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**Value Creation in Private Equity**

A Case Study of Outperforming Buyouts in the Nordic Countries



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# Abstract

A number of studies have reported that the returns from acquisitions made by private equity (PE) firms have exceeded those of the public markets, e.g. the S&P 500. The outperformance displayed in the buyouts made by private equity firms is perplexing, particularly given the underperformance and high failure rate typically reported in studies of traditional corporate mergers and acquisitions (M&A). This dissertation strives to shed a light on the dichotomy by examining the activities in a select sample of buyouts during the pre-buyout phase, holding period, and the exit transaction.

The study makes a number of significant contributions. It contributes to the theoretical and conceptual understanding of private equity buyouts by materially extending previous models of value creation into a novel taxonomy and cohesive structure. It contributes empirically by filling an important research gap concerning the subset of buyouts that exhibited exceptional outperformance compared to peer firms in PE portfolios. The inductive multiple-case study approach in combination with access to proprietary interview data permitted an in-depth analysis of the factors conducive to buyout value creation. The analysis indicates the key factors resulting in the outperformance were timing the entry and exit transaction to the business and industry cycles, identifying and executing the apposite business strategy, utilizing alternative modes of debt financing, discerning the pre-buyout target firm characteristics, implementing a pervasive array of operational improvements, and lastly, achieving high-levels of employee motivation and commitment across the organization.

# Tiivistelmä

Useat tutkimukset ovat osoittaneet, että keskimääräiset tuotot pääomayhtiöiden velkarahoitteisista yrityskaupoista ovat ylittäneet osakesijoitusten tuotot (esimerkiksi Standard & Poor 500). Kysymys, miksi velkarahoitteiset yrityskaupat onnistuvat on mielenkiintoinen, etenkin kun huomioidaan, että monet tutkimukset ovat osoittaneet useiden perinteisten yrityskauppojen epäonnistuvan ja tuhoavan osakearvoa. Tämä väitöskirja pyrkii selventämään kysymystä tarkastelemalla muutoksia valikoidussa otoksessa velkarahoitteisia salkkuyhtiöitä koko omistuskauden aikana.

Väitöskirjan tuloksilla on merkittävä tieteellinen kontribuutio alalle. Tutkimus edistää teoreettista ja käsitteellistä ymmärtämystä pääomayhtiöiden velkarahoitteisista yrityskaupoista laajentamalla oleellisesti aikaisempaa käsitystä lisäarvon luomisesta yhdenmukaisempaan taksonomiaan ja rakenteeseen. Empiirisesti tutkimus täyttää merkittävää tieteellistä aukkoa tarkastelemalla velkarahoitteisia yritysostoja, jotka osoittavat poikkeuksellista kannattavuutta verrattuna verrokkiryhmään pääomayhtiöiden yritysalkuissa. Induktiivinen monitapaustutkimus sekä luottamuksellisen tiedon saaminen pääomayhtiöistä sallivat perusteellisen analyysin tekijöistä, jotka mahdollistavat lisäarvon luominen yrityksissä. Analyysi osoittaa, että kannattavuuteen vaikuttavat päätekijät ovat osto- ja myyntihetken ajoittaminen suhdannevaihteluun sekä teollisuuden suhdannekiertoon, soveltuvan yritysstrategian tunnistaminen ja käyttöön ottaminen, vaihtoehtoisten velkarahoitusmuotojen käyttäminen, yrityksen ominaisuuksien todentaminen ennen ostotapahtumaa, laaja-alaisten operatiivisten muutosten läpivieminen sekä koko henkilöstön motivointi ja sitouttaminen.

# Sammanfattning

Ett flertal studier har rapporterat att den genomsnittliga avkastningen från private equity bolagens buyout-förvärv sedan 1980-talet överstigit avkastningen från aktiemarknader (till exempel Standard & Poor 500). Den höga avkastningen från riskkapitalbolagens lånefinansierade företagsköp är paradoxal med tanke på forskning av traditionella företagsköp och fusioner påvisat att de senare ofta misslyckas och förstör aktieägarvärde. Syftet med avhandlingen har varit att åskådliggöra skillnaden genom att studera de förändringar som gjordes i ett urval av buyout-förvärv innan köptransaktionen, under innehavsperioden, samt fram till dess företaget avyttrades.

Avhandlingen bidrar till ämnesområdet på ett flertal punkter. Den bidrar teoretiskt och konceptuellt genom att väsentligen utvidga tidigare modeller av värdeskapande aktiviteter vid buyout-förvärv och integrera dessa aktiviteter i en ny sammanlänkad taxonomi och struktur. Den bidrar empiriskt genom att fylla en betydande lucka i forskningen angående den undergrupp av buyout-förvärv som påvisar exceptionellt hög avkastning i förhållande till jämförelsegruppen av portföljbolag. Kombinationen av en induktiv flerfallsstudie i förbindelse med tillgång på konfidentiell information från PE bolagen möjliggjorde att en ingående analys av faktorerna som påverkade värdeökningen. Resultatet utvisar att de centrala faktorerna för värdeökningen var timing av köp- och säljtransaktionen till den allmänna konjunkturen samt industricykeln, att relevant företagsstrategi identifierades och verkställdes, att alternativa källor för skuldfinansiering kunde säkras, att målföretagets särdrag identifierades innan köptransaktionen, att genomgripande operativa förändringar genomfördes, och slutligen, att hela personalen kunde motiveras och engageras i förändringsarbetet.

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# Chapter 1. Introduction

## 1.1 Background

The question of how to successfully pursue mergers and acquisitions (M&A) lies at the core of management and has long been of principal interest in management research. The result has been a cornucopia of multinational studies and, with the high failure rate, an abundance of explanations and justifications appear in research. Often the professed reason is found in the conflict of interests that emerges during integration or in insurmountable difficulties posed by divergent corporate cultures. At other times the impediment to M&A success is the haphazard execution of a shared strategic vision for the unified corporation. There is obviously truth to the notion that M&A poses a challenge for corporations, as the average failure rate is typically in the vicinity of 50%<sup>1</sup>. Yet despite the evident difficulty of M&A, a particular industry known as *private equity* has been remarkably successful in the repeated pursuit of acquisitions (Harris, Jenkinson, & Kaplan, 2014). The conundrum is perplexing. Why is it that private equity firms can successfully pursue unrelated acquisitions year after year, when the failure rate is so prevalent among traditional corporations that acquire adjacent businesses?

Traditionally studies on private equity acquisitions, or buyouts<sup>2</sup>, have primarily been carried out by a particular strand of researchers within financial research, which means there is considerably less research devoted to the subject compared to M&A. However, taken on the whole, research is much less ambiguous with regards to the ensuing value generation in buyouts. For instance, there is recent evidence of market outperformance by mature PE firms that have existed for more than five years (Kaplan & Schoar, 2005; Acharya, Gottschalg, Hahn, & Kehoe, 2011). More surprisingly, Acharya et al. (2011, p.2) find *“this performance is persistent, a characteristic that is generally associated with potential existence of ‘skill’ in a fund manager.”* This finding is counterintuitive, especially when considering that the PE firms lack the opportunity to exact any benefit from the synergy potential that is found in related acquisitions, which by contrast corporate strategic buyers exploit to the fullest extent. It evokes questions: Why and how do private equity firms create value in the acquired portfolio firms?

Moreover, there is an evident gap in research on the limited subset of leveraged buyouts (LBOs), resulting in momentous value creation that substantially exceeds the industry norm<sup>3</sup>. Does this particular unique subset of outperforming private equity portfolio firms differ from the average buyout and, if so, by what measure? What are the characterizing attributes of such portfolio firms and what changes were enacted during the holding period?

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<sup>1</sup> For reviews of research on M&A failure rates, see Jensen & Ruback, 1983; Agrawal, Jaffe, Mandelker, 1992; Gregory, 1997; Mitchell & Stafford, 2000; Ali-Yrkkö, 2002; Tichy, 2002; Cartwright & Schoenberg, 2006). Harvard’s Clayton Christensen summarizes the reported failure rates as often being in the realm of 70-90% (Christensen, Alton, Rising, & Waldeck, 2011).

<sup>2</sup> A buyout is the acquisition of a company mainly by debt and to a lesser extent equity and where the target company’s assets typically act as collateral for the debt. Refer to the glossary in the appendix for further definitions.

<sup>3</sup> In private equity research, performance is a financial measure in basic terms defined as the delta between entry and exit transaction price, while adjusting for investment duration, e.g. internal rate of return (IRR) or the net present value (NPV).

There are a number of reasons for the evident research gap. First, private equity research has largely fallen below the radar of mainstream academic research, particularly when compared to M&A of public companies. A plausible answer to the puzzle is that data is hard to come by. The laws and regulations that govern private equity firms are much less constraining, especially with regards to the public information disclosure of portfolio firms. This means that the accessible information is at the opposite end of the spectrum relative to a public corporation listed on a stock exchange. Consequently, there are decidedly fewer avenues for conducting well-designed longitudinal studies, and research remains relatively scarce in regard to other organizational forms.

Second, the principal data sources for research stem from a comparatively limited set of commercial or academic databases, such as the Thomson Venture Economics dataset. An inherent problem in using databases is the restriction on the type and extent of data. For instance, it may be unfeasible to study the effect the improved corporate climate had on profitability if the necessary “soft factors” were never gathered in the first place. This problem often results in the operationalization of proxies that are inadequate. A consequence of the prevailing quantitative research methodology is that there is a paucity of in-depth research of the value creation mechanisms within portfolio firms. By contrast, there is an abundance of studies on a more appropriate topic for quantitative research, such as attributing value creation to a few broad-ranging categories, e.g. leverage, industry growth, and operational improvements. While relying on commercial databases is a convenient method for conducting research, the recurring studies on similar topics seldom reveal new and meaningful information and may even be construed as academic exercises. Moreover, categorizing the ensuing value creation under a few broad labels does little to elucidate our understanding of the specific mechanisms behind the value creation.

Third, the prevailing quantitative approach in private equity research on financial outperformance has been to juxtapose the “*top quartile*” of buyout funds or portfolio firms with the “*bottom quartile*”. However, to contend that this is an exhaustive and sufficient method for explicating genuinely outperforming portfolio firms is misguided. We would hardly consider a research approach that relied on contrasting the average quartiles of tennis players to be appropriate for gaining insight to the characteristics of elite performers. The reason for the deficiency is probably that research on private equity is an offshoot of finance, which effectively implies relying on a quantitative approach. While the methods have been remarkably successful for solving numerous problems in finance and are crucial to modern science, it is also the case that quantitative analysis is ill-suited for examining pivotal extreme values and corner test cases (Flyvbjerg, 2006). Consequently there are to date no extant studies, as far as this researcher knows, on the “statistical outliers” of buyouts that substantially outperform their peers.

The dissertation makes a number of significant contributions. First, it contributes to the conceptual understanding of private equity buyouts by materially extending previous models of value generation. The need for constructing an extended model was evident by the numerous uncovered inconsistencies and deficiencies in previous research, which became increasingly evident during literary review. The circumstances warranted the creation of a new taxonomy and nomenclature, along with a cohesive structure, for examining value generation in buyouts.



Second, the literature review of the dissertation brings together several streams of private equity research that cover various facets of value generation. Multiple articles and dissertations have been published previously regarding different research strands of private equity research, but none which explicitly concentrate on buyout value generation.

Third, the multi-case study is comprised of buyouts within the Nordic countries. The Nordic region can be viewed as a fairly homologous region characterized by societal commonalities across several dimensions, e.g. economic, legal, and cultural. Albeit a limited sample, the analysis suggests that there may well exist commonalities among the Nordic buyouts that partially distinguish these from their Anglo-American counterparts.

Fourth, and foremost, this study makes an empirical contribution by examining and reporting the findings from a distinct selection of buyouts: the value generation mechanisms in a small-N subset of exceptionally high-performing buyouts. Previous studies have examined, using quantitative methodologies, the top quartiles (25%) of 'superior' buyouts. However, the prior segmentation can be construed as performing on an order of magnitude below the exclusive small-N subset of this study. Finally, the study includes a sample of contrast cases where the buyouts substantially failed to increase the validity and reliability of the study. While the research is fundamentally an inductive multiple-case study, the study augments and strengthens the analysis by anchoring it to a previously derived cohesive structure.

## **1.2 Purpose of Study**

The overall aims with the research project were to elucidate the preconditions and characteristics of buyout firms with exceptional performance and to discern potentially critical mechanisms for outperformance. The research approach was to gather a sample of buyout firms that substantially outperformed peers and to juxtapose the mechanisms of buyout value generation with previous research. In order to attain the objective, an extensive literary review of the subject was conducted. The result of this process was a panoramic overview of the value generation landscape and a unique perspective into focal portfolio firms throughout the buyout life cycle.

The particular research questions examined in the study were:

1. Do value generation mechanisms differ from the mechanisms currently recognized in extant research within the small-N sample of outperforming buyout firms?
2. Provided discrepancies exist, how should the framework for value generation be augmented to provide a more accurate theoretical-conceptual view?
3. Can novel value generation mechanisms be induced from the case material to generate propositions suitable for subsequent quantitative examination?

An overall aspiration with the dissertation was to retain a pragmatic scientific perspective and approach, according to the research tradition of private equity and finance, whereas more recondite ontological constructs of management were de-emphasized. Of principal importance has been the applied research

tradition of finance and in particular the stream that concerns private equity buyouts. The pragmatic scientific approach also prompted the inclusion of research conducted by well-known consulting firms<sup>4</sup>, albeit the vast majority of the research consisted of academic research published in peer-reviewed articles. However, it should be noted that incorporating research conducted by consulting firms is common practice in research on private equity, typically because proprietary data is exclusively available to consulting firms. Furthermore, a number of studies are in fact collaborations between academic institutions and consultancies.

In accordance with the overall aspiration, the aim has been to make a significant academic contribution to the research community, while at the same time conducting research that is of relevance to the wider community of managers and private equity practitioners.

### **1.3 Scope and Limitations**

At the onset, a number of restrictions were decided upon in order to ensure the study's feasibility. The scope of the research was delimited by requiring that each portfolio firm included in the study had to be among those at the pinnacle of existing buyouts in terms of standard measures for financial performance, i.e. the Internal Rate of Return (IRR) of the investment. All of the included PE firms are among the leading firms in the Nordic countries in terms of committed capital and had participated in the buyouts of several dozens of portfolio firms.

Since the research methodology was a qualitative study, the quality of the data sources was crucial. For each case, two sources were deemed essential, i.e. the senior general partner (GP) of the PE firm involved in the case and the CEO of the portfolio firm during the holding period. Other personnel sources were desirable and were included when available. The decision to valorize these sources was made to ensure the validity and needed sufficiency in regard to granularity of the data. Having personnel tied to the case during the holding period improved the quality of the data and ensured that detailed information was captured, e.g. various operational changes during the holding period. Moreover, having at least two independent sources would mitigate problems of trustworthiness, i.e. what is usually referred to as reducing bias in quantitative research.

The geographical scope of the study was delimited by concentrating on private equity firms located and headquartered within the Nordic countries. The Nordic region can be viewed as a fairly homologous region characterized by societal commonalities across several dimensions, e.g. economic, legal, and cultural. Surprisingly, there were few private equity research projects with a Nordic scope, as the vast majority of prior studies covered a single country. A barrier for conducting research in multiple Nordic countries is the language barrier, which is a factor that is emphasized when conducting interviews. Even though English comprehension is on average of a high-level among study participants, it does not mean that the level of expression equates to that of fluency in the native language of the participant. The richness and depth of collected research data would be lost without fluency in the local language by the researcher. Since the researcher is a native Swedish speaker and has near fluent comprehension of Norwegian, and also speaks fluent Finnish, language was no

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<sup>4</sup> *The primary sources were the publications by the consulting firms McKinsey, Bain, BSG, A.T. Kearney, Booz, Deloitte, PwC, Ernst & Young, and KPMG.*

barrier and all interviews could be conducted in the native languages of the participants.

With regards to the type of case study firms, the scope was limited to include portfolio firms acquired by leveraged buyouts. This means excluding germane-investment vehicles, such as venture capital funds and distressed securities funds. The delimitation served to increase comparability among the firms and homogeneity of the value creation source. Likewise, all case study firms were of a comparable size, which meant that all positive case firms were mid-sized and employed 500–1,000 people.

As the research scope consisted of exploring the mechanisms for value creation, substantial segments of private equity research were peripheral, e.g. employment effects of the industry, the financial performance of private equity at the fund level, the historical development of the PE industry. Despite these limitations, value creation is an expansive concept, as it combines various strands of research that seek to improve corporate performance. Obviously it would have been unfeasible to include all prospective mechanisms for value creation in buyouts. As a consequence, the research scope was delimited to include the value creation mechanisms researched on private equity buyouts.

The research approach can be viewed as an inductive multiple case study that extensively utilizes various streams of previous research on value creation in buyouts. By extension the research provides a panoramic overview of value creation in a buyout from pre-buyout target criteria to the mode of exit. While the vast majority of the included research is limited to academic studies on private equity buyouts, in a few instances research by other management disciplines has been included, e.g. strategic management.

## **1.4 Organization**

The rest of this dissertation is organized as follows. First, I outline the previous theoretical research on buyouts and prior theoretical-conceptual models of value generation. I conclude the section by proposing a more complete model of buyout value generation that brings together various strands of research. Second, I conduct an extensive literary review of value generation in previous research, which is categorized according to the proposed structure. Third, I introduce relevant aspects of the qualitative research methodology and recount how this multiple case study research project was conducted. Fourth, I present the buyout case study firms in a narrative form, where each presented case firm narrative is the amalgamation of multiple interviews. Fifth, I conduct a comprehensive and transparent data analysis and synthesize the findings of the study. In the final chapter, I discuss the findings and derived propositions, and propose prospective directions for future research.

# Chapter 2. Fundamental Research on Value Generation

*The objective of this chapter is to present the principal theoretical views on value generation in private equity buyouts. The various effects of the theories will resurface, starting at the beginning of the dissertation with the review of the specific value generation mechanisms in Chapter 3: An Empirically Derived Taxonomy of Value Generation.*

## 2.1 The Agency Theoretical View on Buyouts

### 2.1.1 The Agency Theory

The agency theory has long been the cornerstone of research on buyouts (Jensen & Meckling, 1976; Fama, 1980; Fama & Jensen, 1983a, 1983b). However, the inherent conflict in corporations caused by interest divergence has a long history in economics. Adam Smith (1776) already commented on the consequence of ownership separation in a joint stock company in his magnum opus<sup>5</sup>. Another milestone was a seminal book by Berle and Means (1932), in which the authors expressed the central problem inherent to the modern corporation<sup>6</sup>. Subsequently, a number of researchers have provided evidence that the incentives for management to maximize firm value in public corporations are weak (Baumol, 1959; Marris, 1964; Williamson, 1964). Moreover, it has been surmised that management is often indirectly incentivized to retain profits and increase the size of the firm, which increases remuneration and power (Berle & Means, 1932; Baumol, 1959; Marris, 1964).

At a time prior to the first boom of buyouts, Jensen and Meckling (1976) developed the theory further in a seminal paper where the agency problem was construed as a contractual obligation between two parties consisting of the *principal* ("shareholder") and the *agent* ("management"). The principal in this context is the owner of the corporation, which entrusts the residual control to the agent. The agent is the professional manager that acts on behalf of the principal. The problem arises when the agent has access to more and better information, and the respective interests between the parties are not perfectly symmetrical. Provided both parties maximize their utility, their respective interests will gradually diverge, which leads to a situation where the agent is not necessarily acting in the best interest of the principal by maximizing the utility of the corporation. Moreover, the principal has no means of knowing when it will occur.

As envisioned by Jensen and Meckling (1976), the principal has at his disposal two means for limiting the interest divergence. Firstly, the principal may structure the agent's contract with incentives consistent with the principal's interests (i.e. *bonding costs*). Secondly, the principal may expend resources to monitor the

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<sup>5</sup> "The directors of such companies", as Bank of England, "being the managers rather of other people's money than of their own, it cannot well be expected that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own." (Smith, 1776, p.606).

<sup>6</sup> "If we are to assume that the desire for personal profit is the prime force motivating control, we must conclude that the interests of control are different from and often radically opposed to those of ownership; that the owners most emphatically will not be served by a profit-seeking controlling group." (Berle & Means, 1932, p.114).

behavior of the agent. However, constructing a contract so as to perfectly align the interests becomes infeasible at a certain point, when the marginal utility equals the marginal costs. The reduction in the principal's welfare that remains after the optimization, i.e. *residual loss*, is an additional cost of an agency relationship. Consequently, the agency costs, as construed by Jensen and Meckling (1976, p.6), are the aggregate sum of (i) the monitoring expenditures by the principal, (ii) the bonding expenditures by the agent, and, (iii) the residual loss.

The various penalty costs that emerge as a consequence of the corporate ownership separation increase when management is in possession of a surplus cash flow but lacks positive *net present value (NPV)* investment opportunities (Jensen & Meckling, 1976; Jensen, 1986b). Jensen (1986b, p.15) describes this surplus as the "*cash flow in excess of that required to fund all projects that have positive net present values when discounted at the relevant cost of capital*". The agency costs of free cash flow tend to be particularly destructive in mature public companies that generate steady revenues, but with few remaining profitable investment opportunities, such as the steel, chemical, tobacco, paper, and textile industries (Eun & Resnick, 2011, p.86).

Ultimately, the unproductive use of free cash flow will lead to value destruction. The downward spiral of value destruction is self-perpetuating, as management has minimal incentives to dispose of the free cash flow to shareholders, while much to gain by retaining control (Jensen, 1986b, 1989a). Without the discipline of being compelled to return excess capital to shareholders, management can use the accumulated capital to fund unprofitable investments and pursue value-destroying mergers. Jensen (1986b) even suggests that managers being left unchecked and unmonitored by investors was the primary cause for the massive inefficiencies that plagued corporate America in the late 1960s and 1970s.

Agency costs have been at the center of much research (Jensen, 1986b, 1989b; Kaplan, 1989b; Mian & Rosenfeld, 1993; Holthausen & Larcker, 1996) and already early on researchers found that buyouts tended to attenuate agency costs (Lehn & Poulsen, 1989). The agency costs are endogenous to the firm and depend on multiple factors, e.g. governance structure and management incentives (Smith, 1990a). In this context, the leveraged buyout emerges as a particularly well-suited mechanism to "*suppress the temptation that free cash flow creates*" (Haarmeyer, 2008). The costs tend to be smaller in the post-buyout firm, as the reorganization that follows typically involves measures that reduce the agency costs in a number of ways (Kaplan, 1989b). A principal explanatory factor for the cost reduction comes from the change in governance structure elicited by a buyout. Since buyouts are typically financed with substantial amounts of debt, it can function as a dividend substitute to dispose of the excess free cash flow (Jensen, 1989a).

From this perspective, the buyout can be viewed as a market mechanism surrogate to suppress the costs of free cash flows. Instead of disposing of free cash flows as dividends, the buyout permits the owners to use the free cash flow to serve interest payments and amortize debt payments. However, here it must be noted that the import of this aspect as an inducement for buyouts has diminished since the mid-1990s. Subsequent research reveals that the free cash flow has become insignificant as a motive for Public-to-Private transactions (Renneboog, Simons, & Wright, 2005; Weir, Laing, & Wright, 2005; Bharath & Dittmar, 2010). This is a period in time that coincides with an increased emphasis by private equity firms on operational

restructuring.

In practice, debt imposes a regimen of internal control that compels managers to service interest payments and reduce the amount of free cash flow (Kaplan, 1989b; Smith, 1990b). As a consequence, high levels of debt reduce the amount of corporate expenditures at managerial discretion and limit non-value maximizing behavior (Grossman & Hart, 1983; Jensen, 1986b, 1989a, 1989b; Lehn & Poulsen, 1989; Smith, 1990a; Stulz, 1990; Newbould, Chatfield, & Anderson, 1992). Moreover, the debt burden forces managers to run the company efficiently in order to avoid default (Lowenstein, 1985; Jensen, 1986b; Thompson & Wright, 1991; Cotter & Peck, 2001). In fact, Opler and Titman (1993, p.1988) state that debt induces “*management to act in the interest of investors in ways that cannot be duplicated with optimally designed compensation packages*”.

Central to the buyout is the change of ownership and assertion of control through the board of directors. Here the board has at its disposal a number of methods to cope with the agency problem, e.g. providing equity ownership stakes that realign the incentives of management by instigating a regime of closer monitoring and control that reduces the manager’s discretionary decision space (Fama, 1980; Demsetz, 1983; Jensen, 1988; Baker & Wruck, 1989; Lichtenberg & Siegel, 1990). In addition, the principal control function of the board is to allow the owner to exert power in determining the composition of the management team (Baker & Montgomery, 1994). The methods for reducing agency conflict can be collected under the umbrella of governance. Not surprisingly, several researchers find that adjustments to corporate governance are central to buyout value creation (Rogers, Holland, & Haas, 2002b; Heel & Kehoe, 2005; Zong, 2005; Wright, Renneboog, Simons, & Scholes, 2006).

Arnold (2005) suggests that the agency conflict should be perceived as originating from the *asymmetric information* between the finance providers and the corporate managers. Assuming that the shareholders or financiers have access to perfect information, there would be no leeway for managers to invest excess free cash flows and these would thus be disposed of as dividends to the financiers. Since finance providers rarely have direct access to internal information of the firm, they thereby incur additional risk. For instance, incumbent management may invest resources on projects with significantly higher risk than deemed acceptable by the investor. In this case, the agent does not sufficiently share the potential downside of a decision, but does share in the profits in the event that the outcome is a success. Even when a project can lead to significant value destruction, the manager stands to lose little, but stands to gain a great deal if the risky project succeeds. This scenario is referred to as a *moral hazard* and can more broadly be expressed as a bet, where the downside risk has been transferred to the financial provider, while the upside remains with the bettor.

The agency theory has received critique by some academics. Eisenhardt (1989a) suggests that with the theory there are tacit *human assumptions* made, e.g. as guided by self-interest, bounded rationality<sup>7</sup>, and risk aversion. At least a part of the critique has been misdirected by mixing these attributes with those of *the efficient market*, in which the assumption is that the market consists of unbounded rational and narrowly

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<sup>7</sup> Initially the Nobel prize-winning economist Herbert A. Simon denoted with “bounded rationality” that decisions are limited by the available information, the cognitive constraints of the individual, and the disposable time.

self-interested actors. A more substantive critique can be found in a much-cited paper by Ghoshal (2005), in which he summarizes the deficiencies and refers to two large reviews of firm performance effects on independent board directors and the separation of dual chairman-CEO roles. However, the empirical evidence he refers to regarding board compositions and the separation of dual roles in order to invalidate the agency theory is at best incomplete. A more valid critique would be that individuals are motivated not merely by self-interest, but by a multitude of reasons. However, it is difficult to evade the fact that *“people respond to incentives,”* which lies at the core of the agency theory. A theoretical problem, not mentioned in the literature as far as I am aware of, is that the main cost penalty of incentive divergence may not be in the deficient division of the finite resources of the firm, but in the relative resource dissipation from a lack of profitable expansion.

What seems clear is that the agency conflict affects public corporations in a number of ways, and that the buyout can be viewed as a corrective market mechanism to attenuate the agency costs and dispose of excess cash flows. The specific mechanisms will be revisited and explored further in the chapters on direct and indirect drivers of value creation.

### **2.1.2 The Effect of Information Asymmetries**

One of the most researched information asymmetries has been the potential exploitation of private information by management during management buyouts. This is the case where there exist information asymmetries between a buyer and seller in a transaction<sup>8</sup>. Initially the effect on the market was examined by the Nobel prize-winning economist George Akerlof (1970) in a seminal paper, where he illustrated the information asymmetry by using the market of used car dealers, which are known for selling “lemons”.

Information asymmetries subsequently received much academic interest during the buyout boom of the 1980s as a potential source for value capture at the expense of pre-buyout shareholders and stakeholders (DeAngelo, DeAngelo, & Rice, 1984), particularly as a means by which management might depress the valuation of the firm by manipulating future earnings forecasts (Lowenstein, 1985; DeAngelo, 1986).

There are a number of reasons to believe that this hazard has diminished over time, e.g., the increased professionalism in the market and the proliferation of auctions (Indahl & Zinterhofer, 1998; Wright, Hoskisson, & Busenitz, 2001a). For instance, the auction process involves extensive disclosure requirements, which diminish the potential for managers to systematically conceal information about a business (Lee, 1992). Finally, it is specifically within the context of management buyouts, as opposed to the much more prolific leveraged buyout, where private information can be exploited by the buyer<sup>9</sup> (Long & Ravenscraft, 1993b).

However, there exists another veiled possibility for exploiting private information, which occurs during the exit of the buyout (Berg & Gottschalg, 2003). The advantage effectively mirrors entry transaction. In this case

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<sup>8</sup> While research on information asymmetries is a modern concept, the exploitation of it is ancient. The 16<sup>th</sup> century maxim ‘caveat emptor’ i.e. “let the buyer beware” expresses the notion and reflects a principle known in ancient Roman law.

<sup>9</sup> It is not inconceivable that an external bidder in cooperation with incumbent management could exploit information asymmetries in an LBO, albeit it would be a more complex operation. To my knowledge this information asymmetry has not yet been studied.

the private equity firm doing the selling could take advantage of the fact that it has more and better information than the buyer<sup>10</sup>. Berg and Gottschalg (2003) assert that this potential for misuse has received little attention by researchers. Arguably, the tactic would backfire on any private equity firm that repeatedly and blatantly resorted to exploiting the information asymmetry.

### 2.1.3 The Parenting Advantage

Finally, the *parenting advantage* is occasionally considered in conjunction with the agency theory and can by itself be viewed as implicitly affecting several indirect levers of value creation in buyouts. Goold (1991) proposed it in a paper exploring the efficiency of corporations with multiple unrelated businesses. The argument by the researchers is that multi-business entities can excel when the corporate center can provide a parenting advantage to the subsidiaries that outweighs the costs incurred by the added organizational complexities (Campbell, Goold, & Alexander, 1995; Goold & Campbell, 1998). Campbell et al. (1995) argued that when the multi-business corporation created more value for the unrelated unit than rivals could, the unit benefited from a parenting advantage. In contrast, the unit ought to be divested when the incurred costs by the increased organizational complexities outweigh the advantages.

The incurred costs due to the added organizational complexities are construed as an inherent element of value destruction present in all corporate hierarchies (Goold, Campbell, & Alexander, 1998). The costs can manifest as additional corporate overhead, managerial information filters because of the organizational hierarchy, and due to ill-conceived decisions by corporate management. First, corporate overhead and administration tend to grow at an additional rate, since there is less oversight and controls to curb expansion. Corporate headquarters are commonly insular and shielded from the recurrent critical examination of cost effectiveness subjected to business units (Goold, Campbell, & Alexander, 1998). The authors suggest the deficiency is because processes are rarely in place to access the net corporate value of corporate overhead. Second, information filters come into play due to the disincentives of unit managers to provide unfavorable information. The internal competition ensures divisional and corporate management systematically receives biased information, which bode for ill-conceived decisions (Goold, Campbell, & Alexander, 1998).

Fundamentally there are two paths compensate and add value that supersede the costs. There are the vertical synergies that stems from the transferable skills or resources provided by the corporate parent. A number of viable components exist, e.g. strategic guidance that leads to improved decision-making (Bowman & Helfat, 2001). The strategic expertise can incorporate methodical competences that concern the strategic planning process, the scenario planning techniques, or the capital expenditure reviews (Chandler, 1991). Moreover, the strategic expertise may include the contribution of industry-specific expertise concerning market trends and key success factors (Kruehler, Pidun, Rubner, 2012). It may be of a business-oriented character and concern the internationalization of a business or the introduction of a new product innovation (Kruehler, Pidun, Rubner, 2012). Another avenue for extracting vertical synergies are by establishing central resources and services, e.g. management capabilities (Wernerfelt, 1984; Barney, 1991), financing expertise

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<sup>10</sup> Potentially the management of a portfolio firm could similarly under certain circumstances suppress information from the GPs at the private equity firms. As far as known, there are no studies on this potential for abuse to date.



(Magowan, 1989; Kaufman & Englander, 1993; Cotter & Peck, 2001), centralized purchasing (Yip, 1989; Ellram & Siferd, 1998), and corporate tax advantages (Gilson, Scholes & Wolfson, 1987; Shih, 1994).

The second path to add value is by pursuing cross-business or lateral synergies, which initially were advocated by the strategic management pioneer Igor Ansoff (1965). There are a number of prospective ways in which cross-business unit collaboration could be advantageous. Knoll (2008) distinguishes between four different categories of cross-business synergies: (i) operative synergies where advantages stems from leveraging resources across related units; (ii) market power synergies where advantages stems from leveraging market power resources across units; (iii) financial synergies where advantages stems from leveraging financial resources across units; and (iv) corporate management synergies where advantages stems from leveraging management resources across units. Granted the categories proposed by Knoll (2008) can equally be construed as vertical synergies, since the corporate parent can function as a mediator. While the notion of synergy is intuitively appealing, Goold, Campbell, & Alexander (1998) submit their research have shown that management more often pursue mirages than real synergy opportunities. Moreover, when synergies do exist, the same advantages will be available to independent businesses as a corporate parent is not necessary for businesses to trade, form alliances, joint ventures, license technology, share benchmarks and best practices, pool negotiating power, share services, or coordinate strategies (Goold, Campbell, & Alexander, 1998).

A function that has been extensively examined by academics is the comparative performance effect of relatedness in diversification strategies. The relatedness of businesses can be measured across a number of dimensions, e.g. technologies, markets and customers. Studies have generally found that related and horizontal acquisitions are more profitable than unrelated businesses (Chattered, 1986; Lubatkin, 1987; Lubatkin & O'Neill, 1987; Singh & Montgomery, 1987; Seth, 1990; Healy, Palepu et al., 1992). Yet, there are multiple successful corporations with unrelated acquisitions that outperform their peers, for instance in the 1980s KKR and in the 1990s Virgin and GE (Goold, Campbell, & Alexander, 1998). Thus, the researchers advocate that corporate parents focus on building: "portfolios around businesses with similarities in terms of parenting needs and opportunities."

Arguably the success of leveraged buyouts suggests that private equity firms provide parenting advantages to portfolio firms that exceed the incurred costs. Particularly this is the case with regards to supervision, monitoring, mentoring, and learning. Private equity firms often excel in implementing common service platforms, which creates distinctive organizational capabilities. The supervision and guidance by the private equity parent firm can be observed from the intensified collaboration and increased frequency of communication (Bull, 1989; Hite & Vetsuypens, 1989; Anders, 1992).

## **2.2 Concepts of Value Generation in Leveraged Buyouts**

### **2.2.1 Fundamental Drivers of Value Creation and Value Capture**

The fundamental drivers of buyout value creation emerged in conjunction with the first U.S. buyouts in the mid-1970s. The early drivers were to utilize high-levels of debt, to take advantage of the tax reductions provided by increased interest payments for the debt, and to reduce the agency conflict prevalent in mature

industries<sup>11</sup>. In particular, the utilization of high levels of debt created a demand for various financing techniques, which in the 1980s became collectively known as *financial engineering*. Another early driver emerged through the discipline of *corporate governance* or *governance engineering*. This in turn was fuelled by the intention to mitigate agency conflict by using high-powered incentives, incentive realignment, and disposal of free cash flows (see Jensen 1989b; Kaplan 1989a, 1989b). Although the changes brought about in corporate governance seldom directly affected profit drivers, they often had widespread internal effects, which in turn resulted in performance improvements.

The second wave of buyouts in the mid-1990s brought about *operational engineering*, which emerged as a collective term for the enacted changes with the intention of increasing operational efficiency and productivity (Jensen, Kaplan, Ferenbach, & Feldberg, 2006; Matthews, Bye, & Howland, 2009; Arundale, 2010). Finally, fundamental changes to the future directions of buyout firms could be discerned that are increasingly collected under the term *strategic redirection*, where the objective is often to refocus on core business activities or to consolidate fragmented markets (Rogers, Holland, & Haas, 2002a; Lieber, 2004; Zong, 2005).

*Multiple arbitrage* or *financial arbitrage* emerged already within the first wave of buyouts, but is fundamentally different from the previous drivers, as value is to a lesser extent created than captured. The gain originates primarily from an overall market or industry appreciation, or alternatively from the timing of business cycles, which tend to raise the buyout firm value without affecting the fundamental business of the firm. A particular form of arbitrage crucial in the early 1980s was to take advantage of the *conglomerate discount*. With the term was denoted the discount by which a public multi-business corporation was valued at a lower multiple than the combined value of its assets. By divesting assets and business units, investors could remove the discount and benefit from the value appreciation (DeAngelo et al., 1984; Lowenstein, 1985; Wright & Coyne, 1985; DeAngelo, 1986; Jensen, 1989b; Lehn & Poulsen, 1989; Opler, 1992).

We can categorize the various drivers into levers, where the financial, operational, and strategic drivers are viewed as direct value creation, the governance driver as indirect value creation, and multiple arbitrage as value capture. When we can combine these separate drivers of value creation and value capture, we can derive a basic formula for buyout value generation:

$$\text{Value Generation} = \text{Value Creation} * (\text{Direct} + \text{Indirect}) + \text{Value Capture}^{12} \quad (1)$$

The monetary value generated by the buyout can be further expressed as the financial delta between the entry transaction and the exit transaction (if we presume the duration is negligible):

$$\text{Value Generation} = \text{Equity Value}_{\text{exit}} - \text{Equity Value}_{\text{entry}} \quad (2)$$

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<sup>11</sup> Several earlier research papers (e.g. Jensen (1993)) have described the history and development of the private equity industry and the market for corporate control.

<sup>12</sup> Berg and Gottschalg (2003) use the term 'value capturing' interchangeably in a conceptual paper. However, in this study the more established term value capture is used, see, e.g. Bowman and Ambrosini (2000).

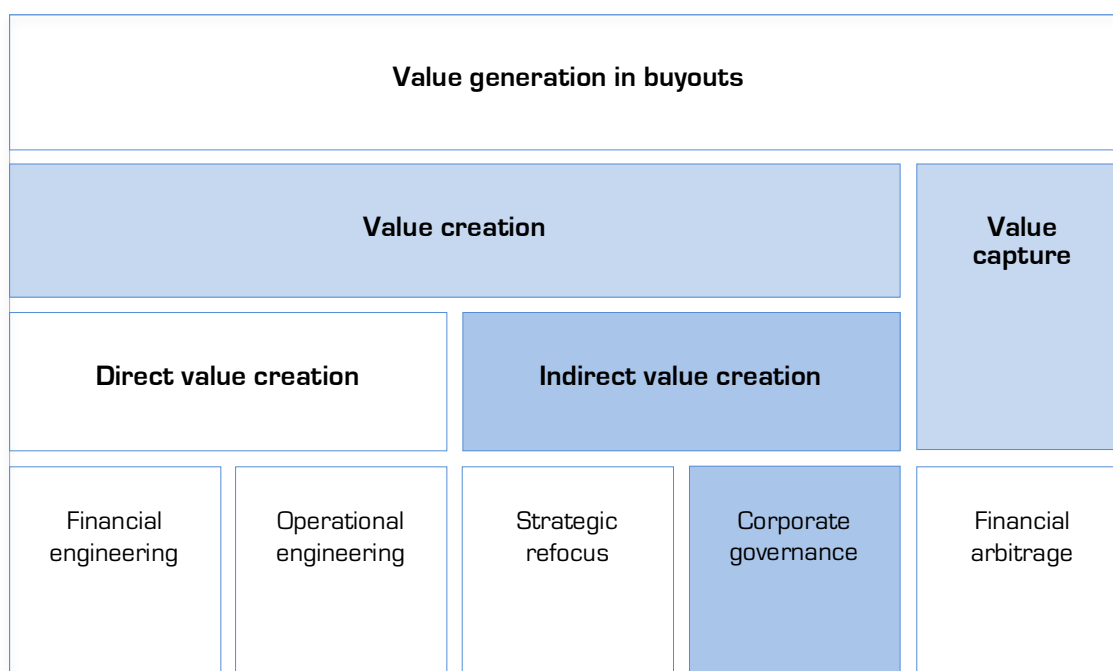
This means we can quantify the value generation in buyouts and arrive at a more precise definition<sup>13</sup>. Equity value (E) is commonly defined as the combined value of all outstanding shares, assets, short and long-term investments, while deducting all short and long-term debt and minority interests.

We can further decompose formula (2) of value generation and view the equity value as a function of changes to the accounting fundamentals:

$$\text{Equity Value} = \text{Market Multiple} * \text{Margin} * \text{Revenues} - \text{Net Debt}^{14} \quad (3)$$

We find that the equity value can be expressed as a function of four variables, where the changes to the values determine the buyout value generation. Changes to the market multiple (e.g. EBITDA/EV) constitute the gains from multiple arbitrage, which in turn equate to the value capture. Both direct and indirect value creation are functions of the appreciation to margins and revenues and the depreciation of debt. The formula provides guidance in how to decompose the mechanisms and assess changes. Nevertheless, in the case of indirect value creation the causal relationship is often complex and relies on a chain of intermediary factors, which ultimately improve margins and increase revenues by several means.

If we combine the predominant value drivers we can construct a basic graphical representation of value generation as seen in Figure 1.



**Figure 1. The fundamental drivers of value generation model in buyouts**

In order to analyze specifically 'how' and 'where' the value generation occurs within the firm we have to distinguish the factors further at the level of the mechanisms.

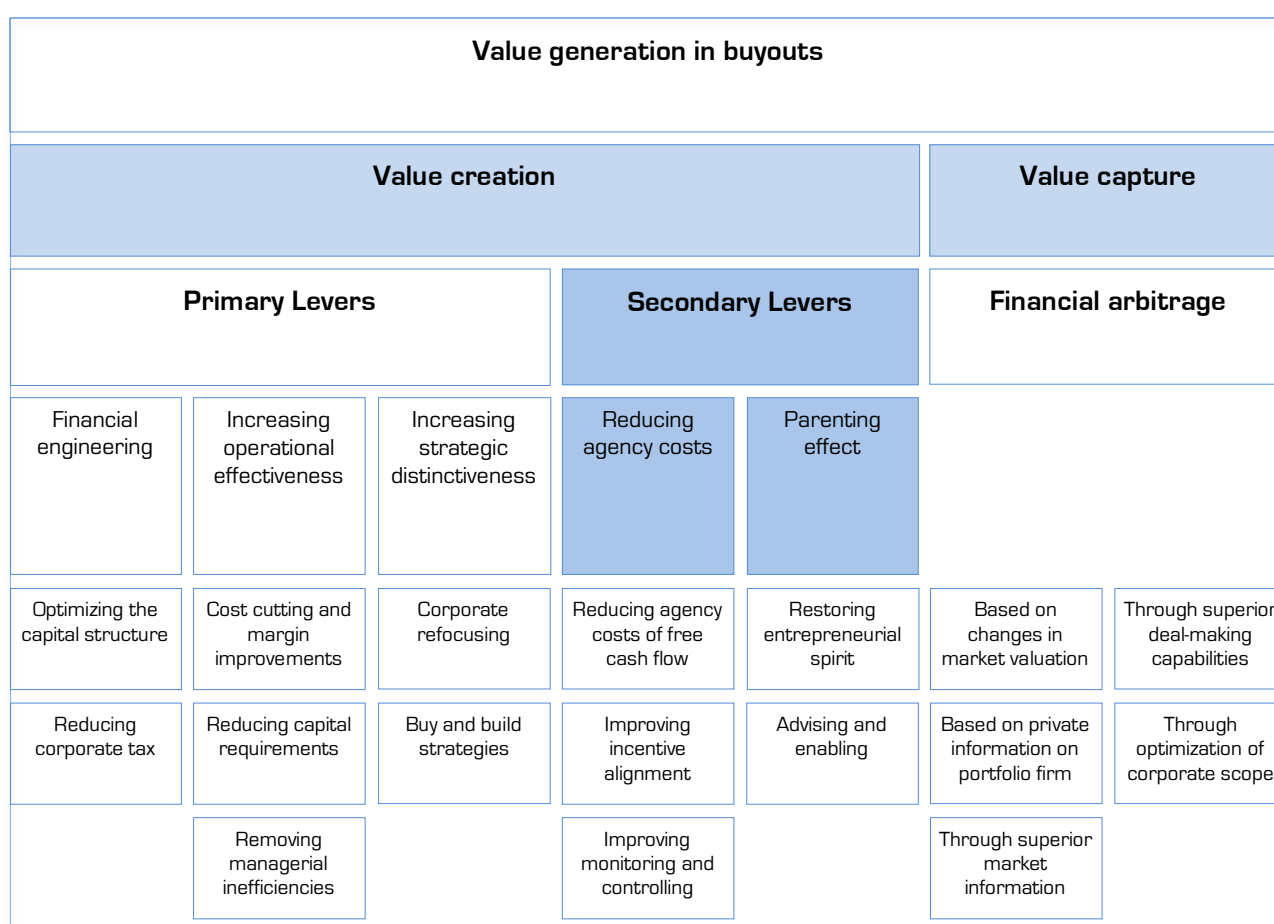
<sup>13</sup> Various definitions of value creation exist within different streams of management. A problem with several of the definitions is that they are unspecific and unquantifiable.

<sup>14</sup> The simplified formula (along with the first formula) of equity value is used by Berg and Gottschalg (2003) for decomposing the variables into the constituting value generation levers.

## 2.2.2 Conceptual Models of Value Generation

There is a fundamental gap in research on conceptualizing theoretical frameworks that would encapsulate the various value generation mechanisms derived from empirical research. The reasons for this deficiency may be manifold. Typically, quantitative studies focus on validating a fairly limited set of variables and the overall picture is of tangential consideration. When quantitative studies do cover the complete spectrum of value generation, they tend to congregate disparate mechanisms into a few high-level categories. Furthermore, it is plausible that theoretical-conceptual research papers on buyouts have diminished since the mid-1990s.

An exception to this is in a joint paper based on two doctoral dissertations by Berg and Gottschalg (2003). In the first section of the paper they propose a three-dimensional model that categorizes buyout value generation according to phases, causes, and sources. However, the second portion of the paper, in which they expand and extend the “five driver” framework of value generation, has garnered particular interest. By extending the model, Berg and Gottschalg (2003) are able to incorporate much of the extant research into the framework and classify value drivers into a multilevel taxonomy that decomposes value generation into the constituting components<sup>15</sup>. Figure 2 is a graphical representation of the constructed model.



**Figure 2. Value generation in buyouts with primary and secondary levers**

<sup>15</sup> Berg and Gottschalg (2003) use the terms Primary- and Secondary lever of value creation (cf. Porter, 1985, p.39; Stabell & Fjaeldstad, 1998, p.419). However, in this thesis the more descriptive terms Direct- and Indirect lever of value creation are used (cf. with Walter, Ritter and Gemünden, 2001).

Another similar model of value generation drivers by Wilms (2007) distinguishes between twenty value drivers of four main categories: multiple expansion, deleverage, earnings improvements, and qualitative factors. In the model, the drivers are further categorized into active and passive value drivers. The passive value drivers are defined as pre-closure value generation and can thus be equated with value capture.

### **2.2.3 Limitations and Deficiencies to Previous Models**

While the taxonomy by Berg and Gottschalg (2003) contributes conceptually by extending the prevalent model, it is problematic, particularly with regards to structural consistency and the incorporation of extant research. The structure mixes different entities, i.e. drivers derived from organizational functions (e.g. financial engineering) with drivers derived from theories (e.g. reducing agency costs, parenting effect). Arguably the model would be more consistent if organizational functions had been used exclusively, such as corporate governance or governance engineering for the secondary drivers. Furthermore, the inclusion of these concepts and exclusion of others appears rather arbitrary, as the suggested drivers do not encompass all mechanisms of indirect value creation.

Another problem with defining theoretical concepts as drivers is that subordinated mechanisms become scattered among multiple drivers. For instance, the secondary driver reducing agency costs first and foremost induces managers to reduce costs. However, reducing costs should for consistency's sake be a component of cost cutting and margin improvements, which in the model is subordinated to the primary driver increasing operational effectiveness. Furthermore, value generation mechanisms that have received substantial support in extant research have been overlooked or summarily dismissed (e.g. market mispricing, underpricing). Finally, there are problems in the organization of drivers and mechanisms. For instance, the reduction of corporate tax is considered as value creation, while it arguably constitutes a wealth transfer and as such should be considered as a mechanism of value capturing.

The study by Wilms (2007) concentrates on value drivers within the "100-day programs," which may limit the applicability. The central problem is that some drivers in the model overlap (e.g. 'optimization of corporate scope' versus 'concentration of the firm on core activities'). Another drawback is that much of the research on value generation is either omitted – this includes research on temporary drivers (holding period, vintage years), cultural drivers (entrepreneurship, performance management), and commercial drivers (timing of market cycles) – or dealt with in a perfunctory manner (e.g. buy and build strategies, board contribution).

### **2.2.4 Constructing a Holistic Conceptual Model**

During the literary review of previous research, it became increasingly clear that existing models of buyout value generation were inadequate. The legacy constraints made it difficult to integrate known mechanisms and dynamically extend the model with new drivers. The intention with the construction of a new integrative framework was to provide a cohesive structure that holistically incorporated the known mechanisms from empirical research.

The first step in the construction of the new model was to synthesize the previous research literature into

a more cohesive model that extended prior conceptual frameworks (Berg & Gottschalg, 2003; Loos, 2006; Wilms, 2007; Talmor & Vasvari, 2011, p.552–567). Attention was paid to the taxonomy of the structure, i.e. the organization, structure, interconnection, and subordination of factors. To some extent, this entailed augmenting extant nomenclature, particularly at the level of drivers and mechanisms.

Subsequently, in the analysis of the case study firms, the findings induced from the analysis of the case firms were incorporated into the novel model (“empirically derived taxonomy”).

# Chapter 3. An Empirically Derived Taxonomy of Value Generation

*"It is better to have an approximate answer to the right question than an absolute answer to the wrong question"*

– John Tukey, American mathematician (1915–2000)

There is an extensive range of value generation levers and drivers that affect the success of a buyout. In this thesis, these factors have been structured into a cohesive and consistent model with a higher granularity and less overlap than previously proposed structures. The *Empirically Derived Taxonomy* is a four-layered hierarchy composed of *Levers, Drivers, Mechanisms, and Methods*, arranged in order of abstraction from the generic to the specific. All in all, in the literary review the author has distinguished between three levers, eight drivers, and 35 mechanisms, which are all depicted in Table 1. The *methods* (and considerations) are discussed in detail in the respective chapters.

The top-level levers comprise the direct and indirect levers of value creation and value capture. The primary distinction between the value creation levers is that the direct levers have a directly measurable effect on the profitability of the portfolio firm, while indirect levels tend to affect multiple mechanisms that concurrently improve profitability. Value capture refers to the appreciation of firm value due to exogenous factors such as industry growth or wealth transfer occurring during the entry and exit transaction. Consequently, it refers to the excess value in the post-exit phase that was not created by changes within the portfolio firm.

The direct levers of value creation encapsulate the financial, operational, and strategic drivers. The financial driver is largely extrinsic, i.e. the value creation originates from the necessary expertise possessed by the GPs of the private equity firm. By contrast the operational and strategic drivers are largely intrinsic to the portfolio firm, which means value is primarily created by changes made within the firm by management and personnel. The time horizon of both the financial and operational drivers tends to be short to medium term, which means they affect the bottom line fairly rapidly. Strategic changes take a longer time, meaning the strategic drivers typically are medium term to long term.

The indirect levers of value creation encapsulate the governmental, cultural, and temporal drivers. These drivers are largely extrinsic, meaning the expertise originates from within the expertise possessed by the GPs, the directors of the board, or the reinforced management team. Predominantly indirect levers tend to affect profitability over the medium term. Value capture refers to commercial and organizational drivers. While the source of value capture is exogenous, the drivers are largely extrinsic, meaning that the necessary expertise and know-how for capitalizing on the effects of the drivers originate with the GPs. The drivers of value capture tend to be long term and do not materialize until the exit of the portfolio firm. However, the distinct events that determine the resulting value capture are relatively brief in duration: the entry and exit transaction. We can summarize the introduction with a visual overview outlining all discerned layers of value generation (Table 1). (For a simplified overview without the fourth layer, refer to Figure 4, p.70.)

**Table 1. The complete empirically derived taxonomy of buyout value generation<sup>16</sup>**

LEVERS	DRIVERS	MECHANISMS	METHODS
<b>I. DIRECT VALUE CREATION</b>	<b>A. Financial Driver</b>	1. Financial Expertise and Contact Networks	Competency of capital markets Extensive contact networks Rewards to repeat customers
		2. Debt Market Cycles: Mispricing and Overheating	Capitalizing on market mispricing of debt and equity markets Evading the hazard of overheated debt markets
		3. Alleviating Capital Market Constraints	Investing in markets, industries, and firms in need of expansion capital
		4. The Effects of High-Leverage: Inflating Gains and Inducing Efforts	Inflating gains through increased risk exposure Inducing managerial effort
		5. Capital Structure Optimization in Buyouts	Determining the optimal capital structure Gaining from the non-linear risk for financial distress Avoiding management risk aversion from debt overhang Continual optimization of the capital structure
		6. Creative Finance	Applying innovative financial instruments
		7. Asset Conversion and Securitization	Raising firm liquidity by asset conversion and securitization
<b>I. DIRECT VALUE CREATION</b>	<b>B. Operational Driver</b>	1. Functional Experience and Operational Expertise	Strengthening the operational expertise and industry experience
		2. Cost Structure Improvements	Cost reductions and increased productivity Controlling and moderating capital expenditures Pruning administrative overhead and fostering a flat organization Reassessing and qualifying R&D investments
		3. Capital Management and Asset Utilization	Increasing asset utilization Lowering inventory levels and accelerating turnover rates Revising the stream of account receivables and payables Rationalizing the logistics flow

<sup>16</sup> For a comparison with the drivers and mechanisms proposed Berg and Gottschalg (2003), see appendix C.



<b>I. DIRECT VALUE CREATION</b>	<b>C. Strategic Driver</b>	1. Focusing on the Core: Complexity Reduction	Complexity reduction and decreased diversification Divestments and asset sell-off
		2. Focusing on Consolidation: Buy and Build Strategies	Buy and build strategies and add-on acquisitions Facilitating acquisitions by asset conversion and stock swaps
		3. Focusing on Growth: Market Expansion	Focus on market expansion to improve the exit value Redefining the business profit drivers Recruiting dynamic executives with acquisition experience Growth strategies advocated by leading consulting firms Analyzing the profit variance allocation across the value chain

<b>LEVERS</b>	<b>DRIVERS</b>	<b>MECHANISMS</b>	<b>METHODS</b>
<b>II. INDIRECT VALUE CREATION</b>	<b>D. Governance Driver</b>	1. The GP Effect: Experience and Expertise Matters	Effects of GP expertise in governance, incentivization, operations, industries
		2. PE Firm Constraints: Industry Focus and Fund Size	Developing sector expertise by industry focus Restricting the fund size
		3. Reducing Agency Costs: Incentivation and Interest Realignment	The upside of a downside: the carrot-and-stick mechanism Pay-to-performance sensitivity Illiquidity of remuneration
		4. Restructuring the Board of Directors	Reshaping the board structure, size, composition, and duties
		5. Reinforcing the Top Management Team	Rapid removal of underperforming management

<b>II. INDIRECT VALUE CREATION</b>	<b>E. Cultural Driver</b>	1. The Parenting Advantage: Monitoring and Mentoring	Applying an active, hands-on approach Improved monitoring and control Advising and mentoring
		2. The Value of Corporate Culture: A Revived Entrepreneurial Spirit	Direct and frequent communication Minimizing bureaucracy Reviving the Entrepreneurial Spirit Improving human resource practices
		3. Performance Management: Stretch Budgets and Ambitious Goals	Raising performance standards
		4. Revising the Firm KPIs: Novel Yardsticks	Using a core set of cash-flow based financial metrics Using a core set of industry-specific operational indicators

<b>II. INDIRECT VALUE CREATION</b>	<b>F. Temporal Driver</b>	1. High-Tempo and Inchoate Change	Constructing the “100-day plan” Enacting immediate changes to maximize the IRR
		2. The Holding Period Time Horizon	Focusing on the early holding period Curtailing the holding period

<b>LEVERS</b>	<b>DRIVERS</b>	<b>MECHANISMS</b>	<b>METHODS</b>
<b>III. VALUE CAPTURE</b>	<b>G. Commercial Driver</b>	1. Proprietary Deal Flow	Proactive proprietary deal sourcing
		2. Deal Making Expertise	Avoiding the winners curse Re-negotiating the price for uncovered defects Being prepared to capitalize on emergent opportunities
		3. Target Firm Identification and Investment Criteria	Predefined investment criteria
		4. Uncovering the Business Potential	The inefficient market: identifying underperforming firms
		5. Detecting Nascent Market Trends: Multiple Expansion	Optimizing the market share, geographic scope, and firm size for multiple expansion Capitalizing on GDP growth, industry growth, and business cycles
		6. Timing the Business Cycles	Timing the entry and exit transactions Attentive consideration to vintage years and business cycles
		7. The Entry Transaction: Firm Valuation	The mixed blessing of auctions Utilizing scenario analysis-based contingency plans in base cases
		8. Divesting the Firm: The Mode of Exit	Potential optimal firm size for maximizing the exit multiple The IPO exit route: only top performing firms during high GDP growth The effect of geography on trade sale and secondary buyout

<b>III. VALUE CAPTURE</b>	<b>H. Organizational Driver</b>	1. Mitigated Legislative and Regulatory Constraints	Out of the spotlight: a mitigation of business constraints
		2. The Corporate Tax Shield: Debt and Taxes	The corporate tax shield
		3. Carried Interest and Capital Income	Carried interest and capital income

## **3.1 The Direct Lever of Value Creation**

### **3.1.1 Financial Drivers**

The financial innovations of the early 1980s were crucial to the growth of LBOs and MBOs, which functioned as market catalysts for corporate restructuring (Renneboog et al., 2005). With the emergence of new sources of finance, private equity firms could acquire companies using massive amounts of debt. This debt in turn could be used to optimize the capital structure of the portfolio company in order to take full advantage of the resulting tax shield. The application of the financial innovations and associated tools and methods become known as financial engineering (Lieber, 2004).

By the capital structure of the firm, we often refer to the combination of debt and equity by which the operational firm is financed. The sources of debt can be further decomposed, e.g. the most common forms in the buyout context are subordinate and senior debt, vendor notes, bridge loans, and mezzanine debt. Equity is often decomposed into two classes, i.e. the common and preferred shares of the firm. However, hybrid forms of finance as an intermediary between debt and equity are quite common, e.g. convertible bonds. The purpose with the optimization of the capital structure is to find a mix that balances the pros and cons for the firm. A core objective is often to minimize the after-tax cost of capital by taking advantage of the fact that debt interest payments typically are tax deductible.

The financial driver is predominantly exogenous, as added value tends to come from outside the firm and often from within the private equity firm. The importance of this driver has gradually diminished, partly due to inflation from having become widely known, and partly due to the increased importance of supplemental drivers.

In the context of value generation taxonomy in this thesis, tax advantages are not primarily considered mechanisms for value creation, but mechanisms for value capture. The reason for this is that tax advantage primarily constitutes wealth transfer from a societal perspective, despite the fact that it can function as a long-term enabler for further investments.

#### **3.1.1.1 Financial Expertise and Contact Networks**

At the core of the leveraged buyout is the sophisticated use of debt to finance the acquisition. Private equity firms usually have the expertise regarding capital markets needed to assist the portfolio company with negotiations for bank loans, bond underwritings, initial public offerings, and stock sales during the buyout exit (Anders, 1992). Moreover, he maintains that when the private equity specialists commence a negotiation they are prone to possess intimate knowledge of capital markets and have a willingness to apply this knowledge.

With an extensive contact network among financial institutions and investment banks, private equity firms can often secure debt finance at terms that are favorable, as compared to industrial buyers (Magowan, 1989; Kaufman & Englander, 1993). This can be contrasted with the experience of a CEO or CFO of a company, who may only participate in a single buyout throughout his or her career and thus have an inadequate number of contacts within financial institutions (Cotter & Peck, 2001). The advantage of having more financial experience

is not limited to just industrial buyers. A recent study by Zarutskie (2010) finds evidence that private equity buyout fund teams with more experience in finance outperform funds teams that lack this competency.

PE firms tend also to be repeat customers with financial institutions, which may lead to their being able to access lenient long-term financing. Cotter and Peck (2001) find that LBOs are financed less frequently with short-term debt and senior debt when buyout specialists control the majority of the post-buyout firm. The primary reason for receiving financing at lenient terms may be due to a perception of them as trustworthy borrowers (Frankfurter & Gunay, 1992; Baker & Smith, 1998; Cotter & Peck, 2001). Cotter and Peck (2001) report that the reason for this increased trustworthiness is because portfolio firms are less likely to experience financial distress. In addition, private equity firms have disincentives to expropriate wealth from debt holders, which increases trustworthiness (DeAngelo et al., 1984; Opler & Titman, 1993; Cotter & Peck, 2001). As a consequence, PE firms with a high reputation specifically receive narrower bank loan spreads and access to more debt, and at a lower cost from institutional loan markets (Demiroglu & James, 2007).

A marginally different causal explanation is that by being repeat customers for financial institutions, information asymmetry between the parties is reduced and consequently trust increased, which permits institutions to lower interest rates and fees (Ivashina & Kovner, 2010). Reduced information asymmetries provide lending institutions with higher visibility into the prospect and thereby reduce the risk. Moreover, investment banks can have an incentive to offer more lenient covenant terms because they want to sell additional fee-based services to the PE firms. The study by Ivashina and Kovner (2010) offers evidence for the two mechanisms being additive. A single standard deviation increase in both banks' relationship strength's cross-selling potential is associated with a 5% decrease in the spread and a 7% increase in the maximum debt to EBITDA covenant. Taken together, these advantages translate into a 4% increase in equity return for the buyout firm. It is obvious that this confers an important advantage on PE firms in comparison to strategic buyers.

### 3.1.1.2 Debt Market Cycles: Mispricing vs. Overheating

The association between increased investments by private firms and the availability of liquidity in the debt market has long been known. A study by Kaplan and Stein (1993) showed that the liquidity of debt markets provided through "junk bonds" was instrumental to the buyout boom in the 1980s. Other researchers find that firms attempt to take advantage of market mispricing (between debt markets and equity markets) by financing with public equity issues during periods of low market returns and debt issues during periods of high returns (Baker & Wurgler, 2000; Baker, Greenwood, & Wurgler, 2003).

However, instead of benefiting from the market mispricing between debt and equity markets, investors can be penalized for investing in overheated debt markets. This was found to be the case in the study by Kaplan and Stein (1993), which showed that the private equity markets gradually became overheated in the second half of the 1980s. Typically these periods are characterized in the debt markets by 'covenant lite' agreements, by substantially higher than average levels of debt in buyouts, by low interest rates, and, simultaneously, escalating price multiples. Gompers and Lerner (2000) report that venture deal valuations are propelled, not by industry returns, but by fund inflows into the industry, which cause a 'money chasing deals' phenomenon.

Diller and Kaserer (2007) find that fund inflows do explain a substantial portion of overall variation in private equity returns, although they affect buyout funds less than venture funds.

More recent research has established that buyout funds accelerate their investment flows and the quantity of leverage when credit conditions are loosened in the debt markets, which increases competition, raises price levels and causes average returns to deteriorate (Ljungqvist, Richardson, & Wolfenzon, 2007; Axelson, Jenkinson, Strömberg, & Weisbach, 2008; Cornelius, Juttman, & de Veer, 2009). A recent study of 1,157 worldwide private equity deals over an extended time period from 1980 to 2008 affirms the association between highly leveraged deals and buyout timing (Axelson, Jenkinson, Strömberg, & Weisbach, 2013). In this study, highly leveraged deals were consistently associated with lower fund level returns for investors. The result is puzzling when considering the variable of leverage at the exclusion of the environment, but consistent if one takes into account the variability of leverage being due to debt markets.

The evidence suggests that PE firms would gain from taking advantage of market mispricing by investing when the cost of debt is low in relation to equity, while refraining from overheated debt markets. The two concepts are naturally linked to market cyclicalities and market timing, which are discussed in a later chapter.

### 3.1.1.3 Alleviating Capital Market Constraints

A mechanism for value creation that has received surprisingly little attention by academics is that private equity firms can function as a market substitute for weak capital markets by enabling capital allocation for companies with growth potential. Boucly, Sraer, and Thesmar (2008) present evidence that private equity in France has alleviated capital market constraints, in an analysis of 830 buyouts. Moreover, the researchers observe that the strongest post-buyout growth occurs in industries reliant on external finance for growth. The study has since been replicated in the U.K. in a study that reached the same conclusion (Chung, 2010). The result for the U.K. is even more confounding, since it has a well-functioning capital market that could be expected to obviate the need for private equity expansion capital. This implicitly suggests that promising buyout opportunities could exist for PE firms, particularly in countries with capital-constrained markets.

### 3.1.1.4 The Effects of High Leverage: Inflating Gains and Inducing Efforts

The principal function of increased leverage is to permit the private equity firm to acquire a larger buyout target firm, and thereby inflate the return on the equity. Typically the buyout firm equity is used as collateral, which enables highly leveraged deals. Leverage, or gearing, thus functions as a lever for increasing prospective gains and losses. The increased leverage comes at a price, however, which is seen in an increase in the inherent risk of the investment. Any loss accrued by the firm will be multiplied by exactly the same principle in which gains are inflated. This is the reason private equity firms place a high value on the ability of the buyout firm to generate an adequate and stable cash flow. Given that an investment generates sufficient levels of stable cash flows, there is support for the notion that increased leverage can be a source of value generation (Lowenstein, 1985; Bull, 1989). A more recent study that attempts to attribute buyout value generation to the source finds that the change in leverage in buyouts resulted in a quarter of the total return of 48% IRR (Meerkatt et al., 2008). Correspondingly, another study of buyouts in the U.K. finds that leverage significantly inflates equity

returns (Valkama, Maula, Nikoskelainen, & Wright, 2010).

Nevertheless, a secondary but indirect effect of using high levels of debt can be discerned. Several researchers have found that this can induce management to behave in ways that benefit investors and that is inimitable with other forms of remuneration (Grossman & Hart, 1983; Jensen, 1986a, 1989b). In particular, a high level of debt permits the mitigation of agency costs, which results in increased operational efficiency and reduced expenditures (Jensen, 1986b, 1989b; Rappaport, 1990). The reasoning is that high levels of debt expose management to the personal costs of bankruptcy, which encourages them to dispose of prior privileges and increase their work efforts (Grossman & Hart, 1983). While the personal costs of bankruptcy are invoked merely for high debt, the effect is accentuated when management has placed a significant portion of their private wealth in the buyout firm. A related argument is that debt allows for the construction of dual incentives, which combine an upside and a downside that promote concentrated management efforts (Butler, 2001). Finally, the high debt ratios ensure that management perceives capital as a scarce resource that should be allocated efficiently.

The use of high levels of debt for improving management efforts is connected to management incentivization and interest realignment, both of which will be discussed in a subsequent chapter.

### 3.1.1.5 Capital Structure Optimization in Buyouts

Capital structure typically refers to the mix of debt and equity that finances the operative firm in the short and long term. The optimal capital structure is, in simple terms, one that strikes a balance between the *debt-to-equity ratio*, while minimizing the *cost of capital*. While debt tends to minimize the cost of capital because of tax deductibility, it increases the risk of the firm at the same time. What constitutes an accepted risk level is a parameter that must be determined by the stakeholders, e.g. private equity firm partners and the portfolio firm board of directors who are often in cooperation with the firm's management. Other common factors affecting the optimal structure are, for example, the degree of financing necessary to meet the business forecasts in the next few years and the possibility of reacting with flexibility to changed market conditions. Damodaran (2001) contends that an optimal capital structure is firm specific, since it is determined by the particular circumstances of the firm.

As mentioned in the previous chapter, there are key benefits to using debt in buyouts, such as inflating gains in profitable buyouts and inducing management to improve firm performance. The main disadvantage with increased levels of debt is the increased exposure to financial distress due to external market shocks and sudden shortfalls in demand (Palepu, 1990; Rappaport, 1990; Singh, 1990; Smith, 1990b; Singh, 1993; Gifford, 2001). Another drawback is potential erosion in long-term competitiveness due to high debt (Palepu, 1990; Gifford, 2001). In addition, interest rates do not generally remain stable with increasing levels of debt because of the greater default risk and downgraded credit rating, which means the cost of borrowing can escalate (Damodaran, 2001).

However, while the risk for insolvency increases with debt in buyouts, several studies show that the effect

is non-linear and decreases proportionally at high levels of debt (Kaplan, 1989b; Kaplan & Stein, 1993)<sup>17</sup>. Various explanations for this non-linearity have been proposed. Jensen (1989a) submits that a flexible institutional workout process overrides the usual bankruptcy procedures, since the insolvency is seldom in the interest of the creditors. Empirical evidence lends credence to this interpretation, as parties tend to accomplish a reorganization of claims more efficiently outside the courtroom (Jensen, 1989a; Hotchkiss, Smith, & Strömberg, 2014). Another explanation is that higher levels of debt cause risk-averse managers to alter behavior so as to reduce the likelihood for a default (Holthausen & Larcker, 1996). Furthermore, the high levels of debt eliminate taxes, which allows management to use cash flows to service debt payments and thus reduce the risk of default (Opler & Titman, 1993). Palepu (1990) suggests that the substantially lowered *ex post* default risk may be due to positive organizational changes, and hence, while the financial risks increase, the business risks coincidentally diminish.

A veiled disadvantage with high debt is that risk-averse managers are discouraged from pursuing investments perceived as risky, despite the prospects for long-term profitability (Myers, 1984; Holthausen & Larcker, 1996). Perhaps more important is that excessive levels of debt – or *debt overhang* – prevent growth by circumscribing the operational, strategic, and governmental flexibility of management (Berck & DeMarzo, 2007). Thus, debt overhang manifests as *underinvestment*, when management becomes disinclined to invest in NPV positive projects with a short-term negative cash flow, even when the expected long-term profits are substantial (Stulz, 1990). The result of underinvestment is that firms relinquish market share to rivals, which leads to the relative dissipation of shareholder wealth (Grant, 2011). Aside from restricting the management's latitude to act, restrictions are often imposed by external stakeholders due to excessive levels of debt. Creditors may impose restrictive covenants that curb management behavior and limit the firm from adding or altering the type of debt (Damodaran, 2001).

Consequently, the potential for value gains exists only if embarking on more debts moves the firm towards an optimal debt ratio (Damodaran, 2001; Eun & Resnick, 2011). Jensen et al. (2006) suggest that the difficulty herein lies in striking a balance between the countervailing factors by assessing whether the portfolio firm has unused debt capacity or excess capital. Common countervailing factors would be to assess the projected development of cash flows, the increased risk for default, the liquidity of the firm's assets, the flexibility in the amortization of the financing mix, the increase in interest rates with higher levels of debt, the covenant restrictions posed by senior securities, the corporate tax shield, and the fluctuations of the liquidity on corporate debt markets (see e.g. Pinegar and Wilbricht (1989)<sup>18</sup>).

An obvious, yet sometimes overlooked factor in the context of buyouts, is that the optimization of the capital structure is a continual process. Buyouts are typically financed by using a mix of tranches with different maturity and interest rates, such as a revolving credit facility ('revolver'), bank debt, mezzanine debt, and

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<sup>17</sup> More recently Strömberg (2007) reports that the LBO firms eventually file for bankruptcy or undergo a financial restructuring at 6%, while another study reports bankruptcy rates of 5% for Scandinavia vs. 12% for U.S. (Lopez-de-Silanes, Phalippou, & Gottschalg, 2011). A third study reports a failure rate of 4.8% for U.K. (Wilson, Wright, & Altanlar, 2009).

<sup>18</sup>A more detailed discussion on the optimal capital structure, e.g. the static trade-off models and the pecking order hypothesis, falls outside of the realm of this thesis.

subordinated debt or high-yield notes (Olsen, 2002). The optimal capital structure is obviously affected by changes to both internal and external conditions (e.g. fluctuations in cash flows or liquidity of debt markets), and thus need to be reassessed periodically.

What is clear is that the realized capital structure in buyouts differs substantially from the counterpart public companies. For instance, a study of 153 large public buyouts in the U.S. and E.U. averaging at \$1 billion in enterprise value provides evidence that equity accounts for only 25% of the purchase price and the remaining portion is debt (Axelson et al., 2008). Even when taking into account that the debt on average will be lower, since loans are commonly amortized during the holding period, the debt levels are considerable. This may be contrasted with a study of public equity-financed companies in a range of countries, which showed that debt comprised an average of 20–30% of total capital (Rajan & Zingales, 1995).

### 3.1.1.6 Creative Finance

Finnerty (1988) considers the design of innovative financial instruments and the formulation of creative solutions as the heart of financial engineering. A prime example of creative finance were the “*high-yield, non-investment grade bonds*,” which helped to fuel the first boom of buyouts. These bonds were pioneered by the investment banking firm Drexel Burnham Lambert, and became best known by the colloquial term “junk bonds”. In the 1990s the subordinated debt emerged as a means to finance buyouts, such as second lien debt and mezzanine debt (Ryan, 2006, p.140).

A more recent invention from the 2000s are the *syndicated loans*, which now account for a majority of the buyouts of large public firm in the U.S. and Europe (Axelson et al., 2008). In syndicated loans, several commercial or investment banks pool together their resources to facilitate the deal financing. Another financial innovation, and especially in the U.S., is the development towards all-bullet loan structures (Axelson, Jenkinson, Strömberg, & Weisbach, 2007; Axelson et al., 2008). A *bullet loan* is an instrument whereby the entire principal of the loan, including the interest, is due at the end of the loan term. Different hybrids of these exist, such as loans with a grace period without principal payments, interest-only loans, and variants whereby at the end of the loan a percentage of the principal is due. Another increasingly used financial instrument is *strip financing*, whereby the returns to finance providers are derived from multiple tranches of the capital structure, i.e. subordinated debt, preferred stock, and common stock (Chapman & Klein, 2009). The expressed intent of strip financing is to foster greater goal congruence among investors and lenders, and thus minimize the agency costs (Jensen, 1989a; Chapman & Klein, 2009).

A recent comprehensive study by Axelson et al. (2013) covering a sample of 1,157 private equity deals worldwide between 1980 and 2008, interestingly finds that the average for LBO debt financing is primarily by senior bank debt, and resides at 72.5%, while the remainder is mainly subordinated debt and bonds<sup>19</sup>. The remainder, alternative funding, comprises merely 2.4%. The category is composed of vendor loans, loans by the LBO sponsor (the PE fund itself), off-balance-sheet financing, and assumed debt (existing loans that are

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<sup>19</sup>Specifically (i) Senior Bank Debt (bullet debt 46.2%, amortizing bank debt 23.4%, bridge loans 2.9%); (ii) Subordinated Debt (mezzanine, 9.9%, 2<sup>nd</sup> lien, 2.5%); (iii) Bonds (junior, 9.3%; senior, 2.3%); and (iv) Alternative Funding (2.5%).



retained rather than refinanced) (Axelson et al., 2013). Axelson et al. (2008) suggest that the wide variety of debt instruments signifies the importance of client choice in capital structure, aside from the quantity of debt.

### 3.1.1.7 Asset Conversion and Securitization

An additional method for obtaining more efficient capital structures and lowering the cost of finance is the conversion of traditional firm assets into new sources of financing, which is particularly pertinent when a substantial amount of capital is tied up in fixed assets and non-cash, current assets (Rogers et al., 2002b). A standard measure for raising additional capital is the securitization of assets into *asset-backed securities (ABS)* and *collateralized loan obligations (CLO)*. In the case of the ABS, the raised capital is secured by the cash flows obtained from a specified pool of underlying assets comprised of the company's receivables, e.g. credit card receivables, car loans, and asset leases, or royalty payments. Since asset-backed securities are generally set at a lower interest rate compared to traditional bank loans, firms can benefit from the asset conversion (Mishkin & Eakins, 2011).

*Sale and leasebacks* are another typical form of asset conversion to free up substantial amounts of capital, which traditionally is considered distinct from asset-backed securities. For instance, when firm equity includes expensive machinery or corporate real estate, it may be sold to a financial institution and leased back by the firm. An advantage of using leasebacks as a vehicle for financing upcoming investments is that they require less effort to arrange compared to asset-backed securities.

## 3.1.2 Operational Drivers

While applied financial engineering was critical to the nascent private equity industry in the 1980s, subsequent research indicates that it has become insufficient for achieving success<sup>20</sup> (Lieber, 2004; Wright et al., 2006). By the late 1980s the evidence was mounting that buyouts are associated with significant operating and productivity improvements (Baker & Wruck, 1989; Bull, 1989; Bernstein, Lerner, Sørensen, & Strömberg, 2010; Chung, 2010). Cumming, Siegel, and Wright (2007) summarize much of the evidence in a review:

*"The end result is there is a general consensus that across different methodologies, measures, and time periods, regarding a key stylized fact: LBOs and especially, MBOs enhance performance and have a salient effect on work practices."*

Early evidence by Kaplan (1989b) showed sharp improvements in operating performance after adjustments for industry-wide changes. Jensen (1989a) found that the primary source of value creation from buyouts was organizational change that leads to improvements in firms' operating and investment decisions. These findings were corroborated in a large number of later studies (see Appendix A). Surprisingly, two studies of U.K. and U.S. public-to-private transactions report the opposite effect of modest increases in operating performance and cash flow margins (Weir, Jones, & Wright, 2008; Guo, Hotchkiss, & Song, 2011). A problem

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<sup>20</sup> Some researchers maintain that financial engineering may still be a key source in buyout value generation. A study by Meerkatt and Liechtenstein (2010) suggests that while some funds generate more than 75% of the internal rate of return (IRR) due to operational improvements, in others more than 66% comes from financial levers. Although the indication may be accurate, it is based on a confidential study conducted at the consulting firm BCG and is limited to eight buyout funds.

is that these studies primarily concern large PTP buyouts, which typically display the poorest performance. Additional criticism has been that performance improvements in buyouts come at the expense of future cash flows, particularly when taking into account the increased cash flows in post-buyout firms with the concurrent decline in capital expenditures. However, the hypothesis has not found support in empirical studies (Cao & Lerner, 2007; Lerner, Sørensen, & Strömberg, 2009).

### 3.1.2.1 Functional Experience and Operational Expertise

A number of researchers have studied how various aspects of the private equity firm industry experience and managerial expertise constitute a knowledge transfer to the portfolio firm (Jensen, 1989a; Baker & Smith, 1998). Empirical research has since validated that the experience and management skills of the individual GP significantly affect portfolio fund performance, as seen in Schmidt, Nowak, and Knigge (2004). More recently, Acharya et al. (2011) report that GPs with backgrounds in finance or accounting generated superior performance when the firm strategy was based on external growth (M&A), while GPs with an operational or consulting background achieved abnormal returns when the firm followed an organic growth strategy. A related mechanism is that it is the cross-utilization of managerial talent in the portfolio firms, which can represent a valuable resource at buyout firms (Hite & Vetsuypens, 1989). Consequently, due to the increased importance of operational improvements, PE firms have since begun hiring executives with operational backgrounds and industry experience, which can be observed in the more diverse backgrounds of personnel at the leading private firms (Kaplan & Strömberg, 2009; Matthews et al., 2009).

### 3.1.2.2 Cost Structure Improvements

Early on multiple researchers found evidence of profitability gains being directly associated with cost savings (Kaplan, 1989b; Muscarella & Vetsuypens, 1990; Baker, 1992). In manufacturing firms there was ample evidence for a reduction in production cost and an increase in plant productivity (Lichtenberg and Siegel, 1990). Several studies provided evidence of swift tightening of corporate spending (Grossman & Hart, 1983) and the reduction of capital expenditures and divestment of under-utilized assets (Magowan, 1989). Asset divestiture could also lead to the redeployment of capital and new investments in plant and equipment (Wright, Thompson, & Robbie, 1992), the core idea being that the effect is value enhancing when negative net present value projects are curbed (Jensen, 1989b).

It is noteworthy that the cost savings from reduced employment levels are typically peripheral. An explanation may well be that buyouts typically occur in firms with a positive stable cash flow, but not in distressed firms facing a reconstruction. Kaplan (1989b) reports that when one controls for the reduced employment that results from divestitures, the median employment level increases by 0.9%. Modest employment reductions over the long-term have been found by some researchers in the U.K. and U.S. (Wright, Jensen, Cumming, & Siegel, 2007; Davis, Haltiwanger, Jarmin, Lerner, & Miranda, 2008). A predominant notion is that employment levels tend to trace the *J-curve* trajectory of PE investments. While employment initially falls under private equity ownership, an increase in employment levels takes place over the long-term (Amess, Cirma, & Wright, 2008; Shapiro & Pham, 2008). What is clear is that buyout firms manage with less

bureaucratic structures, which is achieved by pruning corporate overhead, e.g. white-collar employment and wages (Easterwood, Seth, & Singer, 1989; Lichtenberg & Siegel, 1990; Butler, 2001). The overall target with these measures is to foster a flat organization by reduction of managerial layers.

The evidence regarding cost cuts in R&D in buyouts is ambiguous, as some studies report reductions in R&D (Hall, 1990; Lichtenberg & Siegel, 1990; Smith, 1990b), while others report the preservation of R&D or even an increased effort in new product development (Lichtenberg & Siegel, 1990; Zahra & Fescina, 1991). For instance, a study by Zahra and Fescina (1991) reports substantial increases in product development, technological alliances, R&D workforce, capabilities, and business activities in the buyout firms. Moreover, buyouts tend to occur in mature industries, which are not R&D intensive.

A problem with both reduced and deferred capital expenditures is that these may come at the expense of the long-term performance, particularly when used to boost short-term cash flows in order to maximize the exit valuation. However, the fact that the improvement comes at the expense of R&D, compensation levels, or capital expenditures has not been corroborated (Lichtenberg & Siegel, 1990; Smith, 1990a). More recent evidence by Kaplan and Strömberg (2009) does not find empirical support for '*short-termism*', i.e. the reduction of CAPEX at the expense of long-term performance.

### 3.1.2.3 Capital Management and Asset Utilization

A cornerstone for improvements to productivity and efficiency is to increase asset utilization. Bull (1989) finds that the more effective use of corporate assets in buyouts is a means to increase cash flows. Furthermore, more efficient use of corporate assets frees up resources and is the primary cause for the reduction of capital requirements in buyouts (Lowenstein, 1985; Bull, 1989; Baker & Smith, 1998). Several researchers find that buyouts achieve cost reductions by rationalizing both the fixed or current assets and improve the management of working capital (Baker & Wruck, 1989; Smith, 1990a; Kester & Luehrman, 1995; Butler, 2001). Working capital is foremost tied up in inventory and here studies have found that inventory control is streamlined and inventory levels are dramatically reduced in the post-buyout firm (Easterwood et al., 1989; Magowan, 1989; Singh, 1990; Wright et al., 1992). It may also be observed in firms that have undergone a buyout, which have lower levels of inventory and working capital compared to industry peers (Holthausen & Larcker, 1996).

A common method for improving cash management is to accelerate the collection accounts receivables, i.e. the outstanding customer debt (Singh, 1990; Long & Ravenscraft, 1993a; Holthausen & Larcker, 1996). Damodaran (2001) advocates minimizing both account receivables and inventory while increasing the pace of collecting account payables, since these changes directly affect the firm's cash flow and the valuation. In practice, it can be achieved by enforcing payment terms, expediting distribution of invoices, shortening the payment period, prolonging the terms for supplier payment, and renegotiating prices (Long & Ravenscraft, 1993b; Kester & Luehrman, 1995; Butler, 2001; Niemeyer & Simpson, 2008).

Logistics and supply chain management form a special case in the buyout context: while efforts to rationalize the logistics chain are pervasive, PE research pertaining to the subject is effectively non-existent.

### 3.1.3 Strategic Drivers

Rogers et al. (2002b) suggest that private equity specialists have a competitive advantage compared to executives in public firms, who are often guided by vaguely defined long-term strategic missions and a lack of focus on maximizing IRR. Instead the attention of executives is divided between the immediate quarterly targets and a variety of bureaucratic distractions and disparate objectives among contending stakeholders (Rogers et al., 2002b). By contrast, successful private equity firms strive to engage actively and participate in redirection of the portfolio company (Rogers et al., 2002b; Heel & Kehoe, 2005; Zong, 2005). The logic behind the active participation in the strategic redirection and refocusing process is that this activity can be a substantial source of value generation (Muscarella & Vetsuypens, 1990; Singh, 1990; Seth & Easterwood, 1993; Phan & Hill, 1995). The activities can encompass the selection of the geographic target markets, market niche, product mix, customer segments, pricing strategy, distribution channels, the level of after-sales services, and the future direction of the firm (Muscarella & Vetsuypens, 1990).

In the context of private equity buyouts, two distinct strategic alternatives dominate the discussion: focusing on the core and market consolidation. Frequently these alternatives are combined into hybrid forms together with an explicit objective on market expansion. A common problem before the buyout is that many firms suffer from resource dispersion by simultaneously pursuing multiple goals. Zong (2005) suggests that dispersion can be mediated by developing a “laser-sharp focus” on maximally 2–3 strategic issues.

#### 3.1.3.1 Focusing on the Core: Complexity Reduction

The reason for focusing on the core business is that several empirical studies have shown that firms consisting of unrelated, diversified business units underperform (Rumelt, 1974; Palepu, 1985; Lubatkin & Rogers, 1989; Lubatkin & Chatterjee, 1991). Moreover, there is evidence that shows that a reduction of the diversification is positively associated with increases in operating performance and firm value (John & Ofek, 1995; Gadad & Thomas, 2004). Unsurprisingly, there is research reporting a reduction of business complexity in the post-buyout firms (Seth & Easterwood, 1993; Phan & Hill, 1995). A consequence of the focus on the core and divestment of unrelated businesses is post-buyout firm value increasing (Montgomery, Thomas, & Kamath, 1984; Kaplan & Weisbach, 1992). As expected, there is ample evidence for asset sales and divestment of non-core operations following a buyout (Kaplan, 1988; Baker & Wruck, 1989; Aslan & Kumar, 2009). An explanation for the profitability increase is that divestment curbs costs associated with over-investment in mature and declining industries that have limited growth prospects (Jensen, 1989b). Aside from over-investment, operating several product lines causes inefficient product line cross-subsidies (Liebeskind, Wiersema, & Hansen, 1992).

What need to be considered in this context are the drastic reductions of the workforce and large-scale divestments in the early 1980s, primarily in the U.S., which became known as asset stripping and bust-ups. This Schumpeterian *creative destruction* that would color the public perception of the private equity industry and leveraged buyouts, was to some extent guilt by association, as the drastic cuts were more typical of hostile takeovers by corporate raiders and activists (Carey & Morris, 2012, p.6). At the time, a number of moderately profitable public conglomerates were taken private, dismantled, and sold-off piecemeal; often while the core

company was left to succumb burdened by debts. Specifically the activity relied on taking advantage of the *conglomerate discount*, so called because public conglomerates would attain stock market valuations that were lower than the combined value of the separate entities. In practice, the discount could be removed by divesting the peripheral assets, i.e. asset stripping, and the investor would then benefit from the appreciation in value<sup>21</sup>. By the 1990s, the public conglomerates had largely disappeared, and today dramatic asset stripping and bust-ups are rare<sup>22</sup>.

It should also be recognized that there is research that legitimizes the organizational structure of conglomerates, especially during recessions. A recent study by Kuppuswamy and Villalonga (2010) that looked at the global financial crisis in 2008, found that conglomerates fared comparatively much better than single-segment firms. The study revealed that comparative value is created through two different channels. First, there was the “*more money*” consequence that arose from the debt *coinsurance effect*, and second, the “*smarter money*” consequence that emerged from more efficient capital allocation internally within the conglomerate (Kuppuswamy & Villalonga, 2010). The debt coinsurance effect is the long-standing hypothesis by Wilbur G. Lewellen (1971), which states that in the event of market shocks, conglomerates have a higher absorptive capacity for reverberations.

### 3.1.3.2 Focusing on Consolidation: Buy and Build Strategies

The archetypal strategic option favored by private equity is the *Buy and Build Strategy*. This strategy became increasingly popular in the mid-1990s as it outperformed competing corporate strategies both in terms of growth profits and value (Ernst & Young, 2008). A limited study by Hoffmann (2008) of 21 platform companies in Germany indicated that buy and build strategies were highly successful in generating value. In the study, 75% of the buy and build transactions generated an excess of 25% IRR.

The process of implementing a buy and build strategy begins with the acquisition of a nucleus firm in a fragmented industry, after which a series of successive roll-up acquisitions take place to create a market leader. The core business logic lies in market consolidation and thus the amassing of the advantages of scale economies, which concurrently leads to multiple expansion (Baker, Gibbons, & Murphy, 1994; Allen, 1999; Wright et al., 2001a). By contrast, the traditional justification for M&A – business synergies – is often viewed with skepticism by PE investors due to frequent overestimation of synergies. O'Donnell (2001) makes an attempt to distinguish further between buy and build strategies based on the impending business opportunity:

<b>1. Consolidation:</b>	In rationalizing mature or cyclical industries by horizontal mergers.
<b>2. Build-up:</b>	In making multiple consecutive acquisitions in a fragmented industry.
<b>3. Missing link:</b>	In making a complementary acquisition to complete a geographic area or business line.
<b>4. Roll-up:</b>	By imposing a business model on add-on acquisitions.

<sup>21</sup> A prospective possibility is that by removing the discount, the coinsurance effect is concurrently removed and that the end result is an increase in Beta and a vulnerability to market cycle fluctuations.

<sup>22</sup> While the likelihood of a private equity firm being able to exploit the conglomerate discount today is small, it bears some resemblance to value appreciation seen in buyout firms that divest peripheral assets and focus on the core business. As far as is known, this form of ‘conglomerate discount lite’ has not been proposed in extant research.

From a practical standpoint, a common measure in portfolio firms is to facilitate add-on acquisitions by using the capital that was freed up during prior divestments, while another is to free up capital by asset conversion (both of these have been discussed in an earlier chapter). When the generated cash flow from the ongoing operations exceeds the interest payments and amortizations, it may provide an additional source of capital to carry out the strategy. Furthermore, a factor that alleviates the level of capital is that the sequential add-on acquisitions are to be valued at substantially lower multiples than the consolidated firm during the exit.

An occasionally overlooked factor in research is that buyout firms often can rely on share swaps as a method of payment for the add-on acquisitions (Brau, Francis, & Kohers, 2003; Brau & Fawcett, 2006). Even in instances when the add-on acquisition cannot be obtained solely through a stock swap, substantial amounts of the payment can consist of shares. The advantage of using share swaps is that the risk of acquisition is clearly reduced, there is an incentive alignment between the management of the acquired firm and buyout firm, and finally, that payment does not materialize until the exit.

### 3.1.3.3 Focusing on Growth: Market Expansion

Growth is significant in and of itself, as firm growth is a parameter that affects firm value<sup>23</sup>. While a track record of solid growth is a determining factor in firm valuations, it becomes even more crucial if the exit route is to float the business at a public listing (Butler, 2001). A consequence of the growth impact on enterprise value is that buyout firms work diligently on increasing firm growth. Singh (1990) reports that buyout firm revenues grew at a substantially faster pace than industry peers in the three years prior to an IPO.

The main benefit of market expansion and growth is that it can be an important component of value creation, particularly when margins are not deteriorating<sup>24</sup>. A study of value creation in 32 buyouts in Europe revealed that almost half of the total internal rate of return (IRR), or 22% of the total 48%, was attributable to sales growth, while an additional 5% was due to margin improvements (Meerkatt et al., 2008). Acharya et al. (2011) find that buyout firms both achieve higher sales growth and margin improvements (EBITDA to sales ratio) relative to peers. A secondary effect is that a track record of growth tends to raise the valuation multiple. In the study by Meerkatt et al. (2008), another 10% of the IRR was attributed to an increase in valuation multiples, which although primarily the result of systematic increases in multiples across the markets, was in part caused by improved performance prospects at the time of exit.

The core question is then: How do firms achieve growth levels that exceed industry peers? Various approaches have been developed in different strands of academic research and by leading consulting firms. An extensive research project and assessment on the different strategic approaches to organizational growth by McGrath and MacMillan (2005) found a number of key components, such as to reconceive and redefine the business profit drivers by examining and enhancing key business metrics. Specifically the researchers

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<sup>23</sup> Growth has long been known to constitute a key component of firm value, e.g. Branch and Gale (1983) reported the value of public firms is determined by four variables: firm growth, profitability, risk, and market outlook.

<sup>24</sup> Overall we can discern two common paths to market expansion: a sales increase by selling more to an existing market (increased sales of supplementary products or higher market penetration) or by selling existing products to new markets.

proposed using the metrics of cash-flow velocity, asset utilization, customer performance, customer productivity, customer cash flow, and customer asset intensity.

Hitt and Ireland (1985) examined the growth strategies of large industrial corporations and found that firms must develop corporate distinctive competencies appropriate for their industry. In particular, the researchers found two distinctive competence areas, finance and R&D, which were directly related to the performance of the internal growth strategy. Firstly, competency in finance was positively correlated with growth since this affected the firm's ability to raise capital to undertake the necessary investments. This means that management needs to pay attention in order to improve the firm's bond ratings and build a sound capital structure (Hitt & Ireland, 1985). Secondly, the core competencies of R&D and engineering were negatively correlated with the growth strategy, which implies that management would need to re-examine the corporate R&D expenditures, the prime reason being that resources are readily dispersed due to an inadequate definition of how the firm can attain return on investment from the R&D investments.

In the private equity research strand, we find an interesting connection between buyout firm growth and human capital. Researchers have found that in order to achieve growth from the inception it is crucial to recruit dynamic executives who can seek out and exploit growth opportunities, as opposed to recruiting executives with organizational skills to monitor the firm (Lockett, Murray, & Wright, 2002; Meuleman, Amess, Wright, & Scholes, 2009). Moreover, Meuleman et al. (2009) find evidence for firm growth being positively associated with management acquisition experience.

A number of popular approaches to achieving firm growth originate from management consulting firms. An extensive empirical study on factors conducive to firm growth by McKinsey indicated that management should methodically: identify high-growth micro-segments of customers, regions, and products; invest resources in promising micro-segments while jettisoning low-growth areas; and finally, restructure the organization to pursue each selected micro-segment (Baghai, Smit, & Viguerie, 2009). In a similar vein, consultants at A.T. Kearney suggest that in order to achieve growth a firm should move its sales efforts to the markets with the highest potential (Rothenbuecher, Handschuh, & Kickenweiz, 2007). They espouse the view that this can best be accomplished by making inroads to additional regional markets, expanding firm partnerships, halting price erosions; exploiting opportunities within product portfolios, boosting cross-sales, and aligning processes to better meet customer needs. A third path to growth is advocated by Bain, which is that of the single pursuit of improving the net-promoter score of the firm, where the net-promoter score is defined as the ratio of promoting-to-detracting customers when these customers talk to colleagues (Reichheld, 2003). Purportedly the simple survey question serves as a better predictor of future growth than more elaborate and sophisticated customer satisfaction indices. However, an independent study on the net promoter score did not find support for the claim of the NP score being the best predictor of growth (Keiningham, Cooil, Andreassen, & Aksoy, 2007).

Finally, if we examine profit distribution across the value chains of industries, we often find that these vary significantly. Consequently, a standard method for improving profitability and achieving growth is that of upstream or downstream horizontal integration. In particular, the profit distribution in after-sales service is

often substantial and offers an opportunity for expansion in that additional services become available to existing customers.

## **3.2 The Indirect Lever of Value Creation**

The indirect lever of value creation has proved to be remarkably relevant in the context of private equity buyouts, since the resulting drivers do not directly affect performance. Loos (2006) suggests that the drivers tend to amplify the positive performance effects attributed to the direct drivers. This is partially correct, albeit an insufficient explication. The main causal effect appears to be that the indirect drivers set in motion a chain of events, which then tend to affect several direct value creation drivers at once. For instance, in improving incentivization we thus affect management effort, which in turn results in multiple operational improvements.

Multiple indirect drivers of firm government and organization are associated with the agency theory and the parenting advantage (Loos, 2006). However, the agency theory and the parenting effect incorporate an array of causal mechanisms and dissect the hypotheses into more distinct causal mechanisms. Furthermore, the agency theory and the parenting advantage do not circumscribe all indirect levers, e.g. the import of the holding period or impact on the private equity firm focus. Consequently, the indirect levers have in this dissertation been expanded to encompass all the indirect drivers we find in extant research.

### **3.2.1 Governance Drivers**

The governance driver concerns the altered organizational structure and administrative discipline exerted by the new owners. One of the first studies to bring attention to the governance driver was the qualitative case study of the O.M. Scott & Sons Company, in which the improvements in operating performance were attributed to changes in the incentive structure, the monitoring system, and the governance structure of the firm (Baker & Wruck, 1989). Another early seminal study identified two factors that contribute to the productivity increase: the increased utilization of all employees due to the increased sensitivity to financial performance rewards and penalties, and the reduction of misallocation to inefficient activities due to curtailment of free cash flow (Lichtenberg & Siegel, 1990). In essence, both of these studies pointed to the significance of changes to the corporate governance structure to improve operating performance<sup>25</sup>.

#### **3.2.1.1 The GP Effect: Experience and Expertise Matters**

A major benefit from private equity ownership is the cross-utilization of industry expertise and management talent within the portfolio firms (Hite & Vetsuypens, 1989). Particularly pertinent is the accumulated experience of private equity professionals, which constitute a knowledge transfer from the GPs to the portfolio firms (Baker & Smith, 1998). Several researchers find that the industry expertise is garnered not merely from participating in buyouts, but from the extensive contact networks (Anders, 1992; Kaufman & Englander, 1993; Baker & Smith, 1998; Bruining & Wright, 2002). On the whole, the accumulated GP expertise

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<sup>25</sup> For a current review of the various strands of corporate governance research see e.g. Bebchuk and Weisbach (2010).



is diverse and incorporates factors from governance to incentivization.

A number of studies have since confirmed the effect of GP experience and expertise on fund performance, which in essence is an aggregate measure of the portfolio firms that constitute the fund. Kaplan and Schoar (2005) find that the fund performance increases with experience and that this performance is persistent, i.e. GPs of the funds that outperform the industry in one fund are likely to outperform in the next fund<sup>26</sup>. The results suggest an underlying heterogeneity in general partners' skill and quality, e.g. the guidance provided by the GPs to firm management or a proprietary deal flow (Kaplan & Schoar, 2005). Schmidt et al. (2004) report homologous results that fund performance is significantly related to the experience of the individual fund manager, where the suggested explanation is a proprietary deal flow and management rests in the hands of the portfolio firm. Diller and Kaserer (2007) report similar findings, i.e. that the GPs skills significantly affect fund performance. In a recent study of VC firms, Ewens and Rhodes-Kropf (2015) find that the skillset of the partner explains a large fraction of the investment outcomes, while the accumulated skills at firm level were less important.

The result begs the question of how individual GPs actually achieve superior fund performance. A dissertation that combines both qualitative and quantitative data provides an indicative answer and finds that fund outperformance is associated with the heterogeneous skills of the GP and the type of buyout deal (Hahn, 2009; Acharya et al., 2011)<sup>27</sup>. GPs with a managerial background from the industry or in consulting generated significantly higher outperformance in organic strategies due to three measures: frequent management change, active participation in the development of the business plan, and by substantial time commitments (Hahn, 2009)<sup>28</sup>. In contrast, GPs with investment banking or accounting generated higher outperformance in consolidation strategies, specifically due to two measures: by providing first and second line management with substantial amounts of equity, and by frequently devising new KPIs (Hahn, 2009). In an attempt to synthesize empirical research and interview data, as well as the consulting firm perspective and academic research, Meerkatt and Liechtenstein (2010) suggest that there are three ways in which experience affects performance: ownership experience, industry expertise, and regional experience. Finally, Achleitner, Braun, and Engel (2011) report that more experienced GPs successfully negotiate the acquisition prices down.

What complicates the GP-performance relationship is that the causality might be bidirectional. A study by a leading consulting firm found that in 83% of the top tercile buyouts the GPs sought out the expertise of the board, the management team, and trusted external sources, whereas this was the case in less than 50% in the bottom tercile (Heel & Kehoe, 2005).

### 3.2.1.2 PE Firm Constraints: Industry Focus and Fund Size

Overall, private equity and venture capital firms have a tendency to focus on a limited number of industry sectors. Muscarella, Peavy III, Vetsuypens, and Barry (1990) find evidence for the limitation of VC scope

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<sup>26</sup> *Newer studies have confirmed the earlier findings of performance persistence in buyouts made before 2000, but surprisingly not for investments after 2000 (Braun, Jenkinson, & Stoff, 2013b; Harris, Jenkinson, Kaplan, & Stucke, 2014).*

<sup>27</sup> *Much of the research in the dissertation has since been summarized in an article by Acharya et al. (2011).*

<sup>28</sup> *The managerial skills associated with functional experience and operational expertise were discussed in chapter 3.1.2.1.*

regarding industry sectors in an early study of 433 IPOs from 1978 to 1987, and that this limitation occurs precisely because it takes time to develop the necessary industry expertise. A more recent study of VC firms confirms this rationale by showing that specialist firms outperform generalist firms, but beyond that firms with more experience outperform the inexperienced (Gompers, Kovner, Lerner, & Scharfstein, 2006). Zarutskie (2010) finds support for VC experience being a significant variable, but further reports that longevity in the VC industry is of import. However, we also find support for the importance of specialization and a focus on later-stage buyout funds. Cressy, Munari, and Malipiero (2007) report that private equity industry specialization adds 8.5% to the profitability over the first three post-buyout years. The outcome is congruent with the results reported by Loos (2006) in his dissertation, i.e. in that the number of previous deals undertaken by a buyout firm has a positive influence on IRR.

Furthermore, there is evidence that the experience in private equity scales better than in venture capital, due to the scaling of investments as experience accumulates, which leads to substantially higher revenues per partner in subsequent buyout funds (Metrick & Yasuda, 2010). A caveat here is that there are penalties for exceeding an investment threshold. Firstly, when the number of concurrently managed portfolio firms increase, this can cause considerable diseconomies of scale (Lopez-de-Silanes, Phalippou, & Gottschalg, 2008). In a large study covering 4,848 investments by 151 private equity firms between 1973 and 2002, the researchers found that the quartile of private equity firms having the least amount of simultaneous projects earned an average annual IRR of 41%, while the quartile having the most projects earned a meager average IRR of 15%. However, the penalty was attenuated in PE firms with flatter hierarchies, managers that shared similar backgrounds, and more experienced managers.

The same penalty recurs when increasing the fund investment size per investment professional, which adversely affected the performance (Cumming & Walz, 2010). It is in line with what Kaplan and Schoar (2005) document, i.e. that private equity funds display a concave relationship between fund size and performance. Perhaps surprisingly, the accumulative learning effect manifests in yet another way. Several researchers provide evidence that syndication enhances returns significantly, i.e. the co-investment of multiple private equity firms in a buyout (Brander, Amit, & Antweiler, 2002; Gompers & Lerner, 2006; Cumming & Walz, 2010). Brander et al. (2002) suggest the reason for the improved performance may be the complementary management skills of different PE firms.

### 3.2.1.3 Reducing Agency Costs: Incentivization and Interest Realignment

An extensive amount of research has been directed at the *Carrot and Stick mechanism* and particularly how this ameliorates agency costs during buyouts (Lowenstein, 1985). Initially, the hypothesis was proposed by Lowenstein (1985) in a paper on MBOs, as a bifurcate mechanism for resolving the principal-agent conflict. The “carrot” in this context is the interest realignment between managers and owners, which develops by providing management with ownership stakes in the firm<sup>29</sup>. Incentive realignment has, since its inception, been at the forefront of buyouts, and one study reports it as being the strongest determinant of buyout

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<sup>29</sup> *The substantially increased leverage plays a key role in improving the incentivization of buyouts, which is further examined in this dissertation in chapter 3.1.1.4 The Effects of High-Leverage.*

performance (Kreuter, Gottschalg, & Zollo, 2005). In a similar vein, Renneboog et al. (2005) in another study find that neither the tax shield nor free cash flow has any impact on buyout performance, while incentive realignment is a significant determinant.

Moreover, the size of the incentive is typically substantial. Heel and Kehoe (2005) suggest that it is not uncommon for these to equal 15–20% of the firm equity, while Leslie and Oyer (2009) report that levels of remuneration to CEOs at 2.3% in equity, or in effect double the equity of the average CEO of comparable public corporations. The result of the high-powered incentives are improved operating and investment decisions (Morck, Shleifer, & Vishny, 1988; Easterwood et al., 1989; McConnell & Servaes, 1990; Phan & Hill, 1995; Weir & Laing, 1998). For instance, Palepu (1990) submits that it is the incentives in the post-buyout firm that provide a decisive impetus for management to improve cash flows and operating performance.

The “stick” half of the equation forms the negative incentive, i.e. “pain equity”, which is created by requiring that management make a substantial equity investment. This produces high personal costs for inefficiencies (Jensen & Meckling, 1976; DeAngelo et al., 1984; Muscarella & Vetsuypens, 1990; Smith, 1990b, 1990a; Weir & Laing, 1998). The sizeable investment made by management relative to their personal net worth means there is a financial risk to the buyout (Kitching, 1989; Thompson, Wright, & Robbie, 1992; Beaver, 2001; Butler, 2001). The rationale is that managers share the burden of loss which results from poor performance. This combination of considerable positive and negative incentives in a buyout is the foremost difference compared to traditional organizational forms.

We also find a distinction with traditional firms in that there is an increased pay-to-performance sensitivity for a wide range of personnel (Jensen, 1986b; Anders, 1992; Fox & Marcus, 1992). Leslie and Oyer (2009) find from case interviews that equity shares are typically provided to 20–80 employees, but that twice the amount is not uncommon. Employee share ownership plans (ESOP) are another example of participation schemes (Thompson et al., 1992). Pay-to-performance sensitivity may also be achieved by adapting the employee contracts (Baker & Wruck, 1989; Easterwood et al., 1989; Muscarella & Vetsuypens, 1990).

Other typical forms of compensation in private equity are *performance ratchets* or *equity ratchets*. When pre-specified, ambitious performance targets are reached, management can be awarded increased equity ownership by the PE firm<sup>30</sup>. The purpose of a ratchet is to induce management to improve performance for the duration of the holding period. Another crucial difference from traditional firms is that the equity is illiquid during the holding period until the exit. Stock options cannot be exercised, nor can shares be sold, which means a substantial portion of the equity investment is undiversifiable (Jensen et al., 2006). The effect of illiquidity is that management is committed to the buyout to a completely different degree than in public firms.

A caveat here is that if the portion of tied-up equity becomes too high, it can result in decreased firm performance, due to management risk aversion and under-diversification (Demsetz, 1983; Fama & Jensen, 1985; Morck et al., 1988; Lei & Hitt, 1995; Holthausen & Larcker, 1996). One solution is obviously to ensure that

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<sup>30</sup> *Ratchets are also common to the private equity firms themselves. Typically, a predefined performance target for a fund has to be met before the firm partners receive any share of the fund return.*

management does not make excessive investments.

### 3.2.1.4 Restructuring the Board of Directors

Several studies have emphasized the contribution of boards, particularly in terms of their supervisory function (Jensen, 1993; Gabrielsson & Huse, 2002; Gompers & Lerner, 2006; Bottazzi, Da Rin, & Hellmann, 2008), and strategic guidance (Rosenstein, Bruno, Bygrave, & Taylor, 1993; Sapienza, Manigart, & Vermeir, 1996; Kaplan & Strömberg, 2004).

With regards to the performance effect of board size, a fair amount of research has come to the conclusion that board size should be limited to 5–7 board members. For instance, a meta-review does find support for the limitation in smaller corporations, defined as having revenues of less than \$300m (Dalton, Daily, Johnson, & Ellstrand, 1999). Yermack (1996) finds that the relationship between board size and firm value is the inverse in a sample consisting of 452 large U.S. corporations. Likewise, a study of small- to mid-sized Finnish firms finds a significant negative correlation between increased board size and profitability (Eisenberg, Sundgren, & Wells, 1998). A more recent study from the U.K. finds that an increase in board size has a strong negative impact on profitability, *Tobin's q*, and share returns (Guest, 2009). It is congruent with the change observed in buyouts, where soon after the buyout a new board that has been significantly reduced in size is appointed (Jensen, 1993; Jensen et al., 2006; Acharya, Kehoe, & Reyner, 2008; Cornelli, Kominek, & Ljungqvist, 2012).

With regards to the composition of the board, private equity firms typically appoint one to two general partners to represent the firm. Moreover, there is often a senior GP appointed to the role of chairman (Rogers et al., 2002b; Jensen et al., 2006). Aside from the CEO and private equity firm representatives, the new board tends to be composed of more outside directors (Millson & Ward, 2005; Jensen et al., 2006; Cornelli & Karakas, 2008). With regards to involvement, private equity firms have a preference for active and participating boards that assemble frequently (Lowenstein, 1985; Jensen, 1989a, 1989b; Smith, 1990a).

Many researchers have found that board members of buyout firms tend to meet more frequently than traditional boards, which can mean meeting formally on a monthly basis and informally several times a week (Gertner & Kaplan, 1996; Vafeas, 1999; Jensen et al., 2006; Acharya et al., 2008; Cornelli & Karakas, 2008; Acharya et al., 2011; Guo et al., 2011)<sup>31</sup>. A related characteristic of the boards of buyout firms is the accelerated decision making that takes place compared to the traditional competitors.

As discussed in the section on agency theory, a hallmark of the boards in buyouts is the reduction of agency costs. This includes providing equity ownership stakes that realign management incentives and instigating a regime of closer monitoring that reduces the discretionary decision space of management (Fama, 1980; Demsetz, 1983; Jensen, 1988; Baker & Wruck, 1989; Lichtenberg & Siegel, 1990). Moreover, the principal control function of the board is to allow the owner to exert power in determining the composition of the management team (Baker & Montgomery, 1994). Besides often replacing the managing director at the inception, buyout boards tend to replace underperforming management more swiftly than traditional firms (Jensen, 1989a).

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<sup>31</sup> *This cultural change following the buyout, e.g., frequent meetings and direct communication channels, is discussed further in the chapter on the parenting advantage.*

Finally, Acharya et al. (2008) argue that private equity boards work intensely to establish a critical set of industry-applicable metrics, which are then continuously monitored and used to direct operations. Thus, while the private equity boards actively pursue value creation, by contrast the boards of public corporations tend to focus on ensuring short-term performance objectives, on avoiding unpleasant surprises, and in complying with governance regulations.

### 3.2.1.5 Reinforcing the Management Team

Already in the mid-1960s, Manne (1965) proposed in his “*market for corporate control*” that equity markets could be the principal mechanism for facilitating corporate takeovers. In an efficient market, a firm would become more attractive as a takeover object, the lower its stock price became compared to the value potential with more efficient management. This corrective market mechanism of disposing of underperforming management is still a common method for buyout value creation. Moreover, the impact on corporate performance by CEOs has generally been reported to be substantial<sup>32</sup>.

A cause for firm underperformance prior to a buyout is often the incumbent top management team, which is a cause remedied when the private equity firm replaces the inefficient team (Jensen & Ruback, 1983). Buyouts can thus function as vehicles to improve market efficiency by rapid and decisive action to remove poorly performing managers (Gilson, 1989). Perhaps most importantly, Bertrand and Schoar (2003) report evidence confirming that CEOs affect firm performance significantly. Interestingly, the disruption caused by forced CEO replacement is associated with higher post-succession firm performance (Khurana & Nohria, 2000; Helfat & Bailey, 2005; Cornelli et al., 2012)<sup>33</sup>.

Immediately after the buyout, private equity firms typically replace substantial portions of the management team (Heel & Kehoe, 2005; Jensen et al., 2006). In a study by Acharya et al. (2011) a third of CEOs were replaced within 100 days of the buyout and a total of two-thirds within a four-year holding period. As a result, private equity firms tend to get involved in the recruiting of CEOs and management (Rogers et al., 2002b; Zong, 2005) and spend a considerable time in selecting and regularly re-evaluating the management (Palepu, 1990; Anders, 1992; Cotter & Peck, 2001). A recent international study finds that as a consequence of the relentless focus on management, private equity-owned companies are liable to have better management practices than other organizational forms, particularly when compared to governmental organizations and family firms (Bloom, Sadun, & Van Reenen, 2009).

If we examine the particular human capital and personal skills that predict success in buyouts, we must consider a study, which reported that execution skills trump interpersonal skills (Kaplan, Klebanov, Mark, & Sørensen, 2008). While execution skills may trump many personal attributes, it may be premature to conclude that this single attribute overrides all other characteristics without more extensive behavioral research being done on the subject.

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<sup>32</sup> For studies on the corporate performance variation that is due to the CEOs, see e.g. Smith, Carson, and Alexander (1984), Thomas (1988), and MacKey (2008). However, research on the topic in the context of buyouts is scarce.

<sup>33</sup> A theoretical explanation that incorporates agency into a strategic-factor-market model shows that a prerequisite for extraordinary performance is the combination of skilled governance with managerial competence (Makadok, 2003).

## 3.2.2 Cultural Drivers

### 3.2.2.1 The Parenting Advantage: Monitoring and Mentoring

A framework frequently employed in conjunction with the private equity industry is *the parenting advantage*, albeit that it was originally proposed as an explanation for the success of diversified corporations (Campbell et al., 1995; Goold & Campbell, 1998; Goold, Campbell, & Alexander, 1998). Campbell et al. (1995) argued that when the multi-business corporation created more value for the unrelated unit than rivals could, the unit benefited from a parenting advantage. In contrast, the unit ought to be divested when the incurred costs by the increased organizational complexities outweigh the advantages. From the parenting advantage framework, it appears that PE firms often excel in implementing common services in monitoring, mentoring, and learning, which creates distinctive organizational capabilities.

Central to this approach is the adoption of an active ownership model, where constructive interaction is facilitated by direct communication channels and decreased levels of bureaucracy (Kester & Luehrman, 1995). The cultural change that follows the buyout is germane to this approach taken by the new board of directors. Often the deal partners of the private equity firm discuss things directly with management on a daily or weekly basis, which is vastly different from the traditional context of a corporate board or conglomerate headquarters (Bull, 1989; Hite & Vetsuypens, 1989; Anders, 1992). A study reported that in the top tercile of buyouts private equity deal partners devote more than half of their time to this type of discussion in the first 100 days of a deal, and meet almost daily with management, whereas in the bottom tercile deal partners spent less than 20% of the time on the buyout firm (Heel & Kehoe, 2005).

There is a clear “business logic” to the intensive communication in the post-buyout phase. A number of pivotal steps are taken in the early months following the buyout, e.g., determining the strategic priorities, detailing personal responsibilities, and building working relationships (Heel & Kehoe, 2005). Furthermore, advancing the J-curve by achieving profitability early in the holding period (e.g. first year as opposed to third year) has a decisive impact on the holding period IRR, which necessitates making the necessary investments immediately after the buyout.

Several researchers have found that ownership concentration facilitated by the buyout encourages closer monitoring and control (Lowenstein, 1985; Singh, 1990; Thompson & Wright, 1991; Admati, Pleiderer, & Zechner, 1994; Maug, 1998; Bottazzi et al., 2008). A key advantage of the ownership concentration is that it facilitates accelerated decision making compared to traditional competitors. A number of other advantages have already been discussed, such as the amelioration of the agency conflict (Hite & Vetsuypens, 1989; Singh, 1990), the continuous evaluation of firm management (Palepu, 1990; Anders, 1992; Cotter & Peck, 2001), and the protection against manager wealth expropriation (Sahlman, 1990; Kaplan & Strömberg, 2003). In practice this closer monitoring often means monthly management accounts, weekly sales reviews, and frequent manager meetings (Millson & Ward, 2005).

This may be contrasted with public corporations, where the dispersed shareholder structure result in an underinvestment of monitoring. These tend to suffer from the *free-rider problem* proposed by Grossman and Hart (1980), as individual shareholders with minor equity stakes have little to gain by expending effort on

monitoring, particularly as the gains befall all shareholders equally.

### 3.2.2.2 The Value of Corporate Culture: A Revived Entrepreneurial Spirit

Several researchers have reported on the changed corporate culture following a buyout, including the open and direct communication, the alleviated corporate bureaucracy, and the less-constrained atmosphere (Lowenstein, 1985; Jensen, 1989a; Hoskisson & Turk, 1990; Anders, 1992; Taylor, 1992). The changed *modus operandi* under the private equity ownership unfetters management from the grip of corporate bureaucracy and allows it to act without interference (Jensen, 1989a; Butler, 2001; Wright et al., 2001a).

Buyouts are often viewed as a creative vehicle to reintroduce an entrepreneurial spirit in public companies (Singh, 1990). Freed from the constraints of corporate headquarters, the buyout firms can be transformed into entrepreneurial organizations (Kester & Luehrman, 1995; Weir, 1996; Bruining & Wright, 2002). The change in sentiment that follows in the wake of the buyout can re-energize firms and spur management to make any effort that is necessary (Houlden, 1990; Beaver, 2001; Butler, 2001). The revival can be detected as an intensification of product development in the post-buyout firm (Wright & Coyne, 1985; Bull, 1989; Malone, 1989; Thompson et al., 1992). Zahra and Fescina (1991) not only find support for the intensified product development, but also by related proxies, e.g. an increase in R&D staff, business development, and technological alliances. Unsurprisingly, the increase in entrepreneurship is positively associated with performance improvements (Wright, Wilson, Robbie, & Ennew, 1996).

There are several reasons for the lethargy that ails pre-buyout firms. In the non-core divisions of corporations, management is often provided with limited discretion (Weir, 1996; Beaver, 2001). Even when the division provides profitable and innovative investment opportunities these things may be given low attention by the corporate management (Wright et al., 2001a). Moreover, divisions of large corporations tend to be afflicted by significant agency problems, as the structures for incentive mechanisms and control functions are lacking (Fama & Jensen, 1983b; Hill, 1988; Thompson & Wright, 1995).

Pre-buyout family-owned firms in turn often suffer from not being able to make necessary investments, either from being financially constrained or due to a risk-averse management (Meuleman et al., 2009). Bloom and Reenen (2007) report on a management competency gap in family-owned firms compared to private equity-owned buyout firms. Moreover, family firms may face succession problems when no family member willing or able to succeed in management (Howorth, Westhead, & Wright, 2004). On the other hand, the agency problem seen in divisions is typically mitigated by no prior separation of ownership and control, which means there is less scope for improving the control mechanisms (Chrisman, Chua, & Litz, 2004). In family firms where the ownership has been dispersed among family members some agency problems may exist (Schulze, Lubatkin, Dino, & Buchholtz, 2001; Howorth et al., 2004).

Finally, an aspect of the cultural revitalization in buyouts that has not received much attention is the positive effect on HR practices, e.g. increased training, employee involvement, number of employees, and pay levels (Bruining, Boselie, Wright, & Bacon, 2004). In a comparison between the U.K. and the Netherlands, the positive effects were bolstered significantly in the HR practices in the less institutionalized environment of the

U.K. (Bruining et al., 2004). The more institutionalized environment is defined as having higher participation in trade unions, recognizing collective bargaining, and having neutral attitudes towards union membership at the inception.

### 3.2.2.3 Performance Management: Stretch Budgets and Ambitious Goals

A common measure in the private equity industry is to produce ambitious business plans that raise performance standards and expectations for management (Jensen, 1989a; Baker & Montgomery, 1994; Butler, 2001). Management is frequently challenged by stretch budgets, where the objective can be to double the EBITDA during the holding period (Anders, 1992; Baker & Montgomery, 1994). The idea behind stretch budgets and challenging goals is to incite management to excel.

Moreover, management is also forced to reach aggressive targets to serve interest payments in order to cope with the higher gearing and elevated risk for financial distress (Easterwood et al., 1989; Smith, 1990b). Lastly, managers are forced to intensify their efforts or face the prospect of being replaced (Baker & Wruck, 1989; Magowan, 1989). Consequently managers are willing to make unpopular decisions, such as reducing employment levels and disposing of business units (Singh, 1990; Butler, 2001).

### 3.2.2.4 Revising the Firm KPIs: Novel Yardsticks

Private equity firms typically devise a new system of key performance indicators to track portfolio firms based on a limited set of crucial objectives, e.g. cash flow ratios, EBITDA, and ROIC (Butler, 2001; Rogers et al., 2002b; Zong, 2005). Acharya et al. (2008) find that private equity firm boards stress the importance of cash flow metrics, instead of delivery and swiftness of earnings. To these core financial indicators, private equity firms often add 2–3 industry-specific operational indicators. Complicated measurements are shunned since they tend to impede rather than speed up actions (Rogers et al., 2002b). An indication of the effect comes from the study by Heel and Kehoe (2005), which reported that performance-tracking systems had been implemented in 92% of the top performing buyouts, but in less than 50% in the bottom tercile.

The revision and implementation of key performance indicators (KPIs) is widespread in buyouts and there are a number of reasons for it. First, there is the notion that people tend to improve on that which is being measured. By carefully selecting the appropriate yardstick, management can ensure that personnel focus on the right goals. Furthermore, the prior metrics at the company or industry have been sub-optimal for directing the efforts and must be reassessed. Finally, using too many measurements causes management to lose focus.

## 3.2.3 Temporal Drivers

### 3.2.3.1 High Tempo and Inchoate Change

Bergström, Grubb, and Jonsson (2007) emphasize the import of high tempo and momentum in the immediate post-buyout period in order to ensure post-buyout success. The consultants Heel and Kehoe (2005) report from a proprietary study that GPs involved in the top tercile of buyouts devoted more than half of their time to the portfolio firm during the first three months by often meeting daily with executives. In the



lowest performing tercile, GPs spent only 20% of their time with the portfolio firm during this period. PE firms routinely create a “100-day plan” that prescribes the necessary changes during the period. There are a few principal reasons for this practice. Firstly, new owners are frequently under pressure to improve cash flows to serve the debt obligation, which means there is a limited window of time in which to enact operational improvements (Matthews et al., 2009). Secondly, immediate improvements in profitability will accumulate downstream during the holding period and in turn directly affect the exit valuation.

Matthews et al. (2009) assert that the difficulty lies not in identifying potential improvement opportunities for the plan, but rather in sorting and prioritizing the opportunities to be acted upon. The created plans will typically have explicit objectives regarding cost reductions, target market share, and growth rate, as well as on financial parameters, including EBITDA targets, return on capital, and the schedule for servicing the debt (Matthews et al., 2009). They can incorporate a wider set of measures that involve core strategic objectives, necessary top management changes, and new incentive structures. The researchers advocate including in the plan a limited number of ‘*low value, low difficulty projects*’ where the principal objective is to deliver the benefit of relatively easy gains that can serve to energize employees and management. The key idea is that early success produces a template that bestows subsequent success.

### 3.2.3.2 The Holding Period Time Horizon

The holding periods of the buyouts tend to vary to some extent based on market conditions and locations. Kaplan (1991) reports in an early study of large LBOs from 1979 to 1986 that the median-time was 6.70 years. A study conducted by McKinsey consultants found that more than 66% of the buyouts were exited within five years in the 1980s, even if this fell to two years in the late 1990s (Butler, 2001). The median holding period was approximately four years in a study covering 7,500 buyouts from 1971 to 2005 (Lopez-de-Silanes et al., 2011).

The most comprehensive data is from a study of 21,000 LBO transactions during the years 1970–2007 from a global dataset (Strömberg, 2007). This study showed that the median holding time firm in the 1980’s was 6–7 years while during the period of 1995 to 1999 it was nine years. Smaller buyouts in the study tended to have longer holding periods than large ones, but when controlling for size, ongoing private transactions had a longer holding period compared to buyouts of private companies and corporate divisions. Depending on the study, the average holding period will then be between 6–9 years<sup>34</sup>. On the other hand, it would be a mistake to presume “*quick flips*” constitute a major portion of all exits. Only 2.9% of the buyouts in the study were exited within 12 months and 12% within 24 months (Strömberg, 2007). The study by Lopez-de-Silanes et al. (2011) reports a corresponding result, with 12% of the PE investments being held for less than two years.

However, when instead examining the holding period of the buyouts that produce the highest returns the answer is different. Phalippou and Zollo (2005b) report that it is the short-lived investments that deliver the highest returns. This is in line with Lopez-de-Silanes et al. (2011), who find a strong negative association

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<sup>34</sup> However, we need to distinguish between the median holding period and that of the full population. Strömberg (2007) finds that 6% of all investments constitute failed buyouts, defined as having undergone financial restructuring or defaulted. The buyouts become “zombies”, which fund managers fail to liquidate and/or extend the median holding period.

between performance and duration. In the latter study quick flips (defined as those being held for less than two years) accounted for only 12% of the investments but had an astonishing median IRR of 85%. In turn, investments held for more than six years and that accounted for nearly 18% of the investments had a median IRR of only 8%<sup>35</sup>.

Private-equity buyout firms possess a further advantage when compared with public companies in the singular strategic focus for the duration of the holding period. This can be contrasted with the dispersion of resources in public companies, where management often are disrupted by quarterly earnings of the firm and public scrutiny in the media. Several studies have found that the strategic focus in buyout firms is on the long-term (Rogers et al., 2002b; Jensen et al., 2006; Mills, 2006). Often the private equity firms develop an investment strategy during the 100-day plan for reshaping the business model, which determines the buyout firm direction for the holding period (Rogers et al., 2002b).

### 3.3 The Lever of Value Capture

The value appropriation or transfer of wealth from prior shareholders and non-equity stakeholders is known as multiple arbitrage. The lever is often multifaceted as value can originate from several sources. In the context of this thesis, these are classified under the more expansive term value capture. Value capture is intrinsically and fundamentally different from the levers of value creation, as new value is not created, but merely won or lost in what fundamentally constitutes a zero-sum game. Another difference from value creation is that the generated value is determined by two distinct moments: the entry and the exit transaction (although these are in turn affected by the preceding history).

The stakeholders of a transaction here are defined broadly, since it can involve expending the resources of society due to decreasing taxes and a reduction of the workforce remuneration. Consequently it is the most controversial lever for generating value in private equity buyouts and often at the center of criticism in the media. It should be noted that a substantial amount of research has been devoted to examining the *stakeholder expropriation hypothesis* – sometimes called the *wealth transfer hypothesis* – and whether or not wealth is expropriated from pre-transaction stockholders, bondholders, or employees. However, even if there are evident cases where expropriation has occurred, the majority of the empirical evidence does not support the hypothesis when accounting for the full population of buyouts (Renneboog & Simons, 2005).

Another common notion is that a party that possesses superior information compared to a counterpart can use it to gain from the losses sustained by the other party. Of particular interest to academics has been whether or not the information asymmetry referred to as private information is being abused during a management buyout (MBO)<sup>36</sup>. For instance, management may have an incentive to suppress profits prior to a buyout in order to drive down the price. This exploitation of private information, labeled as the

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<sup>35</sup> However, another study does not find that “quick flips” leads to significantly higher returns (Siming, 2010, p.119).

<sup>36</sup> Moreover, information asymmetries may affect the entry- and the exit transaction in correspondence with Akerlof's (1970) work. If so, measures that decreased the information asymmetry could permit the buyer to increase the price, since having better information enabled a more accurate valuation and reduced the risk.

*undervaluation hypothesis* (or the *signaling hypothesis*) was studied particularly in the first wave of buyouts in the early 1980s. The first to suggest that management could take advantage of information asymmetries by artificially depressing the company value through accounting measures before a management buyout was Lowenstein (1985). Initially some researchers found support for the hypothesis, e.g. the premiums paid for buyout target firms were the result of an undervaluation, which implied subsequent performance improvements due to the exploitation of private information during management buyouts (Baker & Wruck, 1989). Other researchers found that abnormal buying patterns preceded management buyouts, but not during externally induced buyouts (Harlow & Howe, 1993; Kaestner & Liu, 1996).

At the same time, other researchers reported potential gains from exploiting private information being inconsequential as an explanation for the subsequent performance improvement (Kaplan, 1989a, 1989b; Kaplan & Stein, 1993). It is also true that most buyouts are not of the management buyout type, which means that taking advantage of any private information would be considerably more difficult.

Moreover, there will be information asymmetries in any transaction, which does not necessarily indicate improprieties. Extensive business advantages may stem from transaction experience, negotiation skills, extensive contact networks, firm valuation skills, market information, business intelligence, and industry expertise – all of which demonstrate various information asymmetries between the transaction parties (Anders, 1992; Fox & Marcus, 1992).

### **3.3.1 Commercial Drivers**

#### **3.3.1.1 Proprietary Deal Flow**

Practitioners often proclaim the advantage of a proprietary deal flow, but support from longitudinal studies is scant, perhaps due to limited availability in data sets. Kaplan and Schoar (2005) propose that having better access to investments could be an explanation for the persistent performance variations observed among GPs. Schmidt et al. (2004) report that buyout fund performance is significantly related to the experience of the individual fund and further speculate that the reason might be access to a superior deal flow and in preferential management of buyout portfolios. Apart from being suggested by various researchers (Kaufman & Englander, 1993; Wright et al., 1996), more substantial support for proprietary deal flow is found in a dissertation by Loos (2006, p.344), who reports that proactive proprietary deal sourcing from the buyout firm leads to substantial returns, but that deal sourcing was less effective when coming from intermediaries (e.g. investment banks) or the GP's contact network.

#### **3.3.1.2 Deal Making Expertise**

An auction is the preferred method for optimizing the value received by sellers, which conversely means it is the least favorable method for acquiring firms. The more restricted a transaction is from buyer competition, the lower the resulting transaction price (Wright et al., 1996; Baker & Smith, 1998). In particular, "*hot auctions*," where fervent competition drives up prices, may lead to a situation known as the *winners curse*. One tactic at auctions is to secure sole bidder status by making a high bid and then re-negotiating the bid with uncovered

flaws during the due diligence process (Butler, 2001). When used as a stratagem for the sole purpose of reducing and renegotiating the price, the tactic can backfire and carry repercussions<sup>37</sup>. However, judicious renegotiations based on deficiencies identified during the due diligence process is common among savvy negotiators. Discovered flaws may include, e.g. outdated equipment and environmental liabilities (Butler, 2001). Another tactic is to tie the bid to performance targets during a transfer period, which means if profitability suddenly deteriorates, the purchase price goes down.

An additional method for gaining the upper hand is to be ready immediately as opportunities emerge, as seen in Fox and Marcus (1992). Correspondingly, Wright et al. (1996) suggest that private equity investors should proactively approach attractive buyout targets before the competition is alerted.

### 3.3.1.3 Target Firm Identification and Investment Criteria

The buyout firm has traditionally been a firm with the ability to generate large cash flows, but with few net present value (NPV) positive investment opportunities (Baker & Wruck, 1989; Kaplan, 1989b; Lichtenberg & Siegel, 1990; Smith, 1990b; Opler & Titman, 1993). Opler and Titman (1993) reported that buyout target firms are more diversified than peers. Conversely, firms with expected high costs for financial distress are unlikely targets, e.g. high CAPEX industries (heavy machinery and process technology) and R&D intensive sectors. However, in a recent study Puche, Braun, and Achleitner (2014) found that value creation differed substantially among industries and that it has been highest in industrials and consumer services and lowest in technology companies.

Delving deeper into the attributes reveals that management buyouts have had higher cash flows as a percentage of sales than peers prior to the buyout, alongside lower levels of receivables to sales, and have been the object of more incidences of buyout speculation (Singh, 1990). With regards to target firms for public-to-private transactions, Masulis and Thomas (2009) report that these are likely to have a diffused ownership base, low levels of management shareholdings, performance insensitive compensation plans, to suffer from deficient board oversight and control, and finally to exhibit underperformance. Finally, as seen implicitly in studies on capital constrained markets by Boucly et al. (2008) and (Chung, 2010), we might infer that this could be a potential investment criterion.

Various criteria of PE firms are summarized in table 2 (Olsen, 2002; Malak, 2005; Arundale, 2010)<sup>38</sup>.

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<sup>37</sup> *The method became infamous during the 1980s and 1990s, as e.g. Cohan (2012) reports. This study suggests that a large PE firm "took the art of negotiation over price into the scientific realm. Once the competitive dynamics had shifted in its favor, the firm's genuine views about what it was willing to pay – often far lower than first indicated – would be revealed".*

<sup>38</sup> *Certain acquisition criteria typically recur, e.g. stable cash flow, while others will be industry specific.*

Business Criteria	Financial Criteria
1. Business opportunity; buy & build, focus	1. Steady and predictable cash flow
2. Market leadership/defensible position	2. Non-cyclical industry
3. Strong or replaceable management team	3. Flexible, low-cost financing
4. Experienced board of directors	4. Strong margins and profitability
5. Stable competitive environment	5. Divestible assets and units
6. Diversified customer base	6. Clean balance sheet with minimal debt
7. Highly skilled workforce	7. Cost reduction potential
8. Viable exit strategy	8. Heavy asset base for loan collateral
9. High brand recognition	9. Well-invested/minimal future CAPEX
10. Broad prospective supplier base	10. Non-fixed price contracts
11. Large portfolio of patents and licenses	11. Limited working capital requirements

**Table 2. Business and financial criteria to identify suitable buyout targets**

Self-evidently the significance and weight of any individual criteria will be contingent upon a particular investment opportunity. A competent top management team is crucial, but deficiencies can be alleviated by external recruitment. Correspondingly, attaining a board with industry expertise is vital, but rarely a barrier for the completion of a buyout.

### 3.3.1.4 Uncovering the Business Potential

Several of the original tenets and investment criteria have been remodeled due to the increased competition within the industry. In fact, Strömberg (2007) suggests that the caricature of private equity firms investing merely in mature and declining industries was never entirely accurate, as the investment targets have always been diverse. To some extent it is likely that the paucity of ideal targets has forced private equity firms to make trade-offs and reassess previous target criteria. Mitigating factors can alleviate apparent shortcomings and turn the non-traditional target into a highly successful buyout. For instance, a buyout case in an atypical industry for private equity will usually mean less competition towards the target firm and consequently may result in a more attractive valuation. A business case within a highly cyclical industry can in reality be an outstanding case if the cycle is in a trough. Correspondingly, a business case in an industry characterized by high capital expenditures, i.e. an unconventional buyout target, can be opportune if it is well invested. At the core of this expertise is the willingness to discard simple decision heuristics in order to be able to identify the innate business potential of the prospect<sup>39</sup>.

In particular, the due diligence process can be an excellent opportunity for reevaluating the initial assessment and discovering hidden factors that can either mitigate the downsides or aggravate the deficiencies. Having the due diligence process performed before the buyout is a methodical review that

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<sup>39</sup> *The reasoning is somewhat parallel to the identifying an evident drawback that at closer inspection reveal to be an advantage, and vice versa, which the author Malcolm Gladwell (2013) eloquently explores in this recent bestseller.*

typically comprises a commercial, financial, legal, and occasionally an environmental section. The due diligence can minimize the information gap that causes agency problems for the firm (Jensen et al., 2006). Aside from reviewing the state of the firm, another important goal is to uncover the downsides and dormant potential, i.e. the “*hidden gems*”.

Holthausen and Larcker (1996) introduced a new category of buyout targets in the mid-1990s with the *underperformance hypothesis*. This hypothesis suggested a market anomaly that could not be entirely explained with either the *free cash flow hypothesis* or the *private information hypotheses* (Nikoskelainen, 2006). The hypothesis states that the buyer can increase the PTP premium when the pre-transaction firm is underperforming (Renneboog & Simons, 2005). Nikoskelainen (2006) suggests that the reasons for this underlying underperformance are manifold and range from incompetent management to organizational and strategic mistakes to an inflexible reporting and decision-making process. In a study of 71 European buyouts, he finds support for the underperformance hypothesis in target firms as compared to industry peers. The study finds that buyout targets had, compared to industry peers, lower levels of gearing, lower EBITDA margins, and a more volatile cash flow but, somewhat surprisingly, relatively high operating profits and a faster turnover on assets. Furthermore, these characteristics indicate a lower capacity for leverage based on the cash flow, but more potential for operating efficiency improvements and business growth (Nikoskelainen, 2006).

Correspondingly, a study by Renneboog and Simons (2005) of 177 Public-to-Private (PTP) transactions in the U.K. from 1997 to 2003 confirms the undervaluation hypothesis, as lower share price performance leads to higher premiums and cumulative abnormal returns (CAAR)<sup>40</sup>. This relationship was especially significant in the case of management buyouts and institutional buyouts, while weaker in management buy-ins (i.e. leveraged buyouts). While the study finds the strongest correlation to the undervaluation hypotheses, other primary sources of gains were the increase in the interest tax shield and the incentive realignment.

Wright, Gilligan, and Amess (2009) state that buyouts tend to be heterogeneous in terms of the location of performance improvements, which are in consonance with the findings of this literary review. For example, the potential for improvement can originate from the relative underperformance of a buyout target. Bloom and Reenen (2007) find that management practices were often inferior in privately held family-managed firms compared to industry peers, and particularly private equity-owned firms. This suggests that there would be an opportunity for private equity firms to exploit the management differential. Bloom et al. (2009) find evidence for the phenomenon, i.e. that PE firms disproportionately target family companies with managerial underperformance.

With regards to the necessary competency to identify the concealed business potential, it can be hypothesized that the ability is multi-dimensional. First, it necessitates an analytical cognitive approach and a willingness to reassess preconceptions. Second, it requires intellectual flexibility and perceptiveness. Third, it requires functional experience and industry expertise in order to assess the particulars of the firm. While intellectual flexibility and functional experience are easy to comprehend, the first dimension is more complex. We can draw parallels to the concepts of *cognitive style* and *cognitive complexity* extensively studied by the

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<sup>40</sup> CAAR as measured over an 11-day event window centered around the announcement day.

social scientist Philip Tetlock of Wharton, which suggests that a more analytical approach is necessary in order to overcome preconceived notions (e.g. Tetlock, 2000). Likewise, a similar concept relates to the two modes of thought championed by Kahneman and Tversky, of which System 1 refers to thought processes that are instinctive, emotional and fast, whereas System 2 refers to the slower, more deliberate and logical thought processes (Kahneman, 2011). In the case of the ability to identify a concealed business potential, the ability to overcome the initial perception and analyze the case detail would be a necessity.

### 3.3.1.5 Detecting Nascent Market Trends: Multiple Expansion

Practitioners often refer to an overall appreciation in value of business sectors and industries as “*multiple riding*.” Specifically this refers to the multiple expansion or increase of the valuation multiple, where the multiple denotes the EBITDA/Enterprise Value or EBIT/Enterprise Value. However, an expanding market will not only increase the valuation multiple, but simultaneously increase top-line sales and EBITDA.

There are a number of common ways by which private equity firms can gain from multiple arbitrage. For instance, multiples typically vary for comparable firms among different countries. Mature industries tend to be valued at lower multiples than growth firms, despite having equal levels of profitability. Public and private firms are valued and traded at different multiples with a higher multiple conferred to listed firms. Larger firms tend to receive valuations at higher multiples than smaller firms within the same industry. Furthermore, multiples tend to fluctuate in accordance with the business cycle. Finally, industry growth or improved future prospects both tend to increase the firm multiples.

While all of these factors influence multiples, two factors in particular rely on having superior market expertise: industry growth and business cycles. While the latter will be discussed in the next chapter, the former means having superior expertise in predicting long-term industry trends. This in turn will determine in which industries the PE firm invests and, ultimately, the return on investment. The old maxim “a rising tide lifts all boats” is the guiding principle here. A recent study illustrates this by finding that both industry growth and GDP growth affect buyout returns and the probability of achieving positive abnormal market returns (Valkama et al., 2010). Previously a number of studies have found similar results. A study of buyouts in Sweden found that private equity investors able to pick firms in industries experiencing high growth were successful (but does not establish the result as being due to market timing abilities) (Bergström et al., 2007). An earlier study found that buyout fund performance increases substantially when the investments are made in times of high GDP growth and with high return on the public stock market (Phalippou & Zollo, 2005a). Likewise, Achleitner et al. (2011) report that EBITDA multiple expansion (aside from leverage and operational improvements) was fundamental to explaining equity returns and was the result of a GP skill.

While value generation is exogenous in cause, the expertise that permits the private equity firm to capitalize on industry trends is endogenous to the buyout specialist. What is clear is that when a buyout specialist has a better understanding of the market and can more accurately predict the development than the seller, the specialist can gain from the information gap.

### 3.3.1.6 Timing the Business Cycles

A number of studies have examined whether investors can time market entry and exit so as to achieve gains from business cycles. This phenomenon is multifaceted and can be viewed from diverse research perspectives, e.g. return variations of fund vintage years, variations in the capital influx to the PE market, the cyclicity of PE firm returns, and variations in industry sensitivity to business cycles.

A considerable effect on industry performance is found by analyzing industry cycle sensitivity. Certain industries such as chemicals, energy, and telecom display substantial variations in the gross IRR across fund vintage years (Cornelius et al., 2009). Timing in cyclical industries can form a crucial difference between generating significantly above or below average returns. The study reports that funds outperformed their peers and produced top-quartile returns when they selected industries in the right cycle and combined this with operational and financial engineering skills (Cornelius et al., 2009). The finding is unsurprising, as superior returns can be achieved with less effort when pursuing an industry that is experiencing a business cycle expansion.

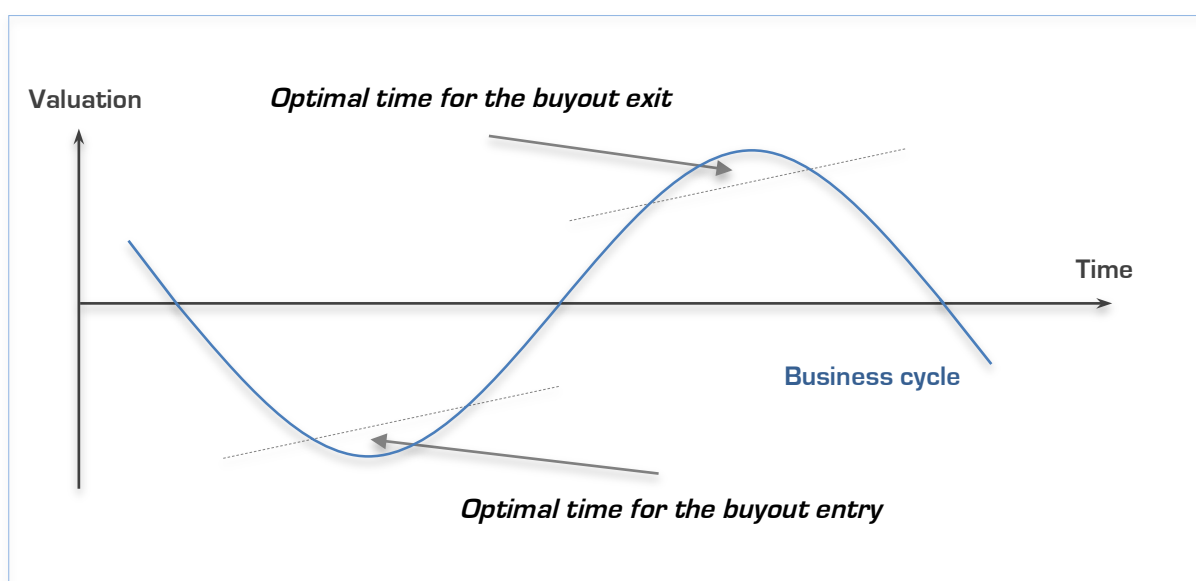
The vintage year return of private equity funds is associated with the business cycle of the private equity industry (Kaplan & Schoar, 2005). Explicitly, the vintage year performance variation appears to correspond to the availability of inexpensive debt financing, which drives up the valuation multiples for buyout firms to unsustainable levels. Consequently, the vintage year returns are likely to be low for funds raised in boom years (Kaplan & Schoar, 2005). Steve Kaplan expresses this as: *"(my) regression models have shown that there is a very strong negative relationship between the vintage year return and the capital committed to private equity funds"* (Chew, 2009, p.10). Kaplan finds that the effect is particularly strong when measured as a fraction of committed capital to PE funds and the overall allocation in the stock market, as the vintage years of the early 1980s showed average returns close to 25% in the U.S., which fell to below 10% in the late 1990s. The historical pattern suggests the returns from the vintage years from 2005 to 2008 will be disappointing since PE funds raised record amounts of capital during the peak years (Chew, 2009; Kaplan & Strömberg, 2009). From a practical standpoint this suggests that a useful indicator for investment timing would be to track the fraction of the capital allocation and scale back on peak years by not investing funds or not raising capital (Chew, 2009).

While the timing of business cycles does have a considerable effect on private equity investments, the research is more ambiguous with regards to the timing ability of GPs. An early study of 433 IPOs during the years 1978 to 1987 found that investors of VC funds can time the period for going public (Muscarella et al., 1990). Similarly a study by Lerner (1994) of 350 biotechnology firms from 1978 to 1992, showed that seasoned venture capitalists appeared particularly proficient at taking companies public near market peaks. In an analysis of 70 PE and VC funds from 1971 and 1998, Schmidt et al. (2004) finds timing ability being an important factor of overall fund performance, but only for VC funds and entry investment. On the other hand, the analysis indicates that timing ability is less consequential in PE funds that invest in mature companies with more stable market valuations (Schmidt et al., 2004). Relative to VC investments this may be accurate since the VC entry valuations are largely determined by assessing expectations. However, the finding that PE fund performance is determined by other factors than timing ability appears puzzling.



One study examining the macroeconomic conditions at the time of the PE investments reported that fund performance improves significantly both from higher GDP growth rates and public stock market returns (Phalippou & Zollo, 2005b). Conversely, when either credit spreads or corporate bond yields are low at the time of the investment, fund performance is higher (Phalippou & Zollo, 2005b). In addition, there is evidence that the market cycles are counter-cyclical between M&A activity and MBOs. Another study found evidence of increased M&A activity in bull markets at peak valuations, while LBOs and MBOs are relatively more likely in bear markets with low valuations<sup>41</sup> (Thomsen & Vinten, 2007).

Extant research on business cycles and vintage years suggest that private equity firms should to a higher degree consider the market conditions when making investments. The market timing could arguably be improved by using the market indicators determined in extant research.



**Figure 3. An illustration of market timing in the context of buyouts**

### 3.3.1.7 The Entry Transaction: Firm Valuation

A critical aspect of firm valuation expertise consists in having models that accurately reflect the intrinsic value of a firm and its future business. The most common financial methods for valuating a firm include the *discounted cash flow (DCF)*, the *adjusted present value (APV)*, *weighted average cost of capital (WACC)*, and *firm value multiples* (e.g. Damodaran (2006)). At the same time, Hoffmann (2008) suggests that the most common valuation method is to make multiple comparisons within a particular industry and examine the price level of a recent transaction, which occasionally is combined with a simplified DCF-model.

When comparing the price levels for buyouts to those acquired through an M&A, the evidence seems to support the view that PE firms pay less than competing acquirers. Two separate studies report that in Public-to-Private (P2P) transactions, existing shareholders receive a price premium of 40% when acquired by PE firms

<sup>41</sup> We can speculate that managers of public firms take advantage of the relative overvaluations at peaks to instigate M&A with moderately valued firms, while buyout funds take advantage to enter when valuations are low. This suggests that business cycles of M&A and private equity buyouts are off phase, since M&A activity is at a peak when the stock prices are at a maximum and private equity buyouts are at a minimum.

(Kaplan, 1989b; Wright et al., 2006). A more recent study for the period 1990 to 2005 reports that the average premium to shareholders during a private equity buyout is 20.5% (Bargeron, Schlingemann, Stulz, & Zutter, 2008). Correspondingly, the premium when a public firm makes the acquisition is 32.7%, which constitutes a 43% gain compared to having a private firm make the acquisition, and a 55% gain if the acquirer is a private equity firm (Bargeron et al., 2008). These results suggest private equity firms do pay a premium to shareholders, but one that is substantially less compared to the premium paid by public firms.

Likewise, research by a consulting firm suggests that private equity buyers consistently paid less than industrial buyers during the 1990s (Butler, 2001), and suggests that the reason is the dispassionate approach taken by PE firms, which includes screening dozens of deals for each execution. The contrast is stark for strategic buyers, who tend to be limited to targets within the same industry and often overestimate the synergies alongside getting carried away in auctions (Butler, 2001). Kaplan and Strömberg (2009) suggest that the price difference is consistent with PE firms either being proficient in identifying *ex-post* undervalued companies and industries or else having more skilled negotiators.

If we examine the mode of entry, we find that competitive auctions tend to maximize the acquisition price, which should affect buyout deal performance negatively. However, this is not necessarily the case. The average gross IRR for deals entered through competitive auctions soar to 153% in realized deals, compared to 75% for a negotiated-sale and 75% for buy-side intermediary (Loos, 2006). A proposed explanation for the high returns is that the most attractive buyout targets are exchanged in competitive auctions and the value generation potential remains superior despite the higher price. At the same time, Loos finds evidence of return corrosion for current, unrealized deals. The average gross IRR is 55% among European auctions, while it is -3% among U.S. auctions, which suggests private equity firms should refrain from U.S. auctions (Loos, 2006).

Finally, a note on *contingency planning* and the necessity of incorporating *rare case scenarios* into the valuation. The core idea is to integrate positive and negative scenarios into the decision-making process that could fundamentally alter the current business, such as business cycle changes, market environment movements, cost structure adjustments, and fluctuations to market prices (Lieber, 2004). While essentially all firms have established processes for assessing and approving investments, these do not necessarily incorporate improbable *Black Swan* events. Carey and Morris (2012, p.189) describe how the procedures for preparing buyout *base cases* were altered by including projections of “fluke events”<sup>42</sup>. A germane technique for improving future outcomes is to conduct a *pre-mortem analysis* (Klein, 2007; Kahneman, 2011, p.256).

### 3.3.1.8 Divesting the Firm: The Mode of Exit

The most common approach among practitioners for maximizing the exit value is to perhaps begin promoting the portfolio firm soon after the transaction is reported in the business press by media events, interviews and press releases. Less widespread, but nevertheless known, especially from IPOs, is the practice

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<sup>42</sup>“Like their counterparts...Blackstone’s partners were accustomed to producing voluminous projections”, forecasting “every item of every division, down to how many Coca-Colas they’re buying in their conference rooms...” With the new CEO Hamilton James, the practice was changed to instead consider the effect of ‘fluke’ events, which were improbable when considered separately, but accumulated when taken together, and which might occur during the period.

of 'window-dressing,' i.e. applying specious accounting tricks to bolster the financial statement artificially. A rather common method is to defer capital expenditures and necessary reinvestments in order to boost short-term profitability. Recent research on the exit routes of buyouts suggests that secondary buyouts have become at least as prevalent as the trade sale, while IPOs have decreased.

Perhaps the most common method for increasing the exit multiple and consequently the exit value is through market consolidation. A domestic market leadership position frequently garners a higher multiple than a regional market position. Similarly a more substantial geographic entity, for instance, all the Nordic countries versus one of the countries, tends to receive more interest from outside buyers. A plausible explanation for the higher valuation could be that a more sizeable geographical area permits further opportunities for the extraction of value through economies of scale and the concentration of purchasing power in the supply chain. However, there may exist a maximum above which market consolidation is unwarranted. A study by Gustavsson and Stjernswärd (2009) shows that firm size affects exit multiples concavely and consequently affects firm valuation as well<sup>43</sup>. Firms with revenues of \$20–50 million that pursued a buy and build strategy achieved higher exit multiples, while the relationship turned negative for revenues between \$300–600 million.

It is common knowledge that when comparing exit routes and all is kept equal, an IPO will typically garner the highest price. Unsurprisingly it is the preferred route of exit for the most successful firms (Schwienbacher, 2002; Schmidt, Steffen, & Szabo, 2009). The empirical evidence showed that firms exited through an IPO got the highest multiples at 11.7, while other exit routes garnered significantly lower multiples: trade sale 7.6, secondary buyout 7.1, and recap 7.7 (Chapman & Klein, 2009). Overall the price premium for publicly traded firms tends to be close to 20% compared to private firms. Finally, there is evidence that IPOs are particularly auspicious in periods with high GDP growth (Schmidt et al., 2009). Simultaneously, there are several drawbacks with an IPO, e.g. these tend to be a viable alternative merely for the top performing buyouts, the process of listing is comparatively long and costly, all shares can rarely be offloaded and, finally, the firm may be below a threshold with regards to capitalization.

The alternative that typically garners the next highest price is the exit to a financial buyer, i.e. a secondary buyout has become increasingly common<sup>44</sup> (Achleitner, Bauer, Figge, & Lutz, 2012). The study provides evidence that secondary buyouts can produce returns comparable to those achieved by an IPO. Furthermore the study shows that the likelihood for a financial exit increases with the liquidity of debt markets and the debt capacity of the portfolio firm. In a follow up study, Achleitner and Figge (2014) find that secondary buyouts do not generate lower returns or less operational value creation, but obtain 28–30% higher leverage after controlling for debt market conditions. Moreover, the former are acquired at a price level that is 6–9% more expensive.

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<sup>43</sup> Interestingly a recent study reported that smaller deals exhibited greater value creation than mid-cap buyouts, which in turn exhibited greater value creation than large-cap deals (Puche et al., 2014).

<sup>44</sup> Strömberg (2007) cites slightly earlier data in which the most common exit route for buyouts is trade sale (38%), secondary buyout (24%), and IPO (13%), of which the latter have gradually decreased in importance.

## 3.3.2 Organizational Drivers

### 3.3.2.1 Mitigated Legislative and Regulatory Constraints

Practitioners often claim that the principal advantage of buyout firms compared to traditional companies is the exemption from the restrictive legislation of public corporations. The CEO of a portfolio firm is subject to a substantially decreased media scrutiny compared to a public company, e.g. public criticism for the large amounts of equity-based compensation (Masulis & Thomas, 2009). Moreover, the disclosure requirements have rather increased in later years with new legislations for public companies, such as for the *Sarbanes-Oxley Act* of 2002 in the U.S.<sup>45</sup> This is in stark contrast to portfolio firms, which rarely issue any public financial statements, whereas in most countries these are by law publicly available for any limited or incorporated private company, not to mention the disclosure requirements of public firms. Appelbaum and Batt (2012) suggest that the mitigated regulatory environment, especially the financial regulatory regime, is an explanation for the dramatic growth of private equity in the U.S. At the same time this is a factor that provides an equal advantage within a legislature for private equity and thus rarely is the focus of PE research.

### 3.3.2.2 The Corporate Tax Shield: Debt and Taxes

The combination of financing acquisitions with debt against a firm's assets, while making tax deductions of debt interest payments, has been used since the mid-1970s. Typically the *tax shield* has been viewed as a key component of financial engineering and a lever of value creation. However, it can be argued that the advantage derived from a tax reduction primarily constitutes a wealth transfer from a societal perspective and consequently more appropriately should be considered a lever of value capture<sup>46</sup>. To some extent this is a simplification, since the reduction of taxes from interest rates enable buyout investments that eventually may benefit the society. Likewise, the tax deductions resurface as taxable income for the issuers of the debt and capital gains tax for the pre-buyout shareholders through the price premium (Gilson, Scholes, and Wolfson, 1987; Kaplan, 1989b). Obviously there are the capital gains taxes from the carried interest that form the lion's share of the GP remuneration, which however is capped and at a significantly lower rate than income tax in most jurisdictions.

In the late 1980s multiple studies found evidence for debt being a significant source of value in buyouts, particularly in the U.S. (Lowenstein, 1985; Kaplan, 1989a). The central mechanism by which debt adds value in a buyout is via the tax deduction of debt interest rates, which provide a tax shield that affects cash flow generation (Kaplan, 1989a; Singh, 1990). Jensen and Murphy (1990) find that the overall impact on taxes by buyouts is likely to be positive since there is an increase in tax receipts for capital gains, for increased operating income, and for the income on debt interest. Thompson and Wright (1995) assert that aside from some transfers from taxpayers with respect to debt interest relief, the net effect is likely value creation rather than a transfer of value.

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<sup>45</sup> For a more detailed overview of the financial regulatory regimes in Europe, refer to European Commission (2006), EVCA (2009), and Braun, Hornsby, and Coekelbergs (2013a), while for U.S. see Appelbaum and Batt (2012).

<sup>46</sup> The notion that tax-related benefits in buyouts should be considered as a wealth transfer was proposed by Lowenstein (1985), who argued these constitute a public subsidy to firms in mature capital-intensive industries.

Despite the advantages of tax deductions, this is not identical to proposing that the benefits accrue to private equity investors. An article often quoted in the research is a study of 76 management buyouts of public companies in the U.S. during the years 1980 to 1986 by Kaplan (1989a), which finds that the tax benefits measured from the premium paid to pre-buyout shareholders varied between 21% and 143%. This considerable variation was due to the varying assumptions of marginal tax rates and the amortization schedule of the debt. What is noteworthy is that a substantial amount of the tax advantage was transferred to the pre-buyout shareholders by the price premium.

More recently, a study of the 100 largest P2P takeovers during the years 2003 to 2008 in the U.S., Jenkinson and Stucke (2011) find a strong relationship between tax savings and the extent of price premium. In their analysis, the buyout premium paid to the former shareholders was twice the size of tax savings from increased financial leverage. The researchers conclude that the benefits typically accrue to the former shareholders and consequently the tax savings are likely negligible. The caveat is that the studies by Kaplan (1989a) and Jenkinson and Stucke (2011) concern public-to-private buyouts, which are not representative of the population of buyouts at large. Public-to-private buyouts account for a minority in the U.S. and the U.K., while being even rarer in continental Europe (Harris, Siegel, & Wright, 2003).

However, in the aforementioned study Kaplan (1989a) reports that, depending on the presumptions, the reduced taxes from higher interest deductions explain between 4% and 40% of the firm's value. Kaplan and Strömberg (2009) suggest that an estimate of the value of lower taxes from the higher levels of debt in the 1980s would thus constitute 10% to 20% of the firm value. The figures seem minor in comparison with a more recent study of a sample consisting of 192 large buyouts in the U.S. during the years 1990 to 2006 (Guo et al., 2011). In this study it was found that out of the total returns, the tax benefits from the increased leverage accounted for 33.8% while 22.9% can be attributed to the changes in operating performance and 17.7% to changes in industry valuation multiples, and finally only 5.1% to changes in market valuation multiples. While the contribution to value generation is substantial in the study by Guo et al. (2011), a limitation to the study is that the sample only contains U.S. public-to-private transactions. At the same time, it is clear that differences in national tax regulations makes it difficult to estimate and compare the tax benefit between countries.

It is reasonable to conclude that the tax advantage private equity firms maintain relative to both public- and private corporations can be construed as a competitive advantage for the PE industry, even if the playing field gradually has become more equal between different organizational forms, e.g. for U.S. see Newbould et al. (1992).

### 3.3.2.3 Carried Interest and Capital Income

The second key tax advantage the private equity industry holds compared to traditional enterprises is the *carried interest*. Carried interest has undoubtedly been controversial in the media over the years and it remains unclear as to if and how these will change in different countries. Firstly, there is the broader question of tax rates on capital income, which in most Western European countries and North America is currently taxed at flat rates ranging from 15% to 28.5%. Secondly, and the core of the debate, is whether GPs should enjoy capital income tax rates for the carried interest. The carried interest is essentially a form of remuneration that is

rewarded to deal partners when they exceed fund performance limits.

At the baseline, this means to repay all the invested capital of the fund to the investors, but often covenants stipulate that a certain *hurdle rate* must be achieved before any carried interest is rewarded. A typical level of the carried interest is 20% of the fund gross return and regularly constitutes a considerable share of the remuneration to the GP. Consequently, carried interest can effectively function as an industry advantage in relation to traditional enterprises, e.g. during the recruitment process. However, there is substantial variation in the fee structures between regions and even among firms. Morris and Phalippou (2011) note that there is a difference between the carried interest in Europe and the U.S., where PE firms of the latter tend to be intricate and expensive, in addition to being comprised of additional indirect fixed fee layers. The European firms by contrast, and particularly the Scandinavian, have contracts with low or non-existent portfolio firm fees.

Despite the observed variation between countries and firms, carried interest creates a competitive advantage for private equity compared to traditional public and private enterprises. One way to interpret the relative competitive advantage that PE firms possess is that a certain portion of the value generation can be attributed to the carried interest. However, it is difficult to estimate the overall effect of the fee structure on buyout value generation because of the variance between regions.

# The Principal Sources of Value Generation in Buyouts

Direct Value Creation			Indirect Value Creation			Value Capture	
Financial driver	Operational driver	Strategic driver	Governance driver	Cultural driver	Temporal driver	Commercial driver	Organizational driver
Financial Expertise and Contact Networks	Functional Experience and Operational Expertise	Focusing on the Core: Complexity Reduction	The GP Effect: Experience and Expertise Matters	The Parenting Advantage: Monitoring and Mentoring	High Tempo and Inchoate Change	Proprietary Deal Flow	Mitigated Legislative and Regulatory Constraints
Debt Market Cycles: Mispricing and Overheating	Cost Structure Improvements	Focusing on Consolidation: Buy and Build Strategies	PE Firm Constraints: Industry Focus & Fund Size	Corporate Culture: Reviving the Entrepreneurial Spirit	The Holding Period Time Horizon	Deal Making Expertise	The Corporate Tax Shield: Debt and Taxes
Alleviating Capital Market Constraints	Capital Management and Asset Utilization	Focusing on Growth: Market Expansion	Agency Costs: Incentivation and Interest Realignment	Performance Management: Stretch Budgets; Goals		Target Firm Identification & Investment Criteria	Carried Interest and Capital Income
Leverage: Inflating Gains and Inducing Efforts			Restructuring the Board of Directors	Revising the Firm KPIs: Novel Yardsticks		The Business Potential: Underperform. Firms	
Capital Structure Optimization in Buyouts			Reinforcing the Management Team			Nascent Market Trends: Multiple Expansion	
Creative Finance						Timing the Business Cycles	
Asset Conversion and Securitization						The Entry Transaction: Firm Valuation	
						Divesting the Firm: The Mode of Exit	

Figure 4. Summary of the empirically derived sources of value generation in buyouts

# Chapter 4. Research Methodology

*The aim of this chapter is to set out the methodological approach undertaken to explore the prevailing value generation mechanisms in outperforming buyouts. This chapter presents the research method and justifications behind the chosen methodology, the selection process of the sample, the method used to collect the empirical data, and the data analysis process. Finally, limitations and ethical issues pertaining to the study are discussed.*

## 4.1 Data

### 4.1.1 Sample Criteria

In qualitative research, the sample selection is not restricted by the rules of statistical inference that govern quantitative research. Samples can instead be determined by the purpose of the study and the researcher's research question. Smith, Flowers, and Larkin (2009) suggest that sample selection should be purposive and homogeneous. Homogeneity may be problematic to achieve in instances where the phenomena under study are rare, but this is less of an issue with *purposive sampling*. Purposive sampling means that participants are selected due to certain characteristics or experiences in an attempt to establish good correspondence between the research questions and the sampling (Bryman, 2004; Smith et al., 2009). According to Patton (1990), small sample sizes are superior to probability sampling for an in-depth study, while Smith et al. (2009) recommend three to six participants in order to secure a fine-grained account of the studied phenomena.

The inclusion criterion at the onset was buyout portfolio firms where substantial value generation had materialized as measured as the relative difference between the entry transaction price and the exit price. The performance limit was not fixed, but dependent upon availability in the participating private equity firms. In practice, significant value generation meant, e.g. the money-back multiple was at 1.9x, 1.7x (est.), and 6.0x, for investments with holding periods of 2 – 3.5 years. The multiple was used as a proxy to qualify case firms for the study, while the core research question had to do with examining various value generation mechanisms. (The broad range of valuation methods was outside the realm of this thesis.) By definition, a materialized exit price implied the divestment had been made for all included case firms.

The second criterion was the availability of at least two independent sources with intimate knowledge of the portfolio firm. In practice, this meant the senior partner most involved with the portfolio firm and the managing director or CEO at the portfolio firm during the holding period. The quality of the data source was emphasized, as opposed to increasing the quantity of interviews. Having access to a broader selection of personnel at the portfolio firm could have added value and validity, but this was deemed unpractical with the limited resources for the dissertation project. However, the second criterion proved to be a cornerstone in the study, which led to the exclusion of several buyout cases.

The third criterion was defining the target group to consist of Nordic buyouts, meaning expanding beyond national borders, but keeping the sample selection fairly homogeneous.



## **4.1.2 Case Selection**

In order to find appropriate case study objects, the Nordic private equity market was screened. For Denmark, Finland, Norway, and Sweden this information was collected by using publically available information from the national venture capital trade organizations DVCA, FVCA, NVCA, and, SVCA. For each country firm investment profiles were sorted to include firms investing in later-stage buyouts. The remaining firms were contacted by email with an inquiry to participate in the study. Multiple firms were discarded at the onset for a variety of reasons; among these the primary motives were firm confidentiality accords impeding on the participation, but also the lack of suitable case firms. After initial selection, a further two potential firms were excluded due to the unavailability of the managing director during the holding period.

The final sample in the multiple-case study consisted of three different portfolio firms acquired by three different private equity firms situated in Finland, Norway, and Sweden. The included portfolio firms were all mid-sized, with a turnover between 100 and 500 million euro, while the private equity firms all were top-tier firms in a Nordic context with a managed capitalization of 1-5 billion euro.

A select group of contrast cases was added in order to reduce selection bias and advance research validity. All contrast cases consisted of relevant portfolio firms in which unambiguous value destruction ensued. These complementary interviews were conducted between October and November 2012 with one senior partner at the private equity firms that had been tied to the case. Two case interviews were conducted by telephone, while the third took place in person. All interviews were recorded with the consent of the interviewee and transcribed verbatim. Two of the failed buyout cases were comparable in data quality and extent to the original cases, while the third case was of substantially poorer quality. The private equity firms that provided the original buyout cases were identical to the firms providing the contrast cases.

## **4.2 Data Collection**

### **4.2.1 Interview Process**

All interviews were conducted face-to-face in order to elicit rigorous responses from the interviewees. Furthermore, interviews were conducted in the native language of the interviewees in order to gain a richer narrative and limit the risks of misunderstanding. In practice this meant that all interviews were performed either in Finnish, Norwegian, or Swedish. To ensure in-depth examination of the case firms, each interview lasted between 60-120 minutes, while 2-3 executives were interviewed in each case.

All interviews were performed according to good research practice. The key recommendations when conducting interviews include: (i) greeting the participant(s) in a friendly manner, (ii) briefly describing the steps prior to the start, (iii) assuring confidentiality, (iv) avoiding interruption, and (v) staying positive and non-judgmental throughout the interview. As had been agreed upon earlier with each interviewee, a recording device was turned on, and informed consent was obtained from each interviewee during the recording. At the end of the interviews, interviewees were thanked for their participation and the recording device was turned off (DiCicco-Bloom & Crabtree, 2006).

## 4.2.2 Semi-Structured Expert Interviews

The empirical data in this project consisted of in-depth interviews gathered through semi-structured interviews. The purpose of the interviews was to allow respondents to elaborate and elicit more information and detail than would be feasible in an inflexible structured format. Yet, the semi-structured interview permits flexibility, while providing a structure commensurate with the focused interview (May, 2003). The semi-structured interview relied on a battery of questions gathered in the questionnaire, which covered the complete buyout life cycle from target identification to mode of exit. This tool formed the basis for the face-to-face interviews conducted with each participant. The questionnaire avoided leading questions and relied on open-ended questions. All firms received the questionnaire prior to the interviews.

A particularity of the research project was that the subjects were highly knowledgeable in the field. Thus, the subjects fitted the characteristics of the *expert interview*, as opposed to various other narrative categories (see e.g. Bogner, Littig, and Menz (2009)). There are a number of issues specific to the expert interview, such as time restrictions, challenges of obtaining interviews, necessity for knowledge by the conducting researcher, and the problem of confidentiality (Flick, 2009), all of which were present in this project.

Subsequently a formal data analysis was conducted on verbatim transcripts, from which the conclusions were derived via the process of induction.

## 4.2.3 Questionnaire Content and Structure

Strauss and Corbin (1998, p.48) emphasize that the researcher "*brings to the inquiry a considerable background in professional and disciplinary literature,*" including previous research, books, manuscripts, and reports that may be pertinent to the area under investigation. For this research project, the development of the questionnaire was preceded by an extensive phase of the literature review. The initial collection of research questions for the questionnaire was significantly more extensive (3x), which iteratively was abridged to the final form. The questionnaire was structured into four broad sections covering value capture, value creation, leverage and debt, and a supplementary validity enquiry. From an extensive assortment of questions gathered during the literature review, the final questionnaire was restricted to the 23 key questions seen in Table 3<sup>47</sup>. The purpose of the questionnaire was to function as a guiding light for the semi-structured interviews.

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<sup>47</sup> Regarding the question on business plans and value creation, it became evident during the interviews that while plans are ubiquitous; these would more appropriately be characterized as a methods or tools of the value creation. Even so, it is still surprising the empirical research is scant on the effect of business plans in buyouts.

<b>A. VALUE CAPTURE</b>	<b>ACTION</b>
<b>1. Investment Criteria</b>	What were the investment criteria you used and how did you determine these?
<b>2. Target Identification &amp; Screening</b>	Which methods did you use to identify the target opportunity and why?
<b>3. Target Valuation</b>	What were the valuation methods you used and why?
<b>4. Due Diligence &amp; Business Case Analysis</b>	How did you perform the due diligence process and which sections did you evaluate?
<b>5. Deal-Making, Negotiation, and Target Acquisition</b>	How was the acquisition process executed and which techniques did you use during negotiation?
<b>6. Market Timing &amp; Business Cycle</b>	Did market timing affect your decision to enter and exit the market?
<b>7. Holding Period &amp; Investment Lifespan</b>	How did you determine the length of the holding period and did you stick to it?
<b>8. Mode of Exit</b>	How and when did you determine the exit plan?
<b>B. VALUE CREATION</b>	
<b>1. Tempo &amp; Momentum</b>	When and how did you begin implementing fundamental changes in the portfolio company?
<b>2. Business Plan</b>	How important were novel business models, value innovation and new business strategies?
	How was the business plan crafted and by whom?
<b>3. Corporate Governance, Active Ownership, Management, and Incentive Mechanisms</b>	Did you make any personnel changes at the portfolio company and when?
	What type of management incentives did you select and why?
	How was the board of directors set up with regards to structure, size, and background?
<b>4. Reporting and Key Performance Indicators (KPIs)</b>	Which Key Performance Indicators did you select and why?
<b>5. Business Strategy, Strategic Redirection &amp; Refocus</b>	What changes were made to the business model, product portfolio/market mix, and the business strategy and why?
	Did you scan markets for potential add-on acquisitions or divestments?
<b>6. Earnings, Operating Improvements, Restructuring, Cost Cutting</b>	How did operating earnings develop during the holding period?

	What opportunities for operating improvements did you identify and what was the result?
	Did you analyze and improve the portfolio company's work processes function by function?
<b>C. LEVERAGE</b>	
<b>1. Deal Structuring, Financial Engineering, Leverage, &amp; Tax Shield</b>	How did you optimize the level of leverage for the portfolio company and what were the interest rates?
	How was the debt financed?
<b>D. SUPPLEMENT</b>	
<b>1. Questionnaire Validity</b>	Are there other factors you would consider essential to the growth and performance of the portfolio company that have not been addressed at all or insufficiently?

**Table 3. The questionnaire used in the semi-structured interviews**

## 4.2.4 Timeframe

The meetings were held between December 2010 and May 2011 at the facilities of the executives and private equity firms in Finland, Norway, and Sweden. By the end of 2011, all interviews had been transcribed verbatim, transcripts submitted to all interviewees for clarifications and feedback, feedback interviews conducted by phone, and additional comments transcribed and added to the material.

Year	Data Sources and Research Events
2010 Dec–2011 Feb	Positive case 1. On location interview in Stockholm, Sweden
2011 Mar–Apr	Positive case 2. On location interview in Helsinki, Finland
2011 May	Positive case 3. On location interview in Oslo, Norway
2012 June	Negative case 1. Interview via telephone to Oslo, Norway
2012 July	Negative case 2. Interview via telephone to Stockholm, Sweden
2012 July	Negative case 3. On location interview in Helsinki, Finland
	<b>Semi-structured interviews</b>
	11 elite interviews (7 GPs, 3 CEOs, 1 expert advisor)
	10 interview sessions (in 13 recordings)
	10 hours of recordings
	81 pages of transcriptions
	<b>Archival materials<sup>48</sup></b>
	55 external public documents (magazine-, newspaper-, web articles)

**Table 4. Chronology of data collection process in the research project**

## 4.3 Ethical Considerations

Ethical guidelines for qualitative research and semi-structured interviews are often directed toward phenomenological research, as there are several possibilities for misuse when collecting personal information, such as psychological coercion and the inducement of mental discomfort. These topics are of less relevance in “expert interviews” with senior management, where the subject matter may be a reorganization that the

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<sup>48</sup> All in all, 55 newspaper articles and magazines that concerned the case firms were collected and analyzed, but excluded from the public references due to the confidentiality agreements.

manager instigated in a firm. The primary ethical guidelines that are applicable in the context are assuring confidentiality for the interview subjects and receiving informed consent (Flick, 2009).

Confidentiality surfaced early on during the research project and became a cornerstone for successful completion. First, confidentiality was assured by strictly limiting access to the raw data from the interviews to the researcher and a thesis advisor. Interviews in digital format were neither stored on public networks nor at the university campus network. Second, due to a concession made by the university, raw data gathered for the thesis would be kept private. Case stories for the public part of the dissertation were crafted by combining the interviews of several persons into homogeneous narratives. All of these case stories were anonymized by removing identifiable information, including firm names, locations, personnel names, distinct industry, and the year for the buyout and exit.

Prior to the commencement of the interviews, participants were given the questionnaire, which outlined the topics to be discussed, an estimate of the time required, the reasons for the research project, and an assurance that the interviews would not be included verbatim in the dissertation. Participants were given the assurance that they would be able to comment and correct the “*raw data*” from the interviews after transcription. All participants were subsequently given the transcribed interview, and when necessary, the interview was corrected or supplemented.

## **4.4 Previous Research**

### **4.4.1 Qualitative Case Studies on Buyouts**

Due to the idiosyncrasies of private equity research, high-quality studies relying on qualitative methodologies are scarce. The handful of well-known qualitative case studies that do exist in academic journals focus mainly on single portfolio firms, and the analysis frequently is a case story covering the historical development during a longer period, including ‘Beatrice’ by Baker (1992); ‘O.M. Scott & Sons’ by Baker and Wruck (1989); ‘Clayton, Dubilier + Rice’ by Kester and Luehrman (1995); and ‘Qantas’ by O'Brien (2007). A rather recent book by Talmor and Vasvari (2011) does provide a selection of case studies to illustrate the theoretical sections of private equity. Correspondingly, a book by Lerner, Hardyman, and Leamon (2012) contains a number of case studies that have been updated over the years.

### **4.4.2 Quantitative Studies of High-Performing Buyouts**

With regards to the research questions, studies of exceptionally well-performing buyouts are rare. Several studies have segmented private equity performance according to quartiles, where the characteristics of the top quartile are contrasted with the bottom quartile (Harper & Schneider, 2004; Loos, 2006; Rouvinez, 2006; Aigner et al., 2008; Lopez-de-Silanes et al., 2008; Bernstein et al., 2010; Chung, 2010; Gottschalg, 2010; Higson & Stucke, 2012), or vice versa for the tercile (Heel & Kehoe, 2005; Acharya et al., 2011). Nevertheless, the author knows of no research project to date where the focus of study was on the subsample of buyouts that constitute exceptionally well-performing firms (cf. ‘statistical outliers’).

A potential explanation for the lack of academic studies of the particular subsample may lie in the fact

that quantitative methodologies are ill-suited for examining the limited, non-representative population of firms. The problem is compounded by the fact that the quantitative methodology is the *de facto* paradigm by which research in finance and on private equity is conducted. Furthermore, the data bases relied upon in quantitative research are generally unsuitable for examining unrepresentative subsamples, but also unlikely to contain data of the necessary granularity.

## 4.5 Qualitative Research

It is not an exaggeration to assert that an overwhelming majority of all the research in finance is made using quantitative methods. As a scientific discipline finance is fundamentally rooted in the application of mathematics to business problems. Furthermore, since private equity research emerged as an offshoot of finance, quantitative methods have been perceived as being the *de facto* standard. A consequence of the prevailing paradigm is that fewer paths for publishing qualitative research on private equity exist.

Yet, from a research perspective there are valid reasons to use a different lens than the prevailing methodology. Given the respective goals, both the quantitative and qualitative research traditions are justifiable for examining phenomena, as seen in Mahoney and Goertz (2006). These researchers specifically refer to a framework by Gerring (2001) in order to contrast and discern the differences between the two traditions:

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1. Approaches to explanation	6. Case selection practices
2. Conceptions of causation	7. Weighting observations
3. Multivariate explanations	8. Substantively important cases
4. Equifinality	9. Lack of fit
5. Scope and causal generalization	10. Concepts and measurement

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**Table 5. Principal differences between the two main research traditions**

In this particular case study on value generation in buyouts, some criteria appear to be more applicable than others. For instance, '*conceptions of causation*' (the causal relation between events) and '*equifinality*' (reaching an end state by several means) are arguably of less interest from a *practical utility* perspective. This is not the case for the factors '*case selection practices*', '*case selection practices*', and '*substantively important cases*', which are of direct applicability.

The first criterion, approaches to explanation, suggests that the objective of qualitative research is to explain and identify the causes of individual cases and particular outcomes (Mahoney & Goertz, 2006). As a pre-eminent example, the researchers give the investigation and identification into the causes of the Challenger disaster by the Nobel Prize-winning physicist Richard Feynman (Vaughan, 1986; Mahoney & Goertz, 2006). The 6<sup>th</sup> criterion, case selection practices, refers to the practice in qualitative research of beginning a study by selecting cases where the sought outcome occurred. These are primarily positive cases, albeit negative cases are fairly common due to causal contrast and inference. For instance, the qualitative research may be the only option for examining rare occurrences, e.g. causes and chains of events in wars.

Finally, in regard to the 8<sup>th</sup> criterion, substantively important cases, in qualitative research we do not treat all cases as equal, as some cases are more *a priori* deemed to be scientifically more important than others. An example given by the researchers is that a theory attempting to explain U.S. state elections that did not take into account the electoral results in California and New York would arguably be perceived as being flawed.

In this multiple case study these criteria are well satisfied, since it concerns a small N-sample of cases that are rare and by definition ill-suited for quantitative research methods. Furthermore, the study concentrates on a scientifically interesting sample that displays the desired attributes, i.e. the positive cases, but also includes the contrasting negative cases. Finally, the research attempts to untangle and identify the principal causes for the ensuing value generation in the individual buyout case firms.

Another argument is made by the well-known scholar, Bent Flyvbjerg (2006), who asserts that the conventional wisdom regarding qualitative case studies contains a number of misconceptions. A crucial aspect of case studies is the *Black Swans*<sup>49</sup> from which generalizable scientific knowledge can be deduced. Flyvbjerg (2006, p.225) notes:

*"Galileo's rejection of Aristotle's law of gravity was not based on observations "across a wide range," and the observations were not "carried out in some numbers." "Nevertheless, Aristotle's view of gravity dominated scientific inquiry for nearly 2,000 years before it was falsified."*

*"Carefully chosen experiments, cases, and experience were also critical to the development of the physics of Newton, Einstein, and Bohr, just as the case study occupied a central place in the works of Darwin, Marx, and Freud."*

Thus, qualitative methodologies and case studies consequently appear to be distinctly beneficial for the development of broad, generalizable theoretical contributions, as opposed to the verification of individual discrete variables. Indeed, often the contributions that build a theory from cases are among the most cited pieces in top-rated management journals, e.g. AMJ (Eisenhardt, 1989b). Likewise, Suddaby (2006) notes that a majority of the articles perceived as *"interesting research"* were based on qualitative methods, which is unsurprising considering that discoveries are *"the result of high-risk expeditions into unknown territory"*.

Furthermore, case studies allow different strategies for sample selection with *"information-oriented selection"*, in contrast to *"random selection"* (Flyvbjerg, 2006). In particular the selection of *"extreme/deviant cases"* is pertinent to this thesis, since this allows the researcher to zoom in on non-representative corner test cases. Patton (1990) suggests that in purposive sampling extreme or deviant cases are purposively integrated in studies.

In this study, where the focal object was a non-representative population of firms, the quantitative approach would thus be ill-suited. To examine corner-cases and outliers – both positive and negative – qualitative methods would allow for capturing the richness and breadth of data, whereas statistically derived quantitative analysis might dilute both depth and complexity.

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<sup>49</sup> Refers to concept of scientific falsification introduced by Karl Popper. It is related to the more recent theory of Black Swan events, which describes extreme events that appear obvious in hindsight (Taleb, 2001, 2007).



In-depth interviews would further permit seizing the '*tacit knowledge*', i.e. the implicit, non-verbalized knowledge that is difficult to codify and transfer, and not always explicitly known by expert practitioners. This concept introduced by Polanyi (1958) has in recent decades increasingly received attention in scientific studies, as it appears to characterize the knowledge exclusively held by experts. According to Parsaye and Chignell (1988), there are three methods for capturing tacit knowledge: (a) *interviewing experts*, (b) *learning by being told*, and (c) *learning by observation*. In this research project, interviewing the experts and then analyzing the information for direct and indirect mechanisms appeared to be a viable method for detecting and quantifying tacit knowledge.

### **4.5.1 The Grounded Theory**

The classical grounded theory emerged from the works of the sociologists Barney Glaser and Anselm Strauss (Glaser & Strauss, 1967; Glaser, 1978; Strauss, 1987; Glaser, 1992) when the researchers collaborated on a social research project in the early 1960s (Charmaz, 2006). At the time of the Glaser & Strauss original study, the need arose for sociological theories closer to mundane or practically relevant issues (Flick, 2009). Glaser & Strauss coded their transcripts on a line-by-line basis, and the theory emerged from this coding of data. Thus, their main contribution lay in creating a set of coding procedures and a method by which empirical qualitative data can be categorized and transformed into theoretical constructions. Yet, it must be acknowledged that Glaser and Strauss did not operate in a vacuum. Both researchers came from universities with long pragmatist traditions, which emphasized using empirical research in conjunction with the development of theory (e.g. Dewey, 1922/1988; Mead, 1934; Strauss & Corbin, 1998).

Subsequently Glaser and Strauss parted ways and each diverged in their approach to grounded theory, particularly with regards to the coding process. Glaser's approach remained closer to the original method by claiming research categories should emerge from the data under study (Glaser & Kaplan, 1996). Strauss further developed the grounded theory jointly with Corbin into a model that became more prescriptive and standardized (Strauss & Corbin, 1990), which has since become the prevailing application of grounded theory. Strauss and Corbin (1998) suggest using the following practically oriented coding procedures as building blocks of a grounded theory:

- a. Build rather than test theory
- b. Provide researchers with analytic tools for handling masses of raw data
- c. Help analysts to consider alternative meanings of phenomena
- d. Be systematic and creative simultaneously
- e. Identify, develop, and relate the concepts that are the building blocks of theory

In modern grounded theory it is generally recommended to not limit the conceptual development of the theory to the research data, but to incorporate a broad understanding of extant research. Flick (2009) suggests using several forms of literature in a qualitative study, including:

1. Theoretical literature about the topic of your study
2. Empirical literature about earlier research in the field of your study or similar fields

3. Methodological literature about how to do your research and how to use the methods you chose
4. Theoretical and empirical literature to contextualize, compare, and generalize your findings

Sheperis, Daniels, and Young (2010) echo this sentiment by stating that “*data should be gathered from a variety of sources such as field observations, interviews, historical records, letters or journal entries, or activity logs*” for the grounded theory. In the multiple case study project “raw data” was collected during the semi-structured case interviews, while simultaneously conducting an extensive review of the theoretical and empirical literature.

In the recent academic literature there is a debate on what constitutes a proper application of grounded theory, considering the wide variety of management studies using a grounded theory approach (Corley, 2015; Walsh et al., 2015). Jones and Noble (2007) suggest that grounded theory study should include a number of foundational elements, such as “joint collection, coding and analysis of data, theoretical sampling, constant comparisons, category and property development, systematic coding, memoing, saturation, and sorting”. Other researchers suggest that researchers have substantial leeway in how a grounded theory is constructed by relying on a considerable amount of theoretical frames from the existing literature or by beginning with no specific constructs or theories in mind (Graebner, Martin, & Roundy, 2012).

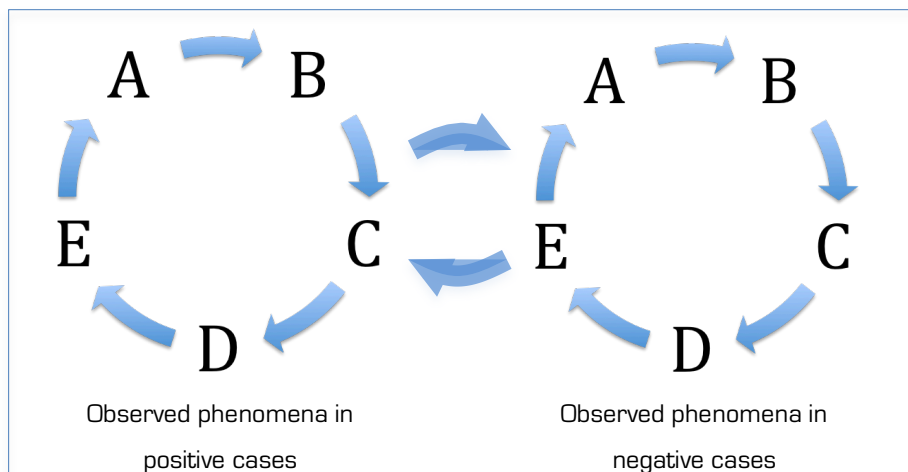
In this particular case study, both the recommendations on the coding procedures and the inclusion of several forms of literature were to a large extent followed. Nonetheless, portions of the material related to the construction of a grounded theory are inapplicable to this case study. Before Glaser and Strauss created the framework for grounded theory, the sociologists did fieldwork in a hospital on the interactions between patients and their relatives. The latter subject was characterized by a wide variety of interactions, a very extensive sample of interviews, personal narratives, and regarded topics rich in emotion, but low on scholarly knowledge. The interviews and topics in this case study may well be characterized as the diametrical opposite, i.e. a limited amount of expert interviews that are semi-structured and with very limited emotional experiences, but which are rich in detail on organizational change and factual content.

#### **4.5.2 The Comparative Method**

Finally, a particular method applicable for this project is the comparative method. The comparative method is a small-N technique suitable for case-oriented research when researchers have substantial knowledge of the cases under investigation (Ragin, 2004). Comparative research is applied to make sense of a handful of rare cases pre-selected for being *substantively* or *theoretically* important (Eckstein, 1975). Ragin (2004) submits that a characteristic of this is a substantial inductive component developed over an extended time period by increased in-depth learning. When feasible, appropriate negative cases are often contrasted with the positive cases in order to make inferences. In this study, negative cases from the identical private equity firms were both feasible and attained. Attention was paid in particular to comparing and contrasting the enacted changes during the buyout phases between the positive and negative cases.

What emerged during the iterative analysis was a number of conspicuous differences, such as the mode of the financing (a majority of debt financing from the vendor or customer) in all positive case firms, but in

none of the negative firms. Another salient finding was that the sellers of all negative case firms were family firms, while none of the positive firms belonged to the category. A third interesting finding from the comparative analysis was the importance of timing the entry- and exit transactions according to the market- and industry cycles. The results of the comparative analysis are examined in chapter 6.



**Figure 5. Applying contrast cases in comparative research**

## 4.6 Limitations to Qualitative Case Studies

There are methodology limitations inherent to the chosen research method. Overall, in quantitative studies there is less control of the research content, which means the outcome is less predictable and predetermined. It is more difficult to divide the research into manageable, clearly defined, quantified variables and thus it is less suitable for verifying isolated, individual variables. Selection bias is often viewed as a central scientific weakness in studies relying on qualitative research methodologies and is naturally salient in a study focusing on a very limited sample of outliers. There are a number of ways to address biases and mitigate the effect on the reliability in qualitative studies, and particular attention was paid to this problem in the design phase of the study.

From a research standpoint there is an inherent problem to a small-N, non-random sample, which affects the generalizability of the findings, although the findings may accurately describe the subsample. Open access to a larger sample of “outliers” would add reliability on the distribution of value generation mechanisms and reasonably expand the array of discerned factors. Overall the interview process is a time-consuming method for executing research, but at the same time an efficient means for extracting tacit “expert knowledge” that would be unfeasible in other research settings.

An inherent pitfall of using *post facto* samples of ‘winners’ is always present. The problem is whether the attributes and characteristics led to the desired outcome or if outcome was entirely random. Rebecca Henderson at MIT’s Sloan School of Management plainly illustrates the inherent problem with an edifying example (Raynor, Ahmed, & Henderson, 2009):

*“I begin my course in strategic management by asking all the students in the room to stand up,” she says. “I then ask each of them to toss a coin. If the toss comes up tails, they are to sit down, but if it*

*comes up heads, they are to remain standing. Since there are around 70 students in the class, after six or seven rounds there is only one student left standing. With the appropriate theatrics, I approach the student and say, 'How did you do that? Seven heads in a row! Can I interview you in Fortune? Is it the T-shirt? Is it the flick of the wrist? Can I write a case study about you?'"*

When the researchers used statistical methods to distinguish systemic variation from luck, researchers were able to demonstrate the difference among 287 allegedly high-performing companies in 13 major success studies. The analysis suggests that only 25% were likely remarkable while the remaining 75% were indistinguishable from mediocre firms having luck (Raynor et al., 2009). An obvious pitfall to any scientific case study is that it is easy to be led astray by the observed outcome and not consider it as being precipitated by the research approach.

In yet another well-known real-life example in a similar vein with a focal group comparable to this study, researchers were at least partially misled<sup>50</sup>. In the early 1980s, the McKinsey consultants Peters and Waterman Jr. (1982) studied 43 purported innovative and excellent companies and from this deduced eight *Themes of Excellence*. The subsequent bestseller *In Search of Excellence* catapulted the consultants into the limelight and the framework was perceived as a blueprint for business excellence among practitioners. However, a few years after the book was published several of the companies examined ran into severe difficulties, faring well below average, e.g. IBM, Kmart, and Delta Airlines (Ackman, 2002). Subsequently, the public perception has been that the themes of excellence were largely incidental.

#### **4.6.1 Sample Bias**

Selection bias is a principal scientific weakness in studies relying on a qualitative research methodology and the potential was obviously present in a study focusing on a limited sample of outliers. Consequently steps were taken to mitigate the effect by being observant of pitfalls, addressing biases, and mitigating issues with reliability. In this case study the pitfalls were addressed by several means. First, multiple information sources were a requirement during data collection. By using multiple sources to illuminate events, information is cross-checked, which means accuracy and trustworthiness increases (Glick, Huber, Miller, Doty, & Sutcliffe, 1990). Second, at least one secondary independent source of information was required during the data collection. Third, having been directly involved in the case firm during the holding period was a required criterion for all participants. Fourth, methodological triangulation was utilized to some extent to cross-examine research data when available. Finally, contrast cases were included in the research sample, which permitted inference and comparisons during the analysis.

Obviously, the bias or subjectivity must not be overstated, as theories emanating from well-conducted case studies are surprisingly accurate due to the close adherence to data (Eisenhardt & Graebner, 2007).

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<sup>50</sup> However, dismissing the findings altogether may be erroneous. Over a 20-year period, the 32 public firms in the book had had an annual return of 14.1% and outperformed both the Dow Jones Industrial Average (11.3%) and the S&P500 (10.1%) (Ackman, 2002). Thus, the conclusions from the case study may well have been instructive despite shortcomings.

## 4.6.2 Trustworthiness and Reliability

The ensuring of trustworthiness (i.e. validity in quantitative research) is at the core of any study. Wiedersheim-Paul and Eriksson (2011) define validity as the method's ability to answer the research question and the degree of reliability to which the study can be replicated with an equivalent result. In grounded theory, validity is measured by the dependability of the conclusions (Sheperis et al., 2010). Miles and Huberman (1994) describe 13 strategies to test the strength of findings and enhance credibility in a qualitative study:

- 
- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| 1. Checking for representativeness  | 8. Looking for negative evidence    |
| 2. Checking for researcher effects  | 9. Making if-then tests             |
| 3. Triangulating                    | 10. Ruling out spurious relations   |
| 4. Weighing the evidence            | 11. Replicating a finding           |
| 5. Checking the meaning of outliers | 12. Checking out rival explanations |
| 6. Using extreme cases              | 13. Getting feedback from informant |
| 7. Following up surprises           |                                     |
- 

**Table 6. Strategies to test the strength of findings in qualitative research**

The purpose of the techniques is comparable to the methods for mitigating bias in quantitative research. Lincoln and Guba (1985) provide another framework for establishing trustworthiness, which partially overlaps with Miles and Huberman. These techniques include interviewer *corroboration*, *member check*, *negative case analysis*, *peer debriefing*, *prolonged engagement*, *balance*, *auditability*, *confirmability*, and *bracketing*.

In this study, several techniques were utilized to examine the findings from different vantage points and enhance credibility. Negative case analysis was performed by examining patterns in the contrast cases. Triangulation was conducted by using external data sources, such as press and media coverage. Prolonged engagements within the case firms were unfeasible, as the exits had already materialized, but the effect may have been alleviated by repeated contacts over an extended time frame, e.g. additional feedback regarding interviews. Peer debriefing was completed by requesting and receiving feedback from several academics active in the field of private equity research.

Interviewer corroboration was used primarily during the interview stage, which however is not uncommon in qualitative (or quantitative) organizational research. The primary form of member check was the validation question that ended each interview, which gave each participant the opportunity to add remedial information. Confirmability, or auditability, was established by documenting the procedures for checking, rechecking, and auditing the collection of research data. The measures taken throughout the research project were documented in detail and have been depicted in the dissertation when possible.

In addition to the above, there are two pivotal concepts with regards to research validity: internal and external validity (Merriam, 1998). The former refers to the degree to which the findings correspond to the specific reality that is being studied, while the latter to the degree to which the overall reality is generalizable. Individual predilections and beliefs will affect internal validity; albeit, there are a number of mitigating factors

in this study that increase the trustworthiness. First, the interviewed sources may all be described as experts within the field of study. Second, all business case information was received from multiple sources. Third, all interviews were conducted confidentially, which allowed for open and direct communication.

Regarding external validity, the sample firms do not represent the average buyout. The explicit purpose of the research project was to examine positive *outliers*. However, a more relevant issue within the context is whether the findings can be extrapolated to the general population of cases. Merriam (1998) proposes that the researcher's analysis and conclusions cannot be generalized to the entire population and should instead be considered as a *working hypothesis* – or a proposition – where the intent is to stimulate further research. Hypothesis-generating heuristics is often considered the major contribution of qualitative research. From a research perspective, this is largely a valid assumption regarding this specific case study.

Repeatability is central to assessing trustworthiness. In this context, this may refer to the repeating of the process with the same interviewees. A frequently used proxy is that of examining how the research project was conducted and whether reasoning is consistent. In order to perform the assessment, transparency is crucial. The evaluator must be given the requisite information to track the reasoning in order to accept or challenge the conclusions (Babor, Stenius, Savva, & O'Reilly, 2006). Consequently, the progression of the case study and the reasoning behind the conclusions have been reported transparently and with possible granularity.

## **4.7 Management Theoretical Considerations**

### **4.7.1 Originality and Utility**

During the course of this dissertation the disparity of the research paradigms prevailing in management and finance became increasingly clear. On one side was the research tradition of management, which particularly emphasized theoretical contributions in the ongoing academic discourse. On the other side there was a decidedly different tradition in finance, and in particular the stream of research on private equity, which emphasized empirical knowledge by quantitative methods and a close affiliation with practice. This research project has clearly been interdisciplinary, since the subject of private equity, i.e. an offshoot of finance, is approached using the unorthodox qualitative research methodology. Consequently, utilizing the theoretical conceptual frameworks of either discipline would have been legitimate academically.

If we first examine management, the justification for the strong emphasis on theory is the generation of coherent explanations of the underlying causal mechanisms, which may be used to make predictions (Hambrick, 2007). A problem is that theoretical contributions have become a necessity to be able to publish articles in the top academic journals of management (Sutton & Staw, 1995; Rynes, 2005; Colquitt & Zapata-Phelan, 2007). A consequence of this singular focus has been to remove the discourse further from applied research and exclude the publication of pertinent findings that potentially could advance the field (Hambrick,

2007)<sup>51</sup>. Moreover, the development is aggravated by the fact that relatively few of the theoretical constructs are ever evaluated empirically. Kacmar and Whitfield (2000) find in a study that merely 9 percent of the theories published in AMR are tested. This has led to a somewhat paradoxical situation, where the theoretical contributions of management science are detached from the managerial environment and insufficiently “evidence-based” to be of use for managerial decisions (Pfeffer & Sutton, 2006; Rousseau, 2006).

A second, but related research concern, was the evident ‘*relevance gap*’ between traditional management research and the business reality<sup>52</sup>. Although the dissertation was begun as a research project that relied on traditional management theories, the extant body of research was found to inadequately address the challenges of private equity buyouts. Thus, the traditional theoretical lens and approach was selected to examine the industry (agency theory, information asymmetries) with an emphasis on empirical data.

Self-evidently, selecting the scientific lens did not imply relaxing the requirements of what constitutes a theoretical or conceptual contribution. What proved constructive was to examine what constitutes a value-added academic contribution (in management). Kilduff (2006) suggests in an editorial comment on theory in the Academy of Management Review that theoretical articles succeed when these provide important and original ideas. Corley and Gioia (2011) develop the reasoning further in a paper that synthesizes the extant literature and further divides the dimensions into two subcategories. According to this, originality can be “categorized as either (1) advancing understanding incrementally or (2) advancing understanding in a way that provides some form of revelation, whereas the utility dimension parses into (1) practically useful and (2) scientifically useful” (Corley & Gioia, 2011, p.15-16).

	Revelatory	4	1
Originality	Incremental	3	2
		Practically useful	Scientifically useful
		Utility	

**Figure 6. The dimensions of theoretical contributions**

The *incremental insight* in the matrix connotes the progressive advancement of our theoretical understanding. In turn, the *revelatory insight* connotes a theoretical contribution that reveals phenomena that would be otherwise inconceivable by providing a theory that is either novel, counterintuitive, or questions

<sup>51</sup> The renowned management academic Donald Hambrick finds in an analysis of 120 articles published in AMJ, ASQ, and OS in 2005 that 100 percent contained a variant of the word theory. Conversely, in 178 articles published in the Journal of Marketing, Journal of Finance, and Accounting Review in 2005, 78 percent contained a variant of the word theory.

<sup>52</sup> Probably the most prominent scholar to incite a debate on the relevance gap is Donald Hambrick (1994, p.13). In the wake of his appeal followed a long-standing debate, which however is beyond the scope of this dissertation (cf. Rynes, Bartunek, and Daft (2001); Worrall, Lubbe, and Klopffer (2007); Li (2010); Schmid (2010); Alvesson and Yiannis (2013)).

underlying assumptions of the prevailing theory (c.f. Davis, 1971; Shalley, 2012). However, Corley and Gioia (2011) find that a contribution that is deficient across the second dimension is generally insufficient. To be of significance the theoretical contributions must be of utility or applicability. In this context, *scientific utility* refers to advancement in the conceptual rigor or in the potential for the idea to be operationalized and tested. *Practical utility* finally appears when the theory can be directly applied to the issues that face practitioners and practicing managers. Hambrick (2005, p.124) offers some useful advice on the development of theories with practical utility: “they don’t come from scholars struggling to find holes in the literature”, but from the astute observation of real-life phenomena.

In the conceptual discussion of a theoretical contribution in management, Corley and Gioia (2011) stress particularly that theories frequently suffer from deficiencies in practical utility and suggest methods by which these can be remedied. For instance, rather than narrowly addressing theoretical gaps, a significant contribution theory ought to be *problem driven* by directly or indirectly addressing longstanding problems of relevance to practice. Another is via an orientation toward *theoretical prescience* by focusing on the incipient future of management environments and organizations. The authors conclude with a rather menacing recommendation:

*“Rather than downplaying the importance of pragmatic contribution, we should celebrate it by formally bringing that dimension more prominently into our judgment structures and processes,”* because if,

*“We do not change our scholarly traditions in ways that enhance theoretical relevance to practice and our sense giving potential to the wider audiences, then we will continue to underperform our adaptive role in society and condemn ourselves to increasing irrelevance and diminishing influence in describing, explaining, understanding, and improving organizations and their management”* (Corley & Gioia, 2011, p.27).

The orientation toward practical utility in the theoretical contribution directly influenced the direction of the dissertation. The most fruitful areas of extant research proved to be the empirically derived research in finance on private equity, despite the large body of research in various strands of management. At the same time, an obvious challenge due to the orientation was to find local academics and supervisors that could expedite or assist in the research. A particular challenge was the fact that no doctoral thesis had been written previously on private equity buyouts in Finland. Thus, even if the case study relies on a qualitative research methodology, which is decidedly unorthodox when it comes to finance, the analysis and discussion on value generation is tied directly to the existing research on private equity.

In this case, the principal theoretical contribution of the study is twofold. First, it is a theoretical contribution, consisting of an empirically derived taxonomy of value generation in buyouts, which is holistic, logically consistent, and innovative. Second, it is an augmentation and synthesis of the model, with the findings from the case study of a particularly interesting sample of firms.

## **4.7.2 Causal Mechanisms and Correlations**

A fundamental notion in science is “*correlation does not imply causation,*” which conveys that any observed correlation between variables does not imply the existence of a causal relationship. It is evidently a hazard



when attempting to identify and generalize the causal mechanisms from a case study to the wider population of firms. Although the variables are simultaneously present in a chain of events, it is evidently insufficient to establish a causal relationship. While the distinction between causality and correlation is fundamental to science, a range of homologous issues appears less evident.

An observation during the literary review was that mechanisms revealed to be conducive to an outcome are often misrepresented as being the determining factors. A closer examination of the original research reveals that the mechanism, while statistically significant, is in fact peripheral (and often inconsequential) to the array of elements that determine the outcome.

Furthermore, revealed causal mechanisms in the social sciences are often contextually dependent, which at times is either understated or neglected. While a mechanism in certain contexts is efficacious, it might well be inconsequential in another setting. A simple example of this would be high gearing, which is regularly employed to inflate the gains in buyouts. However, this presupposes a buyout firm with stable and positive cash flow, since applying leverage in a distressed firm with a high Beta will likely accentuate losses.

In research on private equity buyouts, one sinister problem regarding contextuality concerns the potential use of biased and skewed datasets. For the more than a dozen proprietary and commercial databases used in quantitative research on private equity, source data is sometimes gathered using mutually inconsistent methods. Recently it was discovered that there is a significant bias in two studies based on the Thomson Venture Economics dataset (Stucke, 2011), which is likely the dominant database in private equity research. Phalippou (2012) concludes in a recent comment on the errors: *“The real lesson to be drawn from recent developments is yet another reminder of the need for a comprehensive, unbiased and widely available dataset of private equity funds track records.”*

An idiosyncratic scientific problem germane to the social sciences and particularly certain disciplines, e.g. finance and equity markets, is that any uncovered sub-optimality in the market in time becomes fully exploited. Merriam (1998) expresses a similar notion by asserting that there will always be issues with reliability in the social sciences due to the non-static nature of human behavior. A consequence of the social feedback loop is that the uncovered mechanism propagates and spreads throughout the market until it ceases to bestow an advantage. Thus, due to the self-correcting property of the market any mechanism has a transient quality. A consequence of this is that research within social sciences, regardless of the significance and robustness of revealed mechanisms, tends to be temporal and is predicated to change with the market evolution.

### **4.7.3 Data Analysis**

Goertz and Mahoney (2012, p.10) assert that there are two kinds of tools that set qualitative research apart from quantitative research: *‘within-case analysis’* and *‘logic and set theory’*. At the core of the former are *‘process-tracing’* and *‘counterfactual analysis’*, which necessitate that the researcher make critical observations and discern specific processes from within his or her individual cases (Goertz & Mahoney, 2012). Ultimately the objective is causal inference from the event process. Logic and set theory in turn concerns the

necessary and sufficient conditions for hypothesis testing in qualitative research (Goertz & Mahoney, 2012).

From a practical perspective, the data analysis was begun with a verbatim transcript of the interviews in the original language, proceeded by transcript verification and supplementation from the interview subjects. The interviews were repeatedly listened to during transcription and the written material was re-read in order to gain detailed understanding. During this stage, patterns within the data were identified and coded. The stage included heuristic interpretation of the data, done by both identifying reoccurring themes and highlighting idiosyncrasies in the data. The stage ensued with data verification; in a process involving checking and rechecking the validity of previously identified themes (Sarantakos, 1998). Finally, a particular form of thematic coding, defined by Strauss and Corbin (1990) as "*axial coding*," was conducted to map relationships between factors.

A number of approaches exist on thematic analysis. Boyatzis (1998) identifies three separate approaches, where the first is (i) theory driven; the second (ii) driven by prior research or data; and finally the third (iii) driven by the data obtained from the present research. The first two methods are deductive in character, meaning that the theory is developed prior to analysis and subsequently applied to the data. The third approach, however, is inductive in that the themes emerge as the raw data is processed and analyzed. In this research project, previous theoretical approaches were evidently used prior to the ensuing thematic analysis. The nature of the research project was essentially twofold; firstly, to function as an exploratory *post-hoc analysis*, which presumes familiarity with a broad number of theoretical and empirical approaches. Secondly, to examine a scientifically particularly interesting subset of firms, which furthermore is unsuitable for examination by the traditional quantitative research methods. The emerging themes, recurring mechanisms, and idiosyncrasies from the latter analysis were then used to contrast and supplement previous empirical findings.

At the core of the thematic analysis is evidently to capture the factors of importance for the research question (Braun & Clarke, 2006). From this iterative analysis there emerged a wide selection of mechanisms and factors that appeared to be central to the research questions. A majority of the factors had been explicated, but a few significant factors can be characterized as novel. Moreover, the conceptual-theoretical framework used to categorize and summarize value generation mechanisms appeared inconsistent and incomplete. This conceptual-theoretical contribution is explored in detail later on in the dissertation.

## Chapter 5. Case Narratives

*The objective in this chapter is to present the consolidated narratives for each of the six case firms, prior to conducting the cross-case analysis and drawing any conclusions.*

The case study source material consists of multiple source interviews for each case that have been combined into a single narrative for each firm. Due to the confidentiality agreements with the private equity firms, each case firm had to be anonymized by removing identifiable data, including the names of interviewees, private equity firms, and portfolio companies, the locations, investment size, and specific industries. Nevertheless, an effort was made to present the narratives 'as is' and remain true to the intention and verbiage of the interviewees, while refraining from direct quotations.

All case stories are presented separately and chronicle the events from the pre-buyout phase to the mode of exit. Aside from being research data in this qualitative study, the cases provide a unique insight into the *modus operandi* of the private equity portfolio firms in an industry often characterized by secrecy.

In the study the positive case firms were designated by the names *Alpha*, *Beta*, and *Delta*, while the contrast cases were designated *Sigma*, *Tau*, and *Upsilon*.

### 5.1 The Positive Case Study Firms

#### 5.1.1 Alpha: An Infrastructure Services Corporation

Alpha began taking shape as a separate corporate entity when the management of a multinational electrical power utility made the decision to spin off the maintenance, construction, and service division. The unit consisted of two core businesses. First was the construction and maintenance of power supply lines and second was the service and maintenance of mobile telecommunications networks. The latter business principally consisted of a separate company that had been acquired a few years earlier. In addition to the core business activities, the entity consisted of a cluster of minor companies in half a dozen countries that were loosely connected to the core business units. There was a construction company for streetlights in a second country, one procuring rooftops in a third country for the anticipated demand for 3G mobile base stations, and a number of adjacent businesses in other countries. Overall the spin-off unit was moderately profitable and had a stable cash flow.

The buyout case was outsourced to an investment bank that contacted the private equity firm directly. The vendor did not seem to know what to do with the entity, and the buyout case was not gaining much traction among private equity firms. In retrospect, the sales process could be best characterized as the quintessential failed auction, since ultimately there was only one prospective buyer left. Above all, the sales process debacle may have been due to the fact that the vendor did not know what buyers ought to do with the entity and no professional consulting firm was ever hired to prepare the business case. It resulted in an extended sales process that took six months to finalize, particularly since the key figures and data the PE firm received were of poor quality.

The PE firm performed four due diligences, which consisted of outsourcing the financial, legal, and environmental due diligences and performing the business due diligence in-house. The first due diligences revealed no major roadblock for the buyout, while the business analysis revealed a substantial potential for development and improvement. In their valuation of the firm, the GPs used a basic LBO model that consisted of using an estimated exit date and calculating backwards to arrive at a money-back multiple and IRR. While the purchase price is important, the GPs find that just as important, albeit often neglected, is that the terms of the deal are structured and financed. Despite the importance of the latter factors, most GPs tend to spend the majority of their time and effort on purchase price negotiation.

#### 5.1.1.1 Facilitating the Creation of a New Market Space

The business due diligence revealed that it would be possible to build a leading player in Northern Europe by consolidating an inherently fragmented market. However, and more importantly, it showed that the firm could facilitate a major business change by creating a new industry that had previously been tied to power utility companies. Furthermore, the business could be turned into an independent company where the prospective customer would include prior competitors. With regards to wireless infrastructure, it was clear that the trend was the construction of a denser network of base stations. Viewed from this perspective, business timing was perfect and the upside huge. Moreover, the industry was reasonably robust and non-cyclical.

In the years before the spin-off, mobile networks had been booming, but a few months after the initial contact the market slumped. As a consequence, the PE firm lowered its bid and the tone during the negotiations undoubtedly changed. The investment bank engaged by the vendor responded to the PE firm by saying that the negotiations were over. However, negotiations were resurrected when the vendor CFO called an expert advisor and colleague at the PE firm. The two professionals met and continued negotiations face-to-face and finalized the deal. In the end, the initial bid was lowered by 20% due to a decline in revenues. Furthermore, a substantial portion of the buyout transaction price (50%) was financed through two vendor notes. Another noteworthy aspect was that the PE firm financed the deal by using high levels of equity (30%), i.e. significantly more than the average level today (15–20%).

Directly after the buyout the PE firm began making changes to Alpha. A new, dynamic managing director with solid industry experience was recruited as the president for a large corporate division. The managing director was previously known, as was part of the contact network of the PE firm. However, the new managing director changed nearly all managers in the top management team by bringing along a cadre of prior colleagues. A new board of directors was set up that consisted of two GPs, two presidents with operational experience, from electrical and telecommunications respectively, and the managing director.

The working relationship between the board and the managing director proved to be superb, and the interaction could be characterized as supportive and constructive. Overall the board functioned as a sounding board for new ideas. Particularly useful was that each member had been handpicked and added value within their field of expertise. Besides the self-evident role of a board in hiring and firing a managing director, the most important function is to support the managing director if a company is functioning well.

In every buyout the PE firm participates in, managing director co-investment is expected. Not only is it expected, it has to be significant, albeit not in excess. A slightly facetious rule of thumb is “it is sufficient when the managing director has to sell his summer cottage in case the buyout firm defaults, but not his residence”. In this case the management team invested roughly a million Euros, which was divided between equity and debt. Because of the moderately priced buyout, the management team became fairly large shareholders at 11–13%. The funds invested by the management team had a high lever, which meant that in this case the buyout returned ten times the initial investment; the funds invested by management would receive 20 times the investment. Furthermore, the management team was included in the options program while an internal shareholder investment program extended the ownership to 50 employees (or 5% of the personnel). In addition, there were incentives for the management team based on the corporate performance. The fourth component of the internal incentives was an Economic Value Added plan, with the purpose of rewarding teams and units that achieved or exceeded objectives. A fifth component was a bonus system to reward individual personnel down below in the corporate hierarchy. The management philosophy was to distribute incentives as widely as possible in the buyout firm.

Management and the board of directors used a few select KPIs to monitor the firm. At the board level EVA, cash flows, and an EBITDA ratio were followed. EVA is the value of an activity after subtracting from it the cost (including the opportunity cost of capital) of executing the activity. EVA was no ordinary KPI at the PE firm, but was selected in this case as the balance was almost zero. Cash flows were compared to those in the original plan. Management used P&L and EBITDA to track the development separately by country, region, and business area. At the bottom of the corporate structure on the level of the technicians, the amount of billable hours per day was measured. Conversely, management did not use – or find any benefits from investing time and money on – any of the popular and traditional measurements, such as tracking customer satisfaction indexes or using balance scorecards.

#### 5.1.1.2 Defining a Distinct Strategy

The centerpiece of the strategy was that it was crystal clear, acceptable to all parties, and communicated throughout the company. At Alpha, the development of the post-buyout strategy started by analyzing the current position of the company and defining a vision for the future. Following this came the identification of the critical capabilities needed to execute the strategy, comparing this with what existed, and determining which resources would have to be acquired, e.g. by recruiting personnel or by acquiring companies. Finally, the business plan was the blueprint for the realization of the strategy and what to pursue during the upcoming year.

The analysis showed that the company was present in a number of non-core businesses, especially abroad. The core was defined as being within electrical infrastructure networks and wireless telecom networks. Gradually the minor non-core companies were divested in the Nordics, U.K., Italy, and Indonesia. That freed up capital assets, which instead were used to acquire a number of companies that strengthened the core in the Nordic and Baltic countries. Alpha grew exceedingly fast in Poland and within a few years the company employed more than 1,000 people in that country. In one Nordic country, the company had jointly co-owned

a struggling firm with a German corporation for years, which eventually went into reconstruction. At this time, the German corporation sold their stake to Alpha. Soon thereafter a lucky break came when the domestic market suddenly took off. In a third Nordic country, the market position was further strengthened through an acquisition. The idea behind the add-on acquisitions was clear. Companies were bought by using the divestment capital and the generated cash flow at multiples of 3–5, while the intent was to receive a multiple of roughly ten times during the exit of Alpha. Another lesson from the acquisitions was that cross-country knowledge transfer could be bi-directional. Sometimes new ideas could be picked up from a minor acquired firm and disseminated throughout the corporation.

The fundamental notion of the strategy was the pumping out of synergies from the entire value chain. Many electrical utilities and telecom companies had held an excess of staff for managing service and maintenance peaks. Often the resources were kept idle, as they could not freely compete when the companies that might use the resources were competitors. When Alpha became an independent entity, management could pitch and market their services to any company. Moreover, service and maintenance were never a core business for the electrical utilities and telecom companies. On the contrary, it was a business characterized by low margins and a high upkeep. This meant there was little business logic for these to remain in the business and maintain services in-house.

### 5.1.1.3 Shifting From Silo Mentality to Service Mindedness

The business analysis also revealed some rather intriguing facts. While the PE firm had seen the mobile networks business as a competitive advantage, it was peripheral to the success. (In fact, the mobile networks never truly developed according to the plan during the holding period.) At Alpha the management created an animated video that showed the complete landscape of infrastructure networks and the interconnections of electrical power lines, optical fibers, and base stations. At the inception, Alpha consisted of several separate entities. A business line managed the construction and maintenance of fixed telecom networks, whereas another business line managed similar activities for mobile networks. Finally, there had been business units operating high-voltage lines, electrical power distribution, and the electrification of electrical lines. Instead of having five separate business units, why not integrate all the fieldwork activity into a single function? Clearly, it would be much more efficient with multi-skilled, expert technicians who were capable of commissioning all assignments. Moreover, the business analysis revealed that 40% of the mobile telecom network was *de facto* a fixed network, with only the last mile being mobile. In addition, when a mobile base station became disconnected, in nearly 80% of the cases the defect was due to a power outage. Even if the expertise could be found in-house, the two functions were in separate departments with scarcely any contact. Seen from this light, the business methods seemed outdated and old-fashioned.

Another aspect uncovered in the analysis was that Alpha was not a project firm, as originally envisioned, but a service company with three distinct offerings: building, maintaining and connecting. The 'world changed' when the firm was redefined and people began seeing themselves as part of a service business. For instance, the redefinition implied an inverted organizational pyramid, with the technicians at the top and the managing director at the bottom supporting the people.

In an effort to profit from the business analysis, an internal academy was created to provide further education. The main purpose was to provide technicians, who were proficient in either electrical or telecom, to become proficient in both fields. The unions objected vigorously but surprisingly not the technicians themselves. The technicians could see the personal advantage in the marketplace, with much more job security during market cycles, higher salaries, and more interesting and varied jobs. Obviously, the change was a huge productivity boost for the company.

#### 5.1.1.4 Transforming Work Flows and Operating Processes

A while later, the management realized that having regional offices all around the country was inefficient. There was little to be gained from requiring that technicians drop by the office in the morning, check recent or outstanding fieldwork, and then drive to the field. Instead, the teams of technicians could be provided with fully equipped, state-of-the-art vans. During mornings, the technician would leave home in the van, pick up a colleague, drive straight to the field for an installation, and return home after a day at work. At night, a logistics firm would pass by and refill the van with all the components necessary. Work could be coordinated centrally so that all technicians knew the next morning to which location they were assigned. The operational change to the workflow proved to substantially improve productivity.

These cutting-edge technicians further had to have the best tools available, and this included the IT equipment. A leading project was kicked off internally to create a world-class information system, which included giving all technicians mobile handheld computers. As soon as information was entered in the mobile devices it was directly uploaded to centralized servers, which obviated the need for repeating the procedure to document the information. Moreover, the mobile IT system allowed the head office to pinpoint the location of each technician at all times. This was a breakthrough, since the unions were vehemently opposed to tracking the technicians. Again this undertaking was opposed less by the individual technician than the union, and was solved through negotiations. As a result of the change, the call center had virtual maps of the country and all the technicians in the field with their names and contact details. When an alert came (e.g. that a base station was down), the call center could quickly find out which technician was in the vicinity and notify the employee of the alert. As a consequence, a great deal of unnecessary and unproductive travel could be avoided.

Another operational efficiency improvement emerged during the process of upgrading residential remote reading electrical meters. While the main competitor would install 6-7 meters a day, the technicians at Alpha were able to install 15 meters a day. The key to this conundrum was simply to plan ahead fastidiously. For instance, the call center called people the day before to check and see what time they would be home the next day.

In the pre-buyout firm, each region in all countries had been self-sustaining. As a consequence, teams would manage their local area during emergencies, e.g. storms. In the post-buyout firm, preparations and plans were made with clients ahead of time. When a particular region was about to be hit hard by a storm, vast numbers of technicians were transferred to the region before the storm struck. This is feasible because weather patterns and precipitation frequently vary between regions as a storm front migrates. The first power utility client where this scheme was applied became so pleased with the service that the client was featured

in a trade magazine about the advantages of outsourcing the services. In much the same way technicians were moved between countries during massive thunderstorms. The development of preparation for emergencies accelerated when power utility companies became legally obliged to compensate end-user customers during outages. An offshoot of this development was the creation of service-class offerings based on urgency. Power utility companies could subscribe to disparate service classes for distinct network defects, which meant a defect could be repaired in 2, 4, or 12 hours.

#### 5.1.1.5 The Incentivized Service Organization

The business culture of the firm changed in a number of ways. Prior to Alpha being able to stand on its own two feet, the technicians had simply been non-core; a necessary evil the corporation had to put up with in order to conduct business. Suddenly the same people were the core business, working as multi-skilled experts. It turned out to be a crucial function for raising employee morale. Another vital change was making the move from the project business to the service business, which transformed the interaction between technicians and clients. The technicians were the people dealing with the clients on a daily basis, while top management lacked insight. In this realm, service organizations are different, since they cannot be controlled by giving orders, but instead must be guided and supported. The optimal environment is achieved when management empowers the personnel autonomously.

At Alpha, the technicians worked in teams of 8-10 people, which optimized their output. It was an enormous difference having everyone on the team knowing the team's results and billed hours, and further having bonuses and incentives tied to the earnings. A third cultural change came by unleashing the imagination and creativity of the entire management team, which culminated in a number of initiatives and offerings. A contributing factor for the revitalized management team was that the managing director purposefully strived to recruit people with a creative drive. To paraphrase the saying: people make the difference – and the only way to change people is to change the people.

#### 5.1.1.6 Sufficient Equity Levels to Enable the Strategy Execution

A contrarian notion from Alpha is that the typical levels of leverage in buyouts may impede growth. In this case the total level of debt was moderate, while equity was comparatively high, which proved to be an advantage. When debt levels are too high, as is often seen in the case of secondary buyouts (or even more in tertiary buyouts), the possibilities for management to act are circumscribed. Even when a great opportunity appears it has to be passed over. Furthermore, the tax benefits from high leverage are more limited than those proclaimed by academics. Due to a plethora of tax deductions, e.g. depreciation and goodwill, buyout firms rarely pay much tax in any case.

Alpha developed at a rapid pace, and the exit was completed after 3.5 years. The preparation for an exit came early on, and the PE firm took all opportunities to commend the firm in the media. In fact, there was a major PR event where the PE firm proclaimed its having acquired Alpha. However, the process of garnering favorable publicity was ongoing and after a year or two the PE firm started receiving tenders. After three years Alpha had developed tremendously, and a natural progression would be a substantial acquisition, which



would require new funding. The sentiment in the market was bullish, and a substantial price premium could be expected. The initial investment bank soon proved to be a mistake, which was remedied by selecting another bank that found an excellent fit in another PE firm with a comparable portfolio firm. Financially Alpha developed from an EBITA level of €5.5 million to an EBITA of €18 million, while revenues nearly doubled during the holding period. The exit price received for Alpha lay at six times the entry transaction.

## **5.1.2 Beta: A Travel Services Company**

The travel services company Beta had had, prior to the buyout, a long history as a privately held enterprise. It had gradually grown over the years and become the dominant player in the domestic market in business travel services. The shareholders were first and foremost a handful of financial investors, but a number of minor shareholders had emerged due to acquisitions based on stock swaps. At this point an external firm made an initial bid on the company, which meant that external firms were hired to do financial and legal due diligences and prepare the data room. Soon after the preparations had begun, the management team realized that the acquisition could be recast as a management buyout by making a competing bid. However, carrying out an MBO by necessity requires the financial backing of external investors. This expectation prompted the managing director to contact a former business associate at a private equity firm and set up an initial meeting. Carrying out the buyout deal would have to entail some bank debt, but surprisingly a supplier to Beta was willing to provide a substantial portion of the financing. Moreover, the management team was willing to invest personal funds, even if the amounts were insufficient for securing the deal. With the other prospective bid on the table and negotiations with the board ongoing, the private equity firm had to make a decision rapidly.

### **5.1.2.1 Capitalizing on Critical Junctions**

The private equity firm that management had contacted were particularly keen on funding buyouts that are at inflection points, whether this is due to restructurings in the marketplace, the consolidation of a fragmented market, or firms that are facing a generational shift. It also means having a preference for market areas in which no other private equity firm is present. In this particular case they saw a company with a footprint in three Nordic countries, but with separate companies and brands in each country. Another key investment criterion is that the business must be scalable, meaning that there are opportunities for further development and value creation. Furthermore, the business must also be sufficiently large to garner buyer interest at the exit and to provide an opportunity for multiple expansion. In a nutshell this means buying a company at a reasonable multiple and gradually building a more sizeable Nordic entity that warrants a higher multiple. In each case, the PE firm strives to create an upside and a downside for management by insisting on having management invest personal funds in the buyout. Aside from spurring management to work harder, investment participation also reduces the risk inherent to the buyout. In this case it was clear from the inception that this would be an MBO (specifically a LIMBO) and that the deal would be structured in such a way that management would lose their money before other investors.

Overall there is an appreciation at the PE firm for buyouts where they can acquire relatively large

companies with limited amounts of equity and thereby obtain a high gearing. An obvious investment criterion is an identifiable stable cash flow, since it makes the case predictable. The GPs at the firm look for cases that are at critical junctions, which is a concept commonly used in the United States. It plainly means that the business is facing a critical change, and that by investing in such a case you can facilitate development. With Beta, aside from further pursuing the consolidation angle, there was a perception that the market faced a technological shift with the growth of web portals and internet sales. The complete sales value chain was changing rapidly, that is, the method by which customers were reached, as more and more sales moved straight to the web.

Since another bidder was actively involved and as due diligence and data room had been prepared, the acquisition process evolved rapidly. The whole process took just six weeks from contact to buyout. Good deals are attractive and get snapped up quickly, so momentum and personnel chemistry must develop rapidly. The additional due diligence was conducted by having some attorneys and accountants review the case material. What helped in this case was that the supplier of the IT service platform, the largest in the world in this industry, was willing to finance the buyout, provided a long-term agreement could be reached on the continual use of their IT platform. The incentive for the supplier was the assurance that the customer would remain locked in to the service platform for multiple years. This arrangement resulted in a deal structure where the supplier provided two vendor notes that ran for eight years and were financed at a bit over 40%. An inventive arrangement was that each time an airline booking was made relying on the IT service platform, the airlines paid a fee to the IT supplier, which in turn passed on a minor portion to Beta and used some of it as a down payment. All in all, bank financing was close to 25% and PE firm equity and management funds a bit over 30%. A drawback with the bank debt was that it had to be amortized during the holding period.

The contact network of the PE firm included one of the most experienced vice presidents in the airline business. The GPs discussed the case with him, and his assessment was that the case was very positive. The same VP subsequently joined the board of directors after the buyout was completed. But what was important was that the secondary opinion on the commercial due diligence supported the case. We could not have gotten a better reference from one of the largest suppliers for Beta.

The GPs at the firm did all the classical valuations, such as Net Present Value (NPV) and a comprehensive cash flow analysis. All investment decisions they undertook were meticulously prepared as they had to pass through the internal review board. Generally speaking, they estimated what the company might be worth in a few years and what would be a reasonable price today. In this case they knew the level of the offer for Beta from the external bidder. Finally, the GPs applied the multiples that they reasoned would apply for a company in this industry on a Nordic level, which differs from the national multiple. In this particular case, with the financing structure in place and providing the cash flow just remained stable, the payback time would be in 3–5 years. Based on all this data the offer was made. Duly noted, the pricing was at market level, and the Beta buyout was not a bargain.

The industry was cyclic, although the business cycle at the time of transaction was reasonable (here this implies being in a *trough* business cycle). Market timing however was substantially more important during the

exit. During the holding period we saw that the stock market window was open while we were discussing the case with two trade buyers. With the trade buyers we never reached the target, so we initiated the process for an IPO. This whole process took nearly six months and when the company was finally listed on the exchange the stock market had peaked.

### 5.1.2.2 Roll-Up and Bolt-On Acquisitions

In the post-buyout phase, work began immediately and proceeded according to the business plan. Because of the industry know-how by the management, it was easy to know which Nordic companies should be pursued. The business plan included the company names along with the allotted capital for each acquisition. Negotiations were initiated without delay by carrying out an acquisition of a major retail chain in a neighboring country. In yet a third Nordic country negotiations began with a state-owned retail chain, which eventually would last for 6-7 months before closing due to extensive pre-existing employee obligations. Negotiations were also carried out in a fourth Nordic country, but the deal never materialized. The two major acquisitions were then followed by three minor acquisitions of online portals in each of the three countries.

One of the methods utilized to preserve value and liquidity was to cap the allowance on acquisitions. For instance, 50% of the payment might be composed of capital and 50% of stock swaps. In the largest acquisition, which happened to be owned by an entrepreneur planning to retire, the equity portion had to be increased to two-thirds by taking out a supplemental bank loan.

There were no changes at the top management level of the company and all the personnel changes made were for streamlining back-office functions. This resulted in a reduction of the work force by 15% in accounting and back-office functions. Simultaneously the board of directors was completely changed. First, the size was reduced to encompass six people, including an observer without voting rights. Second, the board composition changed to include three people from the PE firm –the airline VP, the managing director of Beta, and an observer representing the IT supplier.

The incentive program was comprised mainly of kickbacks for management based on invested funds. The lever was disproportional, meaning that management acquired a steeply rising percentage of increased returns. On a practical level, this was arranged by the construction of multiple share classes. The downside for management with the lever was that they stood to lose the invested capital ahead of the remaining investors. The incentive arrangement is fundamentally different from the stock options provided to top management in public companies where CEOs can depart to another company if the share price performs below the options price. Moreover, the incentive model used by private equity also alleviates the effect of cyclical fluctuations on the stock market, whereby management can profit without adding any substantive value. In buyouts, stock market fluctuations are much less prevalent, since assets are illiquid during the holding period and tied to the payback at a single point in time, i.e. value at exit.

### 5.1.2.3 The Quest to Improve Cash Management

The most important KPIs used by the GPs were following up the development of EBITDA and observing the cash flow. In addition, a limited assortment of key figures was used, such as productivity numbers from

measuring sales per employee and the contribution margin per employee. The majority of the work effort went into improving productivity measures. Another key measurement was controlling the balance sheet, such as the working capital. The PE firm found that capital management was one of the most crucial activities to spend time on, since by reducing the capital tied up in business this can be redirected to serve the debt. In this case, there were no inventories, but receivables and payables could still be improved. For instance, why should the government be able to use Beta as a bank by having payment terms extending for 45 days, when Beta respectively had to expend customers in 30 days? It warranted tough negotiations with large customers, which resulted in the payment terms going down from 45 to 35 days. Moreover, the business of Beta was one of the few industries where it was possible to benchmark efficiency with competitors, such as productivity per terminal and employee. Here an encouraging development was that Beta had close to 700 bookings a month while the main competitor had 500.

#### 5.1.2.4 Expanding the Product Mix

Another development was the building of an online portal in-house, which eventually became the largest of all online portals and reached all of the countries. The thesis behind this development was that if 7-10 online portals existed, Beta would own 4-5 of these. Furthermore, a critical strategic step was to purposefully use different brands to reach the end-user customers. One thing that the board was very preoccupied with in the beginning was the anticipation of soaring online sales, which is characterized by lower margins. It was both a concern and an opportunity that in time proved to be less serious than anticipated.

Aside from the increased productivity per terminal, a self-booking system was designed. It meant end customers could perform additional steps of the process, which freed up time for personnel. It also grew dramatically to encompass half of all bookings today. An obvious beneficial effect is that it tied large corporate customers to a much higher degree to the service provider. It required customization for large accounts with regards to permitted options such as vendors, hotel chains, and credit cards. Furthermore, it entailed improving security and safety for corporate customers, e.g. by being able to track employees at every point during the itinerary. In short, this is what is referred to by the term travel management. It has developed much further now, as compensating revenue streams have to be sought from key account customers at a time when airlines are gradually reducing provisions.

The GPs consider KPIs to be excellent tools for managing companies, as these render simple binary ON-OFF criteria for board discussions. The overall perception is that monitoring five key measurements is sufficient for any portfolio firm.

Much effort was spent on process quality assurance, such as ISO certifications, which were in demand by a particular customer segment. A similar related focus area were the value-added services by crisis teams during a *force majeure*. Natural catastrophes could affect tens of thousands of travelling business people. This type of novel service offering was highly appreciated by (and profitable for) leading corporate clients.

#### 5.1.2.5 Alternative Sources of Revenue

A crucial revenue stream came from airline bonus payments, which were close to 50% of EBITDA. Bonus

payments, i.e. the compensation paid by airlines, had to be negotiated, and this required some tough negotiations. Admittedly, the key here was being aware of the pain threshold and not to overreach. A related business activity was ensuring all airline prices were up to date to efficiently serve end-user customers.

As Beta grew in size, more opportunities emerged for size discounts. For instance, 50 hotel rooms could be booked in advance at the largest hotels with a guaranteed occupancy. When a travel service firm can guarantee a fixed degree of occupancy, the prices the hotels provide are at an entirely different level.

In this case, there was no asset stripping, just tuning up the barge and going. No assets were tied up in facilities or head offices that could have been divested. Prior to the buyout, two companies had been divested that were not serving the same segment of customers. More importantly, there were no acquisition mistakes, or torpedoes, which can be very costly and require an inordinate amount of time. The primary source of the value generation was multiple expansion, which emerged as a result of gaining control of a higher market share and by capitalizing on synergies.

#### 5.1.2.6 Accelerated Holding Periods

The holding period lasted two years and was one of the shortest periods ever at the firm. The primary reason being that Beta developed much faster than originally anticipated. From a market position of having perhaps a third of the market share domestically, it grew to having an absolute majority market share in two countries and a proper footprint in a third country. Suddenly the company was the largest in the Nordics after just two years. This sales volume included internet sales, since Beta was also the largest in online sales. The next logical step would be to either slow the tempo for a few years or to expand in Northern Europe. Thus, this was a natural point for exiting Beta.

It needs to be recognized that even if the funds of the PE firm have a formal holding period of seven years, the GPs prepare for a holding period that lasts three to five years. This differs from the competition, which frequently uses ten years. One of the reasons is having more leeway during the exit in case of a disadvantageous market climate. Another reason is that having a shorter time period is a tougher condition and puts more pressure on our buyouts. Obviously it is more strenuous to develop companies in a shorter time span, but at the same time it is clear that the faster the development, the more conducive it is to higher returns. At the PE firm, the GPs have learned that when collective intelligence indicates a change ought to be executed, it is detrimental to procrastinate.

The exit was, in retrospect, not entirely optimal. Initially, the GPs and management met with the largest market leaders in the E.U. and the U.S. to gauge the interest, but were disappointed at the valuations. The valuations differed substantially from the prior valuation received from a leading investment bank. The response led to the decision to list shares in an IPO. There was a bull market at the time, even if its steam slowed down before the IPO was completed. At the same time, once this process had been advancing for several months, it would have been almost impossible to stop it because of costs and loss of goodwill. If an IPO is halted at that stage, both the portfolio firm and the PE firm suffer substantially from the lack of goodwill.

A week before the IPO a bid came from a PE firm, although the IPO went ahead. A month later another bid came from the same bidder, but with a significant risk premium. As it turned out, the exit price was substantial; nonetheless, the buyer made a good investment. During the holding period, the gross turnover grew by nearly 250%, while the reported turnover grew by 80–90%. The growth chiefly originated from add-on acquisitions, but some percentages per year were organic and due to online sales. Overall the performance as measured by EBITDA improved during the two years by an impressive 110–120% from the pre-buyout level.

### **5.1.3 Gamma: A Chemical Processing Plant**

The story of Gamma as an independent company begun after the decision was made to spin off the Gamma plant. According to an internal benchmark conducted a short time previously, the Gamma plant was the least competitive of all plants in a market plagued by excess capacity. The plan was to divest the plant, if feasible, but otherwise to close it down. The corporation commissioned an investment bank to probe prospective trade buyers and private equity firms. The sale was difficult for obvious reasons. The trade buyers were wary of acquiring a low-performing plant in a market plagued by overcapacity while private equity firms tend to steer clear of cyclical industries with high capital expenditures. As expected, the GPs at the firm had initially no interest in the deal. However, this began to change when an old colleague with a long history in the industry told them more about the prospect and asked if they had looked into it. Gradually their eyes were opened to the case. This industry expert proved to be an excellent resource in analyzing the prospect in detail and joined the company as Head of Sales after the buyout.

#### **5.1.3.1 A Hidden Gem Discovered on Closer Examination**

The due diligence process revealed a number of things. At the outset, the plant carried a well-known and appreciated product that had been overshadowed by the corporation. The brand was strong, with a history going back decades in the market. End-user professionals, in particular, showed a high appreciation of the product and within the niche market segment the product was one of the market leaders in the world. Yet, the product was half invisible in the market and the brand was even hard to find in the marketing journal that ranked the industry. The GPs realized that there might exist a potential for making the plant into a stand-alone company by dusting off the brand and hiring a dedicated sales force. This would be a new organization that would be centered completely on the brand and the product.

Another thing the commercial diligence showed was the desire of the corporation to get rid of Gamma, which in turn allowed the buyer to adjust the contract parameters in order to reach an attractive valuation. Simultaneously a majority portion of the deal could be financed by vendor notes, which added safety during potential market cycles. It meant the PE firm received completely different financing conditions compared to those it would have procured, had it relied on bank debt. This gentler form of financing gave the flexibility needed for investing in a cyclical industry, as loans do not have to be amortized each month.

Since the plant was in a cyclical industry, the PE firm commissioned a study by a leading accounting firm to look into the market conditions and the opportunities ahead. At the time, the margins were at an all-time low, which might be viewed as an unfavorable time for an acquisition. The study showed that the spread was

minimal, i.e. the delta between the market price of the raw material and the manufactured end product. However, a more astute view was that the spread would again diverge and market prices improve, even if the timing of the recovery remained uncertain, and thus the macro factors appeared favorable for an acquisition. Besides the commercial due diligence, the PE firm commissioned three additional due diligences. Because of the long history of the plant the environmental due diligence was particularly urgent. Luckily there were no surprises.

Legally the case was complicated because of a number of agreements that had to live on after the buyout to the corporation. The umbilical cord was not severed on day one – it had to live on during a transitional period. For instance, the plant had to rely on the vendor's sales organization and logistics chain for months and secure the access to raw materials for a year. Thus, the reliance could only gradually be phased out.

However, it soon became clear that the incumbent site manager was the wrong person to lead the plant as a stand-alone company. Although the manager was highly skilled in technical matters, the person lacked the necessary commercial background. With regards to the risk factors, it all comes down to envisioning what can be achieved under different leadership, as well as what would be possible under different ownership, where instead of being a hidden unit or division inside a large corporation, the new firm suddenly gets all the attention from the owners.

After the buyout, many people looked at the investment with astonishment, including a number of the LPs. How could the firm invest in a cyclical industry requiring massive CAPEX? The buyout was completely atypical and unorthodox for the private equity industry. However, there was one more crucial element uncovered in the due diligence; the corporation had, in fact, over the years made huge investments in the plant. Subsequently a few moderate sized investments would be made during the holding period to increase efficiency, but overall the plant was well invested.

Then there was luck. A year prior to the investment the plant had made a profit of €10 million, but the year after, just in time for the buyout, the profit dropped to €3.6 million. It meant the GPs could renegotiate the price based on revised parameters. In practice, this reduced the price by 30% from the starting bid. At the same time, the GPs realized that more vendor notes were needed and that the degree of bank debt had to be reduced. In the end the financial structure consisted of 40% vendor notes, 40% equity and 20% bank debt. For the valuation the firm did not use DCF or similar methods, but examined and compared the multiple valuations of public companies in the industry. In essence, the firm looked at the enterprise values in relation to EBIT or EBITA, and took into consideration that public companies typically carry a premium of 20–25%.

Immediately following the buyout a new board of directors was set up that contained people with solid industry experience. The colleague who got the firm to reconsider Gamma took the position of chairman of the board, while two GPs came from the PE firm. A new managing director was recruited, but due to a present position abroad it took five months before the sales-oriented manager could join the firm. A new incentive program was established. Management, defined as the executives rather than as employees of the PE firm, became shareholders of 10% of the company. An upside and a downside were secured by insisting the managing director invest personal funds.

Close collaboration and momentum were quickly forged between the new owners, the boards of directors, and the top management team. It is vital that the top management team has an identical view of the strategy as the board. A particularity in this case was that the GPs firm added a junior person to support the managing director, a Ph.D. researcher they knew prior to the buyout that could act as a facilitator, e.g. on the business plan. The researcher did not have a background within the specific industry, which meant not having rigid perceptions on how “everything must be done”. For instance, the researcher questioned how the contribution margin was calculated in the industry. Why is the output calculated in metric tons, a weight measurement, instead of as a pecuniary measurement? With the latter question, the reasoning had always been that, the more metric tons, the better. It appeared that no one had ever examined the effect on profitability. Management quickly realized that contribution margin and profitability had to be considered and the necessity of digging deeper into the cost per metric ton and per hour.

The guiding principle for running the firm was the business plan, which in this case was a ‘living document’ in the form of a set of slides that totaled one hundred pages. Quite often the business plan is a neat document locked in a cabinet, but that was not the case here. The researcher facilitated the work and ensured that the various department heads did their sections, and at the same time relieved the CEO. In the plan the explicit goals for the year were stated, even if corrections had to be made a few times a year.

### 5.1.3.2 Analyzing the Contribution of Varying Product Mixes

One of the key objectives the management team realized early on was that more than 25% of the volume went overseas to the Far East. It was partly due to historical reasons, since the company had a gigantic customer in the region, but partly because Asia had been perceived as a dumping ground for European manufacturers. Excess capacity was traded at substantial discount overseas. The industry was immersed in old tradition and conventional wisdom, where one of the tenets was that the wheels must be turning at all times and standstills avoided at all cost. Output metric tons per hour and machine efficiency were the key measurements. However, a closer breakdown of the margins showed that the contribution margin varied depending on the surface weights, which made this a priority. While low surface weights might reduce the output metric ton by two-thirds, profitability was higher. Thus management made the decision to measure the contribution margin per hour, which is a fairly complicated measurement in the industry. This measurement would include all variable costs, but would come before the fixed cost deductions. This new analysis made the firm management realize that under certain conditions it would be worthwhile to bring the machines to a standstill even for weeks, although this meant incurring high costs during the break.

This previous system had meant producing excess volumes, which had to be sold at heavily subsidized prices overseas and were liable to high transport costs. However, the cost analysis showed that the company did not even recuperate the variable costs, meaning that the company was losing money on each shipment. After this, management decided to inform the client overseas that the price levels would need to rise. The response was that while the product was superb, a price hike would exceed the market price in the region, and they could not purchase at a higher price. The solution for Gamma was to move the volumes closer to the home market. The internal analysis had showed a definite geographical connection regarding price levels: the



closer the customer was to the plant, the better the prices. Price levels peaked in the saturated Nordic market and fell slightly in continental Europe. Here is where the management saw a business potential: if the overseas volumes could be transferred to the continental market, this would boost profitability significantly. Management communicated to the sales department that machines would be closed down rather than accepting orders from overseas. It sent a clear signal to the sales force as to what the new priority was.

A bridge agreement permitted Gamma to use the corporate sales force during a transitional period of six months. A few weeks after the new managing director had been installed, a new sales force had been recruited. This new sales department had been organized in an unconventional way by having sales personnel working from home offices in each country. Traditionally the industry had used agent companies as the distribution channel and an intermediary for wholesalers and large end-user customers. In this case the plant managed all of the related functions, such as administration, order handling, technical support, and claims. It placed a high demand on language skills for new recruits since competency in the Nordic languages had to be found as well as competency in German, French, and English. Regional sales personnel would only focus on meeting new customers, but as soon as a customer was ready to order, they would need to call the plant. Many people thought this would never work and that customers would shun the company. On the contrary, the company received splendid feedback for being much easier to deal with than competitors. It was pure and simple: one-stop shopping. When the customer called the plant they promptly received answers. Traditionally the industry workflow was set up in such a way that the customer asked a question of the distributor, who then called the corporation, which checked internally with the manufacturing plant, and so forth all the way back. The problem is not merely in the delay, but that information gets filtered along the route. With this new arrangement, communication became quicker and simpler, while the plant managed to have a minimal sales force. Moreover, the plant got valuable communication channel customer feedback.

### 5.1.3.3 Judiciously Assessing Ad Hoc Increases in Capital Expenditures

An investment that the PE firm had been unaware of prior to the buyout, but which quickly dawned on them, was the necessity to invest in a new mill. Since the factory was unintegrated, it had to purchase the raw material at international market prices, which soared the year following the buyout. The management team realized that a paradigm shift was going on and that the price hike was part of a long-term trend. The conventional wisdom in the industry had been that a plant integrated through vertical integration provided a competitive advantage. However, the perceived weakness of being one of the few non-integrated factories could be turned into an advantage. The global market was changing, as more and more low-cost producers of the raw material needed sprang up in emerging countries. Management quickly realized that it had to find a way to use this low-cost raw material. At first the response from the lab at the plant was that this was impossible. The new raw material left residues, which adversely affected product quality. A closer examination showed that this was due to the fact that the mill at the plant could not process the raw material sufficiently. The new mill created a completely different sourcing base and a much better negotiating position vis-à-vis suppliers. In the beginning, the company was bound to use regional raw material, but with the new mill suppliers from all around the world could be used. Today, just three years after acquiring a new mill, 100% of

the raw material comes from low-cost producers. This is something no one could have dreamed of a few years ago.

The whole process, from identifying a need in a new mill to investing, was rapid. During the summer, the investment was prepared and in the autumn the board of directors swiftly approved of the investment decision. This can be contrasted with the investment hold-up time in a multinational corporation, where an investment proposal would sluggishly advance through the bureaucracy. It is no surprise that it can take years to make a decision because of the minimal visibility of a non-core unit and the logic present in a corporate hierarchy for avoiding mistakes.

A critical market transition occurred when price of oil shot up from less than half the price to \$140 a barrel. In an industry that depends heavily on low-cost energy, this hits directly at the bottom line. Calculations indicated that at this oil price level the payback time for replacing an oil fuel boiler with an energy efficient biofuel boiler would be just six months. However, a replacement required co-investing in an electric boiler, since a new biofuel boiler would require regular intervals of cleaning. The board of directors made the decision at lightning speed and only had one requirement: that the plant would have to finance the investment by itself. The solution was to create a leaseback plan with a bank. Furthermore, the new biofuel boiler was more flexible in that it could use heavy pitch oil, aside from the standard bio pellets. Another benefit with both bio pellets and pitch oil is that these are classified as environmentally friendly fuels. It supported the motto of being environmentally friendly and having close to zero CO<sub>2</sub> emissions. The company vision was to be the most environmentally friendly company in the industry.

#### 5.1.3.4 A Systematic Approach to Reducing the Cost Structure

When looking at the accumulative costs at the plant, the numbers one and two costs were the price of raw materials and the energy price, while numbers three and four were the logistics costs and the personnel costs. The next logical step was to tackle the third largest cost pool. In the pre-buyout firm, a logistics system was used that relied on transporting the product in circular containers. These containers had been optimized for the bulk products that formed the backbone of the corporation and the prevailing notion was that these were extremely efficient. No logistics competency existed within the plant since the corporation had managed all transports. There was an inkling among the members of the board that this prevailing notion might not be true, and so they contacted an old colleague with extensive experience in logistics improvements.

The examination proved that the circular container system was both unsuitable and inflexible, as it was intended for transport by rail and cargo, not truck. Because there was no railway to the plant, the products first had to be transported by truck to a local railway station 80 km away. Then the products had to be repackaged into the containers at the railway station for further transport by a regional railway to the closest port. Thereafter the containers were shipped to two large ports in continental Europe and again unpacked for truck transport to distributors or end-user customers. The end-to-end transport system thus consisted of a number of steps. A new system was created that was optimized for the Gamma products. It relied on truck transport to a domestic railway hub further away, but from which there was a direct railway connection to the continent. By using rail transport, Gamma also got much closer to the key customers. The local press

initially chastised Gamma for the move, but after a while the tone changed and a more objective debate was held. Even if the mode of transport was changed from ship to rail, the net effect was more environmentally friendly and cost efficient. The environmental benefit came from reducing the amount of transports by truck in continental Europe and the regional diesel train. The cost savings amounted to €6 million of the annual logistics costs of €19 million.

A more sinister problem in the post-buyout firm was that the IT system used for administration was outdated and the support was soon to be terminated. In addition, there were a cacophony of different IT systems needed to control the process machinery. Management made the decision to update the various IT systems in the plant to a single enterprise system that covered everything from order processing to manufacturing to invoicing. A major international corporation had a new but unproven system that satisfied the specifications. On their part, the corporation was not one of the main suppliers of enterprise systems and was thus eager to get a pilot as reference. The implementation took longer than expected; in fact, to iron out all the minor bugs took a year. However, the end result was that today the plant has an extraordinary state-of-the-art IT platform. Not only that, the system could at the time be purchased at a fraction of the cost it would have taken to implement one of the standard enterprise systems.

#### **5.1.3.5 A Focused Effort on Reinforcing the Product Brand**

Much effort went into strengthening the product brand, and Gamma was quite alone in the solitary pursuit. Many companies focus on corporate branding, but at Gamma the work was on the product brand. The effort grew out of the realization that the company had an excellent product that was known throughout the industry. Thus, a professional firm was enlisted to redesign the logo (to add a horse to the logo), and to create a smart tagline for the product. Why the horse? The region is known throughout the country for its horses and the figure was associated with positive connotations. Not only that, a big horse made of glass was placed at the entrance to the plant. The beauty of using the regional horse is that it was not copyrighted. Two years ago a group of German customers actually thought the company must spend huge amounts on marketing because they had seen this regional horse figure on a billboard at an airport.

Overall the industry of Gamma tended to be traditionalist and reactionary in marketing, and slow to adopt new mediums for channel marketing. At Gamma, they decided to go against the mainstream and create a marketing campaign based on streaming videos over the internet. This was unheard of in an industry unaccustomed to using digital media. Despite the naysayers, the campaign was well received and ended up being awarded the first prize in an international competition for best marketing campaign that year.

Three years ago, before the buyout, it was almost impossible to find the Gamma product in an international marketing publication that measures the recognition of brand names in the industry. Today it is one of the strongest brands listed in the publication. It is something that would have been altogether unthinkable if Gamma had remained hidden within a large corporation.

The KPIs and measurements which were followed at Gamma were obviously the total costs, particularly the raw material, the energy price, and the logistics costs. All of these were addressed in individual programs.

The fourth largest aggregate cost was personnel. The company did have lay-offs, but these were limited to 10% of the personnel over a two-year period and largely managed by the use of early retirements. The other KPIs centered on changing the measurement from output per metric ton and machine efficiency to the contribution margin per hour and profitability of product mixes. A target measurement was moving sales volumes closer home to the Nordic countries and continental Europe.

With regards to currency fluctuations, Gamma was currency neutral. There was an effort to ensure that the firm balanced the different currency exposures, which were reviewed in detail by the PE firm during the buyout.

Before the buyout, the new owners had been warned that the unions could be belligerent. This caused concern for the new management and board initially, but the collaboration turned out to be fruitful and cooperative, which may have been due to the changed atmosphere. The unions were represented on the executive management team and knew the justifications for the decisions that were made. There was an understanding of the precarious situation and the repercussions that would occur if the plant had to close down. Moreover, by including the union on the executive team, it became much more involved with the plant, to a completely different degree than in the past as part of a huge corporation.

#### 5.1.3.6 The Hard Core of Soft Cultural Factors

Soft factors, such as corporate culture and values, are often forgotten when discussing value creation, since these are hard to measure. Naturally this includes the dynamic between owners, the board of directors, and top management. Equally important is the commitment of the personnel to the company. In this case there was a feeling of indignation and indemnity --a wish to show the corporation that selling the plant had been a mistake. All this energy could instead be utilized to develop the company.

The spirit of the plant was often discussed, since the region had long been known for perseverance and toughness, as well as for cooperation, self-assurance, and the feeling that nothing is impossible. The new management began to work on the corporate culture early on. The management team came up with answers to the questions "What is our vision of the future?" and "What is our business strategy?" For the equally important but more generic question "What are our core values?" the whole plant was surveyed. A number of working groups were established to ponder questions like "What is our culture?" and "What is it that makes customers return year after year?" The idea was that the company must be doing something right, since customers kept returning. Finally, a small group and a consultant put everything together in a neat package. It was followed by many workshops throughout the plant to make sure values felt right to all the people. Aside from including all personnel in the vision of the future of the plant, another positive was that it improved the atmosphere. For instance, sick leaves dropped substantially to 4%, which includes the figures for both long- and short-term sick leaves.

Soon after the buyout, a dialogue was opened with different actors for an exit. One discussion concerned an exit via an IPO, but the plant was still too minor for the stock exchange. Furthermore, the journey would have been long and uncertain. Another discussion was with a strategic buyer, who had been a bidder before

the buyout and thus was well acquainted with the firm. This contact resulted in a preliminary deal a year before the final exit, which fell through when the buyer was unable to complete their own IPO. The reason was the Lehman Brothers bankruptcy, which spread throughout all money markets. In retrospect, this proved to be a stroke of luck since a deal at that time would not have been nearly as good. The operating result grew dramatically each year and by the year of the exit the profits were an astounding 1,200% higher than three years previous, an all-time record for the plant.

However, the reason for the development was far from being only the internal improvements. A number of macroeconomic factors were favorable, e.g. the spread between the market price for raw material and the manufactured product. A few years back there had been an enormous overcapacity, while during the holding period 4–5 competing plants were closed down. Consequently, when presenting Gamma the PE firm emphasized the ten-year cycle of the industry, which showed that the expected average profits would probably be three times lower than during the year of the exit. Even if the entry and exit price were never made public, media analysts estimated that Gamma was exited after a 3-year holding period at a premium of 90–110% compared to the entry.

## **5.2 The Negative Case Study Firms**

One of the methods for mitigating the selection bias in a sample is to have negative contrast cases, i.e. in this case buyouts that not only did not succeed, but that represent failures at the opposite end of the spectrum. All of the cases came from the same three private equity firms that supplied the core cases, which avoids the introduction of further factors due to having non-comparable samples.

Nevertheless, for the negative case only the senior GP involved in the buyout case was available for the interview. This means that the negative case interviews are based on first-hand accounts, but are single sources. Consequently all the negative cases are of lower quality from a research perspective, but particularly the Upsilon case. At the same time, the negative cases are likely to be more compact simply due to limited options for improvement.

### **5.2.1 Sigma: The Furniture Chain**

Sigma was the leading office furniture chain in the domestic market and known for quality products and a strong brand. Ever since being founded 60 years prior, the company had been under the auspices of the same family, but now it was faced by a problematic generational transition. Financially the performance of the firm had been lackluster during the last few years, even if it was by no means in financial distress. The company employed 350 people in three manufacturing plants and a retail chain. The company footprint was large on the domestic market, but it still lacked presence outside of the country.

At this time, the market was on a roll and the dot com boom was in full swing. Demand in the office furniture market was growing in pace with the business sector and the market expansion. When the PE firm discovered the company was up for sale, the investment thesis was that a substantial company could be created by carrying out the buyout. Afterward, the buyout firm could be merged with a highly profitable

producer of chairs and a minor portfolio firm owned by the PE firm that specialized in office interiors. Carrying out the consolidation required expansion capital, which the PE possessed.

### 5.2.1.1 A Consolidation Case with a Strong Improvement Potential

During the due diligence it was discovered that the company would be vulnerable to foreign competition due to domestic manufacturing facilities and high-cost labor. Moreover, all three manufacturing facilities were outmoded and the methods of production inefficient and irrational. On the other hand, the products were top-of-the-line and the management team experienced and skilled. The issue of a lackluster profitability level appeared to be caused by the excessive levels of highly paid personnel. The balance sheet was strained due to rapid growth, which is often the case in family businesses. However, due to these inefficiencies there was a high potential for improvement.

The PE firm used a discount cash flow model to value the company. Net asset value was substantial, but mainly tied to century-old factory buildings. However, the downside was alleviated by the fact that the opportunity lay foremost in the market consolidation and efficiency improvements. Due to mediocre profitability, no bank was willing to finance the buyout at the time, which meant the acquisition was all equity.

A new board was set up, which included a senior GP from the PE firm, but also included the managing director of the previously mentioned chair manufacturer. By including this executive, the board obtained excellent industry know-how. Nevertheless, problems began soon after the buyout, as the market was stagnating. The company had been acquired some months before the business cycle peaked, and a year before the market collapsed completely. The recession which began overseas had soon permeated the domestic market and had a huge impact on the office market in the city center. For example, the rental market for offices fell by 50% during the year and a half after the buyout. The office furniture market in turn fell by 40–45% in one year. What made the situation worse was that the furniture produced by Sigma was a high-end, high-quality, expensive product mix that was ill-suited for the market during a downturn.

### 5.2.1.2 Resizing the Firm in Lock-Step with an Evaporating Market

The chairman of the board had to spend an inordinate amount of time on the company, which took time and focus from all other portfolio firms. The board and company management made a number of changes to adapt to the market. The head office was shut down and relocated to the facilities of the main factory. Following this operation, a second factory with 100 employees had to be closed down, and thereafter a third factory with 40 employees. Factory buildings were sold off to town municipalities, but in a downturn old brick buildings are of little value. Then the operations of the main factory were sold to the employees while the company kept the furniture designs and the brand. All manufacturing was then outsourced to the company that bought the operations but at new, substantially lower price levels. The new prices were accomplished by making exclusive purchasing agreements over the next three years. Two years later Sigma had gone from a pre-buyout level of 350 employees to a mere 35. The only remaining employees were critical to the running of the firm, i.e. the top management and the sales department. Through the drastic cost cuts, the demand shortfall was met, and the company broke even.

During the buyout, the chairman of the board took a more executive-oriented function and worked extensively in meeting directly with unions and municipalities. To shut down factories was a complicated process due to national labor laws, which demanded mandatory notice periods of three months. Often, there would in addition be a strike at the factory a week after the announcement. Layoffs were also taxing for another reason --employment reductions in rural areas had an enormously negative effect on the community, since a single salary could support many people due to the chain effect.

The investment in Sigma was minor. It was, in fact, one of the smallest ever made by the PE firm. Despite this, it took away all focus and time from other portfolio companies. A strategic buyer within the same industry contacted the PE firm a number of times during the holding period. The company, which was from a neighboring country, had a turnover twice the size of Sigma but lacked any footprint in Sigma's country. Despite repeated contacts from this company, the bids provided for Sigma were stingy and dismal. This ended when the PE firm made the decision to give up and in effect give away Sigma to the buyer. The financial loss was 50-60% of the equity, even if the loss evidently amounted to more than the equity. After the exit, the market slowly, but surely began to pick-up. Two years later the majority of all the profits the new owner generated came from what had been Sigma. The massive restructuring had finally paid off, although the new owner garnered all profits.

### 5.2.1.3 Paddling Against the Tide

A key lesson from the Sigma case was that if a single portfolio firm gets in trouble, it steals an inordinate amount of time and effort from all other firms. Another lesson is to make every effort to enter and exit during the right business cycle. It is essentially impossible to fight the direction of the market. In this specific case, the strategic vision was correct, the managing director adept, and the board professional, but when the floor falls out from down below none of this matters. All that matter is how to survive the downturn by cutting costs. It was not a surprise that the market was cyclical, but the amplitude of the cyclicity was entirely unexpected at three times the expectation.

## 5.2.2 Tau: The Logistics Conglomerate

Tau was a spin-off of a family-owned business conglomerate in transports and logistics. The portion of the company that was spun off was the business in automotive logistics and particularly in import vehicle transports, import-related technical services, and transit services. In the first field, transport of vehicles, the company was a minor competitor domestically with a 15% market share. In the second field of import related services, the company had a decent market share, as customers included the car manufacturer with the largest market share in the country. This import service is commonly known as Pre-Delivery Inspection (PDI), which refers to the inspection of a vehicle prior to customs, making minor installations such as Webasto motor heaters, and finally adding materials, such as floor mats and manuals in the local language. The third field was transit services for the Russian market, which were analogous to the PDI services. In transit services the company had an astonishing market share. Of all vehicles imported to Russia, 70-75% came through a vast port where the company performed the transit services. While the transit traffic was enormous, it did not

include transports and shipping.

Furthermore, by an acquisition a year earlier in another Nordic country, the company had achieved a significant market share in the country with 40% of the import vehicle transports. This change made the company as large as that of the chief competitor, while a third competitor had the remainder of the market. In the same country the company did have import-related services, but with a minor market share. In a third Nordic country and a Baltic country, the company had smaller market shares in both transports of vehicles and import-related services. The pre-buyout company employed 500 people and had a turnover of €104 million.

### 5.2.2.1 A Dual Track Opportunity of Consolidation and Expansion

The corporation that made the decision to spin off the business used a professional firm to find prospective buyers, which contacted the private equity firms. The business proposition was two-fold: the first part was to create a market leader in the Nordic countries through market consolidation, while the second was to secure high-growth business in Russia. The financial and legal due diligence did not uncover anything out of the ordinary. The vendor had used PwC to perform the financial due diligence prior to contact with the PE firm and PwC was a trusted provider. The legal due diligence was performed in-house and revealed no roadblock.

The business due diligence, performed by BCG, uncovered the fact that car manufacturers would prefer pan-Nordic service agreements, as opposed to having to make separate agreements for every country. Consequently, any company that could provide such a service would have a competitive advantage. In addition, in the domestic market the company had a long business relationship on PDI services with the largest car manufacturer. Then there was the high-growth market of Russia, where subsidiaries could be established. It was not impossible that the transit service could disappear in the future if vehicles were shipped directly to Russia. For a few years ahead, Russian ports would not have sufficient capacity to deliver the transit services, but this was likely to change in the future. Thus, there was a limited market window for establishing the presence at a Russian port. There was also a potential for gaining a market share in import vehicle transports by truck inside Russia. Taking into consideration the state of the car park in Russia, it was clear that the market was far from saturated, and that the trajectory was ascending for the foreseeable future. The business of vehicle sales was known to be cyclical. However, the company managed market swings of 15% for decades. By the same token, there was no possibility to outsource PDI services to low-cost countries from the domestic market.

The acquisition process turned into a hot auction, specifically with another sizeable bidder. Otherwise the process proceeded smoothly as the chairman of the board at the vendor was an old colleague. The bank was also willing to finance more than the PE firm had estimated and as a consequence the equity portion could be reduced. The price ended up rising to a level of 7.9 times EBITDA (debt-free value), which at that point was normal in the market. An anomaly was that the managing director of the vendor joined the buyout, which meant it became an MBO. Aside from a new CFO, there were no substantial changes at the top management level. The management team received excellent incentives with large upsides, but also invested substantial amounts for their personal funds.



The post-buyout work began immediately with the recruitment of a CFO and the installation of a new, professional board. Two board members came from the company, two from the PE firm, and an external business owner with a chain of car dealerships. An action plan was created that outlined what had to be done, which included the consolidation of the Nordic market and the expansion into Russia. Management had negotiations in Russia well underway before the buyout, while some board members focused on the Nordic countries. In addition, reporting procedures were instigated for the large foreign subsidiary, which had yet to be integrated and consolidated.

### 5.2.2.2 A Bungled Key Account

Already during the first year problems were mounting. A key customer of the transit service business made the decision to transfer vehicle volumes directly to Russia, which took everybody by surprise. Around the same time, a tender was ongoing from a long-time customer of PDII services domestically. It did not go in the way that the account manager had assured the board it would go, and for the first time in five decades the account was lost to a competitor. To rectify the situation, the PE firm went back to the vendor and received an additional discount for Tau. The business, which had seemed very healthy and stable on paper, was beginning to crack. Despite the setbacks, revenues remained fairly stable during the first calendar year and shrunk by a mere 5%.

During this time, PDI know-how in Russia was still nascent and the company possessed the necessary know-how. There were far advanced negotiations on substantial acquisitions in Russia. The first of these concerned a major importer of cars, which also had vehicle transports. In this case the seller withdrew when Tau had financing in place for completing the acquisition. It is possible that this Russian company was not as financially sound as it appeared, which is not uncommon in the market. Then there were a number of minor targets, which either were uninterested in selling or at price levels that were absurd even for 2007. After this followed negotiations with a second, substantial importer, which in essence would have been a merger and would have formed a leading northern European corporation. Negotiations were ongoing until summer 2008, when the financial crisis struck the market, and financing could not be obtained for the acquisition.

### 5.2.2.3 The Financial Crisis Causes the Market to Nosedive

The financial crisis had a profound effect<sup>53</sup>. In just a few months, the Russian transit business made a nosedive and lost 50% of its volume, which occurred in a business that carries high fixed costs. This resulted in drastic cost cuts and a remediation of the debt structure. As it happened this was one of the first companies hit by the financial crash, which meant covenants could be renegotiated, and the bank agreed to write off parts of the debt. However, the negotiations were tough and necessitated that the PE firm invest more equity in the company. Concurrently the managing director of the company was replaced.

A year later the PE firm brought in the consulting firm AlixPartners, which specializes in turnarounds and is familiar with the vehicle industry. A plan was constructed, which management began executing.

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<sup>53</sup> *The Lehman bankruptcy in the summer of 2008 was the largest bankruptcy ever with assets exceeding \$700 billion.*

Employment was further reduced by 35% and two companies abroad were divested. Since the domestic competitor was not willing to sell the business, the board made the decision to sell the remaining domestic business to the competitor. At the same time, the board made the decision to divest from import vehicle logistics in the other Nordic country. The reason was that competition had turned increasingly fierce and from the undermined price levels no one had made any profit. However, the sell-off was completed in such a way that the company received in return another business in PDI services. This strengthened the company's PDI business in the country and today it performs 70% of all import-related PDI services. The company now has a turnover of €45 million and is moderately profitable. The PE firm learned a few lessons from the debacle. Specifically, a number of investment criteria themes were created, out of which at least two have to be present, which makes Tau an unlikely case today.

### **5.2.3 Upsilon: The Construction Machinery Firm**

Upsilon is a company that makes industrial mining and quarry equipment. Before the buyout it was a stable, family-owned company with roots going back several decades. The company had production mainly in the Nordic country and Ireland, although the domestic production was dispersed in a few locations. Sales were concentrated on the domestic market, Ireland, Italy, and the United States. The most recent year's growth and profitability had been remarkable due to technological innovations and market growth. In 2006, the company was facing a generational transition and the principal owner was interested in selling a majority share in the company. Moreover, investment capital would be required to develop the company in the future.

#### **5.2.3.1 The Financial Crisis Hits the Export Markets**

The buyout turned out to essentially be an MBO, since the managing director transferred with the buyout and management retained sizeable stock incentives. However, with the financial crisis in 2008, the business came to a grinding halt. The market landscape changed figuratively overnight, and the operating profits shrunk from €10 million a year down to nothing. The cause was largely due to over exposure in certain markets, specifically Southern Europe and Ireland, where motorway construction had been substantial. Since then a number of adjustments have been made, which include selling off portions of the company to reduce the risk exposure. Since the downturn, firm management has actively focused on identifying substituting markets and had some success, e.g. on the construction of railway tunnels in the Alps. The managing director remains at the company, as the GPs attribute the lack of success to the financial crisis of 2008.

# Chapter 6. Cross-Case Analysis

*"In the business world, the rearview mirror is always clearer than the windshield."*

– Warren Buffett, investor

The objective of the cross-case analysis was to identify the disparate mechanisms that were conducive to the ensuing value generation. This was conducted by juxtaposing the case firms horizontally (side-by-side) and by systematically analyzing the six cases conjointly. Prior to the comparative cross-case analysis, the data was scrutinized during the process of thematic analysis (or thematic coding) by actively reading and re-reading the transcribed interviews. The intention with the recursive method was to identify and capture re-occurring themes and idiosyncrasies. The focal point was similar to that of cross-case analysis, i.e. neither to generate conceptual abstractions nor to identify theoretical gaps, but to distinguish principal events and activities during the lifecycle. Color-coded mind maps were created in the process of the thematic analysis, which are included in Appendix B.

## 6.1 Synthesizing Findings With the Derived Taxonomy

In this section the outcome of the cross-case analysis has been contrasted with the previously derived empirical taxonomy of value generation. In Table 5 below the observed effect of each mechanism for every firm has been quantified using five positions: *very positive* (blue arrow up); *positive* (blue arrow slanted); *undetermined/insignificant* (unmarked); *negative* (red arrow slanted); *very negative* (red arrow down). To enhance readability, when a mechanism was observed to have had a very positive or very negative effect, the specific square has been shaded with the color blue or red.

While there always remain elements of subjectivity of the qualitative data, both in information that is conveyed by the interview subjects and in the interpretation by the researcher, a fundamental research objective is to accurately reflect the interview data. By a cross-case analysis of each firm and interview, it is nevertheless feasible to approximate whether the enacted changes and activities were conducive or unfavorable to the value creation according to the interview subjects. For instance, on the mechanism *I-A6. Creative Finance*, in each of the positive case firms it is clear from the interviews that the GPs consider the type of financing a key explanatory factor of the success. Moreover, the principal portion of debt financing in the positive cases was either vendor notes or supplier loans. This was not the case for the negative case firms, which were financed by (excess levels of) bank debt, no debt at all, and debt data is missing. Consequently, the effect has been marked *very positive* for all three positive case firms and *undetermined/insignificant* for all three negative case firms. The difference between *very positive* and *positive* is well illustrated e.g. in *III-G8. Divesting the Firm*, where it is explicit in the interview data.

Correspondingly, all the mechanisms are analyzed for separately each firm in chapter 6.2, which is presented in Table 7.

**Table 7. Key value generation mechanism in the case firms vs. the empirical taxonomy**

<b>I. DIRECT VALUE CREATION</b>	<b>Alpha</b>	<b>Beta</b>	<b>Gamma</b>	<b>Sigma</b>	<b>Tau</b>	<b>Upsilon</b>
<b>A. FINANCIAL</b>						
I-A1. Financial Expertise and Contact Networks	↗	↗				
I-A2. Debt Market Cycles: Mispricing and Overheating	↗	↗	↗	↘	↘	↘
I-A3. Alleviating Capital Market Constraints		↗		↗		↗
I-A4. The Effects of High-Leverage: Inflating Gains, Inducing	↗	↗	↗	↗	↘	↘
I-A5. Capital Structure Optimization in Buyouts						
I-A6. Creative Finance	↑	↑	↑			
I-A7. Asset Conversion and Securitization			↗	↗		
<b>B. OPERATIONAL</b>						
I-B1. Functional Experience and Operational Expertise	↗	↗	↗	↗		
I-B2. Cost Structure Improvements	↑	↗	↑	↑	↑	
I-B3. Capital Management and Asset Utilization		↗	↗			
<b>C. STRATEGIC</b>						
I-C1. Focusing on the Core: Complexity Reduction	↑					
I-C2. Focusing on Consolidation: Buy and Build Strategies	↑	↑				
I-C3. Focusing on Growth: Market Expansion			↑			
<b>II. INDIRECT VALUE CREATION</b>	<b>Alpha</b>	<b>Beta</b>	<b>Gamma</b>	<b>Sigma</b>	<b>Tau</b>	<b>Upsilon</b>
<b>D. GOVERNANCE</b>						
II-D1. The GP Effect: Experience and Expertise	↗	↗	↗	↗	↗	↗
II-D2. PE Firm Constraints: Industry Focus and Fund Size						
II-D3. Reducing Agency Costs: Incentivation, Interest Realignment	↑	↑	↑	↗	↗	↗
II-D4. Restructuring the Board of Directors	↗	↗	↗			

II-D5. Reinforcing the Management Team	↑		↑	↗		
<b>E. CULTURAL</b>						
II-E1. The Parenting Advantage: Monitoring and Mentoring	↗	↗	↗			
II-E2. The Value of Corporate Culture: A Revived Entrepreneurial	↗		↑			
II-E3. Performance Management: Stretch Budgets, Ambitious Goals	↗	↗	↗	↗	↗	
II-E4. Revising the Firm KPIs: Novel Yardsticks	↗	↗	↗			
<b>F. TEMPORAL</b>						
II-F1. High-Tempo and Inchoate Change	↗	↗	↗	↗	↗	
II-F2. The Holding Period Time Horizon	↗	↗	↗			
<b>III. VALUE CAPTURE</b>	<b>Alpha</b>	<b>Beta</b>	<b>Gamma</b>	<b>Sigma</b>	<b>Tau</b>	<b>Upsilon</b>
<b>G. COMMERCIAL</b>						
III-G1. Proprietary Deal Flow		↗				
III-G2. Deal Making Expertise	↗	↗	↗			
III-G3. Target Firm Identification and Investment Criteria			↗			
III-G4. Uncovering the Business Potential	↗		↗			
III-G5. Detecting Nascent Market Trends: Multiple Expansion	↗	↗	↗	↗	↗	
III-G6. Timing the Business Cycles	↑	↑	↑	↓	↓	↓
III-G7. The Entry Transaction: Firm Valuation Criteria	↗		↗		↓	
III-G8. Divesting the Firm: The Mode of Exit	↑	↗	↗	↓	↗	
<b>H. ORGANIZATIONAL</b>						
III-H1. Mitigated Legislative and Regulatory Constraints						
III-H2. The Corporate Tax Shield: Debt and Taxes	↗					
III-H3. Carried Interest and Capital Income						

## 6.2 A Systematic Review of the Key Events

### 6.2.1 Pre-Buyout Phase

#### 6.2.1.1 Deal Sourcing and Firm Characteristics

With regards to deal flow, the management of Beta contacted the private equity firm directly, while Alpha and Gamma both originated at investment banks. In the case of Gamma the PE firm would have rejected the investment if not for an external colleague with substantial industry experience. Consequently, we cannot conclude that the proprietary deal flow was as fundamental, as has previously been speculated (Schmidt et al., 2004; Kaplan & Schoar, 2005). An examination of the negative case firms by comparison reveals that the PE firms received information stating that the family-owned firms had become available on the market, but not the exact source. A conspicuous feature is that every singly negative case firm was, before the buyout, family-owned. The comparison might indicate that the firms became available on the market not because the firms faced strategic inflection points, but because the owners anticipated a business contraction, i.e. exploited an information asymmetry<sup>54</sup>. The case study firms do not validate the notion that family-owned firms are poorly managed and thus suitable target opportunities, as previously reported by Bloom and Reenen (2007). It is unclear if the observed outcome in the buyouts of the family-owned companies is an idiosyncrasy of the Nordic countries or a random outcome due to the sample size.

The positive case firms all displayed moderate profitability and stable cash flows. Alpha and Beta had dominant market shares in the domestic markets, while Gamma was one of the market leaders within its niche internationally. The negative cases Tau and Upsilon showed a profitability and stability, while Sigma was merely breaking even. Sigma had a dominant market share in the domestic niche market, while Upsilon had a strong position domestically and in high-growth countries in Europe. Furthermore, Upsilon was in a very export-driven business. Tau was very dominant (but likely temporary) in transit services for a third country and was one of the two market leaders for transports in a second country, but only had a minor share in domestic transports. Based on this basic information can be inferred that both Tau and Upsilon had precarious market positions: Tau due to the fractured and temporary market position and Upsilon for being in an export-driven business with exposure to volatile high-growth markets. With the possible exception of Tau and Upsilon, the basic characteristics of the target firms (stable, positive cash flow, dominant market position) are in line with the common notions of target characteristics (e.g. Arundale, 2010).

#### 6.2.1.2 Due Diligence and Business Potential

Of the positive case firms, it can be observed that in the case of Alpha four analyses were performed: the financial, legal, and environmental due diligences were all outsourced, and the commercial due diligence was completed in-house. The business was largely in disarray, as it consisted of multiple firms on several continents that had not been consolidated and were only marginally related. One of the more salient

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<sup>54</sup> A less risky alternative to the LBO when acquiring a family-owned business would obviously be to pursue an MBO, see e.g. Schmohl (2009).

opportunities was that maintenance and construction of electrical networks did not exist as an independent industry, probably not in Europe and at least not in the Nordics. Then there was the growth opportunity with 3G mobile networks, which meant higher density of base stations. Finally, there was the combination of the two networks. Only the last mile of 3G networks was mobile, whereas 40% was the fixed network. Furthermore, 80% of the time when a base station was down it was due to lack of access to electricity.

In Beta the legal and financial due diligence had already been performed, while the PE firm performed the commercial due diligence in-house. A form of deal clearance came by way of a senior vice president for a major company, for which Beta was a supplier. The analysis showed that the target firm was at a critical junction, or a strategic inflection point, partly due to rapid technological change and increasing online sales portals, and partly due to a fragmented market in the Nordic countries.

Likewise, for Gamma the PE firm contracted the financial, legal, and environmental due diligences and the commercial due diligence was performed in-house. However, the business/industry cycle analysis was also contracted to a large accounting firm (KPMG). Moreover, the firm also always outsources a secondary commercial due diligence. The assessment is essentially an added security measure for fund investors to ensure that each case is vetted meticulously. In this particular case a third factor was the external senior colleague with extensive functional experience from the specific industry, which permitted the PE firm to examine the case more deeply. The core opportunity here was the revelation that the firm possessed a potent, but hidden brand. It was one of the global market leaders within the niche and highly appreciated by end-user customers. There was a potential for creating a solid company that could stand on its own feet. In addition, the macroeconomic factors looked good. The spread was minimal, i.e. the market price for the end product compared to the market price for the raw material. The similitude signaled that the market price had reached the lowest point and that prices would appreciate. To boot, even if the plant was in a high CAPEX industry, it was actually well invested. Finally, since the competition knew the industry was highly cyclical and high CAPEX, the market sentiment meant reduced competition.

During the commercial due diligence of Sigma, it was discovered that the firm would be vulnerable to foreign competition due to domestic manufacturing facilities and high-cost labor. The real estate was furthermore old-fashioned, and the manufacturing had a high potential for efficiency improvements. The vision lay in consolidating three firms, of which the second firm was highly profitable, although still independent. For Tau the firm outsourced all the due diligences, including a commercial portion to a consulting firm (BCG). The commercial due diligence noted both the Russian and Nordic opportunity, but endorsed the buyout. The only information on Upsilon is that the commercial due diligence revealed it was a solid, well-run business that faced a generational shift and was in need of expansion capital. In retrospect it appears that more attention should have been paid to the commercial risks of Tau and that this should have been evident in the due diligence.

The types of due diligences performed were in line with the basic recommendations in earlier research. However, existing empirical studies on private equity related to the due diligence are scant. This is somewhat surprising since the commercial due diligence is pivotal and often performed in-house by PE firms.

### 6.2.1.3 Valuation and Negotiation

The critical factor with Alpha was that the business case hadn't been prepared commercially since the seller and investment bank did not know what to make of it. The situation resulted in a failed auction, with only one PE firm negotiating. As the negotiation dragged on, the business plummeted, which allowed the PE firm to lower the bid by 20%. For Beta we know the price was at market level, i.e. not particularly low-priced, because the bid was on par with the preceding external bid. However, Beta differed in that the negotiation proceeded swiftly and was finalized in six weeks. Gamma was likewise a case with no other interested bidders after the negotiations proceeded, in all likelihood because it was an atypical private equity buyout case in a high CAPEX industry that was highly cyclical. Furthermore, the result fell during the months of the negotiation, which resulted in a lowered bid. With regards to the negotiations, we find the valuations decreased substantially for both Alpha and Gamma during the months of negotiation. However, the development was mainly due to the fortunate external circumstances on market timing, which is discussed in chapter 6.1.1.5 Cyclicalities of Business and Market Timing.

Regarding the negative cases, there is no other information on the negotiations and valuations, besides the fact the Tau case constituted of a hot auction with several bidders that drove up the price, which in turn is an indication of unfavorable market timing.

### 6.2.1.4 Financing and Leverage

With Alpha, the buyer received two vendor loans that financed 100% of the buyout. These loans allowed the target firm to finance all subsequent acquisitions with the generated cash flow and by divesting the non-core businesses. The Beta case was particular in that a supplier (of IT services) financed a considerable portion of the deal with more than 40% of the capital. This financing agreement was made possible because the case firm was at the time negotiating on changing the IT platform to the largest competitor of the supplier. In addition, the "supplier loan" demanded that the firm remain locked in an agreement for nearly a decade. A similar form of financing agreement was made in the Gamma case, where non-amortizable vendor loans covered 40% of the capital.

For the contrast cases it is known that Sigma did not use any amounts of leverage, as bank financing could not be ensured. With Tau it is known that the firm was financed to a very high degree by amortizable bank debt, as the bank provided more financing than anticipated. With Upsilon, the financing is unclear.

Interestingly, creative financing is found in all three of the positive business cases, but none is found in the known negative cases. This is remarkable, and clearly different from the financing reported in a large longitudinal study of average buyouts, in which Axelson et al. (2013) finds that *alternative funding* (a group that includes vendor financing) constituted merely 2.4% of the debt financing in average LBOs.

### 6.2.1.5 Cyclicalities of Business and Market Timing

The Alpha case was primarily a non-cyclical industry, even if the mobile part of the business was cyclical. The business cycle was favorable at the time for a buyout and further improved when the mobile part of the



business fell prior to negotiations. The Beta firm was in a cyclical business, but in a reasonably opportune phase during the transaction. Gamma was in a cyclical business as well, but one which at the time had reached the *trough* in the business cycle.

Sigma was in a cyclical business, but the extent of cyclicity was underestimated before the buyout. It was characterized by a high degree of fixed costs, i.e. CAPEX, but especially in personnel. Tau was not merely in a cyclical business but in a “transient business,” and was expected to disappear within a few years. However, the business had withstood several business cycles during its history going back half a century and for this reason a 15% drop in demand was calculated to not cause long-term problems. For Upsilon the PE firm knew the business was cyclical, but at the time of the buyout it was largely export driven by high-growth markets and the expected business expansion was a core concern. Clear warning signs can be discerned for all of the negative cases: high-fixed costs in a cyclical business, mediocre profitability, and no access to bank debt (Sigma); a high valuation multiple, hot auction and banks willing to provide very high amounts of debt and covenant light (Tau); and finally the last case firm was highly sensitive to the cyclicity of markets and was exposed to high risk markets.

While the evidence for a consistent and exact market timing ability among practitioners is problematic (cf. *efficient-market hypothesis*), research supports the *post-hoc* effect of business cyclicity and vintage years (e.g. Kaplan & Schoar, 2005; Cornelius et al., 2009). With the positive case firms, there is evidence that all occurred at the beginning of an opportune business cycle. By contrast, the buyouts of the negative case firms occurred during peak business cycles (or within a year of the peak Sigma). Thus, both the positive and negative case firms support previous research, which generally reports a substantial effect on buyout performance due to the timing of the entry and exit.

## **6.2.2 Post-Buyout Phase**

### **6.2.2.1 Corporate Governance**

Work on Alpha began immediately with setting up a new board that was restricted in size and consisted of well-qualified directors. It included business line presidents from both major electrical and mobile telecom companies, besides the junior and senior GP and the CEO. The working relationship was supportive and creative, while decision-making was rapid. A new CEO was recruited, which in turn almost completely changed the top management team. The thought process was that management profiles with drive and creativity would be necessary for an expansion.

Work on Beta began directly by setting up a new, small board, which consisted of an industry president from an airline, besides the junior and senior GP and the CEO. A particularity of Beta was that the PE firm always works with shorter holding periods. This approach is arduous and the tempo has to be high to be able to implement all the necessary improvements.

Likewise at Gamma a new, small board was set up immediately that included people with functional experience, i.e. the external colleague with long industry experience, a senior GP and the cofounder of the PE firm, the CEO, with the addition of a Ph.D. candidate in finance. A new sales-oriented CEO was recruited and

joined after a five-month waiting period. Dynamics and a rapid decision-making process characterized the working relationship. In this case a junior academic functioned as an idea generator and sounding board for the CEO. Another particularity is that the relationship with the unions was amicable, which is noteworthy since the PE firm had been cautioned about unions. In the top management team only the CEO and VP of market and sales were changed.

In all of the negative cases small, knowledgeable boards were set up, which included external board members with long operational experience, a junior and senior GP, and the CEO. For Sigma this included the recruitment of a new, talented CEO. In Tau and Upsilon the CEO came from the seller, and both deals display characteristics of an MBO.

All positive-case firms display the common characteristics of recommended corporate governance in private equity research, such as the board of directors (board size, composition, decisiveness, participation) and management (reinforced, dynamic) (e.g. Acharya et al., 2011; Guo et al., 2011; Cornelli et al., 2012). However, this was true for the negative case firms as well. A minor difference was that two CEOs among the positive case firms were replaced, but only one among the negative. A plausible explanation regarding why the characteristics of corporate governance were similar among all case firms is that the governance know-how is widely dispersed among private equity practitioners.

#### 6.2.2.2 Reporting and Key Performance Indicators

At Alpha a selection of cash flow-based metrics was used at the board level, which included EBITDA and, in this case, the atypical measurement, economic value added (EVA). Particular attention was paid to the EBITDA and EBIT, by which the firm is divested. On the operational level, metrics were used for the optimization of the team profitability, especially the amount of billable hours per day for field teams. At Alpha no customer satisfaction targets or balance scorecards metrics were used, which is in line with all other portfolio firms in this study.

At Beta there were identified a few major indicators to monitor the development, primarily EBITDA and the cash flow. Other key figures were productivity as measured by sales per employee and the contribution margin per employee. One key measurement was controlling the balance sheet, particularly the working capital. In this case there were no inventories, but receivables and payables could still be improved. In this case the operational efficiency measure bookings per employee was used.

At Gamma there were established a different set of operational metrics than those which are traditionally used. Instead of metric tons of output per hour, they measured machine efficiency, i.e. the uptime of the process machinery, which meant minimizing unplanned stops. Furthermore, there was the earnings per hour for different product qualities, which meant examining the contribution margin for each product. A third KPI was the transport costs to customers. A fourth KPI was the market mix and establishing clear objectives for moving volumes from overseas to the continent.

The structured work was greatly impaired in all negative case firms by the development, which meant KPIs became unimportant as the monitoring went into crisis management. Sigma experienced a dramatic loss

when the market contracted by 40% and the firm lost 30% of the sales volume in a few months. In this case measuring the contribution margin became the most important factor, along with a relentless focus on productivity improvements. The post-buyout work at Tau begun with load factor, but never advanced until the financial crisis. For Upsilon there are no details, but the GP assessment was that this was unimportant after the market crash.

In all the case firms, a new, small set of key financial and operational metrics appears to have been established, in accordance with previous research (Rogers et al., 2002a; Heel & Kehoe, 2005; e.g. Acharya et al., 2008). A plausible explanation as to why a similar approach to KPIs could be observed in all case firms is that the process is widely dispersed among private equity practitioners.

### 6.2.2.3 Operating Improvements

There were numerous operating improvements and innovations at Alpha. First there was the dilemma of having one technician for electrical networks and another for mobile telecom networks. To remedy this problem, the firm established a training facility that provided further education and qualified multi-service technicians. The facilitation of retraining proved to be a significant productivity improvement. Another improvement were the fully equipped vehicles, which allowed the company to close all regional facilities and technicians to go straight from home to work in the field. A third were the tracking devices for locating people and mobile workstations. A fourth elementary measure was to call ahead to the end-user customer the day before to decide on the time for installing meters, which resulted in Alpha installing twice the amount of its biggest competitor. A fifth improvement was making preparations for incoming storms by technicians ahead of time, based on the location. A sixth improvement was focusing on optimizing the teams billable hours by establishing bonus systems based on team performance. A seventh method was to learn best practices from acquired companies, i.e. bidirectional learning.

At Beta there was a program for improving productivity, which resulted in bookings per terminal rising 40% above the level of the main competitor. In addition, there was a concerted effort to optimize the working capital, which freed up capital to reduce the debt. There was no inventory in this particular case, but instead receivables and payables could be improved, in particular payment terms. There were some lay-offs early on when the back-office personnel were reduced, which resulted in a workforce reduction of 15%.

At Gamma the main operational improvements – aside from the sales function – concerned the logistics and transports, which were redesigned from end to end and optimized for the manufactured products. This change resulted in cost savings of 30% on logistics. Personnel reductions were at 10% during two years, which largely were managed by early retirements.

In Sigma, the cost cutting measures were extreme, as the market contracted over an extended time period. The results were that the workforce was reduced by 90% and manufacturing was completely outsourced. Inventories went down to one week, i.e. in effect production-to-order. Net asset value was freed up by the divestment of all facilities and the letting of a small main office. In Tau, a number of measures were taken to adapt to changed market conditions during the years, which eventually resulted in work force reductions of

50%, but the changes were primarily strategic. The amount of operational improvements in Upsilon is unknown.

Overall, we do find a remarkable amount of operational improvements in the case study firms and thus support for the considerable amount of studies reporting on operational improvements (Cumming et al., 2007; Bernstein et al., 2010; Chung, 2010). What is rarely reported is the wide variety of techniques, heterogeneity of the improvements, and ingenuity displayed at the positive case firms. A plausible explanation for the scarcity of detail in earlier research is that the depth and granularity of data is unavailable in the source data used in quantitative studies.

#### 6.2.2.4 Strategic Redirection

Alpha was an excellent fit for a portfolio firm that both pursues a buy and build strategy and a focus on the core. At the inception, it consisted of a large number of diverse companies located in several countries. The resulting divestments of the non-core business units freed up capital for the subsequent roll-up acquisitions in the predefined geography. It was also fairly profitable from the inception and debt levels were never so high as to obstruct using portions of the cash flows to complete acquisitions. Furthermore, top management actively pursued an acquisition strategy whereby add-on acquisitions were acquired at a fairly low multiple (2–5), with the expectation that Alpha would receive a substantially higher multiple (10). Finally, there was the method of paying for add-on acquisitions substantially by using stock swaps. A critical component of the business strategy was to transform the former maintenance division from a project company to a service company, which consisted of three legs: building, maintaining, and connecting. The final piece of the internal strategy was to improve the skill set of technicians to become multi-skilled for serving both electrical and telecom networks.

Beta pursued a distinct buy and build strategy from the onset by acquiring multiple similar companies in neighboring countries, but also by acquiring several minor internet travel agencies. Management had a clear picture of the companies within the region from before the buyout, which means no time was used to identify targets. There was no reason to divest assets as this had been done in the years prior to the buyout. The firm was profitable, meaning add-on acquisitions could be made partly with the generated cash flow. Another important method was the buying of the firm with a substantial amount of stock swaps (40–60%). Finally, the company pursued a market strategy that used multiple brands to reach end-user customers on the internet.

Gamma was essentially a single plant, which meant that there was no opportunity for add-on acquisitions or asset divestments. All improvements were due to other changes, e.g. CAPEX investments.

Sigma was at the onset a plain buy and build case. However, the strategy soon changed from consolidation to survival. All in all, Sigma went from being a completely integrated manufacturer with their own chain of stores to a private label company based on a brand and design IP.

Likewise, the strategy of Tau changed completely from consolidation and expansion to survival and corrective actions. Within the first few months, the firm lost the largest domestic customer in a tender. The

loss resulted in the PE firm contacting the seller of Tau and renegotiating the price down. After this came the global financial crisis, which resulted in the transfer business dropping by 50%. This meant renegotiating with the bank to write down a portion of the debt, in return for a capital infusion by the PE firm. One and a half years later a consulting firm specializing in turnarounds was invoked, which resulted in the divestments of businesses in all but the two principal countries. Furthermore, the personnel were reduced, with 30–40% of remaining in the two countries. In conjunction with the retrenchment, the CEO was replaced. Finally, the core domestic business was sold to the main competitor in the market. After the restructuring, Tau succeeded in a venture by swapping all of the remaining transport business in the second country for technical import services. Through the deal, Tau achieved for the first time a dominant market position and currently undertakes 70% of the import services in the second country.

For Upsilon, it is known that the strategy changed from expansion to retrenchment and the changes are evident with regards to the sales function.

A surprising heterogeneity for the opposite business strategy can be observed among the positive case firms. There is the focus on the core business and complexity reduction at Alpha, factors which have long been reported in different studies as improving buyout performance (John & Ofek, 1995; Phan & Hill, 1995). There is a common buy and build strategy in both Alpha and Beta, which has been supported in a significant amount of previous research (Ernst & Young, 2008; Hoffmann, 2008). Finally, a particular focus on growth and market expansion can be observed in Gamma, which supports the previous findings on the performance effect in buyouts (Meerkatt et al., 2008; Acharya et al., 2011).

#### 6.2.2.5 Market Expansion and Sales

In Alpha the updates in work methods enabled the firm to create new service offerings, which meant network errors would be repaired in 2, 4 or 12 hours. In Beta, new sales channels were created by having multiple brands on the internet portals aimed at customers. The ISO service certification enabled the firm to offer additional services for large corporate customers during *force majeure* events. Moreover, there was novel service offering that allowed major corporate customers to complete bookings internally, which required tailoring the booking system to each customer. Finally, there were the bonuses from the airlines for each booking, which were crucial to the bottom line.

At Gamma, the challenge was to build an organizational structure after the buyout. One of the central efforts concerned the sales function, which in this case differed from the traditional by relying on having only a dozen sales representatives in the main countries. These all worked from home offices, which meant no extra cost for facilities. The sales process was streamlined into one-stop-shopping, where all the order handling personnel and customer service were handled by personnel at the factory. The reorganization naturally placed a high value on language skills at the factory. Much of the sales volumes went through major distributors in various countries instead of having a vast sales force in-house. Finally, there was a tremendous effort on strengthening the product brand, as opposed to the corporate brand. The work effort resulted in the brand becoming one of the most known in the industry and niche. Then there was the novel use of the web for promoting the product in videos, which resulted in the firm winning a prestigious award for best marketing

campaign.

In Sigma, both margins and market share improved as the overall market volumes dropped. For Tau, no sales or marketing improvement is known. In Upsilon, sales have now been refocused on both new geographical markets and industries.

Overall the research on private equity concerning market expansion and sales is limited and primarily concerns the quantification of the function (e.g. percentage of the buyout performance due to increased sales) or the indirect effect (e.g. how growth resulted in multiple expansion and thus a higher exit valuation) (Meerkatt et al., 2008). Consequently we are rarely given the opportunity to examine the buyout firms from the inside and assess the concrete methods and techniques by which the sales function is improved in practice.

#### 6.2.2.6 Investments in Capital Expenditures

While CAPEX investments are not observed in Alpha and Beta, the investments are significant in Gamma. First is the investment in a biofuel boiler, which had an extremely short payback time of six months as the market price for pitch oil soared. Second, there was the investment in a new mill, which allowed the firm a much higher flexibility in sourcing the raw materials. The third major investment was in renewing the enterprise IT platform from a patchwork of old systems to one homogeneous system. Furthermore, the board rapidly approved all of these investments. For the negative case firm no investments are known.

The substantial CAPEX investment made in Gamma is a phenomenon rarely studied in private equity research. In later years Kaplan and Strömberg (2009) do not find empirical support for *short-termism* or the reduction of CAPEX at the expense of long-term performance, but with Gamma there is a substantial increase. This suggests that the simple heuristic of refraining from CAPEX investment during the holding period is false and that the applicability depends on the context.

#### 6.2.2.7 Cultural Change

The culture and entrepreneurial spirit were improved at Alpha and Gamma, which were both spin-offs of larger corporations. Specifically this could be observed in Gamma, with several measures, not least during the creation of the corporate values. In this process management involved all personnel and lifted the spirit of the community. Another indication of this was that sick leaves, both long and short term, went down dramatically. This is largely supported in extant research, as multiple researchers have found a reinvigorated corporate climate in the post-buyout firm, particularly in the case where the pre-buyout is carved out of a non-core division (Kester & Luehrman, 1995; Bruining & Wright, 2002)

In the negative case firms there is no information on cultural renewal. In the case of Tau, a culturally demoralizing factor may have been the lack of any “early wins” to inspire personnel, since none of the objectives and acquisitions succeeded.

#### 6.2.2.8 The Mode of Exit

The market timing for the exit was opportune in the case of Alpha. Furthermore, the firm had (purportedly)

reached an inflection point where the next natural step was to create a larger Northern European firm. At this point, the firm was exited by a secondary buyout to a PE firm that owned an equal sized portfolio firm, which complemented Alpha. It was also an opportunity identified and advanced by the CEO. Exit planning began early by publicizing the progress of the Alpha in the press and to investors.

The timing of the exit of Beta was a few months after the peak in the business cycle. The exit was through an IPO that took over six months to complete and once initiated would have been costly to terminate. The expected market price did not materialize, as the price was 35% below target after two months. However, at this time another PE firm made a bid that was 40–50% higher than the market price and was at 90% of the original estimate.

For Gamma, market timing was exceptionally opportune during the year of the exit, with earnings being ten times higher than during the entry. The business cycle peaked at the time of the exit. Exit planning began early by discussing the firm in the press and with prospective buyers. The firm was exited by a trade sale.

The PE firm held on to Sigma for several years until the exit through a trade sale. Sigma was divested at an unsatisfactory price level near the low point of the business cycle. Two years later the buyer made the largest profits from the Sigma unit. Parts of Tau had been divested during the turnaround during a moderate business cycle, although the remaining portion of the firm is still owned by the PE firm. Upsilon has not been exited to date.

Aside from the evident effect of market timing on the exit valuation and thus the ensuing IRR, no clear exit pattern can be discerned in the case firms. All three positive case firms were exited by different modes: Alpha to a financial investor (in a secondary buyout), Beta listed in an IPO (but after a few months acquired by a financial investor and delisted), and Gamma to a strategic investor (a larger corporation within the same industry). Of the negative case firms, both Sigma and Tau were exited to strategic investors (competitors within the same industry), while Upsilon remains in the PE firm portfolio. Extant research similarly is ambiguous on the preferred route of exit. Generally an IPO is the preferred route to maximize the exit valuation if the buyout firm is highly profitable and in a period of high GDP growth (Schmidt et al., 2009), but otherwise secondary buyouts have tended to garner the highest valuation (Achleitner et al., 2012).

## **6.3 Classifying the Mechanisms in the Case Firms**

### **6.3.1 Conspicuous High-Level Drivers and Mechanisms**

A number of drivers and mechanisms are commonly reported in empirical research to substantially effect buyout performance, e.g. access to low-cost debt, while other factors tend to be commonly known, e.g. the import of the CEO. In this chapter, the high-level drivers are presented that appeared to significantly affect the value generation in the buyout firms, while simultaneously being conspicuous due to the lack of extant research.

The first step in the attempt to discern the mechanisms was to examine the results of the cross-case analysis, which are summarized in Table 7. Several of the value generation mechanisms in the table appear in

previous research recur in the case interviews; principally the financing driver (I-A4 leverage, I-A6 creative finance, I-A2 debt market cycles), operational driver (I-B2 cost structure improvements), governance driver (II-D3 reducing agency costs, II-D1 the GP effect), commercial driver (III-G6 timing the business cycles, III-G8 divesting the firm).

The second step was to contrast the principal mechanisms of the case firms with extant research. Of the commercial drivers, the import of the business and industry cycles clearly come across in the interview material on III-G6 and III-G8. Furthermore, the import of cycles is evident in previous research. What can be deduced from the interview material is that GPs did sufficiently pay attention to the cycles, especially in the negative case firms. This suggests that an important consideration for the private equity firms would be to adjust the amount buyout transactions and by extension potentially adjust the fund inflow to the cycles. Of the financing driver, I-A6 and especially securing an alternative mode of debt financing is noteworthy. All positive case firms were debt financed principally by vendor and supplier, while none of the negative case firms were. Moreover, it is a factor have not been received much attention in previous research. Whether or not the vendor and supplier financing is a factor that contributed to the value generation or a consequence of pursuing superior buyout cases, the mode of finance provides advantages. There is interest alignment in the deals; since both the buyer and seller of the firms has an ongoing interest in seeing the buyout firm succeeds. For instance, renegotiating the terms of the amortizations is simpler and more flexible in case of changing business circumstances.

The import of operational driver and I-B2 could be observed in the concentrated efforts on reducing the costs, albeit the primary driver in the positive case firms were often on improving the operational efficiency and operative processes. An important aspect in the positive case firms that facilitated the wide-reaching operational improvements appeared to be the cultural reinvigoration that permeated the post-buyout firms. While several researchers have that buyouts are associated with operational improvements, it was the wide array of specific examples of improvements that was the main surprise. Finally, even if selecting the right strategic direction I-C1/2/3 was crucial in all the positive case firms, selecting similar strategic alternatives in the negative case firms without regard of the business- or industry cycle proved disastrous. In retrospect it seems obvious that market cycles should be considered attentively before selecting the business strategy.

#	Levers	Drivers, Mechanism And Methods
1.	VCAP	Adjusting the buyout entry and exit transaction to business cycle
2.	DVC	Actively pursuing alternative modes of finance
3.	DVC	The apposite strategy affected by market timing and industry cycle
4.	DVC	Enacting an array of operational improvements

**Table 8. Conspicuous high-level drivers and mechanisms**

### 6.3.1.1 Adjusting the Entry and Exit Transaction to the Business Cycle

Regardless if it was due to a particular timing ability, it is striking that market timing was opportune in all



positive case firms both during the entry and the exit transaction. By contrast, in all negative case firms the entry transaction market timing was decidedly inopportune, as all transactions took place at the business cycle peak. Sigma was, in addition, exited near the trough of the business cycle at a modest price level.

While the evidence for a consistent and precise market timing ability over time is problematic (cf. *efficient-market hypothesis*), there is research that has shown a *post-hoc* performance effect from business cyclicality and vintage years (e.g. Kaplan & Schoar, 2005; Cornelius et al., 2009). Moreover, there are studies that report that the timing of the buyout explains a substantial portion of the performance variance (Kaplan & Schoar, 2005; Chew, 2009). Moreover, the performance variation that can be induced from case analysis is particularly striking. Even if the effect may be concealed when observing case firms in isolation, it is conspicuous when multiple cases are juxtaposed in a cross-case analysis.

Despite the fact that select researchers have been drawing attention to the effect of market timing, the overall import is frequently obscured by the variety of studied mechanisms that effect performance. The findings suggest that PE firms should pay considerably more attention to the business and industry cycle by, for instance, by increasing the weight of the cycle as criteria for the entry and exit transaction<sup>55</sup>. In the research there are several proxies that arguably could be used to detect the business and industry cycles, e.g., committed capital in the private equity versus public equity, capital inflow to debt markets, GDP growth rates, tracing development of industry multiples, monitoring the aggregate performance of the portfolio firms, and examining relevant industry indicators and spreads.

From a methodological perspective, an interesting research finding was the analogous result on the effect of market timing to IRR both in the prior quantitative studies and in this qualitative case study.

### 6.3.1.2 Actively Pursuing Alternative Modes of Debt Financing

In the cross-case analysis it was revealed that the positive case firms were all principally debt financed with alternative modes of finance. Two of the positive case firms received debt financing through vendor notes and the third firm received supplier debt financing. By contrast, two of the negative case firms were financed primarily by bank debt, while the third was an equity-only transaction. The revealed pattern in the financing of the case firms is conspicuous, even if the precise debt levels remain confidential.

This can be contrasted with the figures from the quantitative study by Axelson et al. (2013), which reports that debt financing in average LBOs consisted of *Senior Bank Debt* at 72.5%, *Subordinated Debt* at 12.4% and *Bonds* at 11.6%. The study found that the last group, *Alternative Funding*, which included vendor financing, provided merely 2.5% of the debt financing.

The difference between the debt financing structure of the average buyout in the study by Axelson et al. (2013) and the positive case firms is in fact surprisingly large. There are several possibilities for the apparent difference. First, in small-N samples of case studies there is always a possibility that the observed phenomena

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<sup>55</sup> *In the case study, no distinction was made between overall business cycle and the particular industry cycle (aside from Gamma). It could be argued that private equity firms as agnostic industry investors might be less familiar with a particular industry cycle than, e.g. owners of family firms, which would explain the three failed buyouts in this study.*

are given a *post-hoc* significance, albeit that the actual cause is random variations and a failure to account for probability (see Raynor et al. (2009)). Second, the explanation may be due to the dataset used in the quantitative study. The study by Axelson et al. (2013) covers an extensive time period from 1980 to 2008. During this period the structure of buyout financing has changed considerably, e.g., the reliance on 'junk bonds' for financing buyouts in the U.S. in the 1980s. Consequently, the debt distribution in LBOs may have changed considerably from the more recent qualitative data. Furthermore, the quantitative dataset is somewhat skewed, as the authors note: "*our sample is still somewhat biased towards public-to-private deals (which tend to be larger) and against independent private companies (which tend to be smaller)*" (Axelson et al., 2013, p.10). The debt financing structure of large buyouts, such as PtP transactions, likely differ considerably from the mid-sized buyouts in the case study. Finally, the geography differs substantially as a majority of the firms in the quantitative study are located in U.S., while most of the remaining firms are located in Western Europe.

Another potential problem with the conspicuous alternative modes of debt financing among the positive case firms is the problem of causation versus correlation. The reason that vendor and supplier financing could be secured by the PE firm might be a consequence of *a priori* intrinsic attributes of the positive buyout firms, e.g., stable business and positive cash flow. Thus, the outperformance of the positive case firms would not be caused by the alternative modes of financing, but financing would be a consequence of inherent attributes.

Arguably, the most basic explanation is that vendor financing can be secured when the seller is eager to divest and supplier financing secured when the supplier strives to ensure a continuation of the business relationship. It is plausible that securing the mode of debt financing creates a significant advantage for the PE firm that is conducive to the value generation, e.g., by providing the portfolio firm with lenient and flexible terms for the loan – as submitted by the interviewees in the positive case firms – but a detailed financial analysis would be required to establish this unequivocally.

### 6.3.1.3 The Apposite Strategy Affected by Market Timing and Industry Cycle

In the three positive case firms there can be discerned three distinct strategic alternatives: (i) focusing of consolidation, (ii) focusing of the core, and (iii) focusing on growth. What is noteworthy is the spread of alternatives and the resulting positive outcome for all firms, indicating that the apposite strategic alternative is substantially contextual and depends on the specific business opportunity. In each of the positive cases firms, establishing and executing the apposite strategy appears to have had a decisive impact on the value generation. The conclusion is not controversial and is in line with conventional wisdom on strategic management among academics and practitioners.

In correspondence with the positive case firms, the initial strategy in all the negative case firms was growth oriented, and two of them had mainly a buy and build strategy. Due to the changed market conditions a quarter after the buyouts were completed, the capacity of management to act on the strategy was increasingly circumscribed. Arguably the chosen strategy in all of the negative case firms was ill-conceived and erroneous, mainly due to an insufficient consideration of market timing. Perhaps surprisingly, the explicit effect of the industry cycle (and by extension market timing) on the apposite buyout strategy has received little interest by academics studying private equity buyouts.

The principal research interest has been in establishing the performance effect in buyouts from a buy and build strategy (Ernst & Young, 2008; Hoffmann, 2008) or a focus on the core (John & Ofek, 1995; Wiersema & Liebeskind, 1995)<sup>56</sup>. By induction from the case firm analysis, it can be argued that the apposite business strategy in buyouts is not only heterogeneous and contextual, but to a substantial degree determined by the industry cycle and market timing.

#### 6.3.1.4 Enacting an Array of Operational Improvements

In all of the positive case firms, the analysis indicates that operational improvements and cost reductions had a considerable effect on firm performance. This is obviously not surprising, considering that operational improvements are likely the most widely reported consequence after a buyout (Cumming et al., 2007; Kaplan & Strömberg, 2009; Chung, 2010). However, what is salient is that the improvements in all of the positive case firms are pervasive and diverse, including redesigning work processes, retraining technicians, restructuring the supply chain, accelerating the flow of receivables, and implementing team-based incentive systems. The diverse range of operational improvements – and the specific means by which these are achieved – is not captured in quantitative analysis, typically because necessary granularity of data is unavailable.

The personnel reductions in all the positive case firms are moderate at 5–15%, while the overall net employment effect for the duration of the holding period is substantially positive for two of the firms (mainly due to acquisitions). By contrast, in the negative case firms, personnel reductions are drastic and considerable – up to 90% in one case firm. It is also the case that the operational improvements are scarce in the negative case firms, aside from the personnel reductions and asset sales.

### 6.3.2 Conventional Mechanisms Observed in the Case Firms

Multiple mechanisms that have appeared to be conducive to buyout value generation are known from empirical studies. Overall, the GPs in all private equity firms have appeared to be well-acquainted with the mechanisms, as evidenced by the fact that the mechanisms could be observed in both the positive and negative case firms. Extant research on all of these mechanisms appears in Chapter 3.

#	Levers	Drivers, Mechanism And Methods
1.	DVC; IDV	<b>Considerable functional operational experience</b> found in one or several senior GPs or expert advisors. These executives were involved in both the pre-buyout negotiation and with the board of directors during the holding period.
2.	DVC	<b>Collaborative and involved GPs</b> that actively contributed to the commercial assessment and development, especially during the early stages of the buyout.
3.	IVC	<b>Realigned interests and high-powered incentives</b> for the top management team and the board members. Additionally, in all cases the CEOs were required to co-invest.

<sup>56</sup> Potentially the advantage that private equity firms maintain relative to industrial buyers may not be in recognizing the apposite strategy, but in superior execution skills during implementation.

		Disproportionate levers with an exponential upside were used in all cases.
4.	IVC	<b>The top management team was strengthened.</b> In two of the positive case firms, the CEO was replaced, whereas the incumbent CEO continued in the MBO. Conversely, the incumbent CEO remained in two of the negative case firms and was replaced in the third firm. Except for the MBO, the CEOs strengthened the management team in all case firms.
5.	IVC	<b>All boards of directors were substantially restructured</b> to incorporate external directors with functional experience in the industry. In addition, the board members included the CEO, and a senior and junior GP. In all cases the board was limited in size to five board members.
6.	IVC	<b>All boards were actively engaged in monitoring and mentoring</b> the portfolio firms. A constructive relationship and innovative atmosphere characterized the board–management interaction in all positive case firms. The board decision–making process was rapid in all positive case firms. While boards of the negative case firms appear similar, the decision–making process and corrective actions appears slower in two of the firms.
7.	IVC	<b>Stretch budgets and revised key performance indicators</b> were implemented in all firms. Ambitious growth targets were present at the inception in both positive and negative case firms. The identification of revised financial and operational KPIs was observed in all positive case firms, but especially evident in the process industry. In the negative case firms, the generation of new KPIs soon became overshadowed by the market contraction.
8.	IVC	<b>High–tempo and inchoate change</b> could be observed in both the positive and negative case firms. The result in completing actions of the 100–day plan, or more frequently, the first 12 months, could be observed in all positive case firms. In one of the negative case firms, a high–tempo market adjustment could be observed, while in another there was an evident lack in achieving the business objectives, e.g. completing the acquisitions.
9.	IVC	<b>Rapid holding periods</b> could be observed in all the positive case firms, but in none of the negative case firms. The rapid holding period does not constitute quick flips, since the average was three years. Two of the negative case firms had not been exited during the interviews, while the holding period for the third firm was four years.
10.	VCAP	<b>Extensive deal–making experience and expertise</b> was evident among all senior GPs of the PE firms and for the CEOs in two of the positive case firms. Likewise, this appears to have been the case with the CEOs of two of the negative case firms.
11.	VCAP	<b>The active pursuit of multiple expansion</b> or ‘market riding’ by the PE firms was evident in all positive case firms. At least initially, this appears to have been an objective in all the negative case firms. However, the timing of the market entry in the negative case firms was uniformly adverse within 6–12 months of the business cycle peak.

**Table 9. Conventional mechanisms present in a majority of the case firms**

### 6.3.3 Contextual Mechanisms Observed in Select Case Firms

In certain case firms contextually dependent mechanisms can be observed that are less prevalent (or non-existent) in extant research on buyouts. In some cases the absence is because these involve traditional business functions (e.g. sales, marketing), which are not specific to buyouts.

#	Levers	Drivers, Mechanism, And Methods
1.	DVC	<b>A systematic approach to organic sales expansion.</b> In particular, the positive case firm in process industry; the concerted effort to create a new, non-traditional sales function was observed. However, new product and service offerings were also created in the two other positive case firms. In extant research the increased sales efforts tend to be noted merely indirectly as market expansion or operational improvements.
2.	IVC	<b>A concerted effort on marketing and branding</b> was observed in two of the positive case firms. For instance, in the first firm there was an effort to decisively strengthen the product brand, while in the second firm an effort to create multiple brands on internet.
3.	DVC	<b>Asset conversion and securitization</b> clearly contributed to the performance in one of the positive case firms and abetted the result in one of the negative case firms. Particularly sale-and-leasebacks can be practical methods for financing CAPEX investments.
4.	DVC	<b>A structured approach to capital management and asset utilization</b> was observed in all three positive case firms, respectively receivables and payables; logistics and transports; and the termination local offices and coordination of transports. In one of the negative case firms, manufacturing and real estate were adjusted to the market contraction.
5.	VCAP	<b>An effort to uncover the concealed business potential in buyout targets.</b> Particularly one of the positive target firms was a non-traditional buyout target for the private equity industry. In essence the notion is that an evident disadvantage of a target firm in certain conditions can confer an advantage, e.g., by reducing the competition among private equity firms for the buyout target.
6.	IVC	<b>A reinvigorated entrepreneurial corporate culture</b> could be observed, particularly in two of the positive case firms. This cultural reinvigoration in turn appeared to energize the personnel, stimulate ideation, and improve personnel commitment.
7.	IVC	<b>Moderating firm valuations to discovered deficiencies during the due diligence.</b> This recognized approach during negotiations can be extended to include adjusting tenders to performance fluctuations during the entry and exit transaction phase. In two of the positive case firms the target firm performance deteriorated substantially, which resulted in substantially lowered tenders. A similar, but opposite effect could be observed during the exit negotiation and in addition during the exit of a negative case firm. Granted, the occurrence of performance fluctuations is largely coincidental.

**Table 10. Business-specific mechanisms in select case firms**

### **6.3.4 Peripheral Mechanisms**

Financial experience seems to have been important in securing creative or alternative modes of financing and the gearing, but otherwise it was less salient than operational experience. Arguably the PE firms may have gained implicitly from such financial expertise by taking advantage of the market mispricing between debt and equity markets during the buyouts of the positive case firms. However, by the same token the same PE firms did fail to scale back prior to the overheated debt markets in the negative case firms.

It is unclear whether alleviating capital market constraints was an issue in any of the buyout cases, although this was one of the justifications for pursuing one of the positive and two of the negative case firms. Finally, the source material does not provide sufficient detail on capital structure optimization to assess if and how this was pursued.

### **6.3.5 Undetermined Mechanisms**

In the source material, the evidence is limited to the fact that the PE firms benefited from a proprietary deal flow, with the possible exception of one positive case firm. Furthermore, it could not be determined if PE firm industry focus was conducive to value generation. Likewise, this was the case for the remaining factors previously discussed during the empirical review, including the target firm identification and investment criteria, restriction of PE fund size, mitigated legislative constraints, corporate tax deductions, and the possible effect due to carried interest.

## **6.4 Comments on a Prospective Nordic Approach to Buyouts**

Even if the Nordic dimension was peripheral to this study, there are some indications that the private equity firms in geographical region differ from their counterparts in the U.S. and U.K. For instance, a recent article asserts that many of the theories and much of the empirical research on private equity in the U.S. may not be applicable to the Nordic region (Spliid, 2013). Previous empirical research has reported differences in the performance of buyouts, the bankruptcy rates, and the fee structures of private equity firms<sup>57</sup>.

With regards to performance, Lopez-de-Silanes et al. (2011) report Scandinavian buyouts show a public market equivalent (PME) internal rate of return (IRR) performance at 1.66, which is higher than that of the U.S., at 1.33. Another study reports similar findings on outperformance, particularly concerning the top quarter of pooled net IRR from inception until the end of 2007, which was 43.2% for the Nordic countries while 24.9% for the rest of Europe (EVCA, 2008). However, the reported time period is merely two years, which casts doubt on the generalizability over an extended time period. Furthermore, the reported figure comprises all forms of private equity investments, including venture capital and turnaround investments. Finally, as with most studies on Nordic private equity, there is the dominance of Sweden which skews the data, since half of the private equity firms in the Nordic countries are situated in Sweden. The impact is even more pronounced

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<sup>57</sup> At least a handful of masters theses concern Nordic PE firms, e.g. Trønnes (2009) looks at the extent of optimal portfolio allocation in PE, Jääskeläinen (2011) at performance compared to non-buyout peers, and Mathisen and Ornelas Camas (2012) at post-IPO performance. However, none of these theses explicitly examine the Nordic buyout characteristics.

concerning the quantity of the raised capital, since Swedish funds captured 70% of the inflow in 2006 and 79% in 2007 (EVCA, 2008).

A third study reports that four prominent Nordic private equity groups have delivered an average IRR of 18% since 1993 and have thus significantly outperformed public markets (Smiddy, 2011). An investment firm report based on figures from the Thomson Economics dataset supports the notion of outperformance. The report shows that Nordic private equity funds have consistently outperformed U.S. and European firms (measured as pooled IRR for 5, 10, 15, and 20 years after the inception of the funds) (BerchWood Partners, 2013).

The previously mentioned study by Lopez-de-Silanes et al. (2011) also reports substantially lower bankruptcy rates for Scandinavia<sup>58</sup> at 5% versus the average of 12% for the U.S. Finally, there may be a difference regarding the fee structure between U.S. and European PE firms, particularly the Nordic PE firms. Morris and Phalippou (2011) indicate that according to their observations Scandinavian PE firms have contracts with negligible or non-existent fees.

From the data in this case study it can be inferred that none of the positive case firms experienced major personnel conflicts. On the contrary, conspicuous characteristics of Gamma were the congenial relationship with the unions and the fact that the entire personnel of the firm were invoked in constructing the corporate culture. This is surprising when considering that Gamma, according to the previous corporate owner, had a history of strident conflicts with the unions. Likewise, in Alpha there were examples of circumventing the initial negative response from the unions and in collaborating with the work force to implement substantial changes. Only in one of the negative cases, Sigma, where the personnel reductions reached 90%, were union conflicts and strikes evident.

It is conceivable that Nordic private equity firms differ from their Anglo-American counterparts. A potential area of research would be the question of whether the Nordic PE firms cooperate to a higher degree with the unions and invoke union representatives in the decision-making process. The assumption seems plausible based on the observations of the case firms. This would be congruous to the difference reported by Bruining et al. (2004) in a study of HR practices in buyout firms in the U.K. and Netherlands. The study found that the HR practices in buyout firms in the U.K. were raised after the buyout to be on par with that of the Netherlands, whereas in the latter the buyout had no effect on the HR practices. Subsequent research could shed light on whether or not buyouts in the Nordic countries differ and, if so, along which measures.

## 6.5 The Derivation of Propositions

The intention with this chapter is to outline the central propositions observed during the analysis phase and how that might be operationalized to hypotheses generation. It is decidedly a particular advantage of case study research that compelling and interesting research propositions can be generated, which in turn can be used for subsequent examination in quantitative studies. For the preceding analysis and argumentation that

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<sup>58</sup> *The researchers do not define the countries they include in the category Scandinavia, but based on the used regions it seems this is inaccurately equated with the Nordic countries.*

resulted in the particular propositions, see chapters 6.1–6.3.

What appeared particularly salient in the data analysis was that the debt financing falls into the category of creative financing or alternative modes of finance. In all of the positive case firms the majority of debt financing originated at the firm vendor or supplier. Moreover, in the negative contrast case firms this mode of finance was non-existent. Previous quantitative studies by Axelson et al. (2013) report that this mode of financing constitutes merely 2.5% of the overall debt financing in the typical leveraged buyout. Finally, that GPs actively pursued alternative modes of finance was evident in the case interviews, where the professed reasons were the increased flexibility in case of changed market conditions.

**Proposition P1: Portfolio firms that are predominantly financed by alternative modes of debt finance attain higher returns compared to peers**

From the perspective of the business strategy, a few important observations could be made. There was the heterogeneity of the strategic opportunity, since the apposite business strategy proved to be disparate to all positive case firms. We can induce from the case study that the correct strategy is largely contextual and depends on the intrinsic capability of the firm and the extrinsic competitive environment. Depending on the opportunity, the strategy in a buyout is typically to focus on the core business, market consolidation, organic growth, or on a hybrid strategy.

More importantly, but less evident, was that the business strategy was deficient in all negative case firms. The principal reason for the deficiency was that the business and industry cycle were insufficiently considered, which resulted in strategies that were poorly suited for market contractions. While the import of contextuality is an important determinant of the business strategy, the significance of market timing and industry cycle on the optimal strategy in buyouts has received little consideration by academics.

**Proposition P2: The business- and industry cycles determine the apposite business strategy of the buyout firm to a substantial degree**

As discussed previously, whether or not the market timing was due to the timing ability of the GPs, the result of the market timing was opportune in all the positive case firms during both the entry and the exit transaction. By contrast, in all the negative case firms the entry transaction market timing was decidedly inauspicious, since all transactions occurred in the immediate period preceding the business cycle peak. Assuming that market timing is to some extent achievable, e.g. weak or semi-strong form of the *efficient market hypothesis*, and that PE firms underrate the import of market and industry cycles, then a prospective method to improve returns would be to increase the weight of cycles during the buyout entry and exit.

**Proposition P3: Increasing the weight of the market and industry cycle as criteria for entry and exit could improve returns**



Contrary to the previous research regarding family-owned businesses being subject to management deficiencies, the three negative case firms in this study indicate that the ability of the shareholders of the family-owned firms may in some respect exceed that of the GPs of private equity firms. Remarkably, none of the positive case firms was family owned, while all of the negative case firms were family owned. The discerned pattern among the case firms could be arbitrary or exaggerated, but it is conceivable that family-owned firms are divergent from other traditional buyout categories. A plausible explanation is that the shareholders of family-owned firms have superior skills in assessing the particular industry cycle compared to private equity firms, which often are industry agnostic investors.

**Proposition P4: The shareholders of family-owned firms have superior expertise in identifying the industry cycle compared to GPs of private equity firms**

A salient aspect of the positive case firms was the pervasive and diverse array of operational improvements, e.g. redesigned work processes, retrained employees, restructured supply chains, accelerated flow of receivables, and team-based incentive systems. In all the positive case firms, a wide array of operational improvements could be observed. Implicit in the interview material was the notion that operational improvements necessitate the participation of a motivated and cooperative workforce.

**Proposition P5: The pervasive operational improvements where dependent on the cooperation of the entire personnel**

Albeit peripheral to the research questions of this study, we do know the Nordic countries differ across a number of socio-economic measures compared to the majority of OECD countries, e.g. with the Gini coefficient of income inequality or the ratio of CEO to median employee salary after income taxes. The study by Bruining et al. (2004) finds evidence of a clear distinction in HRM practices in buyouts in both the U.K. and the Netherlands. For instance, the Netherlands was characterized by trade union influence, strong labor legislation, the legal status of work councils, and overall by substantially more progressive HRM practices. By inference of the societal similitude, we can hypothesize that the HRM practices in the buyout portfolio firms located in the Nordic countries will exceed the practices of the counterparts in the U.K. and U.S. We can reason that the positive attitude of the management might affect propensity for cooperation. Potentially the degree of commitment and cooperation of the entire workforce in Nordic buyouts results in improved returns of the buyouts.

**Proposition P6: The high degree of cooperation between management and personnel in Nordic buyouts is conducive to improved buyout performance**

## Chapter 7. Discussion and Conclusions

*This chapter is organized into four sections. First, there is a discussion on the research questions set out in chapter 3, accompanied by a discussion surrounding the results of the empirical case study and the ensuing research propositions. The chapter proceeds by outlining the contribution to research and practice, the limitations of the findings, and finally directions for future research and concluding remarks.*

### 7.1 Discussion on the Results

#### 7.1.1 Does value generation differ in outperforming buyouts?

The first research question posed was “Do value generation mechanisms differ in the small-N sample of outperforming buyout firms from the mechanisms currently recognized in extant research?” The observed mechanisms do differ across three dimensions. First, a select amount of the value generation mechanisms that emerged from the analysis has received scant or moderate attention in extant research, e.g. the import of employing alternative modes of debt financing and the effect of business and industry cycles on the buyout performance.

Second, while the evidence has been substantial that buyouts result in operational improvements, more detailed accounts of the particular changes that occurred have been limited. A potential explanation is that establishing and quantifying the result of the wide-ranging categories of operational improvement is essential to assess the relative effect on value generation. However, it is also the case that the necessary granularity of source data often is lacking in the data bases used for quantitative research. The multiple-case study permits a deeper examination of the specific changes that occurred and a broader coverage throughout the investment life cycle. The case material revealed that the operational improvements at the positive case firms were pervasive and manifold. There was no ‘silver bullet’, but instead an array of improvements that included substantial efficiency improvements to internal operating processes and the workflow such as entirely redesigned supply chains, retrained personnel for improved flexibility and efficiency, more attention paid to capital management, and redesigned team incentives.

Third, the relative import of the discerned mechanism in the outperforming case firms did differ substantially from the typical segmentation in quantitative research with regards to leverage, margin improvements, and industry growth. The inductive case analysis suggests substantial performance improvements could plausibly be achieved by placing more consideration on the timing of the entry transaction and exit to the relevant phase of the market cycle. While distinguishing the exact market cycle is impossible, determining the overall phase of the business and industry cycles is generally a viable option. Since the effect of the market timing was substantial, this might guide not only individual buyout investment decisions, but also portfolio investment volumes, depending on the phase of the business cycles.

Contrary to the extant research on the optimal business strategy in private equity buyouts, the case study revealed that no single business strategy is optimal and that the apposite strategy is largely contextual and

dependent on the business opportunities and the competitive environment. However, it did indicate that the typical buy and build strategy used in private equity buyouts is largely determined by the business and industry cycle. During incipient recessions and market contractions the buy and build strategy appeared to be a particularly ill-advised alternative.

### **7.1.2 How should value generation be augmented conceptually?**

The second research question the study attempted to answer was “Provided discrepancies exist, how should the framework for value generation be augmented to provide a more accurate theoretical-conceptual view?” Responding to the question required a two-fold approach. First, the conceptual model of value generation in buyouts had to be established by creating a novel and considerably more complete model than found in extant research. The main attempt at collecting and classifying value generation in buyouts is a seminal working paper from HEC based on doctoral dissertations by Berg & Gottschalg, 2003. However, the model that appears in that conceptual paper, while novel at the time, suffered from inconsistencies and was to a large extent incomplete. This necessitated a rigorous review of the mechanisms by which value generation is achieved, followed by an overarching analysis of the elements and the construction of a novel cohesive taxonomy.

Second, the case study source material had to be processed and analyzed in order to determine the sources of the value generation and value destruction in the case firms. These findings in turn had to be contrasted and juxtaposed with the empirically derived taxonomy. The analysis revealed a number of potential areas in which our view of value generation could be augmented. First, the relative importance of timing the buyout entry and exit to the business and industry cycles should receive substantially more attention. Some previous research has reported that the effect of business cycles and vintage years is essential to buyout performance, e.g. Kaplan & Schoar (2005) and Cornelius et al. (2009). There are a number of aspects of the business cycles to consider, such as the overall business cycle or macro-economic factors, the specific industry cycle of the focal industry, and the cyclicity of the private equity industry, e.g. committed capital to private equity as a fraction of public equity in stocks. While in practice the import of business cycles are incorporated to the investment decision during the due diligence, the weight of the cycles in the entry and exit decision might be underrated in the overall private equity firm.

Conventional wisdom suggests that private equity should refrain from buyouts of target industries sensitive to business cycles. This includes cyclical industries such as chemicals, energy, and telecom, which display substantial variations in the gross IRR across fund vintage years (Cornelius et al., 2009). Timing the entry and exit of cyclical industries can be a decisive difference between generating top quartile returns or value destruction. The case study analysis suggests, to the contrary, that target firms in cyclical industries can constitute eminent buyouts if the industry cycle is carefully examined. On a broader note, investors may actively pursue non-obvious buyout targets where the initial perceived deficiency is alleviated or mitigated.

Surprisingly, the buyouts of family-owned firms were associated with a substantially lower value generation, as all of the negative case firms were family owned, while none of the positive case firms were. Potential explanations for the dismal performance of family-owned buyouts may be that the sellers possess

superior information on the specific industry cycle or on the future prospects of the industry compared to industry agnostic private equity investors, i.e. an advantage based on an information asymmetry.

With regards to the debt financing of the buyouts, a surprising finding was that all the positive case firms were financed primarily by alternative modes of finance (e.g., vendor notes and supplier loans), while all the negative case firms were financed by bank debt or equity only. This is remarkable considering a recent comprehensive study by Axelson et al. (2013) covering a large sample of 1,157 private equity deals worldwide between 1980 and 2008, which reported that alternative debt funding comprised merely 2.4%. While creative finance and the alternative modes of debt financing are by no means a new phenomenon to private equity research that this mode of finance has not been explicitly identified as being closely associated with value generation is striking.

Regarding corporate culture, the cooperative corporate climate that characterized the positive case firms and encompassed the whole workforce and the unions was a surprise. While the reinvigoration of the corporate culture and entrepreneurship has been reported in numerous studies, the research is scant when it comes to the effect of motivating and invoking the entire workforce and collaborating with the unions during the buyout. The research that is most closely related is a study by Bruining et al. (2004), which finds evidence that buyouts in the U.K. improved the HRM practices across several measures. What is furthermore interesting is the effect that invoking the entire personnel has on the wide-ranging operational improvements and consequently on the performance.

The final research question the study attempted to answer was “Can novel value generation mechanism be induced from the case material to generate propositions suitable for subsequent quantitative examination?” Based on the analysis, a number of propositions were generated that are of particular interest from a research perspective.

## **7.2 Contributions To Research**

A principal research gap filled by the case study was to examine an academically important set of firms that hitherto have not been researched, i.e. substantially outperforming buyouts. Previously a number of studies have divided portfolio firms or funds into quartiles based on performance and juxtaposed the top quartile with the bottom quartile (Harper & Schneider, 2004; Loos, 2006; Rouvinez, 2006; Aigner et al., 2008; Lopez-de-Silanes et al., 2008; Bernstein et al., 2010; Chung, 2010; Gottschalg, 2010; Higson & Stucke, 2012), or vice versa for the tercile (Heel & Kehoe, 2005; Acharya et al., 2011). However, the focal set in this case study can be construed as displayed performance that was a magnitude above the top quartiles. A plausible reason for the research gap has been that the study required a change in the prevailing quantitative research methodology, which is ill-suited for studying a limited, non-representative population of data, e.g. statistical outliers and corner test cases.

Consequently, this research project approached the phenomena by relying on a qualitative research methodology, which is appropriate for the research topic. While a few salient qualitative studies on buyouts do exist (e.g. Baker (1992), Baker and Wruck (1989), Kester and Luehrman (1995), O'Brien (2007)), none of

these studies focus primarily on value generation in particular outperforming buyouts. The multiple case study provided an in-depth perspective of value generation throughout the buyout life cycle. This in turn revealed a number of drivers and mechanisms that have received insufficient attention by academics, such as the considerable import of timing the buyout entry and exit to the business and industry cycles and the potential effect of pursuing alternative modes of debt financing. The overall finding is not that the drivers and mechanisms are completely novel, but that the relative weight and import of the factors change substantially.

Another original and innovative contribution comes from materially extending previous attempts to organize the drivers and mechanisms of buyout value generation into a cohesive and logical structure. There have been a few attempts to synthesize the previous research of value generation into models (e.g. Berg & Gottschalg (2003), Loos (2006), Wilms (2007)). Particularly the joint paper by Berg and Gottschalg (2003), which was based on their respective doctoral dissertations, extended our understanding of value generation. However, the model was problematic with regards to internal consistency, the restricted amount of extant research that was incorporated into the model, and finally that the paper is beginning to become outmoded.

A central ambition with constructing a new model was to address the earlier shortcomings of internal consistency, to substantially expand any earlier models by incorporating considerably more previous research, and to create the necessary nomenclature. The end result is a holistic, conceptual model of value generation in buyouts in a four-layered hierarchy composed of Levers, Drivers, Mechanisms, and Methods, arranged in order of abstraction from the generic to the specific. All in all, in the model distinguishes and classifies between three levers, eight drivers, and 35 mechanisms, which are all depicted in detail in Table 1 The complete empirically derived taxonomy for buyout value generation.

The top-level levers comprise the direct and indirect levers of value creation and value capture. The primary distinction between the value creation levers is that the direct levers have a directly measurable effect on the profitability of the portfolio firm, while indirect levers tend to affect multiple mechanisms that concurrently improve profitability. Value capture refers to the appreciation of firm value due to exogenous factors such as industry growth, or the wealth transfer occurring during the entry and exit transaction. Consequently, it refers to the excess value in the post-exit phase that was not created by changes within the portfolio firm.

## **7.3 Contributions To Practice**

### **7.3.1 Implications for Private Equity Practitioners**

The study makes a number of contributions that are highly relevant to private equity practitioners. Instead of focusing on a minor selection of variables, which explain a negligible portion of the overall value generation, the post hoc 'explorative analysis' allows for evaluating the complete landscape of mechanisms. The findings suggest that practitioners need to rethink the approach to a number of high-level value generation drivers, particularly with regards to selecting the right business strategy, assessing the market timing of entry and exit, identifying the concealed business potential, and pursuing the correct mode of debt financing. Moreover, the study makes a number of prescriptive contributions to pursuing low-level mechanisms, both implicit within the presented business case stories and additionally by collecting and reviewing previous research on various

mechanisms.

Finally, in Appendix A is a functional table that organizes previous research on buyouts according to value generation drivers and mechanisms.

### **7.3.2 Implications for the Management of Portfolio Firms**

The contribution to the management of portfolio firms lies particularly in the operative changes and improvements that need to be pursued by highly motivated and dynamic top management teams. What is less frequently discussed in the research on private equity is the import of collaborating with the whole personnel of the buyout firm in order to be able to harness their know-how in improving the organization. This obviously includes building the correct financial incentives throughout the organization, but the ramifications are wider as it requires management to understand the importance of finding and constructing the corporate culture of the firm. In addition, management can benefit from knowing the mechanisms conducive to value generation, including the implicit mechanisms presented in business case stories and in the empirically derived taxonomy that collects and reviews previous research.

### **7.3.3 Implications for People Involved in Corporate M&A**

Albeit peripheral to the research objective, the notion of transferring the systematic and cross-disciplinary approach taken by private equity firms to corporate M&A is particularly compelling. Despite the long tradition of M&A, the outcome is still too frequently value destruction. What this study suggests is that knowledge of the structural approach to acquiring the portfolio firm and value creation during the holding period would be highly applicable to corporate M&A. The practical utility to corporate management in locations and markets with no previous research or expertise may be even more pressing.

The sections of prime interest for people involved in corporate M&A would be Chapter 3 (“An empirically derived taxonomy of value generation”) and the case stories presented in Chapter 5 (“Empirical data”).

## **7.4 Limitations of the Study**

The general limitations to the research methodology were earlier discussed in Chapter 4.4. In this section will be presented the limitations to this particular study.

*Limited amount of case firms.* From a research standpoint there is an inherent problem with small, non-random samples, which affects the generalizability of findings. Having access to a larger sample of firms with similar characteristics and either extending the case study or combining quantitative research methodology (i.e. mixed-methods) could increase the trustworthiness of findings. However, it needs to be acknowledged that this limitation is inherent to all qualitative research and corresponds to the lack of data of depth inherent to quantitative research.

*Limited scope and resources.* Obviously the financial resources and the opportunity to extend the research project were limited in the project, as it was completely financed through grants provided by private foundations. In a larger scale research project, the examination of the case firms could have included multiple

hierarchical layers, which again would have bolstered the trustworthiness and potentially augmented the findings. Access to additional resources in research personnel and finance would have alleviated the limitation.

*Employing perceptual measures.* A case study by necessity relies on perceptual and subjective measures by eliciting source data in an interview, which is a salient difference compared to quantitative research. However, relying on a quantitative methodology to meticulously examine the scope of mechanisms explored in this study would be unfeasible. Moreover, the quantitative approach is inappropriate for extracting any tacit 'expert knowledge' and inferior for capturing the 'soft factors' of corporate culture leading to improvements.

*Lack of detailed financial data.* The issue concerns the lack of detailed financial data of the firms over time which, e.g. potentially could have been used to increase the trustworthiness of findings. The limitation particularly concerned one of the private equity firms and could to some extent be mitigated by the use of secondary data sources, such as published articles in magazines and newspapers.

*Limited geographical focus.* At the onset of this study, the geographical scope was defined as being the Nordic countries. While the study shed a light on the idiosyncrasies of value creation in the particular Nordic portfolio firms, it simultaneously implies that the findings may be geographically limited. This again ties into the discussed limitation posed by having *limited scope and resources*.

*Trustworthiness.* Since this is an inherent problem of the case study, multiple measures were taken to increase the trustworthiness. First, at least *dual sources of information* were stipulated during the data collection. Second, at least an *independent source of information* was compulsory. For the positive case firms this meant at least two independent interviewees and published information, albeit for the supplementary contrast cases it was a senior partner and published information. Third, *direct involvement* in the case was mandatory for all interviewees, which obviously meant being intimately familiar with the case. Fourth, *contrasting cases* of value destruction were added to the sample, all of which came from the same countries and the same PE firms, which in turn added comparability.

While *prolonged engagement* with the interviewees from the case firms was unfeasible (the exits had been completed years earlier), this was at least partially alleviated by the repeated contacts over an extended time frame, e.g. feedback process. The primary form of *member check* was the validation question ending each interview, which gave each interviewee the possibility of adding information uncovered in the interview. Furthermore, *peer debriefing* was performed by discussing the research with academics active in private equity during the project, but particularly in the final stages of the dissertation the feedback process has been exhaustive.

Finally, *interviewee corroboration* is a method used in the final stages of a research project, as the purpose is to assess the findings by the interviewees and will be initiated when sharing the dissertation with the specific private equity firms. And finally, it must be acknowledged that some scholars maintain the view in which the purpose of a qualitative case study is to generate interesting propositions, not to establish generalizability of findings. When this criterion is used, the reliability of findings is altogether established in ensuing quantitative studies.

## 7.5 Directions for Future Research

A reasonable assumption is that further studies of outperforming buyout firms would reveal additional novel mechanisms, while corroborating (or refuting) the validity and reliability of the mechanisms in this study. This research project set out as an unassuming explorative case study of a substantively important sample of cases that had not been examined before. In retrospect this approach proved fertile and worthwhile, particularly in the generation of interesting propositions that should be subject to more research. By replicating the qualitative study using a larger sample, we would gain a more robust understanding of outperformance. Simultaneously, this would allow widening the scope to encompass the entirety of the empirically derived taxonomy, including more tangentially addressed mechanisms.

Another important step would be to augment this study by a quantitative approach in order to assess the propositions and establish the validity and reliability. As of now, the revealed mechanisms may be construed as having had varying impact on the value generation in the case firms under study. While the findings and propositions are important from a research perspective, in order to generalize the findings more studies would be necessary over a larger population of firms.

Research on performance improvements in private equity buyouts could benefit from incorporating an additional set of organizational functions into the study, e.g. the reorganization of the sales function, the reinvigoration of marketing and branding in mature industries, and the efficiency improvements to supply chains. A fair amount of research on buyouts has examined the effect of improving various organizational functions, such as finance and governance, but research on the effect on sales and marketing is effectively non-existent.

An interesting direction concerns the geographic scope of the Nordic countries. A wider or different geographical scope could reveal whether the application of value generation mechanisms differ between geographical areas. While a fair number of studies have been conducted on individual Nordic countries (particularly in Sweden and Denmark, but also in Norway), little research has explored the variation between buyouts in the U.S., the U.K., Continental Europe, and the Nordic countries.

Finally, an important research topic would be to establish the relative import and preconditions of the distinct levers, drivers, mechanisms, and methods in the value generation of buyouts. With the empirically derived taxonomy, there is a cohesive model of real-life buyout value generation that is less afflicted by overlaps and of considerably higher granularity than previous conceptual models. Nevertheless, the model does not explicitly attempt to establish the relative import of the factors or the heterogeneous preconditions for the factors to materialize in value generation.

## 7.6 Concluding Remarks

The study is unique in the examination of a particularly important sample of private equity buyouts: firms that substantially outperformed the peers of portfolio firms. The research objective was to elucidate the characteristics and preconditions for exceptional value generation in acquired firms. In particular, the objective



was to discern the potentially critical mechanisms by which outperformance ensues and the prospective discrepancy to the average performing buyouts.

The research approach is the *inductive multiple case study* to comprehensively examine earlier research on the value generation in buyout portfolio firms. This ambitious research project allowed the examination of a substantially wider spectrum of value generation mechanisms than by relying on the traditional quantitative approach in private equity research. As a consequence, the result has been the construction of a structured and cohesive model, which serves to explicate the sources of value in private equity owned companies. Specifically, the *empirically derived taxonomy* allows us to conceptually identify *where* and *how* economic value is created and generated in buyouts.

The study has a number of direct implications for scholars and practitioners with regards to the activities that result in performance improvements in private equity portfolio firms and corporate acquisitions. The dissertation contributes foremost to the literature on value generation and performance improvement in private equity buyouts and second to the wider body of literature that concerns corporate mergers and acquisitions.

What is abundantly clear from the research project is that private equity firms need to expand their competency repertoire and pursue the full arsenal of value generation tools in order to succeed over the long term.

# Appendices

## Appendix A. Studies on Buyout Value Generation

Figure 7. Previous research on various sources of buyout value generation

1. Financial Drivers				
Financial Expertise and Contact Networks	Debt Market Cycles: Mispricing vs. Overheating	Capital Structure Optimization	Creative Finance	Asset Conversion and Securitization
<p><b>Favorable Terms Of Debt</b> Magowan (1989); Kaufman and Englander (1993); Cotter and Peck (2001)</p> <p><b>Trustworthy Borrowers</b> DeAngelo et al. (1984); Frankfurter and Gunay (1992); Opler and Titman (1993); Baker and Smith (1998); Cotter and Peck (2001); Demiroglu and James (2007); Ivashina and Kovner (2010)</p> <p><b>PE Firms Experienced In Finance Excel</b> Ivashina and Kovner (2010); Zarutskie (2010)</p>	<p><b>Market Mispricing</b> Baker and Wurgler (2000); Baker et al. (2003)</p> <p><b>More Investments During Low-Cost Credit</b> Ljungqvist et al. (2007); Axelson et al. (2008)</p> <p><b>Overheated Debt Markets</b> Kaplan and Stein (1993)</p> <p><b>Money Chasing Deals Phenomenon</b> Gompers and Lerner (2000); Diller and Kaserer (2007); Cornelius et al. (2009); Axelson et al. (2013)</p>	<p><b>Identifying The Optimal Capital Structure</b> Palepu (1990); Rappaport (1990); Singh (1990); Smith (1990b); Singh (1993); Gifford (2001)</p> <p><b>Non-Linear Reduced Risk for Insolvency</b> Jensen (1989a); Kaplan (1989b); Palepu (1990); Kaplan and Stein (1993); Opler and Titman (1993); Holthausen and Larcker (1996); Strömberg (2007); Wilson et al. (2009); Lopez-de-Silanes et al. (2011); Hotchkiss et al. (2014)</p> <p><b>Debt Overhang</b> Myers (1984); Holthausen and Larcker (1996); Berck and DeMarzo (2007)</p> <p><b>Decline In Competitiveness</b> Palepu (1990); Damodaran (2001); Gifford (2001); Grant (2011)</p>	<p><b>Innovative Financing</b> Jensen (1989a); Ryan (2006, p.140); Axelson et al. (2007, 2008); Chapman and Klein (2009); Axelson et al. (2013)</p>	<p><b>Asset Conversion</b> Rogers et al. (2002b); Mishkin and Eakins (2011)</p>
			<p><b>Alleviating Capital Market Constraints</b></p>	<p><b>High-Leverage: Inflating Gains and Inducing Efforts</b></p>
			<p><b>Market Substitute In Weak Capital Markets</b> Boucly et al. (2008); Chung (2010)</p>	<p><b>High-Leverage Inflating the Returns</b> Lowenstein (1985); Bull (1989); Meerkatt et al. (2008); Valkama et al. (2010)</p> <p><b>Inducing Efforts</b> Grossman and Hart (1983); Jensen (1986a, 1986b, 1989b); Rappaport (1990)</p>

<b>2. Operational Drivers</b>				
<b>General</b>	<b>Functional Experience and Operational Expertise</b>	<b>Cost Structure Improvements 1(2)</b>	<b>Cost Structure Improvements 2(2)</b>	<b>Capital Management and Asset Utilization</b>
<p><b>Operating Improvements in Buyouts</b></p> <p>Baker and Wruck (1989); Bull (1989); Jensen (1989a); Lehn and Poulsen (1989); Kaplan (1989b); Lichtenberg and Siegel (1990); Muscarella and Vetsuypens (1990); Singh (1990); Smith (1990a); Jones (1992); Opler (1992); Long and Ravenscraft (1993a); Opler and Titman (1993); Ofek (1994); Smart and Waldfogel (1994); Phan and Hill (1995); Thompson and Wright (1995); Holthausen and Larcker (1996); Weir and Laing (1998); Desbrieres and Schatt (2002); Amess (2003); Harris et al. (2003); Bergström et al. (2007); Cressy et al. (2007); Cumming et al. (2007); Nikoskelainen and Wright (2007); Pindur (2007); Boucly et al. (2008); Bernstein et al. (2010); Chung (2010)</p> <p><b>Modest / Negative Increase in Operating Performance</b></p> <p>Vinten (2007); Guo et al. (2011)</p>	<p><b>Cross-Utilization of Managerial Talent</b></p> <p>Hite and Vetsuypens (1989)</p> <p><b>GPs with Operational Experience</b></p> <p>Schmidt et al. (2004); Acharya et al. (2011)</p>	<p><b>Reduced Corporate Spending</b></p> <p>Grossman and Hart (1983); Jensen (1986b); Bull (1989); Kitching (1989); Magowan (1989); Kaplan (1989b); Muscarella and Vetsuypens (1990); Smith (1990a); Anders (1992); Baker (1992); Opler (1992); Seth and Easterwood (1993); Phan and Hill (1995); Holthausen and Larcker (1996); Wright et al. (2001a)</p> <p><b>Reduced Costs in Manufacturing</b></p> <p>Lichtenberg and Siegel (1990); Muscarella and Vetsuypens (1990); Wright, Hoskisson, Busenitz, and Dial (2000); Harris et al. (2003)</p> <p><b>Reduced Levels of Employment</b></p> <p>Kaplan (1989b); Muscarella and Vetsuypens (1990); Smith (1990a)</p> <p><b>Modest Employment Reductions</b></p> <p>Wright et al. (2007); Davis et al. (2008)</p> <p><b>Increased Levels of Employment Long-Term</b></p>	<p>Amess et al. (2008); Shapiro and Pham (2008)</p> <p><b>Reduced White-Collar Employment and Wages</b></p> <p>Easterwood et al. (1989); Lichtenberg and Siegel (1990); Butler (2001)</p> <p><b>Reductions in R&amp;D</b></p> <p>Hall (1990); Lichtenberg and Siegel (1990); Smith (1990b); Opler (1992); Long and Ravenscraft (1993c, 1993a); Hoskisson, Johnson, and Moesel (1994)</p> <p><b>Preserved R&amp;D Investments</b></p> <p>Wright and Coyne (1985); Bull (1989); Kravis (1989); Malone (1989); Lichtenberg and Siegel (1990); Zahra and Fescina (1991); Thompson et al. (1992); Wright et al. (1992)</p> <p><b>Increased Product Development</b></p> <p>Wright and Coyne (1985); Bull (1989); Malone (1989); Zahra and Fescina (1991); Thompson et al. (1992)</p>	<p><b>Rationalization of Fixed And Current Assets</b></p> <p>Lowenstein (1985); Baker and Wruck (1989); Bull (1989); Easterwood et al. (1989); Magowan (1989); Muscarella and Vetsuypens (1990); Singh (1990); (1990a); Wright et al. (1992); Long and Ravenscraft (1993a); Kester and Luehrman (1995); Holthausen and Larcker (1996); Baker and Smith (1998); Butler (2001); Damodaran (2001); Niemeyer and Simpson (2008)</p>

<b>3. Strategic Drivers</b>				
<b>General</b>	<b>Focusing on the Core: Complexity Reduction</b>	<b>Focusing on Consolidation: Buy and Build Strategies</b>	<b>Focusing on Growth: Market Expansion</b>	
<p><b>Importance of Strategic Redirection</b></p> <p>Muscarella and Vetsuypens (1990); Singh (1990); Seth and Easterwood (1993); Phan and Hill (1995); Rogers et al. (2002b); Heel and Kehoe (2005); Zong (2005)</p>	<p><b>Core Business Focus</b></p> <p>Rumelt (1974); Montgomery et al. (1984); Palepu (1985); Lubatkin and Rogers (1989); Lubatkin and Chatterjee (1991); Kaplan and Weisbach (1992); Liebeskind et al. (1992); Seth and Easterwood (1993); John and Ofek (1995); Phan and Hill (1995); Wiersema and Liebeskind (1995); Gadad and Thomas (2004)</p> <p><b>Asset Sales and Divestment</b></p> <p>Kaplan (1988); Baker and Wruck (1989); Jensen (1989b); Magowan (1989); Hoskisson and Turk (1990); Muscarella and Vetsuypens (1990); Singh (1990); Smith (1990b); Anders (1992); Baker (1992); Seth and Easterwood (1993); Singh (1993); Denis (1994); Chevalier (1995); Wiersema and Liebeskind (1995); Baker and Smith (1998); Aslan and Kumar (2009)</p>	<p><b>Buy and Build Strategy</b></p> <p>Baker et al. (1994); Allen (1999); O'Donnell (2001); Wright et al. (2001a); Brau et al. (2003); Brau and Fawcett (2006); Ernst &amp; Young (2008); Hoffmann (2008)</p>	<p><b>Growth Strategy and Multiple Expansion</b></p> <p>Singh (1990); Lockett et al. (2002); Meuleman et al. (2009); Acharya et al. (2011)</p>	

<b>4. Governance Drivers 1(2)</b>				
<b>The GP Effect: Experience and Expertise</b>	<b>PE Firm Industry Focus and Fund Size</b>	<b>Reduced Agency Costs and Interest Realignment 1(2)</b>	<b>Restructured Board of Directors 1(2)</b>	<b>Restructured Board of Directors 2(2)</b>
<p><b>PE Firm Knowledge Transfer</b> Hite and Vetsuypens (1989); Baker and Smith (1998)</p> <p><b>Extensive Contact Networks</b> Anders (1992); Kaufman and Englander (1993); Baker and Smith (1998); Bruining and Wright (2002)</p> <p><b>PE Firm Buyout Experience</b> Schmidt et al. (2004); Kaplan and Schoar (2005); Diller and Kaserer (2007); Hahn (2009); Acharya et al. (2011)</p>	<p><b>Industry Focus and Experience Specialization</b> Muscarella et al. (1990); Gompers et al. (2006); Loos (2006); Metrick and Yasuda (2010); Zarutskie (2010)</p> <p><b>Limiting Amount of Funds and Portfolio Firms</b> Lopez-de-Silanes et al. (2008); Cumming and Walz (2010)</p> <p><b>Internal Characteristics of PE Firms</b> Lopez-de-Silanes et al. (2008)</p> <p><b>Syndication of Buyouts</b> Brander et al. (2002); Gompers and Lerner (2006); Cumming and Walz (2010)</p>	<p><b>Incentive Realignment</b> Kreuter et al. (2005); Renneboog et al. (2005)</p> <p><b>The Carrot and Stick – Mechanism</b> Lowenstein (1985); DeAngelo and DeAngelo (1987); Bull (1989); Jensen (1989b); Lichtenberg and Siegel (1990); Frankfurter and Gunay (1992); Gregory (2000); Cotter and Peck (2001); Jensen et al. (2006); Barber and Goold (2007); Leslie and Oyer (2009)</p> <p><b>Substantial Positive Incentives</b> Morck et al. (1988); Easterwood et al. (1989); McConnell and Servaes (1990); Palepu (1990); Phan and Hill (1995); Weir and Laing (1998); Heel and Kehoe (2005); Leslie and Oyer (2009)</p> <p><b>Limitation of Negative Incentives</b> Demsetz (1983); Fama and Jensen (1985); Morck et al. (1988); Lei and Hitt (1995); Holthausen and Larcker (1996)</p>	<p><b>Supervisory Function</b> Jensen (1993); Gabrielsson and Huse (2002); Gompers and Lerner (2006); Bottazzi et al. (2008)</p> <p><b>Strategic Guidance</b> Rosenstein et al. (1993); Sapienza et al. (1996); Kaplan and Strömberg (2004)</p> <p><b>Limitation of Board Size</b> Jensen (1993); Yermack (1996); Eisenberg et al. (1998); Dalton et al. (1999); Jensen et al. (2006); Acharya et al. (2008); Guest (2009); Cornelli et al. (2012)</p> <p><b>Board Composition</b> Rogers et al. (2002b); Millson and Ward (2005); Jensen et al. (2006); Cornelli and Karakas (2008)</p>	<p><b>Active and Participating Boards</b> Lowenstein (1985); Jensen (1989a, 1989b); Smith (1990a); Gertner and Kaplan (1996); Vafeas (1999); Jensen et al. (2006); Acharya et al. (2008); Cornelli and Karakas (2008); Acharya et al. (2011); Guo et al. (2011)</p> <p><b>Critical Board Tasks</b> Fama (1980); Demsetz (1983); Jensen (1988); Baker and Wruck (1989); Jensen (1989a); Lichtenberg and Siegel (1990); Baker and Montgomery (1994); Acharya et al. (2008)</p>
<p><b>Reduced Agency Costs and Interest Realignment 2(2)</b></p> <p><b>Negative Incentives</b> Jensen and Meckling (1976); DeAngelo et al. (1984); Jensen (1986b); Baker and Wruck (1989); Easterwood et al. (1989); Kitching (1989); Muscarella and Vetsuypens (1990); Smith (1990a, 1990b); Anders (1992); Fox and Marcus (1992); Thompson et al. (1992); Weir and Laing (1998); Beaver (2001); Butler (2001); Jensen et al. (2006); Leslie and Oyer (2009)</p>				

Govern. Drivers 2(2)	5. Cultural Drivers			
Reinforced Management Team	The Parenting Advantage: Monitoring and Mentoring	Corporate Culture: Revived Entrepreneurial Spirit 1(2)	Corporate Culture: Revived Entrepreneurial Spirit 2(2)	Performance Management: Stretch Budgets and Goals
<p><b>Pre-buyout Managerial Underperformance</b> Jensen and Ruback (1983); Gilson (1989); Bertrand and Schoar (2003)</p> <p><b>Post-buyout Replacement of Management</b> Palepu (1990); Anders (1992); Khurana and Nohria (2000); Cotter and Peck (2001); Rogers et al. (2002b); Heel and Kehoe (2005); Helfat and Bailey (2005); Zong (2005); Jensen et al. (2006); Kaplan et al. (2008); Bloom et al. (2009); Acharya et al. (2011); Cornelli et al. (2012)</p>	<p><b>Parenting Advantage</b> Campbell et al. (1995); Goold and Campbell (1998); Goold et al. (1998)</p> <p><b>Active Ownership and Constructive Interaction</b> Bull (1989); Hite and Vetsuypens (1989); Anders (1992); Kester and Luehrman (1995); Heel and Kehoe (2005)</p> <p><b>Monitoring, Control and Accelerated Decision-Making</b> Lowenstein (1985); Sahlman (1990); Singh (1990); Thompson and Wright (1991); Admati et al. (1994); Maug (1998); Kaplan and Strömberg (2003); Bottazzi et al. (2008)</p> <p><b>Free-Rider Problem</b> Grossman and Hart (1980)</p>	<p><b>Revived Corporate Culture</b> Lowenstein (1985); Bull (1989); Jensen (1989a); Hoskisson and Turk (1990); Houlden (1990); Singh (1990); Anders (1992); Taylor (1992); Kester and Luehrman (1995); Weir (1996); Wright et al. (1996); Butler (2001); Wright et al. (2001a); Wright, Hoskisson, Busenitz, and Dial (2001b); Bruining and Wright (2002); Bruining et al. (2004)</p> <p><b>Increased Managerial Independence</b> Lowenstein (1985); Jensen (1989a); Hoskisson and Turk (1990); Houlden (1990); Weir (1996); Beaver (2001); Butler (2001); Wright et al. (2001a)</p>	<p><b>Pre-buyout Agency Problems In Corporate Divisions</b> Fama and Jensen (1983b); Hill (1988); Thompson and Wright (1995)</p> <p><b>Pre-buyout Management Issues in Family Firms</b> Schulze et al. (2001); Chrisman et al. (2004); Howorth et al. (2004); Bloom and Reenen (2007); Meuleman et al. (2009)</p>	<p><b>Stretch Budgets And Business Objectives</b> Baker and Wruck (1989); Easterwood et al. (1989); Jensen (1989a); Magowan (1989); Smith (1990b); Anders (1992); Baker and Montgomery (1994); Butler (2001)</p> <p><b>Revising the Firm KPIs: Novel Yardsticks</b></p> <p><b>Key Performance Indicators</b> Butler (2001); Rogers et al. (2002b); Zong (2005); Acharya et al. (2008)</p>

6. Temporal Drivers		7. Commercial Drivers 1(3)		
High Tempo and Inchoate Change	The Holding Period Time Horizon	General	Proprietary Deal Flow	Deal Making Expertise
<b>Allocated Time by GPs After Buyout</b> Heel and Kehoe (2005); Matthews et al. (2009)	<b>Short Holding Periods Associated with High Returns</b> Phalippou and Zollo (2005b); Lopez-de-Silanes et al. (2011) <b>Short Holding Periods Not Associated with High Returns</b> Siming (2010) <b>Long-Term Strategic Focus in Buyout Firms</b> Rogers et al. (2002b); Jensen et al. (2006); Mills (2006)	<b>Wealth Expropriation – Hypothesis Supported</b> Baker and Wruck (1989); Harlow and Howe (1993); Kaestner and Liu (1996) <b>Wealth Expropriation – Hypothesis Unsupported</b> Kaplan (1989a, 1989b); Kaplan and Stein (1993); Renneboog and Simons (2005) <b>Legitimate Information Asymmetries</b> Anders (1992); Fox and Marcus (1992)	<b>Proprietary Deal Flow</b> Wright et al. (1996); Kaplan and Schoar (2005); Loos (2006)	<b>Restricting Access to Auctions</b> Wright et al. (1996); Baker and Smith (1998); Butler (2001)

Commercial Drivers 2(3)				
Target Firm Identification and Investment Criteria	Uncovering the Business Potential	Detecting Nascent Market Trends: Multiple Expansion	Timing the Business Cycles	The Entry Transaction: Firm Valuation
<b>Buyout Criteria and Target Firms</b> Baker and Wruck (1989); Kaplan (1989b); Lichtenberg and Siegel (1990); Singh (1990); Smith (1990b); Opler and Titman (1993); Olsen (2002); Malak (2005); Masulis and Thomas (2009); Arundale (2010)	<b>The Underperformance Hypothesis</b> Holthausen and Larcker (1996); Renneboog and Simons (2005); Nikoskelainen (2006) <b>Management Practices Inferior in Family-Managed Target Firms</b> Bloom and Reenen (2007); Bloom et al. (2009)	<b>Industry Growth and Buyout Returns</b> Phalippou and Zollo (2005a); Bergström et al. (2007); Valkama et al. (2010)	<b>Industry Cycles and Vintage Years</b> Kaplan and Schoar (2005); Chew (2009); Cornelius et al. (2009); Kaplan and Strömberg (2009) <b>Timing Ability of VC Fund GPs</b> Muscarella et al. (1990); Lerner (1994); Schmidt et al. (2004) <b>Macroeconomic Conditions and Buyout Performance</b>	<b>Valuation Methods</b> Damodaran (2006); Hoffmann (2008) <b>PE Firms Pay Less Than Competitors</b> Kaplan (1989b); Butler (2001); Wright et al. (2006); Kaplan and Strömberg (2009) <b>Competitive Auctions, Price Levels and Returns</b>

			Phalippou and Zollo (2005b); Valkama et al. (2010) <b>Counter-Cyclicalities Between M&amp;As and Buyouts</b> Thomsen and Vinten (2007)	Loos (2006)
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<b>Commer. Drivers 3(3)</b>	<b>8. Organizational Drivers</b>			
<b>Divesting the Firm: The Mode of Exit</b>	<b>Mitigated Legislative and Regulatory Constraints</b>	<b>The Corporate Tax Shield: Debt and Taxes</b>	<b>Carried Interest and Capital Income</b>	
<b>The Prevalent Exit Routes</b> Schwienbacher (2002); Povaly (2006); Chapman and Klein (2009); Schmidt et al. (2009); Achleitner et al. (2012)	<b>Financial Regulatory Regimes</b> European Commission (2006); EVCA (2009); Appelbaum and Batt (2012); Braun et al. (2013a)	<b>Tax Reductions from Debt</b> Bull (1989); Hayn (1989); Leland (1989); Marais, Schipper, and Smith (1989); Kaplan (1989a, 1989b); Rappaport (1990); Singh (1990); Smith (1990b, 1990a); Frankfurter and Gunay (1992); Newbould et al. (1992); Long and Ravenscraft (1993b); Baker and Smith (1998); Kaplan and Strömberg (2009); Guo et al. (2011); Jenkinson and Stucke (2011)  <b>Gradually Diminished Tax Benefits</b> Newbould et al. (1992)	<b>The Effect Of Carried Interest</b> Morris and Phalippou (2011)	



## **Appendix B. Thematic Analysis of the Case Study Firms**

The purpose of Appendix B is to illustrate the thematic analysis process and to demonstrate that each case was analyzed meticulously and approached by congruous means. The intention is not to outline the themes in detail (e.g. key events and actions) in each case firm, as these are delineated in Chapter 6 during the Cross-Case Study Analysis. Due to this reason the mindmaps have been condensed for each case to fit a single page. The diagrams depicting the key events during the pre- and post-buyout holding period are legible by zooming the pdf -version of the thesis.

All the attached visualizations of the business case firms have been anonymized in accordance with confidentiality agreements.

Due to the poor quality of the source data, case study F differed substantially from all other cases. The rudimentary mind map was therefore deemed unnecessary and excluded, albeit the case ("Upsilon") is still presented in narrative form and analyzed.

The graphics for the thematic analysis were created by using CreativeDraw Mindmap® application.



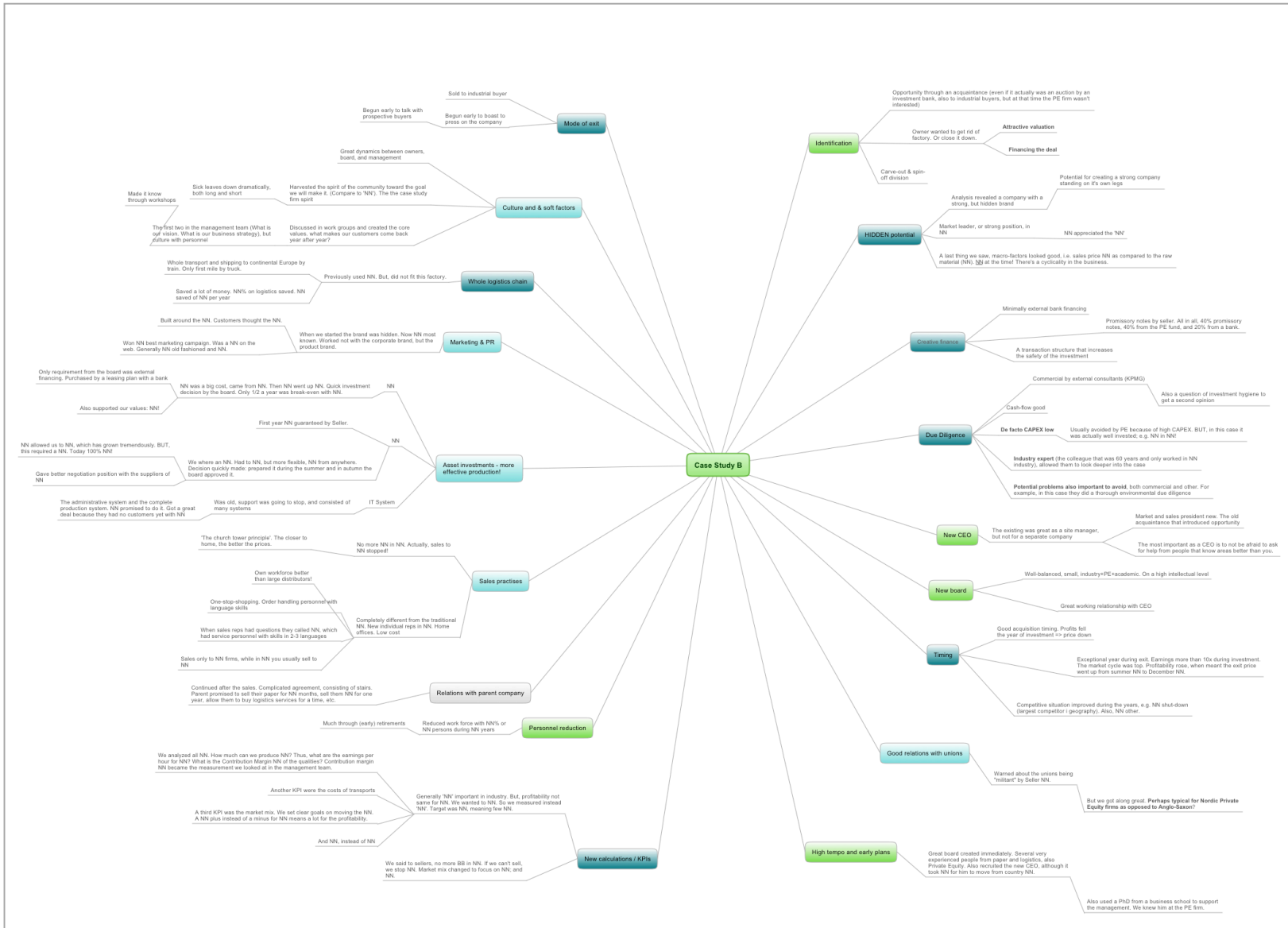


Figure 9. Thematic analysis of a case firm "B"

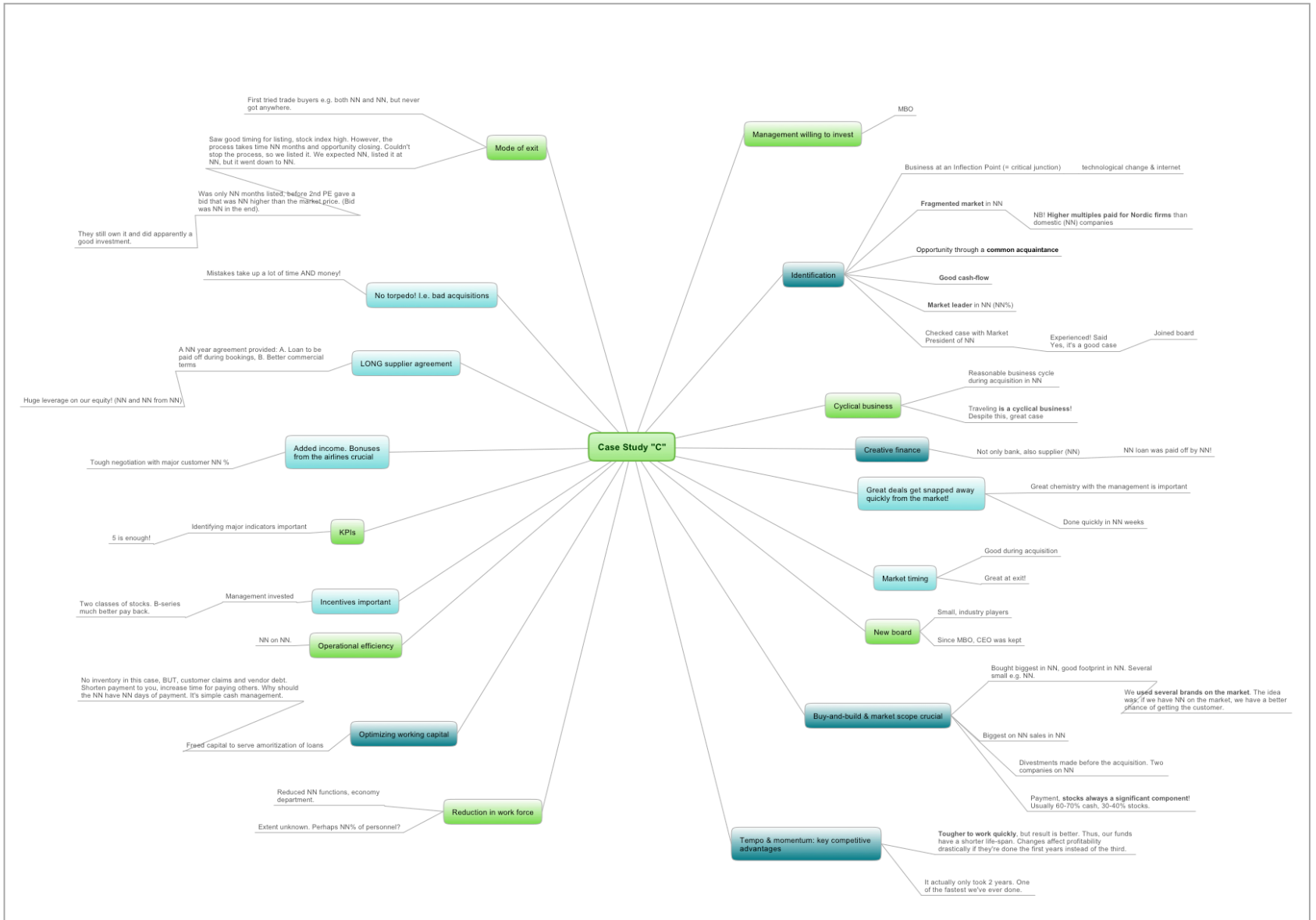


Figure 10. Thematic analysis of a case firm "C"

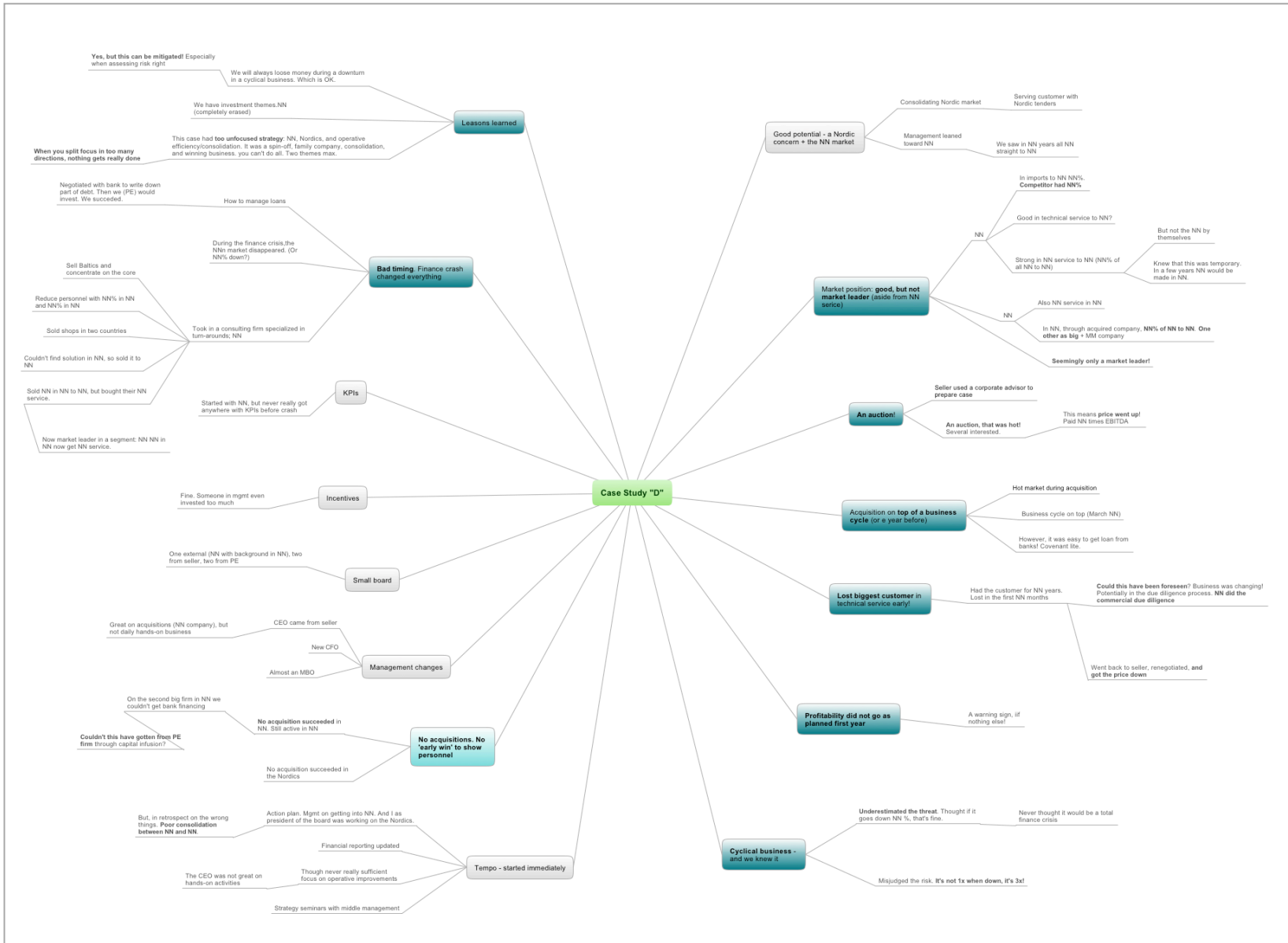


Figure 11. Thematic analysis of a case firm "D"

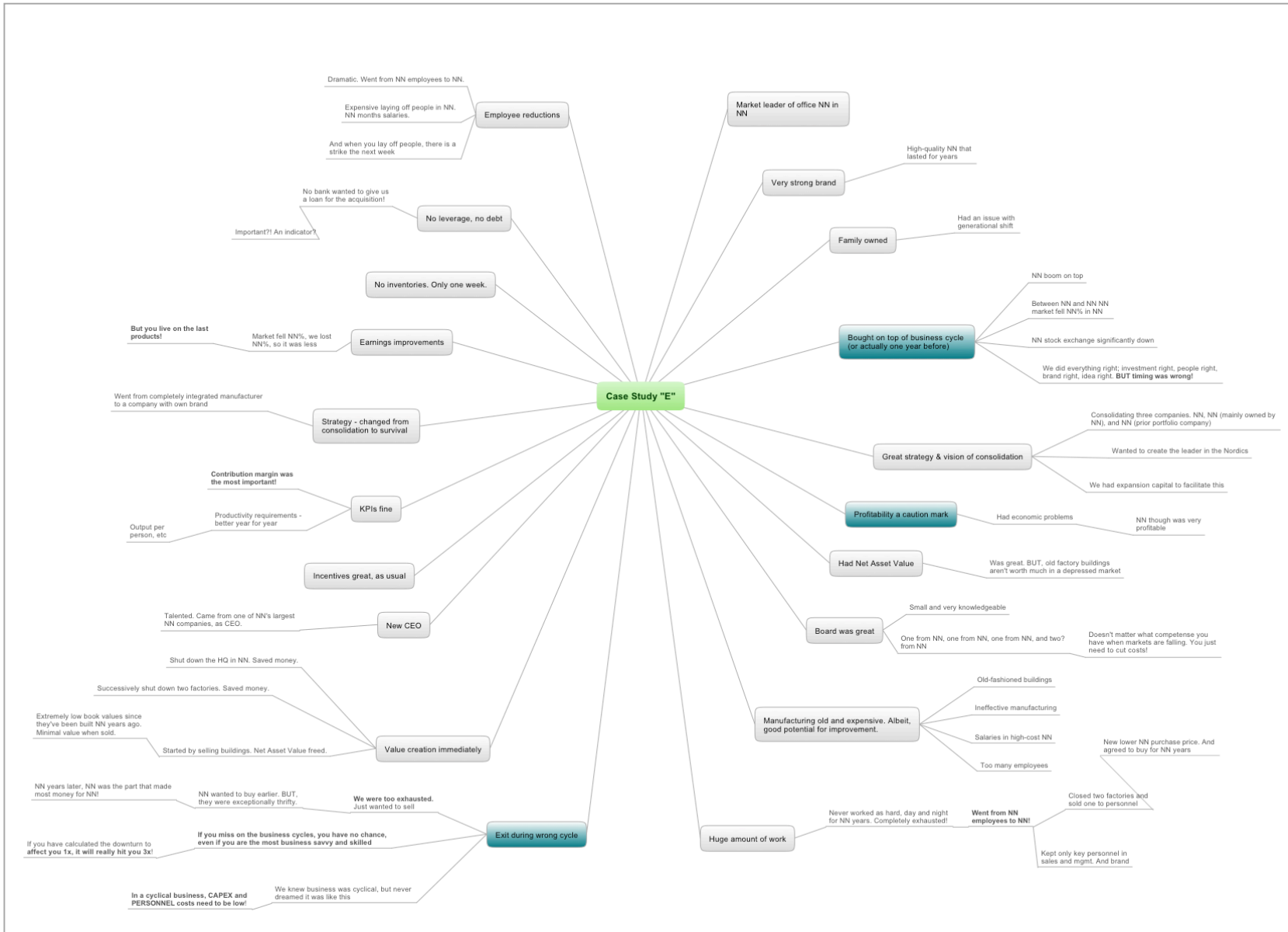


Figure 12. Thematic analysis of a case firm "E"

## Appendix C. Comparison to a Prior Taxonomy of Value Generation

The Principal Sources of Value Generation in Buyouts								
Direct Value Creation			Indirect Value Creation			Value Capture		
Financial driver	Operational driver	Strategic driver	Governance driver	Cultural driver	Temporal driver	Commercial driver	Organizational driver	
Financial Expertise and Contact Networks	Functional Experience and Operational Expertise	Focusing on the Core: Complexity Reduction	The GP Effect: Experience and Expertise Matters	The Parenting Advantage: Monitoring and Mentoring	High Tempo and Inchoate Change	Proprietary Deal Flow	Mitigated Legislative and Regulatory Constraints	
Debt Market Cycles: Mispricing and Overheating	Cost Structure Improvements	Focusing on Consolidation: Buy and Build Strategies	PE Firm Constraints: Industry Focus; Fund Size	Corporate Culture: Reviving the Entrepreneurial Spirit	The Holding Period Time Horizon	Deal Making Expertise	The Corporate Tax Shield: Debt and Taxes	
Alleviating Capital Market Constraints	Capital Management and Asset Utilization	Focusing on Growth: Market Expansion	Agency Costs: Incentivation and Interest Realignment	Performance Management: Stretch Budgets; Goals		Target Firm Identification and Investment Criteria	Carried Interest and Capital Income	
Leverage: Inflating Gains and Inducing Efforts			Restructuring the Board of Directors	Revising the Firm KPIs: Novel Yardsticks		The Business Potential: Underperform. Firms		
Capital Structure Optimization in Buyouts			Reinforcing the Management Team			Nascent Market Trends: Multiple Expansion		
Creative Finance						Timing the Business Cycles		
Asset Conversion and Securitization						The Entry Transaction: Firm Valuation		
						Divesting the Firm: The Mode of Exit		

**Figure 13. Comparison of value generation mechanisms to Berg & Gottschalg taxonomy**

In Figure 13 the red colored squares indicate corresponding mechanisms noted by Berg and Gottschalg (2003), while the green colored designate novel mechanisms. Diagonally marked squares indicate partial similarity. The table does not include the fourth layer of methods, since it is lacking in the taxonomy by Berg and Gottschalg.

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# Glossary

## The principal terminology and concepts of the private equity industry<sup>59</sup>

**Acquisition:** The process of gaining control, possession, or ownership of a private portfolio company by an operating company or conglomerate.

**Asset:** Anything owned by an individual, a business or financial institution that has a present or future value, i.e. can be turned into cash. In accounting terms, an asset is something of a future economic benefit obtained as a result of previous transactions. Tangible assets can be land and buildings, fixtures and fittings; examples of intangible assets are goodwill, patents, and copyrights.

**Asset-backed loan:** Loan, typically from a commercial bank, which is backed by asset collateral, often belonging to the portfolio company, i.e. firm acquired in a buyout.

**Average IRR:** The arithmetic mean of the Internal Rate of Return (IRR).

**Buyout:** This is the purchase of a company or a controlling interest of a corporation's shares mainly by a private equity investment firm.

**CAGR:** Compound Annual Growth Rate. The year-over-year growth rate applied to an investment or other aspect of a firm using a base amount.

**Capital (or Assets) Under Management:** This is the amount of capital that the fund has at its disposal, and is managing for investment purposes.

**Capital Gain:** When an asset is sold for more than the initial purchase cost, the profit is known as the capital gain. This is the opposite of capital loss. Long-term capital gains (on assets held for a year or longer) are taxed at a lower rate than ordinary income.

**Carried Interest:** The portion of any gains realized by the fund to which the private equity fund managers are entitled, generally without having to contribute capital to the fund. Carried interest is normally expressed as a percentage of the total profits of the fund. The industry norm is 20 percent, which the fund manager would normally receive, while the remaining 80 percent would be distributed to the fund investors.

**Consolidation (or Roll-Up Acquisitions):** An investment strategy in which a buyout firm acquires a series of companies in the same or complementary fields, with the goal of becoming a dominant regional or nationwide player in that industry. In some cases, a holding company will be created to acquire the new companies. In other cases, an initial acquisition may serve as the platform through which the other acquisitions will be made.

**Deal Flow:** The measure of the number of potential investments that a fund reviews in any given period.

**Deal Structure:** An agreement made between the investor and the company defining the rights and obligations of the parties involved. The process by which one arrives at the final term and conditions of the investment.

**Depreciation:** An expense recorded to reduce the value of a long-term tangible asset. Since it is a non-cash expense, it increases free cash flow while decreasing the amount of a company's reported earnings.

**Debt financing:** This is raising money for working capital or capital expenditure through some form of loan. This could be by arranging a bank loan or by selling bonds, bills or notes (forms of debt) to individuals or institutional investors. In return for lending the money, the individuals or institutions become creditors and receive a promise to repay principal plus interest on the debt.

**Distressed debt:** This is a form of finance used to purchase the corporate bonds of companies that have either filed for bankruptcy or appear likely to do so. Private equity firms and other corporate financiers who buy distressed debt don't asset-strip and liquidate the companies they purchase. Instead, they can make good returns by restoring them to health and then prosperity. These buyers first become a major creditor of the target company. This gives them leverage to play a prominent role in the reorganization or liquidation stage. In the event of a liquidation, distressed debt firms, by standing ahead of the equity holders in the line to be repaid, often recover all of their money, if not a healthy return on their investment. Otherwise known as vulture capital.

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<sup>59</sup> The glossary is an abridged and augmented replication of two primary sources: (A) European Private Equity and Venture Capital Association at <http://www.evca.eu/toolbox/glossary.aspx?id=982>, and, (B) Private Equity Demystified: An Explanatory Guide, 2nd ed., 2010 at [https://workspace.imperial.ac.uk/entrepreneurship/Public/Privateequity2\[1\].pdf](https://workspace.imperial.ac.uk/entrepreneurship/Public/Privateequity2[1].pdf).

**Due Diligence:** A process undertaken by potential investors, individuals, or institutions to analyze and assess the desirability, value, and potential of an investment opportunity.

**EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization):** A measure of cash flow calculated as: Revenue Expenses, but excluding tax, interest, depreciation and amortization. EBITDA looks at the cash flow of a company. By not including interest, taxes, depreciation and amortization, we can clearly see the amount of money a company brings in. This is especially useful when one company is considering a takeover of another because the EBITDA would cover any loan payments needed to finance the takeover.

**Economies of Scale:** The economic principle that states that as the volume (of similar goods) of production increases, the cost of producing each unit decreases.

**Economies of Scope:** Efficiencies wrought by a limitation of the variety (of produced goods), but not the volume.

**Equity:** Ownership interest in a company, usually in the form of stock or stock options.

**Equity Carve-out:** A clause present in deal documentation that reserves a percentage or fixed amount of preferred proceeds for a particular holder. The carve-out can be assigned any seniority and thus any position within the preference distribution stack.

**Equity Kicker:** Option for private equity investors to purchase shares at a discount. Typically associated with mezzanine financings where a small number of shares or warrants are added to what is primarily a debt financing.

**Exit Strategy:** A fund's intended method for liquidating its holdings while achieving the maximum possible return. These strategies depend on the exit climates including market conditions and industry trends. Exit strategies can include selling or distributing the portfolio company's shares after an initial public offering (IPO), a sale of the portfolio company, or a recapitalization.

**Exits (AKA divestments or realizations):** The means by which a private equity firm realizes a return on its investment. Private equity investors generally receive their principal returns via a capital gain on the sale or flotation of investments. Exit methods include a trade sale (most common), flotation on a stock exchange (common), a share repurchase by the company or its management, or a refinancing of the business (least common). *Secondary buyouts*, i.e. the exit of one private equity firm in a buyout firm to another private equity firm, are becoming an increasingly common.

**Flipping:** The act of buying shares in an IPO and selling them immediately for a profit. Brokerage firms underwriting new stock issues tend to discourage flipping, and will often try to allocate shares to investors who intend to hold on to the shares for some time. However, the temptation to flip a new issue once it has risen in price sharply is too irresistible for many investors who have been allocated shares in a hot issue. A *quick flip* is often defined as meaning 12 or 18 months within the private equity industry.

**Fund age:** The age of a fund (in years) from its first takedown to the time an IRR is calculated.

**Fund Size:** The total amount of capital committed by the investors of a venture capital fund.

**General Partners (GP):** The partner in a limited partnership responsible for all management decisions of the partnership. The GP has a fiduciary responsibility to act for the benefit of the limited partners (LPs), and is fully liable for its actions. By the term is commonly referred to the partners of the private equity firm that operate the buyout funds and invest in portfolio firms.

**Holding Period:** The amount of time an investor has held an investment. The period begins on the date of purchase and ends on the date of sale, and determines whether a gain or loss is considered short-term or long-term, for capital gains tax purposes.

**Initial Public Offering (IPO):** The sale or distribution of a stock of a portfolio company to the public for the first time. IPOs are often an opportunity for the existing investors (often venture capitalists) to receive significant returns on their original investment. During periods of market downturns or corrections the opposite is true.

**Institutional Investors:** Organizations that professionally invest, including insurance companies, depository institutions, pension funds, investment companies, mutual funds, and endowment funds. Typically the institutional investors (Limited Partners or LPs) invest in the funds or the private equity firm.

**IRR (Internal Rate of Return):** A typical measure of how VC Funds measure performance. IRR is a technically a discount rate: the rate at which the present value of a series of investments is equal to the present value of the returns on those investments.

**J-Curve Effect:** The curve realized by plotting the returns generated by a private equity fund against time (from

inception to termination). The common practice of paying the management fee and start-up costs out of the first draw-down does not produce an equivalent book value. As a result, a private equity fund will initially show a negative return. When the first realizations are made, the fund returns start to rise quite steeply. After about three to five years, the interim IRR will give a reasonable indication of the definitive IRR. This period is generally shorter for buyout funds than for early-stage and expansion funds.

**Junior Securities:** A security that ranks lower than other securities in regards to the owner's claims on assets and income in the event the issuer becomes insolvent.

**Lemon:** An investment that has a poor or negative rate of return. An old venture capital adage claims "lemons ripen before plums."

**Leveraged Buyouts (LBO):** A takeover of a company, using a combination of equity and borrowed funds. Generally, the target company's assets act as the collateral for the loans taken out by the acquiring group. The acquiring group then repays the loan from the cash flow of the acquired company. For example, a group of investors may borrow funds, using the assets of the company as collateral, in order to take over a company. Or the management of the company may use this vehicle as a means to regain control of the company by converting a company from public to private. In most LBOs, public shareholders receive a premium to the market price of the shares.

**Limited Partners (LP):** An investor in a limited partnership who has no voice in the management of the partnership. LP's have limited liability and usually have priority over GP's upon liquidation of the partnership. By the term is commonly referred the capital investors of private equity funds (e.g. pension fund investors).

**Limited Partnerships:** An organization comprised of a general partner, who manages a fund, and limited partners, who invest money but have limited liability and are not involved with the day-to-day management of the fund. In the typical venture capital fund, the general partner receives a management fee and a% of the profits (or carried interest). The limited partners receive income, capital gains, and tax benefits.

**Liquidation:** (a) The process of converting securities into cash or (b) The sale of the assets of a company to one or more acquirers in order to pay off debts. In the event that a corporation is liquidated, the claims of secured and unsecured creditors and owners of bonds and preferred stock take precedence over the claims of those who own common stock.

**Liquidation Preference:** The amount per share that a holder of a given series of Preferred Stock will receive prior to distribution of amounts to holders of other series of Preferred Stock or Common Stock. This is usually designated as a multiple of the Issue Price, for example 2X or 3X, and there may be multiple layers of liquidation

**Management Buy-in (MBI):** When a team of managers buys into a company from outside, taking a majority stake, it is likely to need private equity financing. An MBI is likely to happen if the internal management lacks expertise or the funding needed to 'buyout' the company from within. It can also happen if there are succession issues in family businesses; for example, there may be nobody available to take over the management of the company. An MBI can be slightly riskier than an MBO because the new management will not be as familiar with the way the company works.

**Management Buyout (MBO):** A private equity firm will often provide financing to enable current operating management to acquire or buy at least 50 percent of the business they manage. In return, the private equity firm usually receives a stake in the business. This is one of the least risky types of private equity investments because the company is already established and the managers running it know the business and the market it operates in extremely well.

**Market Capitalization:** The total dollar value of all outstanding shares. Computed as shares multiplied by current price per share. Prior to an IPO, market capitalization is arrived at by estimating a company's future growth and by comparing a company with similar public or private corporations.

**Mergers (Mergers and Acquisitions):** The combination of two or more corporations. By which often greater efficiency is supposed to be achieved by the elimination of duplicate plant, equipment, and staff, and the reallocation of capital assets to increase sales and profits in the enlarged company.

**Mezzanine financing:** This is the term associated with the middle layer of financing in leveraged buyouts. In its simplest form, this is a type of loan finance that sits between equity and secured debt. Because the risk with mezzanine financing is higher than with senior debt, the interest charged by the provider will be higher than that charged by traditional lenders, such as banks. However, equity provision – through warrants or options – is sometimes incorporated into the deal.

**Net Asset Value (NAV):** Calculated by adding the value of all of the investments in the fund and dividing by the number of shares of the fund that are outstanding. NAV calculations are required for all mutual funds (or open-end funds) and closed-end funds. The price per share of a closed-end fund will trade at either a premium or a discount to the NAV of that fund, based on market demand. Closed-end funds generally trade at a discount to NAV.

**Net IRR:** The IRR of a fund taking into account the effect of management fees and carried interest.

**Net Present Value (NPV):** An approach used in capital budgeting where the present value of cash inflow is subtracted from the present value of cash outflows. NPV is the present value of current and future income streams, minus initial investment.

**Positive Abnormal Performance:** A financial measure of the positive return of a security that exceeds the risk-adjusted norm. A common measure of an abnormal return is **Jensen's alpha**.

**Portfolio company:** A private equity firm will invest in several companies, each of which is known as a portfolio company. The spread of investments into the various target companies is referred to as the *portfolio* of the private equity firm.

**Preferred return (or Hurdle Rate):** The minimum return to investors to be achieved before the general partner (GP) is eligible to deduct carried interest. A hurdle rate of 10% means that the private equity fund needs to achieve a return of at least 10% per annum before the profits are shared according to the carried interest arrangement.

**Private Equity:** This refers to the holding of stock in unlisted companies, i.e. companies not quoted on a stock exchange. It sometimes includes venture capital and buyout financing, but often is used to denote only buyout financing.

**Private Equity Firm:** Mainly an investment company that raises capital into funds and from these invests in private enterprises. Investments are made in the form of buyouts, whereby the fund acquires the majority stake in the private enterprise.

**Public-to-private (PTP or P2P):** When a quoted company is taken into private ownership, often after it has been subject to a buyout by a private equity firm.

**Public Market Equivalent (PME):** A set of analyses used in the private equity industry to evaluate the performance of a PE fund against a public benchmark or index (composed of similar public companies).

**Ratchets:** This is a structure that determines the eventual equity allocation between groups of shareholders. A ratchet enables a management team to increase its share of equity in a company if the company is performing well. The equity allocation in a company varies, depending on the performance of the company and the rate of return that the private equity firm achieves.

**Recapitalization:** The result of an injection of capital, either through raising debt or equity. A company may seek to save on taxes by replacing preferred stock with bonds in order to gain interest deductibility. Recapitalization can be an alternative exit strategy for venture capitalists and leveraged buyout sponsors.

**Reversed Leveraged Buyout (R-LBO or RBO):** When a company that was subject to a buyout and delisted from a stock exchange is relisted during an exit.

**Secondary Buyout:** A common exit strategy. This type of buyout typically happens when a private equity firm's holding in a private company is sold to another private equity investor.

**Senior Securities:** Securities that have a preferential claim over common stock on a company's earnings and in the case of liquidation. Generally, preferred stocks and bonds are considered senior securities.

**Spin-Out:** A division or subsidiary of a company that becomes an independent business. Typically private equity investors provide the necessary capital to allow the division to perform a spin-out on its own, while the parent company may retain a minority stake. Similarly, a *carve-out* is when an investor acquires a division or business unit of a corporation.

**Subordinated Debt (or Junior Debt):** Debt with inferior liquidation privileges to senior debt in case of a bankruptcy; sub debt will carry higher interest rates than senior debt, to which it is subordinated, to compensate for the added risk, and will typically have attached warrants or equity conversion features.

**Syndication:** A number of investors offering funds together as a group on a particular deal. A lead investor often coordinates such deals and represents the group's members. Within the last few years, syndication among angel

investors (an angel alliance) has become more common, enabling them to fund larger deals closer to those typifying a small venture capital fund.

**Turn-around:** Turn-around finance is provided to a company that is experiencing severe financial difficulties. The aim is to provide enough capital to bring a company back from the brink of collapse. Turn-around investments can offer spectacular returns to investors but there are drawbacks: the uncertainty involved means that they are high risk and they take time to implement.

**Venture capital:** Principally the term given to early-stage investments (often within the high-tech or biotech industries).

**Vintage Year:** The year in which the venture firm began making investments. Often funds with vintage years at the top of a market cycle will display below average market returns.

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