countries.¹⁷

Still, it is important to keep in mind that the state monopolies bring enormous profits to governments; a figure amounting to nearly five billion SEK in 2009 for Sweden's wholly

¹³ Viren 2008

¹⁴ Swedish Trade Council

¹⁵ Sjögren 2009

¹⁶ Hammer 2001

¹⁷ Örnberg 2006

state owned “Svenska Spel”.¹⁸ But many experts argue that tax earnings from returning gambling corporations could exceed these revenues and create jobs in their domestic countries.¹⁹ Evidence of this can be seen in Finland that right now is examining other solutions in order to tap in to the 50 million Euros that Finnish players are spending on foreign internet gambling sites.²⁰

Worth mentioning is that although the online gambling industry could bring jobs, revenues and wealth, there is a severe risk of gambling causing severe social and personal harm and thereby, *“negatively affect significant areas of the personal life, including personal health and mental health, employment, finance and interpersonal skills”* as described by Mark Griffith.²¹

2.3 Mergers & Acquisitions in the Online Gambling Industry

The market for online gambling has been characterized by high growth during several years creating a vibrant market with a significant numbers of M&A in the competition for market share. This is a result of the importance of preferably increasing the client base for the online gambling corporations, which in turn increases revenues, and potentially also the jackpots that customers are able to compete for. A larger jackpot attracts more customers, creates awareness and could even create a hype that by itself attracts more customers.²²

An important challenge to tackle for the corporations operating in this market is the low switching cost for customers to change actor; there is no or very little difficulty for customers to change gambling company by simply register on a competitive firm’s website. This creates both low switching cost and a large number of non-active users.

¹⁸ Svenska Spel Annual Report 2009

¹⁹ Hammer 2001

²⁰ Örnberg 2006

²¹ Viren 2008

²² Ibid

3. Theoretical Framework

This chapter contains the theories that we apply in this thesis with the intent of giving the reader an understanding of the theories behind M&A. This will be used as the basis for our analysis of the empirical findings. They will be presented and discussed after this framework:

| Framework | |
|--------------------------|---------------------------------|
| General understanding: | 3.1 Mergers & Acquisitions |
| | 3.2 Porters Five Forces |
| | 3.3 Competitive advantage |
| | 3.4 Efficient market hypothesis |
| Hypothesis based theory: | 3.5 Free Cash Flow |
| | 3.6 Operational Synergies |
| | 3.7 Financial Synergies |
| | 3.8 Market Return |

3.1 Merger and Acquisition

Merger is referred to as to when two corporations merge and one of the corporations cease to exist, and the surviving corporation receives all assets and liabilities of the ceased entity. An acquisition is when a corporation acquires control over another company but not necessarily leading to the end of existence for the acquired company in a legal sense, which can continue to operate as an independent entity. Another form of M&A is when corporations combine their resources and form an entirely new corporation.²³ The definition of M&A that we choose to apply is when one company owns more than 51% of another entity. We don't distinguish whether it is a merger or an acquisition; M&A is widely used to describe both.

²³ Gaughan 2007 page 12

Theory has widely depicted commitment to M&A as a value destroying activity for the majority of acquirers.²⁴ The targets shareholders are regarded as the only real beneficiaries in M&A transactions as the acquirers pay the acquired shareholders for the whole value of the firm, all future cash inflows and a specified premium. The premium size does of course differ among M&As but *Gaughan 2007* claims that the anticipated synergies is rarely achieved and that a small percentage of firms manage to achieve synergies that exceed the premium and cost of the M&A.²⁵ Still there are those who beg to differ in the case of M&As value creation. One of those who strongly disagree is Dr. Staffan Canback who in the paper “*A lightweight note on success in Mergers and Acquisitions*” refers to studies by professor Bruner who presents an average of studies on M&A return from 1998-2001, where findings indicate that the acquirer receives an average return of 0.5% on probability of 51%.²⁶ Depending on the perspective chosen, results might vary on M&As’ value creation.

3.2 Porters Five Forces of the industry

One of Michael E. Porter’s most famous works is his creating of the Five Forces model that shape industry competition and was established in 1979. This theory takes has wide approach and is not limited to competitors competing for market share but incorporates other just as important actors and factors. Porter’s forces are the following:

- *Threat of new entrants*
- *Bargaining Power of suppliers*
- *Threats of substitute products or services*
- *Bargaining power of Buyers*
- *Rivalry among existing competitors*

The latter is surrounded by the earlier four that set the environment for the existing industry peers. The model's fundamental purpose is not only to show that there are more actors than known (horizontal) competitors but it also shows that profit shifts in the value chain. The profit in manufacturing, to the distribution, and finally to the actual selling of the

²⁴ Larsson page 41

²⁵ Gaughan 2007 65-66

²⁶ Dr. Canback 2004

product/service can vary greatly amongst suppliers, rivalry to the buyers or/and substitutes. The theory also predicts that maturing industries faces M&A activity, because the actors within the industry starts consolidate for achieving power towards competitors but also the four surrounding forces.²⁷

3.3 Competitive advantages in the industry

It has been said that a firm has a competitive advantage when it is implementing a value creating strategy that is not simultaneously being implemented by any other current or potential player (Barney 1991). A competitive advantage cannot be derived from identical and copied strategies in the view of customers, for whom value is created. Peers can of course try to attain the same strategy as successful leaders i.e. conduct benchmarking, but such activities aren't clearly a key to success. Strategy is a combination of unique activities, not only through benchmarking with an operational efficiency focus, which has been a Japanese trademark historically when entering Western markets. To achieve competitive advantage(s) a firm needs to have a unique competitive position and have activities tailored to its strategy; they need to be fit, and to achieve a sustainable strategic position clear trade-offs are required. When analyzing industry competition it is vital not only to look at specific attributes for peers, but also to see the entire picture that is offered to customers.²⁸

3.4 Efficient Market Hypothesis

The efficient market hypothesis states that it is impossible to outperform the market due to the fact that the stock price includes all relevant information. There is fierce competition among investors in the financial market creating impossibility to invest in positive net present value (NPV) investments since the information is shared by all investors and thus eliminates the opportunity of arbitrage. The only return possible for investor is related to the systematic risk.²⁹ This hypothesis is based on the availability of information to all investors free of charge and that they act in a rational way.³⁰

²⁷ Porter 1979

²⁸ Porter 1996

²⁹ Berk et al 2007

³⁰ Fama 1970

3.5 Free Cash Flow hypothesis

Michael C. Jensen wrote an acknowledged article in 1986 called “Agency Cost's of Free Cash Flow, Corporate Finance, and Takeovers”. In it Jensen presents “the free cash flow hypothesis” that predicts the activities that arise when cash aren't paid out to shareowners but stored and the disciplinary aspects of debt on management's behavior, among other predictions. Jensen defines free cash flow as cash flow in excess of what is needed to fund all projects that have a positive net present value, discounted with relevant cost of capital rate.

Jensen's theory where based, and could probably not have been made without, several earlier studies and theories. Earlier studies concluded the natural conflict in payout of cash to shareowners because of reduction in management control and power. Another found that managers' power increased as resources under their control grew, they got compensation in relation to the growth in sales rather than shareholders return. Other studies presented fundamental reasons for firms to constantly need to grow, if not organically so through M&A. Studies with focus on hierarchies concluded that firms had a tendency to reward middle-managers with promotion rather than bonuses, a bias toward growth in the sense that new positions needed to be created in order for the promotion based reward system to function.³¹

Given earlier research, Jensen also concluded that managers have incentive to invest money rather than pay it out, even if the investments don't have a positive Net Present Value. It could still create a larger base of resources that ensure more power and increasing sales, which lead to higher compensations. Cash don't require a steady flow of interest to pay out, but Jensen found that the stock market reacted on the phenomena by predicting that share prices will rise with unexpected increases in payouts to shareholders, with exception for profitable unfunded projects, and that prices will fall with reductions in payments or new requests for fund. M&As are more likely to destroy than create value because of this conflict of interest between managers and shareholders. Another prediction where that change in leverage rule that targeted repurchases, sale of debt and preferred stock where associated with abnormal stock price declines. Targeted repurchases is an exception because of decreasing likelihood of being over-taken cause the price decline. The debt and preferred stock sale price decline are inline with the free cash flow hypothesis because this new cash bring more control to the management. The theory also suggests that targets will be one of two kinds: one with poor management teams that have done poorly before the acquisition and the second kind are firms

³¹ Jensen 1986

that have done exceptionally well and have excess cash flows that they have not paid out to their shareholders. In his article, 1986, he also wrote that he could not find studies that disproved any of his predictions.³²

Previous thesis and articles have strengthened Jensen's hypothesis as they also ensure that a higher level of value creation is achieved when acquisitions are paid for with cash through debt instead of a portion of the bidder's shares to the target shareowners.³³

Jensen's free cash flow hypothesis headlines other areas as well, such as differences in expected return from M&A depending on method of payment and other predictions surrounding stock market reactions that we have delimited from our thesis but that is worth mentioning since the research is based on observing stock prices to a large extent. The main focus and foundations on the hypothesis and his predictions however, lies on the two factors free cash flow and debt.

3.6 Operational Synergies

Operational synergy is divided in two parts, cost reduction and revenue enhancement synergies. Revenue enhancement synergies are achieved through either vertical or horizontal integration as revenue and efficiency increases. Revenue enhancement synergies are often described as very difficult to achieve as these are built around the potential of increasing profitability and margins through synergies and not only revenues from combined companies. In order to achieve this increase in profitability and margins firms could utilize the cross marketing, or the ability to merge or acquire a suitable company, e.g. when product focused company merges with a distribution focused company.

One of the most fundamental motives for M&A is growth. An alternative to organic growth is growth through M&A as this often is regarded less risky and less complicated. Growth can be achieved through diversification, vertical integration, or by acquiring competitors, horizontal integration. In maturing markets the most beneficial path to achieving sustainable growth can often be through M&A. In order to grow companies in maturing market can commit to M&A and acquire competitors, thus increasing both market share and market power. Depending on

³² Jensen 1986

³³ Dahl 2009

market condition the importance of market share can differ. In homogenous markets with similar products and customers, market share and power might play a significant role in seeking success. Mueller 1985 show studies of 100 firms in the US market backing which indicate an opposite effect of horizontal and operational aspiring mergers that creates a substantial decline market share.³⁴ His research supports the theories surrounding the inability of increasing performance through M&A in difficulties of obtaining anticipated synergies from M&A activity.³⁵ Robert F Bruner has in his article “*Does M&A pay?*” found similar results to those of Mueller 1985, concluding that average acquirers face a net present value of acquisitions are zero, thus breaking even.³⁶

Growth can be motive with the possibilities of achieving economies of scale and scope, which often are agued as potential synergies in M&As. These cost reduction synergies are tied to the ability for the combined firms to deliver lower per unit costs due to the increased size, thereby scale, of the firm and copied the ability to utilize one set of inputs to provide a broader range of products and service, and thereby achieving economies of scope.^{37 38}

3.7 Financial Synergy

Financial synergy is another major driver behind M&A and refers to the ability for M&As to lower the cost of capital. These companies could reap advantages in the financial market as large companies may gain access to raising capital at a lower cost and thus also lowering their cost of capital. Financial synergy could also lead to less volatile cash flows for the combined firm and thereby reducing the risk of bankruptcy. Gaughan 2007 states this as debt coinsurance in his book “*Mergers and Acquisition*”. The debt coinsurance effect are perceived to redistribute risk and thus benefiting debt holders more than equity holders, as they are able to carry the same amount of debt but at a lower risk as this risk is instead shifted to equity holders. Basically debt coinsurance is only a redistributing of benefits among current capital providers within the firm. This affect can be mitigated by equity holders; through issuing debt after the merger in order to reap benefits from tax savings.³⁹

³⁴ Mueller 1985

³⁵ Dickerson et al 1997

³⁶ Bruner 2001

³⁷ Gaughan 2007 page 117

³⁸ Bruner 2001

³⁹ Gaughan 2007 page 133-136

Diversification is another motive behind M&A that involves the part when companies decide to expand beyond the category of their industry. A company might diversify in order to enter a new and more profitable market as the current industry in which they operate within is maturing. Another reason could be to mitigate the risk of cash flows thus insuring a more stable dividend policy. This financial benefit is also known as the coinsurance effect of a diversification, as cash flows becomes less volatile due to the imperfect correlated earnings of the companies.⁴⁰

3.8 Market Return

M&A trends and waves have been closely monitored during periods of high and low market return. M&A is dependent on funding resources in order to engage in M&A activity, this can come in the shape of private equity, different forms of debt structures such as an LBO or funding through cash.⁴¹ Some researchers have found evidence indicating that increase of M&A activity and possibilities of takeover booms occurring during times of high market returns. In the article by *Louise Basenese* she states that periods of sudden market crashes creates a credit crunch that abruptly disturbs the market of M&A activity in a negative way. As credit institutions perceive the market as highly risky the reluctance of lending increases causing a decrease in both the funds available for M&A and the M&A market as whole. During period of high market return the flow in the private equity market and the access of debt funding increases as the risk of lending is perceived as low causing an M&A firms to capitalize on the low fund cost and increasing the M&A activity and competition among acquirers.^{42,43} She continues to claim that although M&As trend follows the market return the highest benefits for firms are to capitalize on acquiring firms during periods of low market returns, as firms facing a negative economic climate could be acquired at a discount.⁴⁴

⁴⁰ Gaughan 2007 page 136-141

⁴¹ Gaughan 2007 page 29-30

⁴² Tpc 2009

⁴³ Basenese 1. 2009

⁴⁴ Basenese 2. 2009

3.9 The use of Theory

The presented theories and earlier findings will be formulated into hypothesis in the next section. The purpose is to test whether the theories of M&A are applicable in the European internet gambling industry.

4. Hypothesis

In this section we describe the different hypotheses that will be tested through various regression analyses. This will be presented together with a description of the theory backing the formulated hypothesis.

We have chosen to divide the hypothesis between hypotheses that can assist in depicting the drivers of M&A, hypotheses that explains the factors that affects acquisition size and lastly hypotheses of how the drivers of M&A change between the year prior and post an M&A.

Hypotheses can be presented in both H0 and H1 form. All hypotheses presented in this thesis will be presented in H1 form, meaning that the null-hypotheses won't be mentioned. If one of our hypotheses is accepted the null-hypothesis will be rejected and if a hypothesis will be rejected, we will not be able to reject the null-hypothesis.

This chapter with specific hypotheses is divided in three sections:

1. The first is about M&A drivers, what characteristics do firms have before engaging
2. The second addresses drivers of M&A size in relation to the acquirer
3. The third is about performance, how the M&As have affected the firms

4.1 Determinants of why companies engage in M&A activity (Section 1)

The first hypothesis is based on the free cash flow hypothesis by Jensen described more thoroughly in the theory chapter. This hypothesis aims to test the applicability of the theory behind excess cash as a motive for M&A in the European internet gambling industry. According to Jensen a high amount of free cash flow is a driver of M&As⁴⁵, we will use the term Excess Cash for this term here on now because it is a more used term today – common in course literature. The part of Total Cash that is not Excess Cash is called Working Cash. We test this theory by dividing working cash with total amount of cash and thus receiving a percentage ratio of effective cash use, a low ratio indicate high level of excess cash and vice versa. The following hypothesis was established from it:

⁴⁵ Jensen 1986

- *1: There is a positive relationship between high levels of excess cash and conducting acquisitions*

Further we continue on another of Jensen's Free Cash Flow hypothesis where he argues that a low debt ratio is a driver of M&A. Debt itself is disciplinary for management that will not act as hastily when debt requires a set interest rate to be paid unlike invested capital from equity, management therefore take the expected return of investments to greater account. This would eliminate or perhaps mitigate the risk of managers taking on more risky and damaging investments on the shareholders expense.⁴⁶

- *2: There is a positive relationship between low debt and conducting acquisitions*

Moving away from Jensen, Gaughan 2007 discusses why companies engage in M&A to achieve synergies – to improve performance. So does this make weak performers to potential acquirers? They would have the incentive to commit to M&As in order to enhance their revenue, profit margin or to achieve similar cost reduction or revenue enhancing synergies, basically improve their overall performance. A firm might also engage in M&A in order to obtain financial synergies by lowering their cost of capital and thus having a positive effect on the return on capital and equity.⁴⁷ We decide to divide weak performers into two groups of a total of five variables that will measure a company's performance. Revenue growth, profit margins, revenue to assets are linked to operational performance and return on capital and equity linked to financial performance. Below the five hypotheses are stated that are associated with the two groups, operational and financial performance.

Hypotheses surrounding operational performance

- *3a: Firms with low Profit Margins are more likely to commit to M&A*
- *3b: Firms with low Revenue-to-Assets are more likely to commit to M&A*
- *3c: Firms with low Change in Sales from previous years are more likely o commit to M&A.*

Hypotheses surrounding financial performance

⁴⁶ Jensen 1986

⁴⁷ Gaughan 2007 pages 126-144

- *4a: Firms with lower return on capital are more likely to commit to M&A*
- *4b: Firms with lower return on equity are more likely to commit to M&A*

To get more accurate results and avoid seasoning affects in our results we chose to examine the market return effect and formulate a linked hypothesis to this independent variable.

- *5: Market return does positively affect M&A activity*

4.2 Determinants of the Acquisition Size (Section 2)

The same theories discussed in chapter 4.1 will be tested in a similar manner, but the dependent variable will here be the size of acquisitions in relation to book value instead the groups 0,1,2 and 3 in section 1.

Focus: Cash Flow Hypothesis

- *6a: The higher degree the excess cash is, the larger acquisition*
- *6b: The lower degree the debt ratio is, the larger acquisition*

Focus: The weaker performers, the larger acquisition

- *7a: The weaker the Profit Margin, the larger acquisition*
- *7b: The lower the Revenue-to-Assets, the larger acquisition*
- *7c: The lower increase in Sales the larger the acquisition*
- *7d: The lower Return-on-Capital, the larger acquisition*
- *7e: The lower Return-on-Equity, the larger acquisition*

Focus: Market return

- *8: Market return does positively affect the size of M&A activity*

4.3 Financial changes the year before and after M&A activity (Section 3)

The second group of our hypotheses examines the difference between the years before and after an acquisition. These hypotheses focus on how the M&As changes the independent

variables the years before and after the M&A. These hypotheses are based on the first group's hypotheses and that the variables predicted to drive M&A activity should change between the year prior to an M&A and the year after. The emphasis here is on testing theories from a skeptic angle with a more pessimistic view. This is done to examine whether the drivers of M&A changes after an M&A. The hypotheses are thereby formulated to test if the initial drivers of M&A in fact worsen the performance for the acquirer:

- 9a: M&A does lower the Profit Margin
- 9b: M&A does lower the Revenue-to-Asset ratio
- 9c: M&A does lower the Change in Sales
- 9d: M&A does lower Return-on-Capital
- 9e: The lower Return-on-Equity

4.4 Hypotheses summary Table 1.

The tables below presents a summary of the three section's Hypotheses that will be tested in this thesis.

Section 1 Hypotheses:

| |
|--|
| <i>1: There is a positive relationship between high levels of excess cash and conducting acquisitions</i> |
| <i>2: There is a positive relationship between low debt and conducting acquisitions</i> |
| <i>3a: Firms with low Profit Margins are more likely to commit to M&A</i> |
| <i>3b: Firms with low Revenue-to-Assets are more likely to commit to M&A</i> |
| <i>3c: Firms with low change in sales from previous years are more likely to commit to M&A</i> |
| <i>4a: Firms with lower return on capital are more likely to commit to M&A</i> |
| <i>4b: Firms with lower return on equity are more likely to commit to M&A</i> |
| <i>5: High Market return does positively affect M&A activity</i> |

Section 2 Hypotheses:

6a: The higher degree the excess cash is, the larger acquisition

6b: The lower degree the debt ratio is, the larger acquisition

7a: The weaker the Profit Margin, the larger acquisition

7b: The lower the Revenue-to-Assets, the larger acquisition

7c: The lower increase in Sales the larger the acquisition

7d: The lower Return-on-Capital, the larger acquisition

7e: The lower Return-on-Equity, the larger acquisition

8: High Market return does positively affect the size of M&A activity

Section 3 Hypotheses:

9a: M&A does lower the Profit Margin

9b: M&A does lower the Revenue-to-Asset ratio

9c: M&A does lower the Change in Sales

9d: M&A does lower Return-on-Capital

9e: M&A does lower Return-on-Equity

5. Methodology

This chapter starts with definitions and explanation of our data. Further this chapter contains a description of the methodology used in our thesis. We present the approach and methodology chosen together with an explanation of the three different statistical methods that will be used for the three sections of hypotheses.

*Definitions*⁴⁸:

Population: Refer to a collection of people, objects or events. This thesis investigates the population that consists of publicly traded Internet Gambling Companies.

Variables: Characteristics of a population that differ from people, objects or events in it. In the thesis these are a number of different ratios later described more carefully. When variables are gathered they can describe the population, the population's parameters.

Sample: A part of the population's people, objects or events that are assumed to be representative for the entire population that is studied.

Cases: The objectives or events that are gathered in the sample.

*The four scales of data*⁴⁹:

The Nominal Scale: The most elementary scale of data. Just identify people, objects or events into different categories of no order, no numerical meaning even if they can be labeled with numbers.

The Ordinal Scale: The Ordinal scale of data has the same classifying and labeling as data on nominal scale, but also have the ability to be ranked. To say that one e.g. is bigger than another, and a third bigger than the second.

The Interval Scale: Have all the ability as ordinal scale, but can determine distance between different cases. Temperature is data on this level, we can say that 20 C is 5 C more than 15 C, but we cant say that it is one-third warmer than 15 C because Celsius lack an absolute zero, there are -5 C and -10 C as well.

The Ratio Scale: The highest grade of scale. All the ability as interval scale, but can be used to calculate ratios. Length is an example, if A is 2 meters and B 1.50 meters long we know that A is not only 0,5 meter taller than B, but also that A is 33% taller than B, that B is 25 % shorter than A, or that B is 75% the height of A. Financial measures are always at this level of data.

⁴⁸ Cohen & Holliday 1996 pages 5-6

⁴⁹ Cohen & Holliday 1996 pages 8-11

5.1 Research Approach

This thesis aims to test theories surrounding the drivers of M&A; of their occurrence, size and affect, and from that derive their applicability on the European internet gambling industry. In order to follow the structure of the purpose the study will test three main areas of objectives after the following structure:

1. Firstly we like to find significant drivers of M&A which can be interpreted by examining the difference between Non active-acquisition years and Pre-Acquisition years of the sample: this is done in order to find variables that explain the initial internal financial forces that drive M&A. The remaining result consisting of variables that distinguish the Acquisition years and Post-acquisition years in relation to Non-active acquisition years are not fundamental to our analysis but more of a secondary character used for descriptive purposes and possibly contribute to the initial hypotheses. The categories are defined as the following:
 - Pre-acquisition years – Group 1: Years that is followed by a year with one or more acquisitions. (The cases in this group remain as number 1 even if that year have had an acquisition or is a post-acquisition year).
 - Acquisition years - Group 2: Years that have one or more acquisition occurs on. (The cases in this group remain as number 2 even if that year is a post-acquisition year).
 - Post-acquisition years - Group 3: Years after a year with one or more acquisitions. (The Post-acquisition year is exclusive and cannot have the same characteristics as a Pre- or post acquisition year)
 - Non-active acquisition years - Group 0: Years where no acquisitions are made on. (No acquisitions have been made in the years before or after).

A case can only belong to one group, which lead to that Group 0 never is dominant. Group 1 is dominant over Group 2 & 3 and Group 2 is dominant over Group 3. To simplify this order, there is an example made in the table 4.1 on the next page.

| Year | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|------------------------|---------|---------|---------------|---------------|---------|---------|
| Firm X's action | | | Acquisition A | | | |
| Sample Label | Group 0 | Group 1 | Group 2 | Group 3 | Group 0 | Group 0 |
| Firm Y' action | | | Acquisition B | Acquisition C | | |
| Sample Lable | Group 0 | Group 1 | Group 1 | Group 2 | Group 3 | Group 0 |

Table 4.1

2. Secondly we examine if the drivers affects the acquisition size in relation to firms' book value. The tests will only include Pre-acquisition years with the dependent factor being acquisition size:

- Acquisition Size ← total size for all acquisitions that Acquisition year
- Book Value ← End of the Acquisition year

3. Finally we want to examine the impact of M&A on performance. In this section the focus is on Pre- and Post-acquisition year, where we study the change in the chosen independent variables. This pairing consist of a limit which is set to include observed acquisition years with a total acquisition cost that account to at least 5% of the company's revenue. In the first section Pre-acquisition years, Group 1, will be dominant over Acquisition Years, Group 2, and Post-acquisition years, Group 2. Acquisition years are then dominant over Post-acquisition years. But in this section there is always a Pre- and Post-acquisition year for every pair-sample (acquisition year). The pairing in Exhibit 4.1 would be as follows to find significant differences after the three observations:

- a. Acquisition 1* in 2006 for Firm X: Pair samples from Firm X year's 2005 (before) and 2007 (after) as pair sample.
- b. Acquisition 2* in 2007 for Firm X: Firm X year's 2006 (before) and 2008 (after) as pair sample.
- c. Acquisition 3* in 2005 for Firm Y: Firm Y year's 2004 (before) and 2006 (after) as pair sample.

**Given that the acquisition on 2006 and 2007 that Firm X has completed both account for 5% or more of Firm X's revenue for those years, if one year isn't it would be excluded.*

A quantitative approach has been chosen to narrow down variables and achieve these objectives. The study will mainly rely on data from annual reports issued by publicly traded companies and are therefore not representing the entire population of internet gambling

companies in the European market (nor the global market). Important to mention is that empirical findings and conclusions drawn from those are only representing our sample of publicly listed companies in Europe and not the entire population of internet gambling companies.

5.2 Research Method

The methodology used in our study is motivated and determined from our problem discussion and hypotheses. In order to assess the applicability of the internal financial factors that explain why companies engage in M&A activity according to theory, what determines acquisition size relative to book value and how the activity affect the firm we will use quantitative measurements. Our methodology will help determine the drivers of M&A stated by theory's applicability on the European internet gambling industry. The objective is to collect accurate information and thereafter test hypotheses through various statistical methods with the program Minitab version 15. The quantitative data will consist of secondary data; mainly key ratios that are calculated from Balance Sheets and Income Statements through the database Thompson Financial DataStream and Reuters 3000Xtra.

5.3 Overview of quantitative test methods

The first part of our research focuses on finding drivers that indicate the attributes of companies before engaging in M&A activity. The dependent variables are divided into four groups: "Pre-acquisition years", "Acquisition years", "Post-acquisition years", and "Non-activity years". The main focus here is to test Non-activity years with Pre-acquisition years. To test these four categories a Nominal Logistic Regression was chosen for a search of significance for the section 1 hypotheses, alongside a correlation test that will be done for ensuring the independent variables reliability and mitigating the possibility of having independent variables explaining similar data.

The second section will test significant factors that explain the relative size of acquisitions to its revenue. The Pre-acquisition year's data will be run alongside the following year's "acquisition size/revenue"-ratio.

The third section will be tested through a pair study, with the T-pair method, where the year before an acquisition is run with the year after an acquisition in pairs. It will tell us what figures that have been changed by the acquisition.

5.4 The Sample

Our sample will consist of publicly listed internet gambling companies in the European market with data collected from beginning of 2004 to the end of 2009. Every one-company-year will be one regarded as one case. The companies will be tracked down through various annual reports, new press, and websites such as alacrastore.com. We will later gather Income Statements and Balance Sheets through Thomson Financial DataStream for the chosen time-range. Traded firms with revenue below 50 million Euros are excluded as we believe that these could affect the reliability of the results when comparing very small companies with larger and more complex companies – this also reduces the risk of not finding publicly traded internet gambling companies that we want to have in our sample. 360 Holdings have been such a company. As our research focuses on the online gambling industry we deemed the physical gambling corporations as too diversified and irrelevant for our study and excluded them from our sample as well. From this we derived our sample of 10 companies as shown in the table below, and all but one had been publicly traded since at least 2004 making a total of 58 cases. The information gathered was all based on secondary data. The companies and years of data (cases) that have been gathered are showed in table 4.2 below:

| | |
|-------------------|--|
| 888 Holdings | 2004-2009 |
| Bet-at-Home | 2005-2009 (Missing: Change in Sales for the 2005 case) |
| Betsson | 2004-2009 |
| Betting Promotion | 2005-2009 |
| BetAndWin (Bwin) | 2004-2009 |
| Ladbrokes | 2004-2009 |
| Partygaming | 2004-2009 (Missing: Change in Sales for the 2004 case) |
| Sportingbet | 2004-2009 |
| Unibet | 2004-2009 |
| William Hill | 2004-2009 |

Table 4.2

5.5 Independent Variables

In order to run the regressions and test our hypotheses on which this thesis rests upon we chose to clarify the independent variables based on theories compatible with M&A drivers. In the following section we describe the independent variables chosen. All variables are based on accounting data, and each variable measures, or represent, one full fiscal year:

- Working Cash / Total Cash: Tells how large portion of cash that is efficiently used. The higher the ratio, the more efficient cash management and the less excess cash. Working Cash is roughly estimated to be 4% of the firm's revenue that year. Cash that are above this percentage is referred to as Excess Cash, which Jensen describes as free cash flow.
- Debt ratio = Total long-term Liabilities / Total Assets: Tells how large part of the Book Value that are financed by debt and not short-term debt or equity
- Change in Sales = (Sales year 1 – Sales year 0) / Sales year 0: Tells how large increase in sale one year has in comparison to the year before
- Profit Margin = Net Income / Revenue: How efficient the company perform in generating profit out of their revenue
- Revenue-to-Asset = Revenue/Total Assets: How efficient the company uses their assets, the turnover of their assets
- Return-on-Capital = Net Income / (Total Assets – Cash): Financial measure that tells how large the return is on the firm's assets without including cash
- Return-on-Equity = Net Income / Total Equity: Financial measure that tells the profit on equity capital.
- LOG Business cycle (S&P European 350) for year 1= $\text{LOG}(\text{Index Year 1}/\text{Index Year 0})$: The index of S&P European 350 answers for the European business cycle between 2003-2008. The index has been turned logistic to show a percentage change between the years. For a case year 1, it represent the difference from year 0 in market return

Summary: There are 10 Companies that each has data for 6 years and thereby 6 cases, except for 2 companies that only have data for 5 years and thereby 5 cases each. This leaves a total of $8 * 6 + 2 * 5 = 58$ cases that is one company year each. Each case have data from the 8 independent variables just described except for two of the cases that had one missing variable, change in Sales for a cases in 2005. This was due to the fact that the companies was not traded in 2004 and did not provide that years financial data. This leaves a total of independent data variables to: $58 * 8 - 2 = 462$ for the 58 cases. In table 4.3 is a list of all the 19 M&A activity years/cases in the sample within the time period 2004-2009.

| Acquirer | Acquired & Year |
|--------------------------|--|
| 888 Holdings | Globalcom Ltd Online in 2007 |
| 888 Holdings | Wink Bingo in 2009 |
| Bet At Home | Racebet GMBH in 2007 |
| Betting Promotion | Game Village in 2009 |
| Betwin | OnGame Solutions in 2006 |
| Betwin | United Games BV in 2009 |
| Ladbrokes | Jack Brown Ltd in 2005 |
| Ladbrokes | North West Bookmakers in 2006 |
| Ladbrokes | Sponsio Ltd in 2007 |
| Ladbrokes | Eastwood Bookmakers in 2008 |
| Party Gaming | Multipoker in 2005 |
| Party Gaming | Empirepoker in 2006 |
| Party Gaming | Various Subsidiaries of former Empirepoker in 2007 |
| Party Gaming | Cashcade in 2009 |
| Sportingbet | Paradise Poker in 2005 |
| Sportingbet | Mysportsbook in 2006 |
| Sportingbet | Sporting Bet Italia in 2007 |
| Unibet | Mr Bookmaker in 2005 |
| Unibet | Maria Holding in 2007 |

Tabel 4.3:

5.6 The Nominal Logistic Regression test (Section 1 hypotheses)

The dependent variables for the first section are the four groups that are divided in relation to when acquisitions have been made. They have no real order since ordinary years (Group 0) can be both before a pre-acquisition year (Group 1) and after an after-acquisition year (Group 3) and are therefore classed as nominal data; the lowest grade of data.⁵⁰

This Nominal Logistic Regression test is used to spot determinants of why companies act in the way they have done. The test is capable of testing regression of dependent variables that are nominal; or ordinal, data with three or more categories; in our case up to the four categories/groups that are at the nominal data level. What makes this test the most appropriate one is that it has the ability to produce linear responses from a logistic model easily.⁵¹ The transformation is denoted as “odds ratio”, a transformation that is called the logit transformation of the probability π . It explains with what probability the outcome of an independent variable decrease or increase the likelihood of being in a specific group, the dependent variable, where <1 decreases the chance and $1 <$ increases the probability by a unit increase of the tested independent variable. Further the P-value tells to what significance the variable explains the equation to the odds-ratio dimension. The Coefficient factor (b) is in this type of regression not the straightforward interpretation as in the linear regression model discussed in the next chapter, it is simply a double check in order to derive to the odds ratio.⁵² The logarithmic transformation from multi-way frequency tables and its ability to test nominal data level is what has given the model its name.⁵³

The test needs to use a reference, and the most logical is to use ordinary years as reference event for the other three other events. A result of a test therefore shows three paragraphs with the same chosen independent variables in each with P-Value and Odds Ratio but also Z-value, Coefficient, and Standard Deviation Coefficient. The three paragraphs are the: Pre-acquisition, Acquisition, and Post-acquisition years all three separately in comparison to Ordinary years.

Dependent variable = Group (0,1,2 and 3)

⁵⁰ Cohen & Holliday 1996 Page 8

⁵¹ Neter et la page 571

⁵² Neter et la page 577

⁵³ Neter et la pages 571-573

To decide the appropriateness of the Nominal Logistic Regression model before it is accepted to use it needs to be examined, just like all regression models. Goodness-of-fit tests will be conducted to determine this; more detailed two different ones will be made: the Pearson and the deviance goodness-of-fit tests. Goodness-of-Fit tests determine whether the statistical model fits the gathered data by analyzing the observed values with its expected values in the model. The tests can detect main departures from a logic response function but is insensitive to minor departures.⁵⁴

5.7 The Multiple Regression test (Section 2 hypotheses)

There are many types of simpler regression models than the Nominal Logistic Model. The most simple, called: Simple Linear Regression Model⁵⁵ only has one predictor variable. It is linear in the parameters because none is a multiple or division of two parameters, such as ratios, and linear in the predictor variable because this can only appear in the first power. A model that has these attributes is called a first-order model.⁵⁶ The Multiple Regression test can predict the values of the dependent variable out of information from two or more independent variables and assumes like the simple model both homoscedasticity, that the dependent variable is comparable to the independents' values, and that the data is normally distributed.⁵⁷ The Multiple Regression Model will be run to test determinants of the size of acquisitions. The Acquisition Size divided by the Book Value is the dependent factor, in this test instead of the four groups, and gives a percentage of the relative size of the acquisition:

$$\text{Dependent variable} = \text{Acquisition Size} / \text{Book Value}$$

It is the independent factors for the pre-acquisition year that will be run to explain the acquisition size for the coming year. There are 19 cases of acquisition where we will select the 19 cases' independent variables before an acquisition is made to explain the size of conducted acquisition(s) the year after.

⁵⁴ Neter et la pages 591-596

⁵⁵ Neter et la pages 10

⁵⁶ Neter et la pages 10-11

⁵⁷ Cohen and Holliday 95-96, 159

5.8 The Pair T-Test (Section 3 hypotheses)

To test the third section of hypothesis, before and after acquisition years, the paired T-test will be conducted. The test is not the same as the T-Test that test two populations means and variances, this one specifically test every pair observation which provides stronger results than if considering before- and after-years as two independent samples. The test does not see how large the difference is within a confidence interval; it simply states to what probability (p-value) one pair observed mean differ from the second pair observed mean in the pair sample. It answers to the question whether there is a difference between before and after years, it can be two-way but we have one-sided hypotheses that divide the p-value in half.⁵⁸

The sample of 58 cases could find ten events with larger M&A costs than five percentages of Book Value and with data both the year's before and after. Leaving 20 cases, ten before and ten after. None of the ten companies had conducted any M&A the year 2004 which meant that no further data will be necessary for the year before (2003) in order to do the pair study for M&As between 2004 and 2009. The last year, 2009, have however the three samples of company acquisition years that are above the 5 % limit which cannot be included because the year after, 2010, don't have published accounting data yet.

5.9 Correlation testing of Independent variables (All sections)

The aim for running both the Multiple regression and the Nominal Logistic Regression is to make it as explanatory as possible. Some of the chosen variables might explain the same things that reduce the regressions accuracy and explanatory power. The regressions will therefore be ran in groups where variables that aren't correlated to each other are tested separately first; in the range $-0.5 < 0.5$.

5.10 Reliability

A thesis has high reliability if it would yield the same result if conducted several times. The thesis should thereby not be affected by the chosen method or by the authors themselves. This

⁵⁸ Morgan et al 2004 page 159

means that if the investigation would be repeated and the same variables collected, the results would be the same given that the population remains the same. The conclusion of the results is however affected by the practitioners, which could reduce reliability since the investigation can affect the conclusion. Problem with sustaining such is that different companies follow different laws because of their jurisdictional location that may differentiate the ways of presenting accounting information.⁵⁹ There is also a problem when companies switches accounting standard, which have been the case when IFRS standards have been implemented in Europe. A strength with the thesis is that we can be reasonably sure to have included most of the companies that are publicly traded in the European internet Industry, that we thereby account for a large part of the population in our sample.

5.11 Validity

A high degree of validity implies that there is a high level of consistency between the empirical and theoretical part of the study/research. Validity is thus the ability of measuring the intended with as high accuracy as possible.⁶⁰ In this thesis the hypotheses, which lays as a foundation for the empirical findings and eventually the analysis, are all based on theory surrounding M&A. This strengthens the accuracy and the validity of the thesis. A possible factor that could negatively affect the validity of the thesis is the chosen independent variables that are tested through the hypotheses. As our aim is to test the applicability of theory of drivers of M&A including size and affect there can always be a discussion in the accuracy of chosen the specified theories and variables and the exclusion of others. We believe that we have taken deep consideration in the theories chosen and strong arguments for their support in our study.

5.12 Information Sources and Critic

In order to achieve our objectives we both need reliable sources to collect information and applicable theories to get an accurate analysis of the problem. The sources for information will be gathered from databases such as DataStream, which will be the source for quantitative

⁵⁹Svenning 1997

⁶⁰ Svenning 1997

data in the form of relevant financial information from the samples. DataStream gathers information directly from stock exchanges and we believe that this type of source is accepted when conducting scientific research. We will assemble qualitative information from published annual reports, press releases, articles and similar sources to support and strengthen quantitative data at the same time give the thesis a broader perspective. Critic can be aimed towards comparison of financial accounting data issued by companies as they might have changed accounting standards during the chosen period. A possible strength of the changing regulation is the standardization with the IFRS framework, which may make our group-peers even more comparable to a more detailed level. Presently there are 120 countries worldwide that require public listed companies to report in accordance with IFRS.⁶¹ Corrections for adjusting data, which have changed to IFRS retrospectively, have not been made. This could mainly affect the reliance for the reporting of intangible assets, which with the new regulations should be written down etc.

Another obvious draw back are that general of accounting financial data. It in itself can present non-comparable data for different years when companies can change their reporting practices besides IFRS, even thou European overall might have more similar practices with each other than if the sample would include other continents. Accounting data is always backward looking, and when considering intangible assets it ignores the true value.⁶²

The strength with accounting data is that it arrives from statements that have been certified and are used by shareholders in judging company performance.⁶³

⁶¹ IFRS.com

⁶² Bruner 2001

⁶³ Bruner 2001

6. Empirical findings

In this chapter results found from the different regression tests are presented. The results are presented in three sections following the division of hypothesis, which will be analyzed in the following chapter.

In this chapter gathered data will be presented from the two regression models and the t-test to describe the three sections we have divided our hypothesis in. Key ratios that are being used to profile the companies are; Working Cash-ratio, Debt-ratio, Change in Sales, Profit margin, Revenue-to-Assets, Return-on-Capital, Return-on-Equity and Market Return. We will set out correlations after the following:

| | | |
|----------|-----|--|
| P > 0,05 | *** | Significant at a one-way 97,5% Confidence interval |
| P > 0,10 | ** | Significant at a one-way 95% Confidence interval |
| P > 0,20 | * | Significant at a one-way 90% Confidence interval |

This chapter will include statements of the rejection or acceptance of the chosen hypotheses, as we deemed it to be more fitting in the next *Analyses* chapter. This chapter will present the outcome of actual results, at two-side probability, next to what our essay's hypotheses predict the outcome to be.

6.1 Characteristics of Acquisition cycle (Section 1)

This key section will describe the years around M&A activity. This is a recap of the four groups' definitions and meaning:

- Group 1: Pre-acquisition years. Years that is followed by a year with one or more acquisitions even if that year also is an acquisition or post-acquisition year as well.
- Group 2: Acquisition years. Years that one or more acquisition occurs on. Could be a post-acquisition year as well.
- Group 3: Post-acquisition years. Years after a year with an acquisition, the Post-acquisition year. Could not be a Pre-acquisition or an Acquisition year too.
- Group 0: Ordinary years. Years where no acquisitions are made on, nor years that are before or the year after an acquisition is made on.

6.2 Description of the population divided in the four groups (Section 1)

The tests will see what differences there are between the years around acquisitions; with focus on the difference between years that is followed by acquisition decisions (Group 1) with years that don't have any activity before or after (Group 0). The distributions of the independent variables are described separately in each of the four groups in table 6.1 on the next page.

| Variable | Group | N | N* | Mean | SE Mean | StDev | Q1 | Median | Q3 |
|-----------------|-------|----|----|---------|---------|--------|---------|--------|--------|
| Working Cash | 0 | 20 | 0 | 0,490 | 0,272 | 1,214 | 0,111 | 0,185 | 0,329 |
| | 1 | 20 | 0 | 0,508 | 0,120 | 0,536 | 0,078 | 0,244 | 0,896 |
| | 2 | 11 | 0 | 0,237 | 0,122 | 0,405 | 0,067 | 0,083 | 0,194 |
| | 3 | 7 | 0 | 1,081 | 0,765 | 2,024 | 0,090 | 0,103 | 1,63 |
| Debt Ratio | 0 | 20 | 0 | 0,1420 | 0,0598 | 0,2676 | 0,000 | 0,000 | 0,1286 |
| | 1 | 20 | 0 | 0,1743 | 0,0786 | 0,3517 | 0,000 | 0,000 | 0,1804 |
| | 2 | 11 | 0 | 0,0863 | 0,0533 | 0,1766 | 0,000 | 0,000 | 0,0893 |
| | 3 | 7 | 0 | 0,204 | 0,104 | 0,275 | 0,000 | 0,000 | 0,479 |
| Change in Sales | 0 | 19 | 1 | 0,2048 | 0,0917 | 0,3995 | 0,0355 | 0,121 | 0,4532 |
| | 1 | 19 | 1 | 0,631 | 0,395 | 1,723 | -0,033 | 0,278 | 0,477 |
| | 2 | 11 | 0 | -0,049 | 0,219 | 0,728 | -0,617 | -0,051 | 0,126 |
| | 3 | 7 | 0 | 0,236 | 0,248 | 0,656 | -0,119 | 0,394 | 0,634 |
| PM | 0 | 20 | 0 | 0,2063 | 0,0440 | 0,1969 | 0,0686 | 0,172 | 0,2399 |
| | 1 | 20 | 0 | 0,061 | 0,107 | 0,480 | 0,023 | 0,098 | 0,228 |
| | 2 | 11 | 0 | 0,1565 | 0,0306 | 0,1015 | -0,1007 | 0,1712 | 0,2296 |
| | 3 | 7 | 0 | 0,0191 | 0,0543 | 0,1438 | -0,0384 | 0,0179 | 0,0721 |
| RTA | 0 | 20 | 0 | 1,554 | 0,391 | 1,750 | 0,577 | 0,804 | 1,897 |
| | 1 | 20 | 0 | 3,025 | 0,881 | 3,942 | 0,972 | 1,665 | 3,425 |
| | 2 | 11 | 0 | 1,85 | 1,00 | 3,33 | 0,41 | 1,05 | 1,19 |
| | 3 | 7 | 0 | 2,08 | 1,14 | 3,01 | 0,56 | 0,98 | 1,62 |
| ROC | 0 | 20 | 0 | 0,516 | 0,166 | 0,741 | -0,084 | 0,187 | 0,360 |
| | 1 | 20 | 0 | 0,679 | 0,227 | 1,013 | 0,089 | 0,237 | 0,682 |
| | 2 | 11 | 0 | -0,493 | 0,440 | 1,458 | -0,125 | 0,135 | 0,178 |
| | 3 | 7 | 0 | 0,0778 | 0,0435 | 0,1150 | -0,0439 | 0,0723 | 0,1697 |
| ROE | 0 | 20 | 0 | 0,4444 | 0,0915 | 0,4092 | 0,1301 | 0,3704 | 0,6381 |
| | 1 | 20 | 0 | 2,71 | 2,97 | 13,28 | -0,06 | 0,12 | 0,27 |
| | 2 | 11 | 0 | -1,152 | 0,872 | 2,891 | -0,612 | 0,093 | 0,213 |
| | 3 | 7 | 0 | -0,030 | 0,219 | 0,580 | -0,051 | 0,042 | 0,384 |
| LOG(Cycle) | 0 | 20 | 0 | -0,0092 | 0,0190 | 0,0851 | -0,1068 | 0,0481 | 0,0638 |
| | 1 | 20 | 0 | -0,0014 | 0,0192 | 0,0859 | -0,0891 | 0,0560 | 0,0753 |
| | 2 | 11 | 0 | -0,0067 | 0,0257 | 0,0853 | -0,1068 | 0,0481 | 0,0481 |
| | 3 | 7 | 0 | -0,0758 | 0,0264 | 0,0699 | -0,1332 | -0,107 | -0,036 |

Table 6.1

Seen from the descriptive results is that debt financing is used in less than half of the cases in all four groups, using debt is not a commonality for the population. The Profit Margin mean

differ greatly between the groups; years before and after an acquisition have low profit margins whilst year of Non-activity and years of acquisition tend to have higher profit margin in comparison. Interesting note is that the acquisition years and the year after both have a negative Return-on-Equity unlike the other two groups.

6.3 Determinants of Acquisition year (Section 1)

Before running the Nominal Logistic Regression test, the independent variables were run against each other in a correlation test in table 6.2 below

| | Working Cash | Debt Ratio | Change in Sales |
|-----------------|---------------|------------|-----------------|
| Debt Ratio | 0,387 | | |
| Change in Sales | 0,033 | -0,191 | |
| PM | -0,146 | 0,017 | <u>-0,761</u> |
| RTA | 0,533 | -0,023 | 0,592 |
| ROC | -0,162 | 0,063 | 0,002 |
| ROE | 0,042 | -0,059 | -0,049 |
| | | | |
| | PM | RTA | ROC |
| RTA | <u>-0,642</u> | | |
| ROC | 0,082 | -0,193 | |
| ROE | 0,161 | 0,036 | 0,116 |

Table 6.2

Profit Margin and Change in Sales has a high degree of negative correlation, -0,761, as was the case between Change on Sales and Profit margin, -0,642. We therefore decided to run these variables separately as there would be a high possibility of the two variables to explain the same factors. This eventually resulted in the exclusion of Profit Margin, due to the fact that it compiled a weaker model than Change on Sales. As we can see from the table 3 there is also a strong positive relation between Return on Assets and Change in Sales, 0.592. Even though this is above the standard correlation maximum of 0,5 we decided to keep these variables as we found them to strengthen our empirical results with building a stronger model together. We believe that there is an acceptable correlation rate of the remaining variables showing a positive difference in explanatory factors.

Moving on to the nominal logistic regression results we found a number of significant variables. The group consisted of 58 cases divided among the four groups 0, 1, 2 and 3. The groups 1, 2 and 3 were tested in relation to group 0. This type of testing includes an *Odds Ratio*, which indicates the probability of an increase in the chosen independent variable

affecting the firm to end up in the selected group. Further clarifying, a positive coefficient is always followed by an above 1 odds ratio, as a unit increase would be positively correlated to ending up in the selected group instead of the reference group. As on the contrary a negative coefficient is always followed with below 1 odds ratio as this would indicate a negative relation between a unit increase and ending up in the selected group; that it is more likely to end up in the reference group.

| Variable | Value | Count |
|----------|-------|----------------------|
| Group | 0 | 19 (Reference Event) |
| | 3 | 7 |
| | 2 | 11 |
| | 1 | 19 |
| Total | | 56 |

* NOTE * 56 cases were used * NOTE * 2 cases contained missing value

Table 6.3

| Predictor | Coef | SE Coef | P | Odds Ratio |
|-----------------------|------------|-----------|-------|------------|
| Logit 3: (1/0) | | | | |
| Constant | -1,28339 | 0,778604 | 0,099 | |
| Working Cash | -1,95012 | 1,02610 | 0,057 | 0,14 |
| Debt Ratio | 2,36572 | 1,80426 | 0,190 | 10,65 |
| Change in Sales | 0,316135 | 0,783659 | 0,687 | 1,37 |
| RTA | 1,14004 | 0,553258 | 0,039 | 3,13 |
| ROC | -0,353557 | 0,540057 | 0,513 | 0,70 |
| ROE | 0,0210095 | 0,0582716 | 0,718 | 1,02 |
| LOG(Cycle) | 0,452560 | 4,61589 | 0,922 | 1,57 |
| Logit 2: (2/0) | | | | |
| Constant | 0,982432 | 1,07003 | 0,359 | |
| Working Cash | -16,0309 | 8,88548 | 0,071 | 0,00 |
| Debt Ratio | 5,79616 | 4,02232 | 0,150 | 329,03 |
| Change in Sales | -2,05165 | 1,18903 | 0,084 | 0,13 |
| RTA | 1,57530 | 1,22102 | 0,197 | 4,83 |
| ROC | -5,40979 | 2,43400 | 0,026 | 0,00 |
| ROE | -1,12549 | 0,595133 | 0,059 | 0,32 |
| LOG(Cycle) | 6,26185 | 7,02661 | 0,373 | 524,19 |
| Logit 1: (3/0) | | | | |
| Constant | -0,107593 | 0,951343 | 0,910 | |
| Working Cash | 0,312067 | 1,13611 | 0,784 | 1,37 |
| Debt Ratio | -1,05745 | 2,73759 | 0,699 | 0,35 |
| Change in Sales | 0,0228711 | 0,973239 | 0,981 | 1,02 |
| RTA | -0,0081929 | 0,694282 | 0,991 | 0,99 |
| ROC | -4,43923 | 2,79773 | 0,113 | 0,01 |
| ROE | -0,610469 | 0,762150 | 0,423 | 0,54 |
| LOG(Cycle) | -11,9422 | 8,35433 | 0,153 | 0,00 |

| Goodness-of-Fit Tests | | | |
|-----------------------|------------|-----|-------|
| Method | Chi-Square | DF | P |
| Pearson | 125,866 | 147 | 0,896 |
| Deviance | 103,743 | 147 | 0,997 |

Table(s) 6.4

Table 6.4 shows a positive correlation for *Working Cash* at the 90% level and for *Revenue to Assets* is positively correlated within the 95% level, in the group seeking to find the relation between group 0 and group 1. The regression also indicates that a percentage increase in *Working Cash* in relation to the total cash reduces possibility of becoming an acquirer with the risk factor of 0,14, as for *Revenue to Assets* a percentage increase enhances the possibility of becoming an acquirer with the risk factor 3.13.

Continuing the group determining the relation between year 2 and year 0, we find that *Working Cash*, *Change in Sales*, *ROC* and *ROE* all show a negative correlation with group 2 at the 90% level. A percentage increase in *Working Cash* and *Change in Sales* reduces possibility factor of being in an acquisition year with the risk factor 0,00 respectively 0,13, as a percentage increase in the *ROC* and *ROE* reduces the possibility of being a firm in an acquisition year with the risk factor 0,00 respectively 0,32.

In the final group we test the relation between year 0 and year 3, one independent variable was found negatively correlated in the testing, *ROC* at the 90%. An increase in the *ROC* reduces the risk of being in the year after an acquisition in relation to group 1 with 0,01.

6.4 Determinants of Acquisition size (Section 2)

In this section the dependent variable has been changed from Group, nominal data level, to the ratio Acquisition Size/Revenue, which is at interval data level. The sub-population now used is described as in table 6.5 on the next page.

| Variable | N | N* | Mean | SE Mean | StDev | Q1 | Median | Q3 |
|---------------------|----|----|--------|---------|-------|--------|--------|--------|
| Acq Size/Book Value | 19 | 0 | 0,408 | 0,129 | 0,563 | 0,034 | 0,229 | 0,603 |
| Working Cash | 19 | 0 | 0,531 | 0,124 | 0,541 | 0,083 | 0,299 | 0,911 |
| Debt Ratio | 19 | 0 | 0,1835 | 0,0823 | 0,359 | 0,0000 | 0,000 | 0,2144 |
| Change in Sales | 19 | 0 | 0,760 | 0,406 | 1,770 | -0,033 | 0,312 | 0,648 |
| PM | 19 | 0 | 0,058 | 0,113 | 0,492 | 0,022 | 0,071 | 0,236 |
| RTA | 19 | 0 | 3,146 | 0,920 | 4,012 | 1,119 | 2,123 | 3,535 |
| ROC | 19 | 0 | 0,707 | 0,237 | 1,033 | 0,088 | 0,243 | 0,745 |
| ROE | 19 | 0 | 2,84 | 3,13 | 13,63 | -0,10 | 0,12 | 0,27 |

Table 6.5

The 19 cases, taken out of the sample of 58 cases, are all years that occurred before a year of M&A activity. The independent variables are the same, but are in these tests ran to explain the size of conducted M&A in the year after in relations to that years book value. Before the regression took place a new correlation test was made since the total sample are different from Section one. Table 6.6 illustrates this:

| | Working Cash | Debt Ratio | Change in Sales |
|-----------------|--------------|------------|-----------------|
| Debt Ratio | 0,140 | | |
| Change in Sales | 0,019 | -0,074 | |
| PM | -0,224 | 0,096 | -0,877 |
| RTA | 0,435 | -0,198 | 0,794 |
| ROC | -0,384 | 0,134 | -0,009 |
| ROE | 0,147 | -0,124 | -0,092 |
| LOG(Cycle) | 0,266 | 0,157 | 0,185 |
| | | | |
| | PM | RTA | ROC |
| RTA | -0,869 | | |
| ROC | 0,207 | -0,048 | |
| ROE | 0,208 | 0,029 | -0,062 |
| LOG(Cycle) | -0,020 | 0,224 | 0,059 |
| | | | |
| | ROE | | |
| LOG(Cycle) | 0,185 | | |

Table 6.6

The test showed that Profit Margin have a high correlation with Return-on-Assets (-0,869) and Change in Sales (-0,877). Furthermore Return-on-Assets and Change in Sales also had a high correlation (0,794). The tests where therefore run with all others, but only one of these three at a time. One case where excluded because it had large unusual variables in comparison the sample of the other 18 cases, and where excluded. The strongest model, with P=0,005, R-

square above 50 % and without high correlation amongst the variables, where consistent of only Debt ratio and Return-on-Equity.

| Predictor | Coef | SE Coef | T | P |
|---|----------|---------|-------|-------|
| Constant | 0,4657 | 0,1162 | 4,01 | 0,001 |
| Debt Ratio | -0,6055 | 0,2853 | -2,12 | 0,051 |
| ROE | -0,24477 | 0,06984 | -3,50 | 0,003 |
| S = 0,430193 R-Sq = 51,2% R-Sq(adj) = 44,7% | | | | |

Table 6.7

The regression equation arrived from table 6.7 is:

$$\text{Acq Size/Book Value} = 0,466 - 0,606 \text{ Debt Ratio} - 0,245 \text{ ROE}$$

| Source | DF | SS | MS | F | P |
|----------------|----|--------|--------|------|-------|
| Regression | 2 | 2,9121 | 1,4560 | 7,87 | 0,005 |
| Residual Error | 15 | 2,7760 | 0,1851 | | |
| Total | 17 | 5,6881 | | | |
| | | | | | |
| Source | DF | Seq SS | | | |
| Debt Ratio | 1 | 0,6391 | | | |
| ROE | 1 | 2,2730 | | | |

Table 6.8

6.5 Changes the years before and after the Acquisition year (Section 3)

In the last, third, section pair observations have been taken for each event. The events are years with completed acquisitions and the pair observations are the two years before and after every chosen event year. The events, acquisition years, have been chosen for having both a year before and after within the range 2004 to 2009. On top of this constraint, a size limit has been set to for events to be at least 5% Acquisition size in relation to Book Value. No acquisitions was made in 2004, but 888 Holding, Bwin and PartyGaming made acquisition for more than 5 % of their Book value in 2009. Those three samples are not seen, as events since figures for 2010, the year after, don't exist at the time this thesis is written.

The following table 6.9 on the next page describes the chosen samples of before and after years in separate groups.

| Variable | N | N* | Mean | SE Mean | StDev | Q1 | Median | Q3 |
|-----------------|----|----|--------|---------|--------|--------|--------|--------|
| Change in Sales | 9 | 1 | 0,467 | 0,239 | 0,717 | 0,018 | 0,352 | 0,684 |
| After_2 | 10 | 0 | 0,046 | 0,156 | 0,494 | -0,244 | 0,114 | 0,393 |
| PM | 10 | 0 | 0,2353 | 0,0649 | 0,2053 | 0,0378 | 0,2112 | 0,4826 |
| After_3 | 10 | 0 | 0,1796 | 0,0691 | 0,2184 | 0,0711 | 0,1657 | 0,3088 |
| RTA | 10 | 0 | 2,958 | 0,713 | 2,254 | 1,112 | 2,358 | 4,775 |
| After_4 | 10 | 0 | 1,473 | 0,404 | 1,276 | 0,756 | 0,988 | 1,723 |
| ROC | 10 | 0 | 1,152 | 0,403 | 1,273 | 0,153 | 0,457 | 2,447 |
| After_5 | 10 | 0 | 0,2128 | 0,0541 | 0,1711 | 0,0673 | 0,1904 | 0,37 |
| ROE | 10 | 0 | 5,33 | 5,98 | 18,90 | -6,05 | -0,71 | 0,58 |
| After_6 | 10 | 0 | 5,93 | 5,88 | 18,59 | -1,23 | 0,05 | 0,39 |

Table 6.9

From comparing means, we can see that change in sales differ mostly between before and after acquisition years. An increase of 46,7 % in sales the year before an acquisition year compared to an increase of only 4,6 % the year after. One variable on this variable is however missing, leaving nine instead of ten variables. The T-Pair Test where conducted on five performance variables:

- Profit Margin
- Revenue-to-Assets
- Change in Sales
- Return on Capital
- Return on Equity

The result showed that two of these had changed from the years before to the years after acquisitions:

| | N | Mean | StDev | SE Mean |
|------------|----|-------|-------|---------|
| RTA | 10 | 2,958 | 2,254 | 0,713 |
| After_4 | 10 | 1,473 | 1,276 | 0,404 |
| Difference | 10 | 1,485 | 2,134 | 0,675 |

95% CI for mean difference: (-0,042; 3,012)

T-Test of mean difference = 0 (vs not = 0): T-Value = 2,20 P-Value = 0,055

Table 6.10

Return-on-Assets has been shown to be significantly lower the year after than before an acquisition has been conducted. Having a Revenue-to-Asset-mean of 2.9:1 the year before,

and ending up with a 1.4:1 mean afterwards, those have a standard deviation but are different in a confidence interval of 90%.

| Paired T for ROC - After_5 | | | | |
|----------------------------|----|-------|-------|---------|
| | N | Mean | StDev | SE Mean |
| ROC | 10 | 1,152 | 1,273 | 0,403 |
| After_5 | 10 | 0,213 | 0,171 | 0,054 |
| Difference | 10 | 0,939 | 1,148 | 0,363 |

95% CI for mean difference: (0,118; 1,760)

T-Test of mean difference = 0 (vs not = 0): T-Value = 2,59 **P-Value = 0,029**

Table 6.11

Return-on-Capital is shown to be significantly lower the years after an acquisition has been conducted compared with the years before. The means are different in a 90 % confidence interval.

6.6 About the results

The results from all three sections have now been presented. In the following section we will analyze the results with the theories presented in the theory chapter that have been what the hypotheses have been based upon.

7. Analysis

This chapter analyses the empirical findings from the regression results in the same three sections. This is used to establish if the drivers indicated by theories are applicable on the European internet gambling industry.

7.1 First section analysis

Hypotheses Section 1 Results Summary:

1: There is a positive relationship between high levels of excess cash and conducting acquisitions

–Accepted.

2: There is a positive relationship between low debt and conducting acquisitions

– Strongly rejected

3a: Firms with low Profit Margins are more likely to commit to M&A

–Rejected

3b: Firms with low Revenue-to-Assets are more likely to commit to M&A

– Strongly rejected

3c: Firms with low change in sales from previous years are more likely to commit to M&A

– Rejected

4a: Firms with lower return on capital are more likely to commit to M&A

- Rejected

4b: Firms with lower return on equity are more likely to commit to M&A

- Rejected

5: An increase in market return does positively affect M&A activity in the European internet gambling industry

– Rejected

Table 7.1

The independent variables that were selected were all based on different theory prediction and statements. The theory together with the independent variables framed the ground for our hypotheses that are aimed to test the applicability of theory on the European internet gambling industry.

Our first hypothesis seeks to find a positive relationship between high levels of cash and acquisition and was found significant at the 95% level, and H1 accepted. This indicates support of the free cash flow hypothesis by Jensen. An increase in the working cash equals a decrease in excess cash that in turn would negatively affect the possibility of being in an acquirer in the pre year acquisition state. Excess cash can be seen as a driver of M&A in the European Gambling Market if based on our findings.

A reason for the strong support of Jensen's hypothesis in our thesis could be derived from the high growth and fierce competition for market share in the European internet gambling industry. The companies in our sample as seen earlier in table 4.3 are highly active acquirers, with some firms acquiring several times during the sample period. A dynamic industry with high growth calls for fast action from managers as windows of opportunities to secure market share could arise sudden and for limited period of time. This could be an underlying factor, as excess cash is an internal resource fast and easy to access for managers, preferred and at times the only option when acquiring in the vibrant European internet gambling market. In contrast to perhaps raising debt externally, this can be a time consuming process with credit analyses. Excess cash accessibility is good motive for its usage. Another factor that might drive the use of excess cash in M&A is the studies that have shown that the return on cash is higher than other forms of payment such as stocks.⁶⁴ This could be a common understanding among managers operating in the M&A devoted gambling industry, thus positively affecting the usage of excess cash.

Our second hypothesis aims support low debt as an acquisition driver according to Jensen. As Jensen argue that firms with lower debt would be more likely to commit to an M&A than firms with higher debt. As mentioned in the theoretical framework chapter, Jensen's states that managers of firms with unused debt capacity are more likely to make low-benefit or value-destructing mergers since they would aim at investing in projects even if they had negative net present value prospects, but would increase sales and size of assets under their

⁶⁴ Gaughan 2007 pages 331-335

control.⁶⁵ This theory was tested through our second hypothesis and was found strongly rejected. The result shows a strong rejection of our hypothesis and NO proven positive relationship between low debt and conducting acquisitions according to our findings.

This finding indicates a possible deviation from the free cash flow hypothesis by Jensen and does in these findings not support the arguments behind low debt increasing the likelihood of M&As. When analyzing these results with from another angle, the efficient market hypothesis, these results could be argued to be less contradicting. As the efficient market hypothesis relies on an equal distribution of information among investors in the market, the European internet gambling industry could be serving as prime example. Creditors are most likely aware that the European internet gambling industry is a high growth market with lucrative opportunities for major gambling corporations. With this in mind creditors might assess European online gambling corporations with high leverage as less risky in comparison to similar mature industry and thus offering advantageous debt proposals for these companies. This might be a farfetched assumption but still a possible motive for the contradicting result of high debt being a driver for M&A in our findings.

Moving towards the third part of hypotheses we decided to test Gaughan 2007's motives for conducting M&A with a twist; to see test whether weak performance as a driver of M&A. This theory is basically based on the strive to enhanced performance. Three hypothesis including *Change in Sales*, *Profit Margin* and *Revenue to Assets* were constructed in order to investigate if weak performance is a driver of M&A. As seen in the hypothesis summary table 7.1, one of the three hypotheses were found positively correlated with becoming an acquirer and profit margin as previously mentioned excluded due to high correlation with other variables. The hypothesis on *Revenue to Assets* was found strongly rejected, as an increase in *Revenue to Assets* would enhance the risk of becoming an acquirer.

According to theory, we conclude that firms with weaker performance would be more driven to acquire than firms with good performance. And in our definition weak performance in the form of low revenue would drive M&A in order to enhance revenue and the operational performance. A high *Revenue to Assets* could also indicate a high amount of revenue in contrast to low asset structure. This could indirectly be interpreted as a firm with low assets and high revenue and profits could have both the capabilities and the incentive to acquire firms in a high growth market as the online gambling market.

⁶⁵ Jensen 1986

The next hypotheses were based on financial performance and its affect as a driver of M&A. The variables chosen to investigate this affect were *Return on Capital* and *Return on Equity*, which unfortunately both were found insignificant and thus not supported in this thesis.

The final hypothesis of this analysis of section 1 aimed to study the market returns affect as a driver of M&A in the European internet gambling industry. The hypothesis constructed to test the theory behind market returns affects on M&A were based on high market returns having a positive effect and drive M&A activity. As we logged the return of the market we were not able to find any significance supporting the hypothesis that market return positively affects/drives M&A in the European internet gambling industry. Several of the firms in the sample are also relatively young and the affects of the market during the first years might be less than for more established firms.

To increase the span of our research we chose to investigate firms both in the year of acquisition and the year after. In the year of acquisition we found four variables to be significant. A percentage increase in *Working Cash* was found to completely reduce the risk of being in an acquisition year. This result shows an odds ratio of 0,00 which in a way support the theory behind our first hypothesis that states that excess cash is a driver of M&A. This theory could also be found relevant to the firms in our sample which all might have a decrease of excess cash during the year of acquisition, as they invest excess cash in the acquisition process and the possibility of these firms during these years increasing excess cash could be interpreted as unlikely. A percentage increase in *Change in Sales, Revenue to Assets, and Return on Equity* were also found to reduce the risk of being in an acquisition year. A negative *Change in Sales, Revenue to Assets and Return on Equity* could also support the theory of acquisitions' difficulty in obtaining positive synergy effects. This indicates that the European gambling industry have similar characteristics concerning the inability of achieving synergy. This is, as previously mentioned, not a study of the value creation ability of M&A a conclusion of this is beyond the scope of our thesis but a could perhaps assist as a indicator of the industry characteristics in relation to M&A theory.

7.2 Second Section Analysis

Hypotheses section 1 Result Summary:

| |
|---|
| 6a: The higher degree the excess cash is, the larger acquisition - Rejected |
| 6b: The lower degree the debt ratio is, the larger acquisition - Accepted |
| 7a: The weaker the Profit Margin, the larger acquisition - Rejected |
| 7b: The lower the Revenue-to-Assets, the larger acquisition - Rejected |
| 7c: The lower increase in Sales the larger the acquisition - Rejected |
| 7d: The lower Return-on-Capital, the larger acquisition - Rejected |
| 7e: The lower Return-on-Equity, the larger acquisition - Accepted |
| 8: High Market Return does positively affect the size of M&A activity - Rejected |

Table 7.2

The following section tested the same independent variables as the first section did, the difference being the compared factors and the explanatory of these. The first section compared the different categories of acquisition activity, during to examine the different characteristics of each group and the major factors that lead to acquisitions. This section focuses on conducted M&As, to investigate the motive the year before an acquisition that could explain the actual size of them.

Our hypothesis that lower debt leads to larger acquisitions was found accepted, which strengthens the predictions of Jensen's free cash flow hypothesis. This could be because companies with debt invest more carefully with more consideration in positive net present values in order to pay interest to debt holder. The lack of debt, and its disciplinary effect, encourages management behavior to investing in prospects with high premiums, or larger investments, than with debt. Debt could here be seen as working as a pressure tool for

management, which gives them the ability to invest in large projects and meanwhile achieving more in the negotiations to earn as much profit as possible. We should note that the sample overall has little debt, which strengthen this finding; to find this factor significant with this amount of cases is interesting.

Further, performance measurements were tested to see if weaker figurers lead to larger M&A activities. We found that accepted for one of our hypotheses; the lower Return-on-Equity the larger the acquisitions to Book Value. This strengthens our reason surrounding Gaughan 2007, that weak performance gives incentive to not only conduct M&A, but to conduct larger M&As in order to make up for it. The hypothesis does not state the amount of Return-on-Equity that required for an increase in the possibility of acquiring, but we can see that the less the ratio is the more likely acquiring firms are to make larger acquisitions – The less Return-on Equity the larger the acquisition size in relation to book value.

Times of good economic climate did not show any affect on M&A activity in this section either. As previous mentioned earlier in the thesis, there has been several studies made on the subject of business cycles great affect on M&A activity. We could although not find any results for that to be true in our sample.

7.3 Third Section Analysis

Our third section tested hypotheses about performance after conducted M&As in our sample with years before. Hypotheses section 3 Result Summary:

| |
|---|
| <i>9a: M&A does lower the Profit Margin</i> <i>- Rejected</i> |
| <i>9b: M&A does lower the Revenue-to-Asset ratio</i> <i>- Accepted</i> |
| <i>9c: M&A does lower the Change in Sales</i> <i>- Rejected</i> |
| <i>9d: M&A does lower Return-on-Capital</i> <i>- Accepted</i> |
| <i>9e: M&A does lower Return-on-Equity</i> <i>- Rejected</i> |

Table 7.3

We could accept two out of our five performance hypotheses. We found that both Revenue-to-Assets and Return-on-Capital had been significantly lower after M&As had been conducted in the sample of 10 pair observations, between 20 pair cases.

Both of these strengthen the skepticism surrounding M&A performance. Earlier studies have shown that acquirers make less than normal return the period after based on stock price. These findings strengthen these studies, by showing that our sample shows significantly worsening accounting ratios that are directly drawn to performance even if this performance is measured on quite short-term.

8. Conclusions

The final chapter consists of conclusions of the thesis together with a minor example of the possible structure of an M&A firm operating in the European internet gambling industry, based on our findings. The chapter ends with a presentation of how we believe that this thesis contributed to the academic world together with suggestions on future research.

8.1 Conclusion

This thesis started with a discussion around the characteristics of the M&A activity and overview of the European gambling industry. The purpose of this was to give the reader a deeper insight in the complex structure of the industry that we chose to study. This was followed by presentation of M&A theories related to our subject. The theoretical framework aimed to give a solid platform for the thesis, a starting point that assists in the understanding of the independent variables tested through the chosen hypotheses of which the empirical findings and eventually the analysis were based upon.

The purpose of this thesis is to test theories surrounding the drivers of M&A; of their occurrence, size and affect, and from that derive their applicability on the European internet gambling Industry. We come to the conclusion that among other factors, a number of theories could not be supported through our hypotheses, as they were found not significant and some even found strongly rejected. It is important to realize that the factors effecting M&As can often be more than one, several factors both internally and externally can affect the firm and the engagement decision of M&A.

We have in this thesis attempted to the best of our abilities to incorporate both market effects in the form of logged indices of market return and the internal financial factors, which increases or decreases the capabilities and the incentives to acquire. Some firms have been extremely active acquirers during the time period and contribute to the support of the theory of free cash flow serving as a driver of M&A.

The internet gambling industry as a whole including Europe could by support of this thesis be said as unique with very significant features in comparison to other industries. The industry is characterized by high growth, completion and a constant debate on the change of the regulatory framework, creating an atmosphere of fast shifting market opportunities for the incumbents of the market. The dynamic market climate of which the gambling corporations operate within could call for non-orthodox measures causing a possible deviation from the traditional theory of M&A drivers.

Although low debt didn't serve as a driver of M&A in our findings, it was found correlated with the size of acquisition. Lower debt structure would lead to a larger M&A. This both supports and rejects the free cash flow hypothesis by Jensen. We would like to argue for something in between. As excess cash was found to be a driver of M&A whilst debt was strongly rejected shows an indication of managers preferring fast and easy access funds, this in comparison to debt and the obligations that follows in the form of credit rating and interest payments among other. Many gambling corporations have not been listed on the stock exchange for more than ten years and the founders of the corporations often hold stock and sits on important position in the company. This could be motive for the inapplicability of debt serving as a disciplinary mechanism when used as a driver of M&A. Still firms in the European internet gambling industry still utilize their debt capacity when engaging in large M&A deals. The theory of debt as disciplinary mechanism might be more applicable when conducting large M&A deals with high level of interest increasing the incentive of conducting firm and solid negotiations to reduce premiums and assure a higher profit.

Weak performance could not be proven as a driver of M&A or a motive behind large acquisition sense only one of our hypotheses was accepted, low ROE motivates larger M&As'. We finally wanted to examine if the theories surrounding the inability in sustaining operational and financial synergies would apply on the European internet gambling industry. This was found supported in our findings, as *Revenue to Assets* and *Return on Capital* both became worse after an M&A. This supports the widely accepted theory of difficulty in obtaining synergy effects after an M&A and adds credibility to the studies surrounding a weaker performance after M&A. To give a clearer picture of the "ideal" firm of our results we have created a simplified example in the box on the next page.

A typical European internet gambling firm would from our findings rather use *Excess Cash* than debt in M&A. With a low *Return on Equity* or *Debt* the firm would be willing to commit to a larger M&A. And finally in the year after an M&A the firm would suffer from a decrease in the *Revenue to Assets* and the *Return on Capital*.

Our thesis has aimed to test the applicability of M&A theories of drivers, size and affects on the European internet gambling industry. We have found strong support for many of the theories of M&A and an applicability of these traditional approaches on the new and vibrant European internet gambling market. Some results in our findings shows a consistency with the traditional theories whilst other factors seem to diverge. Rather than stating the inapplicability or the rejection of theory we would like to point on a new and young industry with unique characteristics resulting in different set of actions among European internet gambling corporations.

8.2 Contribution and Suggestions on Future Research

This research aimed to contribute to the understating of the European internet gambling industry and its specific characteristics, which we believed that we achieved in a smart and consistent way. This research gives a glance into the complicated M&A activity factors in the European internet gambling industry. This thesis added credibility to some of the theories described surrounding M&As' value creation, drivers, size and affects. And at the same time gave an indication in the distinctiveness of the European internet gambling industry.

Further, we would like to suggest future research to focus on identifying drivers of M&A from a corporate perspective rather than the traditional theories, and from that derive the independent variables which are to be tested. The lack of significance in several of our hypotheses might have been mitigated by a focus on the individual drivers of the firm and its applicability towards theory instead of the opposite, which we used in our thesis.

We see this to be a new industry with firms having similar characteristics, and thus making it a perfect match for a case study. A case study could give a clear picture of the typical firm in the industry and the challenge that it faces in consideration to M&A in the market.

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