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Private equity and entrepreneurial firms

A case study of IK Investment Partners' acquisition of Ramudden

Gabriel Yousef
23269@student.hhs.se

Filip Mathson
23484@student.hhs.se

Abstract

This paper chronicles IK Investment Partners' acquisition of Ramudden in April 2014. The aim of this study is to analyze the activities that private equity players undertake to attempt to add value to entrepreneurial businesses, identify how contemporary techniques such as buy-and-build are utilized in practice, and what factors private equity players need to consider when acquiring founder-owned firms. In line with the previous literature, our findings seem consistent with private equity players being able to add value to portfolio companies. Moreover, we find that the private equity industry has transformed and evolved from efficiency-driven acquisition towards growth-oriented acquisitions, with buy-and-build strategies becoming increasingly commonplace. Finally, we find that cultural and emotional aspects can be of critical importance in practice, and that private equity firms need to manage such "soft values" properly in order to not alienate the incumbent management team. Given that previous literature often misses such topics, we propose that future research should focus on emotional and cultural issues, and study how investors should consider such topics in the best way in order to balance not alienating the target company's management team, but at the same time implement measures necessary to grow the business efficiently.

Tutor: Centennial Professor Per Strömberg
Key words: Buy-and-build, founder-owned firms, entrepreneurial firms, entrepreneurial buyouts, private equity

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1. Introduction

1.1 Background

On April 9th 2014, the European private equity firm IK Investment Partners announced its acquisition of Ramudden, a founder-owned leading specialist provider of temporary traffic control services (TCS) in the Nordics.

In recent years, the private equity industry has transformed and evolved from efficiency-driven acquisitions towards growth-oriented acquisitions, with buy-and-build strategies having become increasingly commonplace. Today, it is not uncommon for a founder to exit a business by selling to a private equity player. Founders may want to sell their company to a private equity player in particular because they are seeking a partner to continue growing the business with. Private equity firms usually invest in companies that operate in industries in which they have experience. Thus, partnering with a private equity player can help hitherto “unsophisticated” firms to grow owing to private equity players’ industry expertise, experience from building companies and entering new geographical markets, as well as their access to a network of industry experts. The target company’s management team is also able to receive coaching from a private equity firm’s operations team, for example. Moreover, due to private equity firms’ concentrated ownership, they place considerable emphasis on governance and developing operating KPIs, which are monitored closely.

Furthermore, there may be psychological barriers that make founders prefer to sell their business to a private equity player rather than a strategic buyer as target companies normally remain independent rather than being incorporated into a larger entity ex-post an acquisition by a private equity player. This can be emotionally important for founders, especially if the firm has been family-owned for generations[1].

However, there are also drawbacks for a founder in terms of selling their business to a private equity player. A founder may want to sell the business to retire, but private equity firms usually require the founder (if he is a manager) to remain in the company and co-invest a meaningful amount. This requirement is usually not prevalent if the company instead was sold to a strategic buyer. And even though founders are usually required to stay in the company under private equity arrangements, it is important to realize that private equity firms may have a different strategy and vision than the founder for that company going forward. Not being aware of this might engender difficulties and frictions if the two visions are not aligned.

The ability of private equity firms to increase earnings and improve operations and management practices (described further in Section 2.3) in their portfolio companies has been already documented in several studies (e.g. Boucly et al., 2011; Bloom et al., 2009; and Bernstein and Sheen, 2016). However, little work has been regarding: (i) private equity players’ acquisition of entrepreneurial firms; and (ii) empirical studies regarding contemporary operational engineering techniques such as buy-and-build strategies.

[1] An example of this is when SMK, a family-owned insurance company based in Thailand, explored new investments to the business to help the company grow. Even though a merger or sale to a rival may have engendered economies of scale, the family felt that the SMK brand, which had a sentimental value for the family, would be compromised (Espinoza, 2017).

Our thesis revolves around IK Investment Partners' acquisition of Ramudden, an entrepreneurial firm that IK grew by inter alia incorporating a buy-and-build strategy. We examine how private equity firms add value to portfolio companies through financial, governance and operational engineering and provide detail into how these engineering methods actually look like in practice, and the challenges in implementing them.

We find that private equity players take value-increasing actions by utilizing a mix of the three types of engineering methods, but that an entrepreneurial buyout may differ from a traditional buyout in several aspects. In terms of financial and governance engineering, previous literature largely focus on principal-agent problems, but this story is less obvious in an entrepreneurial context, when the owner often is the manager. Moreover, previous studies (e.g. Kaplan and Strömberg, 2009) usually study large buyouts and indicate that buyouts are typically financed with 60 to 90 per cent debt. We discuss that this might "overestimate" leverage ratios in entrepreneurial buyouts as these might be financed with a deliberately low entry leverage ratio in order to have flexibility to fund future growth by tapping their hitherto unused leverage capacity. With regard to governance engineering in an entrepreneurial buyout, it presumably largely revolves around improving processes such as internal reporting practices and developing proper KPIs, as these types of firms are typically less structured than large firms. Finally, we find that private equity players can add value through operational engineering in entrepreneurial buyouts through mergers & acquisitions (by utilizing buy-and-build strategies), as well as improving the target company's management practices.

Our findings support the conclusion of Døskeland and Strömberg (2018) that top private equity investors possess "*unique skills to add real value to the companies*" (p.2) and that "*these skills are difficult to acquire and/or imitate"* (p.2). We argue that private equity ownership is compatible with entrepreneurial firms but that the main difference between entrepreneurial buyouts and other types of transaction are emotional and cultural factors that can play a large part in the holding period and therefore need to be considered and managed properly in order to not alienate the incumbent management team.

In conclusion, our findings seem consistent with private equity players being able to add real value to their target and portfolio companies through their expertise, experience, and network.

1.2. Private equity

1.2.1 Market statistics

Since the 1980s, the private equity market has experienced strong growth, both in terms of deal value as well as geographical expansion. In the nascent days of the early 1980s, the public became increasingly aware of leveraged buyouts and the influence that these could have on the value of target companies. Another market driver in the 1980s was related to the accessibility of debt financing (Kaplan and Stein, 1993). However, since much leveraged buyout financing was related to high-yield debt, private equity players experienced major hardships when the market for high-yield debt collapsed in 1989. Despite this, the US private equity market recovered well and managed to raise close to $350 billion during the 1990s. Simultaneously, the European market managed to raise $66 billion (Fraser-Sampson, 2010).

After the crash of the internet bubble between 2000-2003, the private equity market faced another boom. Between the years 2000 and 2010, global private equity firms raised a total of $2.4 billion – an increase of over 6.8x compared to the previous decade (Elvin, 2016).

In terms of total funds raised, the global private equity market has experienced an increase in funds raised per year from $5 billion in 1980 to over $700 billion in 2018. A strong contributing factor to this is that private equity has become increasingly commonplace outside of the US. This expansion resulted in global deal value of almost $600 billion in 2018.

In recent years, the increase in the global private equity market has also had an influence on local markets. In the US, the number of highly leveraged buyouts reached record levels during 2018, when deals with a leverage of 6x-7x or greater reached levels never seen before (Bain & Company, 2019). Furthermore, the average EBITDA purchase multiple for leveraged buyouts in the US reached its second highest level in history at 10.9 in 2018, only beaten by the 2017 level of 11.0.

In line with the global private equity market, the European market has continued to grow in recent years. Over 2010-2017, the total amount of funds raised per year increased from $19.6 billion to $81 billion, which on aggregate sums to $362.5 billion in total funds raised over this period (Invest Europe, 2017).

Given the increased competition in the market, transaction multiples of private equity deals are growing larger. Thus, an increasing number of private equity firms are responding to the increase by using strategies such as buy-and-build (see more in Section 2.1.3). Market statistics show that in recent years the percentage of add-on transactions classified as being part of a buy-and-build strategy has increased to 30% of total deal value in 2018, up from around 16% in 2010 (Bain & Company, 2019).

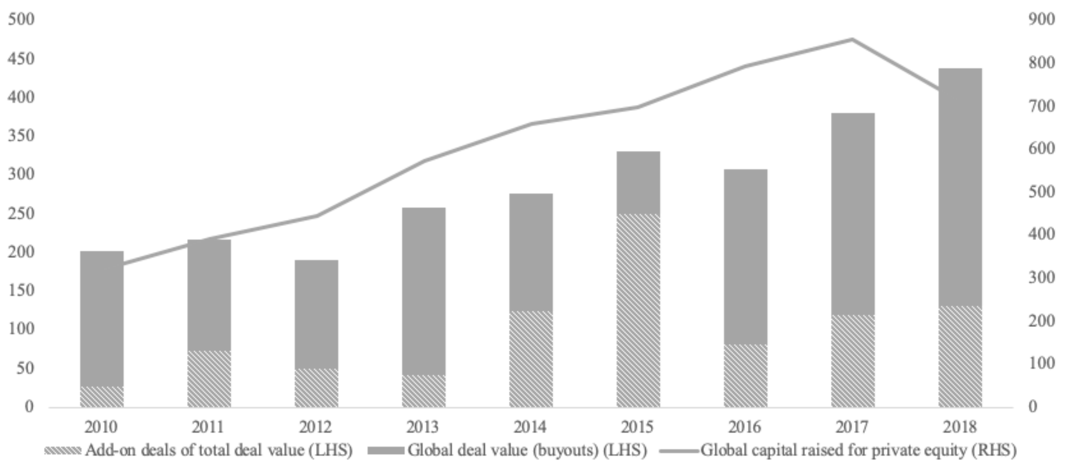


Figure 1. Global Private Equity Statistics. Historic presentation of the portion of add-on deals within global deal value (buyouts) as well as a representation of the global capital raised for private equity

1.2.2 Private equity in Sweden

Sweden was one of the first countries in Europe that established a market for private equity in the early 1980s. During the 1980s, with the help of strong development of the stock market, which contributed to increased interest from the general public, private equity in Sweden experienced a strong growth. Due to increased interest in the real estate market in combination with a declining economic climate, the private equity market lost ground during the second half of the 1980s. Then during the 1990s, the Swedish private equity market saw another turnaround and started to gain in size. In recent years, the private equity market in Sweden has been the largest in the Nordic region in terms of both size and growth. Today, private equity firms currently own well over 800 Swedish portfolio companies located throughout the country in a wide variety of industries. These portfolio companies employ approximately 190,000 employees, which in 2013 represented 4% of the total number of employees in Sweden (SVCA).

1.2.3 Secondary buyout statistics

Private equity firms typically exit their portfolio companies through three main avenues: (i) listing the company in an IPO; (ii) selling the company to a strategic buyer; or (iii) a secondary buyout, where the company is sold to another private equity firm.

Secondary buyouts have become increasingly common in the private equity market, representing the second most common exit route (24% of all exits) after a sale to a strategic buyer (38% of all exits) (Kaplan and Strömberg, 2009).

Several factors drive the secondary buyout market, including (i) a high level of “dry powder” (un-invested committed capital) that private equity firms want to deploy; (ii) low interest rates; and (iii) favorable lending terms during the years following the financial crisis in 2008-2009.

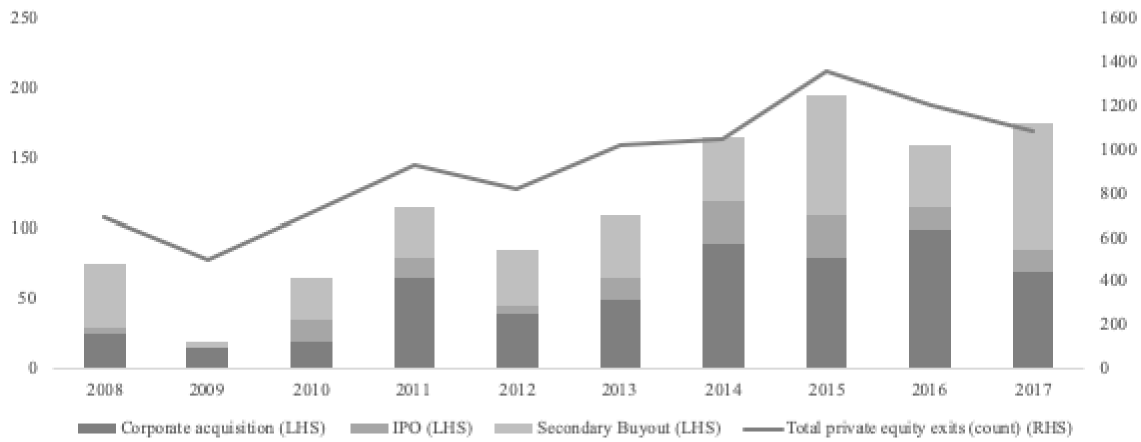


Figure 2. Market Statistics of Secondary Buyout (€ billion). Historic representation of corporate acquisitions, IPOs, secondary buyouts and total private equity exists (count).

Criticism regarding secondary buyouts has revolved around questions of whether a secondary private equity buyer can add additional value when the first private equity firm is ready to sell the business. If there is additional value to capture, why would the first private equity firm not capture this instead of leaving “money on the table”? Indeed, some secondary buyouts destroy value for investors when they are made by private equity firms under pressure to acquire. Axelson et al. (2009) describe how the private equity model, where general partners (GPs) raise funds to finance future acquisitions in a finite period (also known as ex-ante financing), may engender agency conflicts. The reason for this is that the GP has substantial freedom and may be incentivized to make bad acquisitions if there are untapped funds at the end of the investment horizon. Degeorge et al. (2016) argues that secondary buyouts are plausibly solid candidates for a fund with excess capital that is seeking to make acquisitions as secondary buyouts have lower search costs (private equity firms’ portfolio companies are public knowledge) as well as reduced risk for adverse selection (since the private equity firm’s portfolio company has previously been for sale and has been scrutinized by professional investors). If this is the case – that private equity players consummate deals with competitors because it is easier to find investment opportunities – one could argue that secondary buyouts risk becoming a “Ponzi scheme” where private equity professionals acquire portfolio companies from each other in quid pro quo transactions without adding additional value to the target companies. In this story, buyers are “*turning to other financial sponsors to find possible transactions, even with the repercussion of lower average returns*”, as summarized by one observer (Golman, 2014).

While these are legitimate concerns regarding secondary buyouts in general, Degeorge et al. (2016) find that secondary buyouts outperform other buyouts when the buyer and seller have complementary skills. This makes sense as certain private equity firms are financially oriented, and if these firms acquire a company there may still be significant value that can be captured by private equity firms that focus more on operational improvements.

1.3 Purpose

The first and main purpose of this thesis is to provide an in-depth understanding and analysis of private equity ownership in entrepreneurial, founder-owned companies. What - if any - value can private equity firms add? The secondary purpose of the thesis is to provide the Department of Finance at the Stockholm School of Economics with material that can be used to develop a case study that can be taught in class. This means that this paper will review a significant amount of theories that can be related to private equity ownership in general, but also present new thought-provoking angles and ideas relating to private equity investments in founder-owned and entrepreneurial companies.

1.4 Contribution

Although several studies have been conducted on the value creation achieved by private equity players in general, there is comparatively little empirical work on traditional value-accretive actions, in combination with mergers and acquisitions (also known as buy-and-build strategies), to grow entrepreneurial portfolio companies. This study tries to fill this gap by analyzing both theoretically and empirically various aspects of private equity ownership in entrepreneurial firms, some of the issues which are unique to the entrepreneurial buyout situation, as well as the associated value-accretive measures that private equity players take.

1.5 Outline of the thesis / Structure

This paper proceeds as follows. Following this introduction, which has included market statistics of the private equity market, including market trends, Section 2 outlines the theoretical background of private equity ownership relating to the purpose of this paper. Section 3 discusses the methodology and data collection of this study. Section 4 introduces the case background and deal structures and value-creation measures used by the private equity acquirer. Section 5 concludes and presents future topics for research.

2. Previous Literature

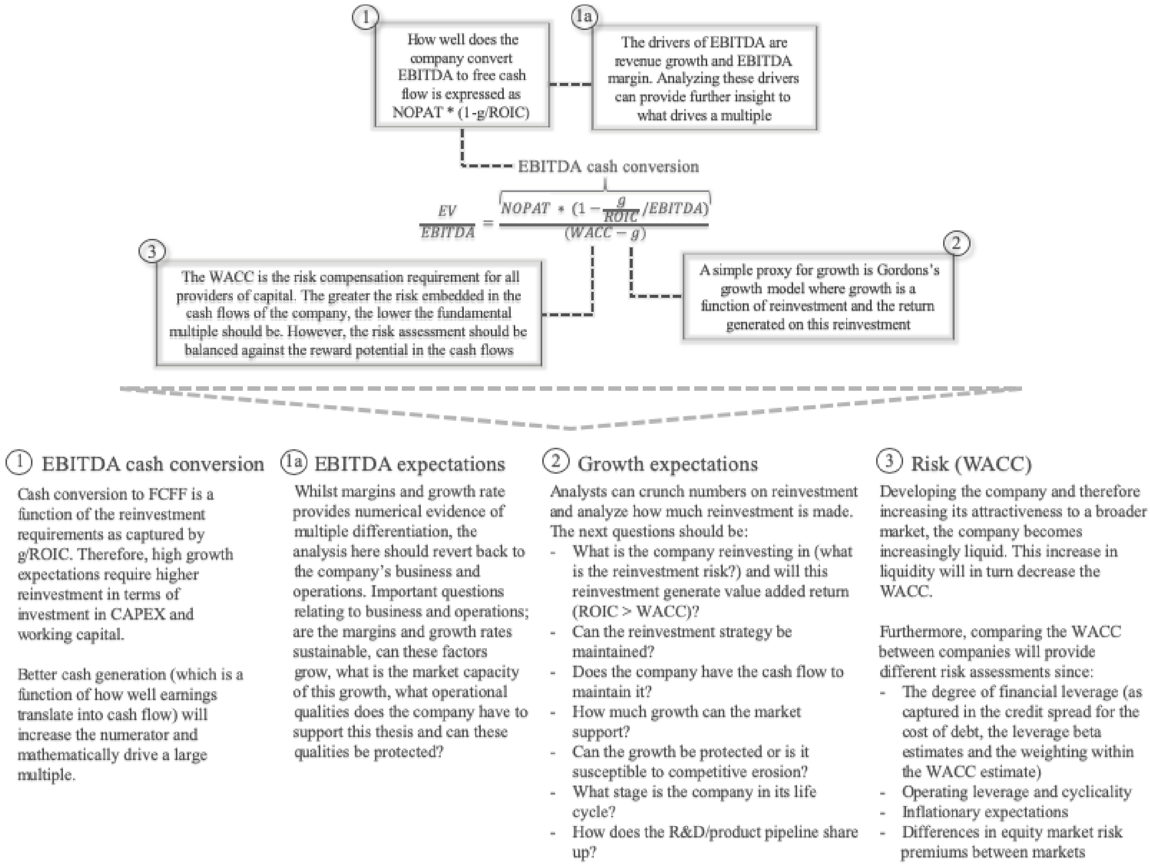
2.1 Value creation

The private equity ownership model is to increase portfolio companies' value through actively managing them (Døskeland Strömberg, 2018). However, there is a discrepancy between how practitioners and academia measure value creation. Whereas academics discuss trade-offs between risk and reward, private equity professionals focus on giving the highest return to limited partners (Gompers et al., 2015). More specifically, private equity professionals measure this return by internal rates of return (IRRs), which they ultimately can increase through three levers (McKinsey & Company, 2015): (i) *EBITDA expansion*, by increasing margins and/or top-line growth; (ii) *deleveraging (paying down debt)*, by reducing leverage and consequently increasing the equity value of owners at the time of exit; and (iii) *multiple expansion*, by increasing exit multiples compared to entry multiples through a credible growth story, lowering firm risk, improving the cash conversion, or through multiple arbitrages (see Figure 1 and Section 2.1.3 for further discussion regarding multiple drivers and how to drive multiple expansion).

Here, the academic world typically objects to the second lever, not believing that deleveraging is a source of true value creation. Leveraging up, even though it might engender increased return, also induces additional risk, and is therefore not seen as value-accretive by academia. Rather, academia focuses on tax benefits, incentive effects, and the costs of financial distress, as will be discussed below.

Whereas the first two levers can largely be credited to skill, the latter is often harder to predict[2] and is largely attributed to macroeconomic developments and market conditions at the time of exit. However, multiple expansion cannot purely be attributed to "luck" as there are ways for private equity firms to grow such multiples during their holding period. There are three main multiple drivers: (i) *EBITDA cash conversion*; (ii) *Growth expectations*; and (iii) *Risk*. For an illustrative overview of multiple drivers, see Figure 1.

[2] As it is not the core skill of private equity firms to forecast macroeconomic developments, it is unlikely that they are better at predicting future market conditions than other market participants. If there is market consensus on future market developments, it should be reflected in acquisition prices, and consequently not be a source of value for the private equity firm.



Source: UBS: Fundamental Equity Analytics, 2017

Figure 1. Multiple Drivers. Framework for analyzing drivers of a multiple.

Thus, private equity players can drive multiple expansion through skill as well. Multiple expansion can be driven through improved *cash conversion,* for example by improving working capital needs[3] and focusing on capital expenditures; through *growth expectations* by repositioning a portfolio company to a market segment with higher forecasted growth, or sustainably increasing margins; and/or through *decreasing company risk* as reflected in the cost of capital by, for example, growing in size or by taking on more debt.[4] Recent studies by Guo et al. (2011) and Acharya et al. (2012) find evidence that some private equity firms' returns can also be explained by their skill in picking undervalued companies and/or companies who are on a trajectory towards higher valuation multiples. According to Loos (2006) and Hoffmann (2008), this can be explained by inter alia: (i) *market timing skills*, where private equity investors acquire a company when margins or multiples are growing; (ii) *private information*, especially in management buyouts, where critics argue that private equity players exploit non-public information to acquire companies below their fair market value; (iii) *superior market information*, where private equity players owing to their industry experience have more expertise than other market participants; (iv) *deal-making capabilities*, where private equity firms have the ability to identify attractive LBO targets and avoid formal auction processes owing to their network; (v) *superior negotiation skills*, enabling private equity buyers to

[3] Previous literature finds that LBO targets have less working capital than the industry average; see e.g. Holthausen and Larcker (1996) and Smith (1990).

[4] Debt is typically cheaper than equity given its seniority in the capital structure relative to equity, which decreases the weighted average cost of capital. However, there is a point where the marginal benefits of debt are lower than the costs of financial distress; see the discussion regarding optimal capital structure in section 2.1.1.

purchase firms at a lower entry compared to exit valuation multiple[5]; (vi) *optimization of corporate structure*, for example by exploiting conglomerate discounts, where the sum-of-the-parts valuation yields a higher valuation than the value of the conglomerate; or (vii) *luck*.

One increasingly common strategy is to drive multiple expansion by specializing in buy-and-build strategies, discussed in further detail in section 2.1.3.

Academics classify the value-accretive actions that private equity players can take through different forms "engineering". Kaplan and Strömberg (2009) categorize them as financial engineering, operational engineering, and governance engineering.

2.1.1 Financial engineering

Private equity firms create value through financial engineering by: (i) taking advantage of tax shields owing to leverage; and (ii) exploiting imperfect capital markets by, for example, securitization, valuation imperfections such as conglomerate discounts, and taking advantage of overheated debt markets (Strömberg, 2018). In short, financial engineering focuses on the capital structure that private equity investors implement in their portfolio companies (Døskeland and Strömberg, 2018).

The value creation engendered by financial engineering was first described in landmark studies in the late 1980s by economists such as Steven Kaplan and Michael C. Jensen. Kaplan (1989b) studied the evidence on taxes as a source of value[6] in 76 management buyouts of public companies in the early to mid-1980s. His paper examined two main sources of tax benefits, with the first being interest deductions due to the large amounts of debt needed to finance a management buyout, and the second being increasing the tax basis of the company's assets to generate higher depreciation deductions after a buyout. Kaplan estimates that the lower bound of the value of median tax benefits was 21%, and the upper bound 143%, of the premium that was paid to the pre-acquisition shareholders (depending on inter alia assumptions regarding the marginal tax advantage and to what extent the debt increase from the buyout is permanent). However, it is noteworthy that companies do not need to go private to generate many of the tax benefits described in Kaplan's study; a public company could likewise obtain tax benefits whilst remaining public. Although, there is an argument that the public markets would never accept the kinds of leverage that buyouts take on. It could be argued that a specific governance model - with informed owners (for example, private equity investors) - is needed for this to work.

Likewise, the papers of Jensen (1986, 1989) discuss the benefits of leverage as it reduces agency costs of free cash flow. Jensen describes the disciplinary effect of debt in hindering management to spend excess cash on empire building, since cash is needed for debt-servicing

[5] Empirically, private equity buyers consistently acquire businesses at lower multiple valuations than strategic buyers. The reasons for this may include the fact that strategic buyers might overestimate potential synergies and are thus willing to pay high multiples, whereas private equity players may try to avoid competitive processes. Moreover, private equity buyers are tough negotiators and are skilled in finding "problems" such as off-balance-sheet liabilities in the target company, which they highlight in order to push acquisition multiples down (Loos, 2006).

[6] Critics of private equity may point to this and argue that leveraged buyouts engender decreased tax payments to tax authorities. However, studies find that the total net tax effect is that to up to 60% more taxes are collected by authorities ensuing a buyout due to e.g. capital gain taxes that private equity professionals need to pay (Loos, 2006).

costs. Thus, in effect, debt serves as a "dividend-equivalent" as it forces management to disgorge cash instead of spending it wastefully on low-yielding projects (investments that yield returns below the cost of capital). Moreover, issuing large amounts of debt also engenders "softer" motivating forces as companies become more efficient as they do not want to fail as a result of their debt-servicing costs. These incentive benefits of taking on debt are likely more important than the value of the tax shields that higher leverage engenders (Døskeland and Strömberg, 2018). This idea is supported by Opler and Titman (1993) who find that LBO targets "*took on much more debt than was necessary to eliminate their taxable earnings*" (p.1988).

However, there is a trade-off in terms of how much debt a company should take on as there are costs associated with leverage – namely debt servicing costs as well as higher risk of financial distress.[7] Hence, companies should take on the level of debt that maximizes the company's value, i.e. the optimal capital structure, which means taking on debt up to the point where marginal benefits and costs of debt offset each other (Coffee et al., 1988).

The sentiment that debt has a positive disciplinary role on management is echoed by many economists. The seminal paper of Jensen and Meckling (1976) laid the groundwork for future research examining why some firms do not have the value-maximizing level of debt by integrating elements of agency theory. Managers may deviate from the optimal capital structure because their private perquisites, and the resources which are under their control, increase when they are not forced to make debt payments. This means that a company's financing policy is important since it reduces agency costs of managerial discretion (Stulz, 1990). Entrenched managers avoid debt, and leverage levels are lower when management does not face external scrutiny and active monitoring. Instead, these managers will only take on higher leverage when their job security is threatened (Berger et al., 1997).

However, there are other explanations for why firms have less debt than what traditional financing theory would argue for. Surveying 392 CFOs about capital structure decisions, Graham and Harvey (2001) found that the most important factor affecting leverage decisions was the desire for "financial flexibility" and credit rating concerns. A financially flexible firm is a firm that can avoid financial distress engendered by negative shocks and has the ability to fund profitable investments (Gamba and Triantis, 2008).

Furthermore, Devos et al. (2010) examine why some firms are unlevered and reject the notion that firms with a policy of having no leverage are taken by entrenched managers that want to avoid the disciplinary pressure of debt. Moreover, they find that the governance mechanisms (both internal and external) are not weaker for firms with zero debt compared to levered counterparts. While the study does not support the managerial entrenchment explanation that Berger et al. (1997), for example, present as a reason why firms deviate from the optimal capital structure, it does not oppose the view that some firms may take on higher amounts of debt in reaction to entrenchment threats.

Thus, there may be rational reasons why firms are underleveraged. Adding to the financial flexibility explanations described above, firms may opt to take on low amounts of debt because they want to retain their debt headroom. This means that they instead want to wait for profitable

[7] The trade-off between the value creation potential of interest tax shields and the cost of financial distress are discussed by e.g. Myers (1977).

investment opportunities to present themselves before tapping their hitherto unused leverage capacity (Devos et al., 2010).

Nevertheless, private equity firms rely heavily on leverage in buyouts mainly due (i) the tax benefits described above; and (ii) because intensive use of debt decreases the amount of equity in a company, which allows them to control a large proportion of company ownership without the need to make massive equity investments (Jensen, 1989). The benefit of being able to decrease the amount of equity investment needed to control a company is especially important for private equity players given the expensiveness of equity. This explains why previous literature has indicated that buyouts are typically financed with 60% to 90% debt (Kaplan and Strömberg, 2009). Not only do returns from a private equity investment need to match the market return but there are additional factors that need to be compensated for, inter alia illiquidity (as the limited partners' money is "locked in"), and compensation for the management fees paid to GPs. This means that additional percentage points need to be added to the market discount rate.

Reasons why firms backed by private equity firms are able to sustain higher leverage include private equity firms having the ability to infuse capital to financially distressed portfolio companies in order to avoid bankruptcy (Hotchkiss et al., 2014). This may be particularly reassuring for bankers because private equity firms' reputation is on the line. Given the importance of having strong relationships with bankers in order to obtain financing for future investment opportunities, as well as raising subsequent funds, it is in the interest of private equity firms to avoid bankruptcy in their portfolio companies.

Kaplan and Strömberg (2009) describe how private equity players take advantage of inefficiencies in debt and equity markets by exploiting systematic mispricings. When debt financing is cheap in comparison to equity financing, there is an arbitrage opportunity for private equity players who can benefit from the difference in the costs of debt and equity. In essence, private equity players have the ability to lower their WACC and increase their valuation multiple by taking on cheaply financed debt (Guo et al., 2011). This is consistent with Gompers et al. (2015) and Axelson et al. (2013) who find that private equity players consider market timing when they decide the capital structure of their portfolio companies.

Critics of private equity players claim that this type of financial engineering does not engender increased productivity and efficiency, and that companies owned by private equity players are merely effective at using debt and other financial instruments, or utilizing targeted layoffs to increase their profitability rather than enhancing "real" operating performance by inter alia improving the productivity of ongoing business units.

This criticism contrasts with the findings of Boucly et al. (2011) who studied a data set of 839 French private equity deals and found that target companies "*in [the] three years following a leveraged buyout become more profitable, grow much faster than their peer group, issue additional debt, and increase capital expenditures*" (p.432). Likewise, the notion that private equity players' success is owed to financial engineering is rejected by Acharya et al. (2008) who find that "*there is more to the success of the best PE houses than pure financial engineering*" (p.1). Rather, Acharya et al. (2008) argue that the top-performing private equity players are skilled at driving superior operational performance in their portfolio companies. In fact, their research finds that less than 30% of the out-performance delivered by the best private equity houses can be attributed to financial engineering and that more than 70% of said out-performance is owed to true alpha, which is reflected by their ability to grow portfolio company earnings and achieve multiple expansion. Jensen (1988) argues that criticism of the market for corporate control may come from managers of inefficient corporations whose jobs are threatened.

Finally, private equity players may also utilize financial engineering in the form of, for example, improved terms and conditions for financing instruments in their portfolio companies. Private equity firms use innovative financing instruments such as securitization in order to reduce financing costs (Hoffmann, 2008). In addition, private equity firms have an advantage over other market participants as they have the ability to leverage their contacts in financing banks as they tend to be recurring and high-profile players in the leveraged finance market (Loos, 2006; Ivashina and Kovner, 2011; and Demiroglu and James, 2010).

However, private equity players have also been criticized for different business practices, such as utilizing dividend recapitalizations. Here, critics allege that private equity players take on debt in portfolio companies to pay special dividends to the financial sponsor and then neglect the company. While there is support for the notion that PE-backed firms more frequently utilize dividend recapitalizations than their non-PE-backed peers, Hotchkiss et al. (2014) do not find support for the criticism that these types of recapitalizations engender a greater likelihood of default.

Still, the criticism that private equity players primarily focused on financial engineering may have been warranted in the nascent days of the private equity market. During the 1980s, buyouts were largely efficiency-driven; private equity firms generated returns by inter alia acquiring inefficient conglomerates, leveraging up, divesting non-core assets, and paying down debt (Bergius and Daniels, 2006). This differs from the typical buyout of today. As the buyout market has matured, institutional investors have increased their capital commitments to a larger number of competing private equity firms who bid for attractive LBO targets. This has driven acquisition prices up. Hence, traditional value-accretive levers such as financial engineering have become increasingly commoditized and are oftentimes insufficient to (i) get the bid accepted; and (ii) achieve attractive returns (Hoffmann, 2008). Consequently, the private equity market has become more growth-focused (Loos, 2006), with buy-and-build cases becoming more commonplace as private equity firms look for new growth and value-accretive opportunities.

In this story, private equity firms do not only seek to generate cash flows to pay down debt. Instead, they also aim to use cash to reinvest in the business and to facilitate bolt-on acquisitions. This is consistent with studies showing that debt paydown only amounted to 13% of the equity in 2012, declining from 51% in the 1980s (The Boston Consulting Group and Leipzig Graduate School of Management, 2016).

Previous literature rarely studies entrepreneurial businesses specifically, so the conclusions of the above-mentioned studies do not necessarily need to apply to firms of much smaller size. Both Jensen (1986, 1989) and Jensen and Meckling (1976) integrate elements of agency theory in their analysis and discussion of the benefits of leverage. However, smaller entrepreneurial businesses probably do not need higher leverage ratios for mitigating the inefficiencies and agency costs of free cash flow. Managers in entrepreneurial firms are oftentimes the owners of the company, which poses the question: why would incentives be misaligned? Why would these managers need to take on significant amounts of debt to be disciplined? Instead, entrepreneurial firms' main benefits from leverage are likely (i) being able to decrease the amount of equity investment needed to buy a company, (ii) the tax benefits of debt, and (iii) financing for new investments and add-on acquisitions to facilitate growth going forward. Thus, there is a significant difference between buyouts of large and inefficient businesses that have excess cash, which could be spent wastefully if not disciplined through higher debt levels, and buyouts of smaller entrepreneurial businesses who want to use cash to grow.

Moreover, studies such as Berger et al. (1997) discuss how entrenched managers will only take on higher leverage when their job security is threatened, but this story is less obvious for entrepreneurial owner-managed firms.

Finally, the previous literature has often studied large buyouts whereas entrepreneurial businesses usually are smaller. Hence, leverage ratios are likely "overestimated" since the amount of debt a company can take on largely depends on its risk profile. Ceteris paribus, a smaller business is riskier, and therefore the leverage ratios of entrepreneurial buyouts are likely lower than the literature demonstrates.

In conclusion, top-performing private equity firms have unique skills that are hard to imitate and/or acquire. Therefore, private equity investors have the ability to add real value to portfolio companies beyond financial engineering skills (Døskeland and Strömberg, 2018), which will be described next.

2.1.2 Governance engineering

From the discussion above, it is clear that private equity firms have a strong focus on agency theory and the necessary governance mechanisms needed to ameliorate associated agency costs. Agency theory explains that there may be conflicts of interest within a corporation, as managers and owners may have different goals stemming from diverging incentives (Loos, 2006). Cotter and Peck (2001) describe two of the components used in LBO structures to mitigate agency costs in the form of a "carrot" and "stick" mechanism. The equity incentives are "carrots" aimed to make management work harder, and the "stick" includes the heavy debt-servicing costs that "*forces managers to efficiently run the company to avoid default*" (p.102).

By taking a concentrated ownership in their portfolio companies, private equity firms seek to create value through active monitoring and governance engineering, where private equity firms aim to improve incentives to management (e.g. through high-powered equity-linked incentive programs); introduce new processes (KPIs, reporting, budgeting etc.); and control portfolio companies' boards and be actively involved in governance.

When private equity firms acquire portfolio companies, they usually require management to co-invest significant amounts of their net proceeds in the company. Such co-investments serve as a credible "signal" that decreases the risk of adverse selection[8] before the buyout, and

[8] In light of information asymmetries, the management team has more information about a company's future prospects than investors do. If the management team invests a substantial amount of their own money, this serves as a credible "signal" that they are convinced that the future prospects of the company are positive. It is

ensures that incentives are aligned between the private equity firm and management. In addition, investing a substantial amount means that management not only have significant upside potential but, importantly, also large downside. In addition, requiring management to co-invest a meaningful amount of their personal proceeds into the company (which is private) means management's incentive to focus on short-term performance at the expense of long-term performance is mitigated since their equity is illiquid (Kaplan and Strömberg, 2009). This is important because equity incentive programs are not about giving management option-like incentives that only have upside potential, which would potentially induce extreme risk-taking.

Contrary to venture capital firms, private equity firms do not accept that a big proportion of their portfolio companies tend to default. If management were not exposed to any downside risk, this could lead to risk-shifting, incentivizing risk-taking with potentially large upsides (albeit low probability of success) for management but with the private equity firms bearing the risk. However, it is important to note that in order to yield large gains, risk-taking is often needed. Thus, requiring management to co-invest is not to stop management from taking risk. On the contrary, if management is too careful of risk and potential downside, this could prevent them from taking risks that are needed to grow the business (Amihud and Lev, 1981).

As most managers have limited financial resources, the capital structure of companies ex-post an LBO is often designed in such a way that common equity only represents a limited amount (often a few percent) of the total capitalization of the company. This structure enables managers to acquire a substantial part of the equity, averaging 15% (Acharya et al., 2012). Here, it is important to note that it is the balance that is important. Having too little personal funds invested in a company's equity induces a risk that management could become too risk-prone. This is because they would lack sufficient personal financial commitment, which means that it would not substantially affect their personal wealth if the company were to file for bankruptcy. As a consequence, this would lead to a higher propensity of risk-taking with potentially large upside. On the flip side, if management has too much of its personal wealth invested in equity, there is a risk that fear of losing this wealth will steer them away from taking actions that are needed to develop the company. Hence, it is crucial to create a proper balance in management incentive programs, allowing management to perceive it as motivating rather than discouraging.[9]

Additional measures that private equity firms introduce to improve incentives to management include, among others, making managers' salaries more sensitive to performance (Jensen, 1989; and Anders, 1992), and putting in place incentive plans with clear KPIs that are tied to the equity value at the time of exit (Acharya et al., 2008). However, it is also common for private equity firms to replace management that are underperforming (Acharya et al., 2008; and Cornelli and Karakas, 2008). Baker and Wruck (1989) find that private equity firms increase the minimum level of acceptable performance, which "*forces managers to work harder after the buyout or risk losing their jobs*" (p.176). Thus, pressure for high performance may ensue an acquisition by a private equity player as will they will not hesitate to replace underperforming

important that the co-investment is a meaningful amount of their personal funds as the "signal" needs to be costly in order to be reliable.

[9] Døskeland and Strömberg (2018) discuss the corporate governance benefits of private equity ownership. When firms are private, and a large share of the owner's wealth is tied to the firm, this imposes significant personal risks due to the lack of diversification (this is discussed in further detail in Section 2.3). This means that the owner is less willing to take on leverage as this would increase the equity risk. However, this also means that the cost of capital increases as a consequence.

managers (Anders, 1992). This is supported by the fact that portfolio companies' management is regularly evaluated by private equity firms (Cotter and Peck, 2001; and Palepu, 1990).

It is common for private equity players to replace LBO targets' CEOs, and there is evidence of gains in operating cash flows in firms where a CEO has been replaced at or soon after the buyout (Guo et al., 2011). However, it is also common for private equity firms to replace LBO targets' CFOs. This is due to CFOs' important role in achieving governance and financial engineering goals, and the fact that privately owned firms typically have a CFO that is unexperienced and not particularly business-savvy (Døskeland and Strömberg, 2018). Recent data suggests that approximately half of private equity transactions experience some form of leadership changes (A.T. Kearney, 2014).

Another important governance mechanism is the active monitoring of portfolio companies, which private equity players have the ability to do owing to their concentrated ownership. This concentrated ownership differs from the ownership structure of public corporations. Even though public corporations are believed to have some advantages over privately owned companies (e.g. share liquidity, media exposure, etc.), they also usually have a dispersed ownership structure that leads to a higher degree of managerial discretion, which could induce empire building (Renneboog and Simons, 2005). Hoffmann (2008) states that private equity firms' concentrated ownership enables active monitoring – a powerful instrument that private equity firms utilize to address the potential moral hazard of managers engaging in activities that are not in the best interest of the owners (e.g. spending corporate resources on private consumption, empire building, etc.).

Finally, private equity firms also focus on governance engineering through the board. Previous literature (e.g. Cornelli and Karakas, 2008) finds that LBO targets have a smaller and more engaged board, even years after the transaction date. An explanation for this may be that it is common for external board members to have invested equity in the company (Døskeland and Strömberg, 2018; and Loos, 2006).

Governance engineering in the context of entrepreneurial businesses tends to differ from governance engineering in typical buyouts. As mentioned previously, the managers of entrepreneurial firms are usually owners. Therefore, principal-agent problems are not as prevalent, and governance engineering may not be about mitigating agency problems between an owner and a manager. Therefore, private equity firms do not implement equity-incentive programs to "improve" management's incentives compared to what they were before a buyout as management may already have been owners. Instead, equity-incentive programs and requiring management to co-investment are important tools for buyouts of small and entrepreneurial firms because the new private equity owners do not want the management to see the buyout as an exit where they no longer have any incentive to grow the business after they have attained financial freedom from the buyout.

Finally, governance engineering in buyouts of entrepreneurial firms is often largely about improving processes (e.g. internal reporting and implementing KPIs) because entrepreneurial businesses are often less structured compared to large firms, and therefore may have a lot to gain from improving such processes.

2.1.3 Operational engineering

Private equity firms can create value in their portfolio companies through operational engineering, which involves the improvement of a company's operations and management. Moreover, value can be added through mergers & acquisitions as well.

Operational engineering is becoming increasingly important for private equity players who develop industry and operating expertise, which they use to add value to their portfolio companies (Gompers et al., 2015). It is also more common for private equity firms to have dedicated operations teams, where private equity firms employ professionals with, for example, consulting and industry experience (A.T. Kearney, 2014).

The ability of private equity firms to increase the earnings and improve the operations and management practices (described further in Section 2.3) of their portfolio companies has been documented in several studies (e.g. Boucly et al., 2011; Bloom et al., 2009; and Bernstein and Sheen, 2016).[10] These types of operational improvements, as well as the re-establishment or reinforcement of LBO targets' strategic focus and competitive positioning, are necessary to achieve value creation (Loos, 2006).

Value can also be added through mergers & acquisitions, for example, as a means to consolidate markets, grow size and reach new geographies. In addition, value can also be created through multiple arbitrage strategies, which is common for private equity players who specialize in buy-and-build cases.

Some buyouts are completed with the intent of pursuing a buy-and-build strategy from the beginning (Loos, 2006). Buy-and-build is a strategy commonly used by private equity firms who acquire a "platform company" (Borell and Heger, 2013) in a fragmented industry and then grow through bolt-on acquisitions that are acquired at relatively low valuations (Døskeland and Strömberg, 2018). The ability to acquire companies at lower multiples enables multiple arbitrage, which is a core component of buy-and-build strategies. Ceteris paribus, a larger company usually trades at a higher multiple compared to a small firm since larger firms are more liquid and less risky due to their perceived stronger corporate strength compared to small firms (Hoffmann, 2008). Growing through acquisitions in a fragmented market may also enable the establishment of a market leader owing to size benefits as well as market positioning (Døskeland and Strömberg, 2018). When the smaller firm is acquired and incorporated into the larger entity, it will implicitly trade at the larger platform company's multiple, engendering a multiple arbitrage. This multiple arbitrage will enable a multiple expansion since the average acquisition multiple will be lower than what the exit multiple for the "platform company" will be. This multiple expansion is usually a large component of the value creation in this type of investment strategy.

Moreover, buy-and-build strategies can drive operational improvements and accelerate sales growth and margin expansion through the realization of synergies such as economies of scale and scope (Smit, 2001). Similar to stand-alone leveraged buyouts, buy-and-build strategies

[10] Døskeland and Strömberg (2018) and Loos (2006) provide a summary of the operational engineering activities taken by private equity firms as well as empirical evidence of the impact of private equity ownership on the performance of portfolio companies.

utilize financial leverage when they grow through mergers & acquisitions by using significant amounts of debt to finance the acquisition.

In addition, Borell and Heger (2013) find that private equity firms pursue slowly growing bolt-on acquisitions to a fast-growing platform and may utilize the bolt-ons' assets more efficiently. The study's results indicate that private equity professionals efficiently allocate resources from firms with low utilization (excess capacity) to firms that have higher utilization. Bolt-on companies may also have a specific asset (tangible or intangible, e.g. skills, knowledge, or a certain technology) that can be shared across the platform of companies (Buy & Build Monitor, 2010).

If the buy-and-build strategy achieves market leadership, it might add further benefits; for example, pricing power might ensue (Kays, 2005). This, in turn, will have an additional effect on the portfolio company's multiple expansion as pricing power means that the company can charge more for its offering, translating into higher margins and free cash flow.

Therefore, growing through buy-and-build and establishing a market leader engender the possibility of creating multiple expansion through two multiple levers illustrated in Figure 1**:** (i) decreasing the *risk* due to, for example, size benefits, which also makes the company more liquid as it will become more attractive to a larger pool of potential buyers (Smit, 2001); and (ii) increasing *growth* by placing the platform company on a new growth path. Moreover, this strategy can add further benefits if the strategy achieves market leadership in the form of higher margins and free cash flow.

A study from The Boston Consulting Group and the Leipzig Graduate School of Management (2016) found that private equity players' most common route to create operational improvements in portfolio companies is through mergers & acquisitions, with more than 90% of the surveyed private equity firms utilizing mergers & acquisitions.[11] This is unsurprising as the study finds that buy-and-build deals outperform standalone deals, averaging 32% IRR from entry to exit compared with 23% IRR for standalone deals.

The operational engineering and operating expertise described above is especially hard to imitate and copy compared to financial and governance engineering. Thus, it is of great importance in the value-creation process in an increasingly competitive private equity market. Given the commoditization of easy-to-acquire, value-added benefits that financial and governance engineering provide, these benefits are likely incorporated in the price that equity players pay at acquisition (Døskeland and Strömberg, 2018), indicating that operational engineering will be more important going forward.

Private equity firms usually take value-increasing actions by utilizing a mix of the three types of engineering. However, some firms emphasize certain forms of engineering more than others. Studies have indicated that a private equity firm's strategy depends on the career history of the private equity firm's founder (e.g. Acharya et al., 2012; and Gompers et al., 2015).

[11] The fact that a significant number of private equity firms utilize mergers & acquisitions may explain the prevalence of investment professionals with financial (e.g. investment banking) backgrounds in private equity firms (Acharya et al, 2012), as it is a valuable background to have when pursuing a buy-and-build (acquisition-heavy) strategy.

Adding value to entrepreneurial businesses through operational engineering may largely revolve around mergers & acquisitions, as well as implementing best practices. Given that entrepreneurial firms usually are smaller in size, they often lack internal M&A teams and M&A experience. Hence, growing through buy-and-build may be more difficult to do for these types of firms. Company culture is important for overall mergers & acquisition success (Chmielecki and Sułkowski, 2016), but is arguably particurarly important in a small and entrepreneurial context, with tight-knit organizations.

In addition, entrepreneurial firms may benefit from partnering with a private equity player that can implement best practices, improve working capital needs and reporting standards. This is arguably especially important for entrepreneurial firms that may have owners that have not been exposed to general best practices, and thus may operate the company without proper structure and processes in place. Partnering with a private equity firm can thus drive value creation by reviewing these aspects.

2.2 Private equity players: Aggressive cost cutters and value destroyers or facilitators of growth?

Private equity firms have been criticized for being short-sighted since they have a finite investment horizon (Døskeland and Strömberg, 2018) and have been charged of creating value in LBOs through cost-cutting and leverage measures. In this story, private equity firms are alleged of achieving high returns by underinvesting in portfolio companies, which would have negative repercussions on long-term performance. Instead of growing businesses, critics claim that the cash flows from portfolio companies are simply used for debt-servicing costs at the expense of necessary investments to grow the companies (Loos, 2006).

Historically, financial engineering measures such as cost-cutting were commonly used to increase returns. Kaplan (1989a) finds that LBO targets increase their profitability three years after the buyout and cut down on investments[12], and Lichtenberg and Siegel (1990) find that privately held LBO targets experience both employment and wage reduction following an LBO. Initial employment reduction in LBO targets over a longer time-period is also supported by Davis et al. (2011).

This criticism – that private equity players restructure portfolio companies through layoffs, cost-cutting, and other financial engineering measures – is echoed by those who argue against private equity ownership of entrepreneurial businesses that focus on growth and innovation (e.g. Dutia, 2012).

However, recent studies support the notion that private equity firms have moved away from an ownership model that previously was synonymous with a cost-cutting strategy (Gompers et al., 2015). Likewise, a study by EY (2007) found that two-thirds of EBITDA growth in the portfolio companies of the private equity companies they investigated came from business

[12] Other explanations for reduced capital expenditure is that LBO targets require investments in new assets and project engender a return of, at least, a predetermined hurdle rate. This, combined with the fact that cash flows are reduced due to debt-servicing costs, may offer two explanations as to why some studies show reduced capital expenditure after a buyout (Hoffmann, 2008).

expansion. Similarly, Boucly et al. (2009) find that LBO targets increase their capital expenditure by close to 40% four years after the initial transaction.

Lerner et al. (2011) also oppose the criticism of private equity players being short-sighted. They studied investments in innovation (by defining it as patent activity related to LBO targets) and found no evidence of patent activity decreasing. On the contrary, they find that the patents applied for by LBO targets have a higher economic importance compared to before the leveraged buyout (frequency of citation is used as a proxy for economic importance). This is supported by Link et al. (2013) who studied the innovation strategies of entrepreneurial firms under private equity ownership and found that private equity investments have positive effects on innovation performance.

Empirical research has not found that private equity firms take short-sighted measures at the expense of LBO targets' long-term performance.[13] Intuitively, this can be explained by understanding private equity firms' structure and business model. Given their limited investment horizon, private equity firms acquire targets with an exit in mind. If they took short-sighted actions and under-invested in a portfolio company, this would have repercussions when the private equity firm sought to exit the portfolio company. This is because an under-invested company's value will be discounted through a lower exit multiple because its expected growth going forward will be lower (see Section 2.1 and Figure 1 for further discussion and illustration of multiple drivers). Thus, if private equity players take short-sighted actions, their exit valuation would be lower. This in turn would adversely affect IRR – the return measure most important for private equity firms.

Reasons why previous literature find contrasting results regarding the merit of private equity ownership, and whether they are aggressive cost-cutters or facilitators of growth, may largely depend on when the studies were written, and over which time period the samples were analyzed. It is unsurprising that studies from the 1980s find that private equity players utilized financial engineering techniques and aggressive cost-cutting measures. During this period, the private equity market was in its nascent days, and "low-hanging fruit" (i.e. investment opportunities where private equity players could easily add value through simple financial engineering or by stripping-and-flipping[14]) were much more prevalent. However, these types of acquisition targets are not as common today because governance in public markets has evolved significantly. Today, there are not as many badly managed public companies compared to in the 1980s (Hammer et al., 2017). The reasons for this include increased public scrutiny and pressure from investors (including institutional investors and hedge funds) who demand a strong focus on corporate governance (Gillian and Starks, 2007).

Previously, private equity players often acquired inefficient conglomerates that had substantial amounts of overhead costs. Private equity firms are characterized by having portfolio companies with a leaner organizational structure than, for example, conglomerates. Thus, previously documented cost-cutting measures included cutting overhead costs and increasing efficiency through, for example, improved control systems (Loos, 2006). With the significant

[13] Døskeland and Strömberg (2018) provide a summary of research finding a lack of evidence of private equity short-termism.
[14] Private equity firms have been criticized for "stripping and flipping", meaning that they increase immediate cash flow at the expense of long-term performance by reducing long-term investments. Kaplan and Strömberg (2009) finds that private equity firms' holding periods have increased since the 1990s.

maturation of the private equity market, and the larger number of competitors that have entered the market over recent decades, these low-risk investment opportunities that could yield high returns owing to simple financial engineering have decreased drastically.

One additional explanation for why LBO targets faced aggressive cost-cutting measures in the 1980s was that it was a time when many businesses faced financial pressure and needed significant corporate restructuring due to increased international competition and industry deregulation (Boucly et al., 2011).

In light of the discussion above, it is clear that studies from the nascent days of private equity that aim to analyze private equity strategy and behavior should be read with this background in mind. Older studies may not be representative of typical private equity transactions today. Finally, many studies (especially early ones) often look at public-to-private rather than entrepreneurial buyouts.

2.3 Credit constraints and diversification effects

One question that is interesting to examine is why the LBO targets themselves do not implement the growth measures taken by private equity firms. If, for example, financial engineering such as leveraging up and utilizing tax shields is so “simple”, why would LBO targets not take on debt themselves? Do they really need a financial sponsor for this?

Boucly et al. (2009) find that private equity firms can create value in their portfolio companies by relaxing credit constraints, which allows them to exploit growth opportunities that they had not been able to take ex-ante to being acquired. Even though a privately-owned business operates in a country with developed capital and credit markets, it is likely that many owners of privately held companies have a substantial part of their personal wealth tied to the firm. Thus, ex-ante to being acquired, these owners are exposed to substantial idiosyncratic risk. This may constrain their willingness to leverage the company since it increases the equity risk and exposes the owners to default risk. As result of this reluctance to take on leverage, the company’s cost of capital increases (Døskeland and Strömberg, 2018). However, ex-post being acquired by a private equity firm, the owners could diversify a considerable part of their wealth and therefore be keener to raise the level of debt in the company to reach what the theory calls “optimal’’ leverage (see Section 2.1.1 for a discussion of optimal capital structures). Moreover, they have the ability to exploit growth opportunities they were previously reluctant to explore due to fear of failing.

However, an important aspect to consider is that the diversification explanation presented above is not the sole reason why target companies are not “optimally” leveraged. Perhaps LBO targets may want to be “optimally’’ leveraged ex-ante to being acquired, but may have difficulties obtaining debt financing from banks. A solution to this is, as described by Boucly et al. (2009), to “*introduce new, more competent members to the executive suite, which may reassure bankers*” (p.433). Boucly et al. (2009) also discuss that LBO targets’ debt capacity can be increased because private equity investors would monitor portfolio companies and consequently exert a “*positive externality on debt holders, who are more senior claimants*” (p.433).

Finally, there may be additional constraints apart from not being able (or willing) to take on debt. Privately owned companies may not have the financial resources to hire, for example, consultants or skilled personnel that can support the company in how to streamline operations. When a private equity player acquires a company, it may benefit both from additional financial resources as they enable the company to take on new investment opportunities, as well as expertise in the form of skilled consultants or new hires.

2.4 Management practices

More recently, Bloom et al. (2009) collected management practice data from over 4,000 private equity-owned and other firms using a survey tool and found that management practices in companies owned by private equity are significantly better than government, family and privately-owned firms after controlling *“for a range of other firm characteristics such as country, industry, size and employee skills”* (p.3). On average, they are also better managed than publicly listed firms with dispersed owners (however, the differences were not statistically significant). Furthermore, they found that private equity firms not only have strong management practices (hiring, firing, salaries and promotions) but that their operations management (e.g. continuous improvement and monitoring) was even stronger. This strong focus on operations management is likely particularly important in entrepreneurial firms that may lack a proper structure and action plan if they miss earnings expectations, as an “external” private equity firm will actively monitor the portfolio company and demand greater accountability.

Finally, Bloom et al. (2009) find that private equity firms are consistently properly managed whereas companies that are government-, family-, or privately-owned have *“substantial tails of badly managed firms”* (p.3). This finding makes sense based on an incentive perspective: a substantial part of private equity professionals’ return is tied to the performance of the investment. Moreover, this finding is also likely to be attributed to private equity firms’ experience and in-house know-how regarding general best practices (e.g. developing proper KPIs, recruiting a strong CFO, etc.). In addition, private equity firms often utilize in-house operating teams or hire external consultants who do not necessarily need to present groundbreaking improvements but could assist in examining the working capital needs of a company. Even though these skills could be perceived as trivial, they are not implemented in all businesses, and can explain why private equity-owned companies consistently are well-managed and lack tails of badly managed firms.

3. Methodology

3.1 Case methodology

The current literature on private equity investments in entrepreneurial firms is scarce, especially literature that examines investments that incorporate a buy-and-build element. One reason for this is because buy-and-build is a fairly novel phenomenon in academic research (Hoffmann, 2008). Hence, this paper uses a single qualitative case study in order to gain an in-depth understanding of the dynamics of the relationship between private equity players and entrepreneurial firms. A single case study may reveal specific insights and understanding of phenomena by examining activities in a real-life context (Idowu, 2016) and offers means of investigating a real-life situation with "*multiple variables of potential importance*" (p. 50) (Merriam, 2009).

However, this methodology of choice also comes with a few drawbacks. For example, what conclusions and findings can be generalized, and what are specific for the examined case? Questions regarding the lack of generalizability of the findings in such studies have been the main criticism of case studies (Abercrombie et al., 1994).

But does every study need to have the objective of finding conclusive and generalizable findings? Siggelkow (2007) discusses the persuasive power of case studies and argues that *"the main objective of case studies should be to provoke thought and new ideas, rather than to poke holes in existing theories"* (p.1), and Merriam (2009) argues that case studies can provide insights that lay groundwork for future research topics and therefore play "*an important role in advancing a field's knowledge base*" (p. 12). Idowu (2016) describes the advantages of using a case study by saying that they can be an ideal methodology when a "*holistic, in-depth investigation is needed*" (p.184).

Finally, given the novelty of the topics studied in this paper, a case study may be the preferred choice of methodology. Yin (2003) argues that case studies are preferred "*when the focus is on a contemporary phenomenon within some real-life context*" (p.1).

3.2 Data collection

The primary source of data is internal and confidential information memoranda from the sell-side advisor, as well as IK Investment Partners' investment committee material. These documents were needed to enable the researchers to properly understand the case, describing the case's background information, and to prepare for the interviews. The content of these materials is described throughout the case description but cannot be published due to their confidential nature.

Interviews are also an important data source and have been conducted with IK Investment Partners in order to gain a deeper understanding of the dynamics and relationship between the investor and target company. No interviews with Ramudden's management team could be conducted despite several efforts to make contact being made.

As interviews are important to understand the real-life dynamics between the target company and private equity investor, it is important to adequately prepare for them as well as conduct and document them accordingly. Although a general interview structure was prepared for the interviews conducted with IK, the interviewee was encouraged to talk freely about the case in order to get a deeper understanding of IK's thought-process, as well as new perspectives that had not been considered before. This enabled the study to pivot towards these previously unexplored areas, and prompted the researchers to ask additional questions that provided valuable insights. The first interview took place in April 2019 and lasted 45 minutes, and the second interview took place in May 2019 and lasted 30 minutes. Directly after the interview, the authors processed the interview as soon as possible. If there were follow-up questions that needed to be asked, these were sent through email.

3.3 Reliability and validity

Given this choice of methodology, the paper is dependent on materials that were retrieved from IK Investment Partners. First, this may pose a sample bias, as IK likely would not be as positive to having a case study written about a former portfolio company that was unsuccessful or controversial. Second, the interviews have been conducted with a party that may provide subjective and biased answers that are overly positive, with the aim of being cast in a better light. Finally, all interviews took place five years after IK's initial investment in the target company, which may raise concerns regarding the interviewees' recollection of events. If this paper is replicated in the future, this time lag will be larger.

Despite the efforts made, the researchers were not able to get hold of Ramudden's management team – something that would be important for a full understanding of the dynamics between the investor and the target company, instead of only hearing it from one perspective. We made a total of six attempts to contact to Ramudden without being able to secure an interview, despite offering to conduct the interview via telephone.

The main case information was retrieved from internal materials and was seen as a strength as there is no reason for IK to bias its internal decision materials. Regarding the potential subjectiveness of the interviewee, this was a concern that was difficult to address as interviews were vital for gaining in-depth understanding of the case. However, given that the case analysis was not dependent on the interviews and did not revolve around them, the interviewee's potential subjectiveness was not deemed a major concern. Instead, the interviews only added new viewpoints that added to the case analysis.

As discussed in Section 3.1, case studies suffer from the lack of generalizability. As such, the findings of this paper should be interpreted cautiously, and be understood in the context of IK Investment Partners. IK can be considered a more experienced and successful player, so the methods documented in this paper may not be representative of less experienced / successful PE investors. Therefore, the findings may instead be interpreted as best practices rather than being representative of all buyouts.

4. Case Study

4.1 IK Investment Partners

In 1989, IK Investment Partners (previously Industri Kapital) was founded by Björn Savén and Kim Wahl. By 2014, IK had offices in UK, Germany, France, Sweden and Luxembourg and had raised approximately €7.1 billion through their seven funds.

IK's expressed strategy is to achieve strong and consistent returns in private equity via active management and the adoption of disciplined investment criteria. IK has implemented "*The IK Way*'' – an operational toolkit that is used in every investment made by the IK Funds. The toolkit's core is to provide a consistent and structured approach from entry to exit, and is also in place to deliver discipline and clarity to the IK Funds as well as target companies' management team. In more detail, "The IK Way" consists of four pillars: first, it aims at acquiring controlling stakes in Northern Continental European mid-market companies and transforming them into larger, more international, better managed, and more valuable businesses at exit. Second, it means to implement buy-and-build and operational improvement strategies, which have been the centerpiece of IK's transformational approach since the firm's inception. Third, through IK's pan-European offering with a local presence, it aims to result in a differentiated positioning compared with local players who do not have the same platform or international reach. Lastly, it contains a sector-focus consisting of engineered products, food/consumer goods, healthcare and business services.

IK also has an in-house operation team to support the development of its acquired businesses as well as help to implement new strategies. In 2014, IK's operations team comprised three experienced professionals who leverage a granular network of dedicated advisors and specialists. The team particularly focus on developing value creation within each portfolio company through the elaboration and execution of 100-day plans as well as driving large-scale transformation projects.

IK looks for target companies that have a strong management team already in place, and that also have the possibility to see earnings double organically as well as through acquisitions. While organic growth is an important aspect in the development of their investments, IK has an expressed strategy of "*using buy-and-build strategies in stable and consolidating industries"*.

In 1989, IK started raising its first private equity fund. When the fund closed in 1991, IK had managed to raise €108 million in committed capital. In 1994, IK started a second fund, which managed to raise €250 million in committed capital. Over the next 17 years, IK raised an additional five funds, each reaching levels of committed capital of €750 million, €2.1 billion, €825 million, €1.7 billion and €1.4 billion, respectively (see Appendix A for a more comprehensive history of IK's previous funds).

IK looks for investment opportunities in the Nordics, the DACH region, France and Benelux.

4.2 Case context

4.2.1 Market overview

> "*Before a road is built or maintenance work is carried out, a traffic arrangement plan needs to be put in place to minimize the impact on vehicles and pedestrians*"
> - Kristian Kemppinen[15] (quoted in. IK News, 5)

Traffic control devices (TCDs)[16] and related services include equipment and services used to establish safe and functional environments for road users, workers and pedestrians in connection with temporary work on, or by, roads. The primary objective is to protect workers and redirect traffic in connection to road-work sites such as road construction, road maintenance work and other road-related work on national and municipal road networks.

At an EU, national as well as municipal level, there are several laws and regulations that governed road work and road work site safety, which impacted contractors and providers of TCDs. The regulatory landscape is complex, which makes compliance with the regulatory framework challenging for contractors and providers of TCDs. This regulatory landscape in combination with the TCD market generally being a local niche market based on, for example, close customer relationships are two of the factors that contribute to the TCD market being characterized as one with high barriers to entry.

4.2.2 Sweden

The Swedish TCD market was fragmented and market participants included large contractors with in-house TCD capacity (such as NCC, Skanska and PEAB), road safety equipment vendors (with a rental offering) as well as several small TCD suppliers (often operating within specific niches and with limited geographical reach).

Over 2002-2012, the market for TCDs and related services had an estimated growth in the range of 7-12 per cent p.a. corresponding to an increase of 2-3 times the market size during the period. In 2012, total road investments in Sweden amounted to approximately SEK 29 billion and included national investments in maintenance and new roads as well as municipal investments and maintenance on municipal roads. The market for TCDs and related services amounted to approximately SEK 0.9-1.0 billion in 2012, representing approximately 3-3.5 per cent of total road investments in Sweden.

Within the Swedish market, stricter regulations within the area of road work safety had contributed favorably to the demand for road safety solutions. *"Nollvisionen"* was introduced in Sweden in 1997 with the goal of having zero fatalities on Swedish roads.[17] As contractors were facing a higher degree of scrutiny, they in effect enforced increased compliance as they strived to eliminate the risk of accidents.

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[15] Partner at IK Investment Partners responsible for the acquisition of Ramudden.
[16] Various utilities and devices that are used to control, guide and regulate traffic. TCDs include traffic signs, traffic cones, barriers, road bumps, fences as well as road safety vehicles such as truck-mounted attenuators.
[17] Trafikverket, 2017, *This is Vision Zero.*

4.2.3 Norway

The Norwegian outsourced TCDs and related services market had experienced a long-term trend of increased outsourcing. This had driven its development from a non-existing market in the early 2000s to an established yet still relatively undeveloped market for outsourced TCDs and related services in 2014. In 2012, the market for outsourced TCDs and related services was estimated at approximately SEK 150-200 million, out of a total TCD and related services market of approximately SEK 800-900 million.

Relative to Sweden, Norwegian road investments have a higher share of non-addressable projects for TCDs due to a higher share of road investments related to the construction of tunnels and bridges requiring a low (or no) share of TCDs. This, coupled with weaker enforcement and compliance with regulations (resulting in a lower share of TCD investments in comparable project types than in Sweden), was the main contributing factor to the lower TCD and related services' share of total road investments observed in Norway.

The Norwegian market for outsourced TCDs was highly fragmented and local in 2014. There was a lack of market participants with a full-service offering and country-wide presence. Market participants included several local and regional players of limited size. In addition, there were a few market participants with a broader geographical coverage; however, these represented a limited size of total revenues within the market.

4.2.4 Finland

Most Finnish contractors handled the supply of TCDs in-house, with only selective use of TCD rental companies, as the demand for TCD and related services still remained fairly low. External TCD suppliers were typically hired by a consortium, either one of the major contractors or one of their local subcontractors.

The Finnish market for outsourced TCDs and related services was highly fragmented and less competitive compared to Sweden, with the market being characterized primarily by regional players. The market players consisted of companies such as TCD and related services specialists, TCD equipment vendors, as well as municipal contractors with an external TCD offering. In 2012, the market for outsourced TCDs and related services was estimated to amount to approximately SEK 35-50 million, out of total investments in TCD and related services of SEK 175-275 million.

Relative to Sweden, the TCD and related services' share of total road investments was lower. This was primarily due to low compliance levels, as Finnish authorities had historically lacked the resources for efficient follow-up and control – something that had allowed for less priority in TCD-related products, and a tradition of contractors using in-house TCD solutions. However, this was something that was changing as Finnish regulators began cooperating with, and learning from, their Nordic peers. Going forward, this was projected to have a positive impact on TCD adoption and usage.

4.3 Ramudden pre-acquisition (2005-2014)

4.3.1 Ramudden's history

In 2005, Hans-Olov Blom, after a long career in the Swedish military, left his position as a professional officer and founded Ramudden with the ambition of offering TCD rentals and related services in Sweden. Starting off with only a small inventory of materials for road safety in his garage in the Swedish town of Valbo, Blom turned Ramudden into one of the largest companies within the road safety industry. Some of this success is, according to Blom, attributable to his experience within the military:

> "*There are similarities with the army. If you are in the wrong place at the wrong time, it is very dangerous. There is a high level of risk, and road safety – like military safety – requires plenty of thinking about personal security, so I thought it might be a good business area for me*". (quoted in IK News, 4)

Besides operating Ramudden, the entrepreneur of the year within his home municipality also holds the title of hotel director after having opened a bed and breakfast in Valbo, which is mainly geared towards coworkers visiting the company headquarters located in the same region.

The name Ramudden originated from a moose-hunting destination of the same name located near Blom's family cottage in the northern parts of the Swedish province of Hälsingland. Ramudden is also where Blom, a passionate hunter, shot his largest moose (a 17-tagger). Therefore, Ramudden, according to Blom, *"must bring luck with it*'' (quoted in Svensk Press).

In the early days, Ramudden's rental portfolio was comprised of truck-mounted attenuator and trailers vehicles[18], road signs and protective barriers. Ramudden quickly established an initial stronghold in southern Norrland with an additional presence in Gothenburg. In 2006, Ramudden expanded its business by acquiring the assets of Swedish steel road plate company, Birstaverken. The following year, Ramudden complemented its TCD rental offering with an education and service business segment. This contribution to the business made Ramudden a full-service provider within the TCD rentals and related services segment.

To support further growth, a strategic initiative to strengthen the organization and build structural capital (e.g. new processes and systems) was commenced in 2010. As part of this reorganization and strengthening of the group, Ramuddenbolagen was incorporated in 2010. In 2011, Ramudden entered into a partner agreement with Sweden's largest leasing and rental company, Cramo – something that allowed the company to diversify its customer base to glaziers, façade renovators and electricians. Furthermore, in line with the company's strategy of establishing a pan-Nordic platform, Ramudden expanded into Norway in 2009 and into Finland in 2012. For a timeline illustrating important milestones in Ramudden's history, see Appendix F.

[18] An impact attenuator is mountable to a vehicle and works as a crash cushion with the intention of reducing the impact damage from other vehicles though the absorption of kinetic energy from the crashing vehicle.

4.3.2 Management, board of directors and organization

The management team at Ramudden consisted of four key roles: two CEO positions (which worked jointly in a “dual-CEO” setup and shared operational responsibilities (see Appendix G for a more comprehensive review of the organizational structure), one CFO and one head of sales and marketing. The management team was divided between the company headquarters, located in Sundsvall, and the operational administration office, located in Gävle. For a more comprehensive description of the management structure, see Appendix G.

The board of directors of Ramuddenbolagen consisted of Lars Bäckvall (chairman and non-operational shareholder), Birger Larsson (CEO Ramuddenbolagen), Hans-Olov Blom (CEO Ramudden) and a fourth board member.

Ramudden was headed by its founder, Hans-Olov Blom, while Birger Larsson was the CEO of Ramuddenbolagen. For a more elaborate description of the management team and its background, see Appendix H.

Ramudden operated a flat organization with strong regional managers. Ramudden had 16 of its own depots, all of which were responsible for local sales. Local management were typically minority shareholders in the business they operated. Cooperation between depots was widespread, and best practices were shared across the organization to make operational improvements among depots. A further description of the organizational structure is presented in Appendix I.

4.3.3 Business model

Already prior to IK’s entry in the company, Ramudden was a leading specialist provider of temporary traffic control solutions in Sweden (~89% of sales)[19], with an established presence in Norway (~8%) and Finland (~3%). Furthermore, Ramudden possessed a market share of approximately 15%, 1.5% and 2% in Sweden, Norway and Finland, respectively.[20] Ramudden’s core offering comprised an extensive rental fleet of TCDs, machines and road safety vehicles, complemented by traffic arrangement planning and traffic control related services. Through their broad service offering, Ramudden were able to profit during all phases of the value chain. Starting with education of the contractor responsible for repairs or maintenance, Ramudden’s services further extend into the delivery of TCDs and finally into the disestablishment of work sites. For a more comprehensive display of Ramudden’s product offerings and its value chain, see Appendix B and C, respectively.

Ramudden did not carry out any manufacturing activities and instead sourced all of its TCDs, machinery and safety vehicles from different manufacturers. Rentals of TCDs and related services were supplied from the company’s nationwide network (Sweden) of own local and partner depots. The set-up with partner depots allowed Ramudden to expand its operations rapidly and reach customers in regions where the company lacked presence with its own depots. A partner depot is a specialized equipment rental solution provider. A prerequisite for a mutually beneficial relationship is that the partner depot’s local manager has intimate market knowledge and well-established relationships with local customers. The partner agreement

[19] All revenue numbers are based on 2012 data.
[20] All market share numbers are based on 2012 data.

stipulates that the partner depot shall market and rent out Ramudden's TCDs through its own physical storage units, as well as directing customers to Ramudden for traffic control services and education requested by customers. Using partner depots as a local distribution platform has been an essential part of Ramudden's growth strategy in Sweden in order to gain initial market presence. However, as Ramudden has expanded and built critical mass and market presence in Sweden, the strategy is now to focus on growing its own depot network.

Ramudden is responsible for providing a new partner depot with a base assortment of TCDs to cover typical customer needs, and the partner depot is responsible for delivering the equipment to customers. The average partner depot is estimated by management to have a TCD portfolio representing approximately 25 per cent of Ramudden's total of approximately 600 stock-keeping units.[21] All TCDs delivered to partner depots are owned by Ramudden and are also labelled under the "Ramudden" brand. The partner depot receives a commission fee from Ramudden on rented equipment.

As a pioneer in the Swedish TCD market, Ramudden decided to expand their service offering in response to increasing demand from its customers for a broader offering. By doing this, Ramudden aimed to position themselves as the preferred outsourcing partner for temporary traffic control solutions. Ramudden was also active within the whole process, from planning temporary road work sites by offering traffic arrangement planning to providing TCS. The latter were offered to customers by providing Ramudden's trained and experienced personnel to, for example, manage road maintenance and safety vehicles, set up and man temporary road work sites, close lanes of traffic, redirect traffic and ensure compliance with the regulatory framework governing road work and the use, assembly and application of TCDs during road works.

Ramudden provided its products and services through three core business segments (revenues split): (i) TCD rental (62%)[22]; (ii) Services (19%); and (iii) Education (17%).[23] A key concept in Ramudden's business model was to provide a one-stop-shop solution to its customers by providing solutions to all specific needs relating to traffic control solutions.

Ramudden's comprehensive TCD rental portfolio included, for example, road safety vehicles, barrier systems, fences, temporary road and traffic signs, steel road plates, traffic cones and a broad range of other TCDs (for a further description of Ramudden's TCD portfolio, see Appendix D).

In 2012, Ramudden had approximately 600 stock-keeping units of TCDs for immediate delivery through its extensive depot network of own and partner depots. Ramudden offered its customers a wide selection of modern TCDs that were up-to-date with the latest regulatory requirements – an offer that was difficult to match at short notice. Furthermore, the product range for each depot varied in order to service regional-specific demands. Ramudden could respond swiftly to customers' TCD needs with a 24/7 response service. Moreover, the TCDs could be rented on flexible terms, for example, device bundling, rental period duration etc., depending on specific situational needs.

[21] Units (such as vehicles) kept in stock by Ramudden and its partner depots.
[22] All segment splits are based on 2012 data.
[23] The remaining 2%-units are related to the segment Other.

The Service business segment provided customers with advisory services and support functions required to set up and operate a safe zone around a road work site, in compliance with applicable laws and regulations. Ramudden's services included designing and submitting traffic arrangement plans[24] for approval, establishment and disestablishment of road work sites, providing trained personnel to operate road safety vehicles, flag-guards and more. The service offering was an integral and supporting part of the overall business concept and an in-road to rentals, as well as a driver of rental revenues. The service offering was also a key component for sustaining existing customer relationships as well as building new ones. A further representation of the service segment is presented in Appendix E.

The Education business segment offered a broad course curriculum focusing on road work safety to the public sector and contractors, many of which were approved by the Swedish and Norwegian Traffic Administrations, ensuring that they met the requirements set by the respective authority. The Education business segment was a cornerstone of Ramudden's business model as it built relationships with existing and potential customers as well as awareness about road work safety rules and regulations.

As previously mentioned, the Education business segment was a cornerstone of the business model as Ramudden's consultative approach created relationships and credibility among both existing and new potential customers – something that has been a key success factor for the company. According to management, building awareness about road work safety was one of the key drivers for Ramudden's core business as the benefits of having an outsourcing partner managing a complex process became more evident. Ramudden also invested significantly in the training of its own personnel, as Ramudden wanted to retain its market-leading position in traffic safety.

4.3.4 Customers

Ramudden's customer base was large and diversified, comprising local, regional and national companies. Ramudden's strategy of attracting a larger share of small volume customers had been successful, and the customer base had successfully been broadened in recent years, both in terms of companies as well as across segments.

Ramudden's customers were primarily private contractors[25] (~85%)[26] followed by municipal companies and municipalities[27] (~9%). The remaining part of revenues (~6%) was derived from private companies and organizations.[28] Demand for Ramudden's products and services relating to private contractors was foremost related to road and bridge construction, electrical work and the laying of asphalt. The municipal companies and municipalities, however, demanded services related to street, park and water maintenance. Private companies' demand for Ramudden's offerings were, however, different as they foremost needed support relating to work being done on industrial compounds as well as safety surrounding events, fairs and concerts.

[24] A traffic arrangement plan contains information about current roadworks and how they should be marked out.
[25] E.g. Skanska, Eltel, NCC and Svevia.
[26] All revenue numbers are based on 2012 data.
[27] E.g. Fortum, Gävle Kommun, Göteborgs Stad and MittSverige Vatten.
[28] E.g. Sandvik, SCA, Gothia Cup and Linköpings Stadsfest.

Contractors represented the largest share of Ramudden's revenues and consisted of contractors within road construction, road service and maintenance as well as non-road contractors working on, or by, roads related to, for example, electricity and telecommunications works.

Albeit a relatively small share of total revenues, municipalities and municipal companies constituted an important customer segment for Ramudden as they were both direct customers of Ramudden and procurers of services from contractors. The majority of Ramudden's counterparts in this segment were municipality-owned companies providing specific services to the municipalities such as water or road maintenance.

4.4 Deal structure

The sales process run by Access Partners, a corporate finance boutique with close relations to IK, launched in late December 2013. Ramudden's owners decided to sell the business because they wanted a partner that could support future growth:

> "*From the start, we have always tried to think ahead as we developed the business. As it grew, we realized that the company was at a crossroads. We knew we didn't have enough know-how to build a large organization, so it was clear that we needed a partner.*" – Hans-Olov Blom (quoted in. IK News, 6)

IK first came across Ramudden several months prior to the company being officially put up for sale as Access Partners had introduced Ramudden to IK well before the process began:

> "*We started to study the company and the industry in detail, and it didn't take long before we felt that this was something for us*" – Kristian Kemppinen (quoted in. IK News, 6)

First indicative bids were due on 14 February 2014, and a fairly large number of potential acquirers, primarily financial buyers, were contacted and given another two months to submit a final offer.

IK was attracted to the investment opportunity for several attractive investment reasons. First, temporary TCS represented a growing and developing market, underpinned by increased safety awareness and regulation. Second, Ramudden had a market-leading position in Sweden, both in terms of presence but also in driving the market development towards outsourcing. Third, Ramudden had a strong operational CEO and an organization with a strong growth-focused and entrepreneurial culture. Fourth, the company had an attractive financial profile with strong growth and high margins. Finally, the management team's vision and ambitions fitted with IK's footprint and capabilities very well, as IK had experience from similar cases.

> "*By leveraging our expertise of supporting management teams in developing and growing businesses, our past experiences with rental businesses and our vast industrial network in the Nordics, we look to support the Ramudden team in growing and strengthening the company over the coming year.*" – Kristian Kemppinen (quoted in IK Press Release)

IK had previously owned several portfolio companies that operated with a rental-based business model, for example Ampelmann (rental of offshore access solutions), Hansen Protection (provider of rental transport suits to energy companies) and Cramo (business-to-business rental of equipment).

> "*Ramudden is an ideal investment for us. It is a Swedish champion which we can develop into a Nordic leader and maybe even expand beyond the Nordic area.*" – Kristian Kemppinen (quoted in. IK Press Release)

The sellers originally announced a "staged" process, with a bid re-confirmation due on 28 March, and final bids planned for 17 April. During the second round, it became clear that the process could be accelerated after 28 March, and the number of bidders would in any case be narrowed down. Ramudden was approached by strategic buyers in connection with the process, but only financial buyers were taken to the second round as management were looking for a partner for continued growth.

In this kind of situation, where the managers are the key shareholders and essentially are looking to find a good partner to support continued growth, aspects other than price would be critical as well, such as whether IK would be a good fit with Ramudden's management team and whether IK had the capacity to support Ramudden's growth and contribute to the development of the business. Therefore, IK focused on getting into dialogue with the management team and building a good relationship, especially with founder Hans-Olov Blom. Following several meetings and conference calls with Blom and his team, including three regional managers, the impressions were generally favorable.

However, IK faced competition from three other bidders who, according to the sell-side advisor, were also "*well positioned with management*". According to feedback from the sell-side advisor, management saw potential benefits from both IK and "*another party*". The competition was therefore tough in terms of the "offering" that IK could bring as well as the price and the private equity partner's ability to deliver the transaction. It was not only a matter of potential fit with management but other qualitative factors would be important as well.

IK focused on being transparent and explaining the different aspects of the potential deal. Management had little or no prior awareness of what a deal with a PE player would look like, how they worked, and what IK could offer in terms of network, relationships, geographical reach, fund capacity, real and recent experience from rental investments and a structured but non-bureaucratic way of working.

Given the competitive process, IK pushed ahead with the due diligence and financing discussions, as well as providing a complete share-purchasing agreement mark-up. The size of the company and its resources in the finance department restricted the scope of due diligence that could be done in the process context, but no significant issues were found.

> "*The early introduction to the company meant that we had already done a lot of work before the first round, so we were able to proceed faster than expected, which gave us an advantage. We also established a very good relationship with the*

management team, and in the end, we submitted a winning bid before the formal deadline" – Kristian Kemppinen (quoted in. IK News, 6)

Founder Hans-Olov Blom, who was a major owner, preferred IK over the competing investors and took the final decision.

"*Our people are very entrepreneurial, and we were keen to maintain that spirit. We spoke to IK about this and they completely got what we were saying. From the beginning, we had a very good feeling about them. They are very professional and they suit us perfectly.*" – Hans-Olov Blom (quoted in. IK News, 7)

At entrance, IK's equity story revolved around three main themes that were presented to the investment committee:

First, IK aimed to continue to drive organic growth in existing locations owing to underlying market trends, open new depots, and strengthen the organization. The envisaged actions were to continue delivering a high-quality service, educate the market, and approach new customers to drive growth in existing locations. Moreover, new depots in identified locations were targeted to be opened. Finally, IK had planned operational initiatives that included strengthening the finance and control function through new hires; further developing internal processes and functions (e.g. central sales support, HR); developing proper KPIs for growth / profitability and asset turnover; and making selected additions to the staff team in existing depots to free up capacity to drive further growth.

Second, Ramudden's geographical presence would be expanded further via new depot openings and selective acquisitions. IK's plan was to strengthen the company's presence in underpenetrated regions by opening new depots, in particular in Finland and Norway, and conduct selective smaller add-on acquisitions as well as larger transformative acquisitions.

Finally, the ambition was to become a clear Nordic leader with a selected presence in the rest of Europe. Through inter alia lobbying efforts, IK aimed to develop markets and the company's positions outside Sweden further by new depot openings and potential acquisitions.

There were some key questions and issues that IK considered prior to the investment.

First, IK saw a key manager risk relating to Hans-Olov Blom who was very active in Ramudden's day-to-day operations and was still the key decision maker. His continued commitment was deemed very important, and a significant re-investment would be required (50% or more of gross proceeds). To mitigate this risk, the organization would be further strengthened in order to reduce dependency on any single individual. In addition, the regional nature of the business would reduce the day-to-day dependency on Blom and the region and depot managers.

Second, there were risks regarding the sustainability of Ramudden's value proposition and the entry barriers in the market. Ramudden's success thus far had been built on focused efforts to grow and build the leading TCD player in Sweden, and recognizing the local nature of the business, which makes the regional management critical to the business. Therefore, significant efforts were put into creating a strong culture of entrepreneurship and service-mindedness across the organization. One risk was that competitors could become better at the know-how part and become more service-minded. However, to do this on a national scale would require significant investment in equipment, depots and people, which would be a financial challenge and take time for a smaller competitor to achieve.

Third, a partner depots agreement was signed with Ramirent in Finland in 2013 in order to obtain reach in less dense and new regions. Thus, one issue related to Ramudden's dependency on Ramirent for its success in Finland. If Ramirent deemed it had gained the necessary experience, and started investing in TCD equipment of its own, the partnership with Ramudden may be discontinued. However, the Finnish market was in an early stage of development, so the market was seen as big enough for two parties actively trying to develop their offering and presence.

In order to finance the deal, IK held discussions with three Nordic banks and requested a modest initial leverage (debt to total capitalization of c. 25%). In addition, IK also requested a capital expenditure facility (equivalent to a revolving credit facility) of approximately 50% the size of the initial leverage, with a possibility to increase the facility by an additional 50% during the holding period. The reason for requesting a capital expenditure facility was because IK's business plan included investments needed to open new depots as well as funds to invest in new machines and acquire add-on targets.

By April, IK arrived at a valuation[29] that was expected to yield a base case IRR of 20% and a money multiple of 2.1x in four years. The return profile was good in a base scenario but would also provide a reassuring outlook in a downside scenario through cash-flow resilience.

4.5 What happened during IK's ownership? (Descriptive, 2014-2017)

During its ownership, IK implemented a range of improvements in order to increase the value of its holding in Ramudden. These value-accretive actions can be categorized by the different types of "engineering" introduced in section 2.1.

4.5.1 Financial engineering

First, IK acquired Ramudden with an initial debt to total capitalization of c. 25%. Second, IK had requested a capital expenditure facility to make investments in new depots and new machines, as well as being able to make add-on acquisitions. Third, IK refinanced Ramudden in June 2016. This enabled a dividend recapitalization, which meant that IK recouped roughly one third of its initial equity ticket.

4.5.2 Governance engineering

IK required the management team to co-invest a meaningful part of their proceeds in the company. Ex-post the acquisition, the management team owned approximately 30% of the

[29] For confidentiality reasons, an enterprise value number cannot be provided. However, the transaction was made via IK's Mid Cap Fund, IK VII, indicating that the transaction was roughly at an enterprise value size of SEK 1 billion.

share capital. The reason for this was that IK generally wants to see commitment from the management.

Moreover, equity incentive programs were put in place for the management team and became much broader ex-post IK's acquisition as other managers were not owners before. Contrary to many other PE players, IK does not generally use kickers or hurdle rates in the Nordics and did not do so in this particular case either. Instead, the management team received a larger proportion of common shares compared to preferred shares. This meant that their equity investment was riskier but had a significantly larger upside:

> "*What we do is offer management a mix of equity, in order to put incentives in place. No hurdles and no kickers. The management incentive programs are put in place because the managers are able to see a clear connection between the company's results, and the value of their shares. If you are successful in putting proper incentive programs in place, you usually get an organization that is very motivated to drive results. The incentive programs we implemented were very "simple". The managers owned shares, and their value increased as the EBITDA multiple - which was the value of the company - increased. It was a very broad program, probably the broadest we have ever had. At most, we had 70 managers who co-invested. I believe it worked very well to spread ownership across the company, as it also increased the managers' participation and feel of partnership. We strongly believe that this helped keeping the entrepreneurial spirit in the company during the whole holding period.*" (C Jakobsson 2019, pers. comm., 24 April)

Moreover, sizeable improvements were also dedicated to developing the organizational structure, reporting practices, as well as overall operational efficiency. At entrance, IK developed a 100-day program in a joint effort between IK, the board and the management, with the help of external consultants on specific topics (e.g. IT).

The organizational structure was reorganized through a simplified regional structure. Previously, Ramudden was structured in six separate regions with a combined role for depot managers and regional managers. Ensuing IK's entrance, Ramudden was structured in four separate regions with clearly separated and defined roles for the managers. This reorganization / simplification of the regional structure with centralized overhead functions and geographical verticals, and the creation of a new regional manager role, was introduced to provide additional support for depot managers and to increase focus on customers, sales and the regional strategy. Moreover, IK removed the "dual CEO" setup, centralized the group finance function to Gävle, Sweden, improved asset utilization by strengthening the central warehousing / logistics function, and implemented a new group IT system.

IK also used their operations team in particular to introduce new processes to Ramudden. Improvements were made to the monthly reporting process at the group, regional and depot levels. In terms of group reporting, IK implemented monthly reporting with routines for monthly group consolidation, introduced a new reporting template, and established clear reporting steps. Moreover, as result of workshops involving regional managers and depot managers, IK introduced processes to analyze what financial and operational feedback was needed on each level in order to better track performance. Regional managers were made responsible for their region's P&L and new depot establishment, and depot managers were made responsible for their depot's P&L.

> "*The operations team focused a lot on reporting and getting structure in place both regarding the internal reporting in the company, as well as the reporting to IK. One major reason for this was that we wanted to be able to monitor the KPIs.*" (C Jakobsson 2019, pers. comm., 24 April)

In terms of the board, a new board chaired by IK's industrial advisor Lennart Nylander was put in place. Lennart Nylander, who is part of IK's Industrial Advisor Network and whose history with IK dates back to the year 2000 when he became chief executive of Danish brown goods retailer, F Group, was an important addition to the board since he contributed both operational experience as well as a comprehensive knowledge relating to board work. Lennart Nylander had experience of being CEO in an IK-owned company and could therefore support Blom in his role as CEO of Ramudden. Furthermore, an additional two IK representatives[30], two members of the management team[31] as well as one external member (Björn Andersson) were also added to the board. Andersson had significant experience from the construction sector and was the CFO of NCC (a large customer of Ramudden) between 1999 and 2003.

IK also made some major changes to the top management structure. First, they let the "administrative CEO" go, hence removing the dual-CEO set-up. This meant that Blom held the sole CEO position. Moreover, IK strengthened the management team with several new recruits (see Appendix J for an overview of the new organizational structure). The process of finding suitable candidates for these management positions was conducted through a mix of utilizing IK's own network in combination with internal candidates as well as recruitment agencies. One of these recruits was a new CFO.

4.5.3 Operational engineering

A significant part of IK's value-creation strategy revolved around operational engineering and can be summarized through three main initiatives:

First, IK grew Ramudden's footprint in its existing markets through broadening the depot network (24 new depots since IK's investment), as well as making a greenfield expansion into a new country, Estonia, in 2016.

Second, Ramudden was strategically repositioned and broadened its service offering to adjacent segments in order to accelerate their position of being a "full-service provider", from predominantly road work safety to work zone safety, addressing also, for example, construction sites, taking an even larger role in safety provisioning. Ramudden was already a full-service provider within traffic safety solutions prior to IK's acquisition, but as their client segments expanded, so did their product and service portfolio. Moreover, IK focused on further strengthening Ramudden's role as more of a technical consultancy partner, offering project planning, equipment rental and regulatory service.

[30] Kristian Carlsson Kemppinen and Helena Stjernholm as ordinary members and Christoffer Zilliacus as a deputy member.
[31] Hans-Olov Blom and Birger Larsson.

Third, Ramudden grew through mergers and acquisitions. In total, five add-on acquisitions were carried out and integrated to Ramudden, of which three acquisitions were made in Sweden, and two acquisitions made in Norway. This was part of IK's buy-and-build and market consolidation strategy and helped in positioning the company as a leading specialist provider of work zone safety services (primarily within road safety).

These operational improvements supported Ramudden's strong sales growth between 2014-2017 (CAGR 37%)[32], driven by organic growth in both existing and new depots, in combination with acquisitions. Moreover, IK reviewed Ramudden's asset base and made adjustments to the economic lifetime of the assets to better match "usable" equipment life, resulting in favorable EBITA development since the depreciable amount became better paired to the performance of the overall company.

4.6 Analysis and discussion of what happened during IK's ownership

4.6.1 Financial engineering

Contrary to previous studies that indicate that buyouts are typically financed with 60 to 90 per cent debt (Kaplan and Strömberg, 2009), Ramudden had an initial debt to total capitalization of c. 25%. There are several explanations for this low entry leverage ratio. First, it is unreasonable to assume that all LBO targets have similar leverage ratios. The amount of debt a company can take on is affected by the riskiness of the target company. Hence, topics such as cyclicality and the size of the target company are important to consider. Most literature study large buyouts (e.g. Axelson et al. (2013) whose sample contains buyouts with enterprise values averaging over BUSD 1.5) which may explain why they find that buyouts are highly leveraged. Second, previous literature regarding debt ratios need to be read with caution because the amount of debt a company has the ability to take on largely depends on the market conditions at the time of the acquisition. A third explanation for this perceived low leverage ratio is that IK deliberately decided to keep a relatively low entry leverage in order to have flexibility to fund future growth through a capital expenditure facility.

> "*The company had a solid growth plan, and it is quite a cash-demanding business. Significant amounts of capital is tied up as there is a need for expensive investments and new depots that need to be opened. In light of this, we realized that we needed room to lend more as we go. Thus, we had quite a large capex facility, which is similar to a revolving credit facility, but used specifically for capital expenditures. We used it during the whole holding period to buy new machines as well as open new depots."* (C Jakobsson 2019, pers. comm., 24 April)

This illustrates that it is ill-advised to have a naive view of leverage ratios and blindly study the previous literature regarding aggregate leverage ratios. Leverage ratios are much richer and case-specific in practice. Even though Ramudden could take on a higher leverage at entrance, IK took a calculated decision to retain their debt capacity because they foresaw a future need for additional debt for new investments and acquisitions. This is in line with Devos et al. (2011) who state that firms may opt to take on low amounts of debt because they want to retain their

[32] Based on 2014 - 2017F data

debt capacity and instead will wait for profitable investment opportunities to present themselves before tapping their hitherto unused leverage capacity.

Finally, IK's dividend recapitalization was done as it allowed IK to return money to their investors earlier (which is good for the funds' IRR) and is usually done when a portfolio company is performing well, but the full value creation plan has not yet been completed.

> "*When a portfolio company performs better than anticipated, the net debt is reduced so fast that you often end up in a situation with a sub-optimal capital structure. This means that we can leverage up more again*" (C Jakobsson 2019, pers. comm., 9 May)

4.6.2 Governance engineering

Similar to most private equity firms, IK required management co-investments. Ex-post the acquisition, the management team owned approximately 30% of the share capital. This is twice as much as the average equity held by managers according to Acharya et al. (2012), and again illustrates the importance of understanding case-specificness rather than studying aggregate averages. Ramudden was an exceptional case given that Hans-Olov was a major owner of the business and would earn significant proceeds ensuing IK's acquisition. In order to be properly committed, IK wanted him to reinvest a substantial part of his net worth back to the company.

Up to 70 managers co-invested into Ramudden. It is not typical to see a buyout with equity participation from 70 managers. However, Ramudden was an entrepreneurial company that operated in a decentralized structure, and employed several entrepreneurs that were made responsible for their own depots and P&Ls throughout Sweden. One reason for this was due to the fact that Ramudden grew through buy-and-build. The add-on companies largely continued to operate relatively stand-alone, but now did so under the Ramudden brand. Thus, equity incentives were put in place to increase managers' feel of partnership. This type of equity incentive alignment is consistent with Kaplan and Strömberg (2009). IK describes that one reason for introducing equity incentives was that managers' equity *"increased as the EBITDA multiple - which was the value of the company – increased*". This is consistent with Acharya et al. (2008), describing how PE firms put in place incentive plans that are tied to the equity value at the time of exit.

In line with the literature (A.T. Kearney, 2014), IK also used their operations team in particular to introduce new processes to Ramudden. This is consistent with Hoffmann (2008), who stated that private equity firms' concentrated ownership enables active monitoring of portfolio companies, as well as Acharya et al. (2008), who state that PE firms identify KPIs that are monitored during the holding period.

Contrary to the previous literature (e.g. Cornelli and Karakas, 2008) finding that LBO targets have a smaller board after the transaction date, Ramudden's board grew larger ex-post the transaction from four members to six. The reason for growing the board can be attributed to IK adding new expertise to the board that was not present before. The external board members co-invested alongside the management team, which is in line with Døskeland and Strömberg (2018). This new board structure likely added value to Ramudden as the company previously was run by managers without any formal business education or business background. Instead, Ramudden was run by "street-smart" managers. Adding an industrial advisor, one external board member, and two IK representatives likely benefited the company through a clearer strategic and structural approach in formulating the strategy going forward. "*The management team had a strong vision when we acquired Ramudden, and they were already the leading player in the market. However, we helped Ramudden by creating a proper corporate structure and helped Ramudden articulate their strategy in a clearer way*" (C Jakobsson 2019, pers. comm., 24 April).

Adding two external members (Nylander and Andersson), who both had operating experience, to the board was likely particularly important in this type of entrepreneurial buyout for two reasons. First, they brought with them significant experience and knowledge that was shared with Ramudden. Second, it might be important for the entrepreneur to have board representatives that have experience from the industry, and who the entrepreneur might trust more than private equity investors.

Moreover, IK made some major changes to the top management structure. One of these recruits was a new CFO, in line with Døskeland and Strömberg (2018) describing the important role of CFOs in achieving governance and financial engineering goals. Moreover, the CFO is likely a particularly important person in the management for the private equity firms as it could be hypothesised that this is the private equity firm's "go-to guy" in the management team. The previous CFO who had a long tenure in Ramudden was redemployed by Hans-Olov to a financial director role, rather than being fired. It is quite uncommon to be redeployed rather than being fired, and reasons for this was largely emotional: "*It was clear that Hans-Olov wanted to keep him in the company*" (C Jakobsson 2019, pers. comm., 24 April).

This demonstrates that private equity investors need to be sensitive when restructuring management in entrepreneurial buyouts and illustrates a large difference compared to traditional buyouts. In entrepreneurial buyouts, cultural and emotional aspects may often be more important. A founder may not want to fire employees, who might also be close friends, and therefore instead redeploys the person in question[33].

Nonetheless, it is important to keep in mind that Ramudden was a very successful deal for IK, and this probably meant that it was easier to let some decisions "slide" to appease the managers. True, IK agreed with, for example, the decision of redeploying the former CFO in the beginning of their ownership period (i.e. before the investment became successful), but the question is how the dynamic between IK and Ramudden's managers would have played out had the investment turned south, or if IK and Ramudden's management team had large differences in strategic visions. Would IK then take more unilateral decisions and restructure the management team despite potentially negatively impacting the employees' morale, even though they are generally careful with making changes to the management team in entrepreneurial companies to not hurt the corporate culture?

[33] However, it is also possible that the CFO that was redeployed may not have had the right skill set for the type of financial control that private equity ownership usually requires, but it does not necessarily mean that the person does not bring value to the company. In this story, this type of redeployment are not necessarily done only for "friendship purposes", but also due to the fact that the person still could be valuable to the company.

Besides these two major changes, Ramudden did not face any significant layoffs. One reason for this was to do with the fact that the Ramudden acquisition was largely growth-oriented, and IK did not want to fire staff or divest any part of the business.

> "*I can say this about private equity firms being alleged of acquiring companies and divesting parts of the business and firing staff: I have during my six-year tenure at IK not seen any of it. I think it is somewhat a malicious portrait of private equity. Perhaps some players focus on such measures more than others, and it can probably largely depend on what their sector-focus is. But we have been very growth-oriented*" (C Jakobsson 2019, pers. comm., 24 April)

In addition to the reasons described above why this investment lacked a large number of layoffs, one reason can be that Sweden in general is characterized by a highly unionized labor market. The Swedish word for private equity, "risk capital", has negative connotations, and Swedish private equity players have faced significant criticism in Swedish media. For example, Swedish media critized private equity players heavily in the fall of 2011 following a string of scandals reported at the private equity-owned Carema Care's elderly care facilities (SVCA). Albeit a private equity player has the ability to fire employees and top management, they need to consider the cultural ramifications when evaluating topics such as making layoffs in a portfolio company, especially if it is smaller in size and more entrepreneurial. Previous studies might not capture the importance of such cultural and emotional aspects.

4.6.3 Operational engineering

During the holding period, IK used their internal operating teams to improve processes (in line with A.T. Kearney, 2014), but also repositioned the company to accelerate their position of being a "full-service provider" (consistent with Loos, 2006). However, it is interesting to consider how much of these initiatives were actually taken by IK. It is unlikely that IK taught Ramudden's management team about the market, and it is possible that the managers already knew what to do, but did not have the financial resources to implement their ideas. Regardless of whether this may be the case, IK arguably contributed significant value by putting structure in place (e.g. improving internal reporting practices), developing business practices, and through inter alia hiring consultants, reviewed the company's working capital needs.

In regard to the add-on acquisitions during the holding period, these acquisitions helped IK growth multiple expansion through all three multiple levers illustrated in Figure 1. By growing in size, "*r*" (risk) decreased as the company became more stable and liquid (due to more potential buyers). Through the strategic repositioning and expansion of service offering, "*g*" (growth) was increased. For example, by improving working capital needs, the *cash conversion* was improved. Finally, IK's exit multiple was larger than the average acquisition multiple of the add-ons, illustrating a multiple arbitrage discussed in Section 2.1.3. The acquisition strategy is consistent with Hammer et al. (2017) who describe target companies as having a higher probability of making add-on acquisitions, if the private equity sponsor has strong acquisition experience - something IK has due to its specialization in buy-and-build cases.

4.7 Analyzing the exit: How did the acquisition perform?

At the time of exit, IK had largely managed to successfully implement its envisaged strategy, albeit Ramudden's presence outside the Nordics was still relatively small. Some positive surprises during the holding period included organic and semi-organic sales development, coupled with successful add-on acquisitions that exceeded IK's base case. The strong entrepreneurial culture was successfully maintained despite significantly strengthening the organizational structure and growing the business compared to time of acquisition. This was largely owed to Ramudden's decentralized structure, management incentive programs that were put in place, as well as "soft reasons" such as having a strong and charismatic leader in the form of Hans-Olov. Further, Ramudden managed to drive market growth by actively educating and supporting customers vis-à-vis regulatory requirements, hence increasing regional compliance.

Some unanticipated challenges during the holding period included Ramudden's position outside Sweden not being as strong as was initially thought, and significant work was needed to strengthen the Norwegian organization. To cope with the rapid expansion of the business, new IT systems had to be put in place and the organization (primarily the finance function) had to be bolstered. Finally, shortly after IK's investment, it became clear that the CFO function needed to be strengthened, resulting in the recruitment of a new CFO in early 2016.

IK's initial plan was to begin exit preparations for Ramudden during the latter part of 2017 with the aim to be in a position to sell, or list, the business in 2018. However, following several pro-active inquiries from interested parties, IK decided to evaluate a potential exit as soon as 2017, specifically triggered by offers for the business in September 2017 from two Nordic PE houses, three years after the initial investment.

The reason IK decided to sell Ramudden in a secondary buyout to Triton Partners[34] was largely thanks to a short process with an attractive valuation with high deal certainty. Contrary to lengthy processes of filing for an IPO, selling a portfolio company to another private equity player can be completed in a matter of weeks. This is in line with Jenkinson and Sousa (2015) who argue that secondary buyouts can be attractive due to their quick processes with certain proceeds. This could be especially important for IK as they successfully managed to create substantial value in Ramudden and were now looking to close the transaction just three years after acquiring the company. Even though IK could theoretically make more money by going public, this was far from certain as going public always entails the risk of the share price going down.

Moreover, Blom still had significant influence and preferred a secondary buyout over selling the company to a strategic buyer.

> "*His opinion mattered, even though we had the final decision. Management is usually biased towards a PE owner because they are able to continue operating the business as CEO, rather than being a divisional manager, or even being fired, in a larger corporation*" (C Jakobsson 2019, pers. comm., 24 April).

[34] Triton is a European private equity firm established in 1997 that primarily invests in mid-market businesses in German-speaking countries, the Nordic countries, the Benelux region, France, Italy, Spain and the United Kingdom.

Hammer et al. (2017) argue that secondary buyers "*exploit left-over acquisition potential of an inorganic growth strategy that has already been initiated by the previous PE owner*" (p.32). This may explain why Triton Partners, who have completed more than 260 add-on acquisitions as at April 2018, could be interested in continuing to consolidate the industry through inter alia a continued buy-and-build strategy. However, this also entails the question of why IK did not exploit this left-over acquisition potential themselves? Hammer et al. (2017) explain that there is a trade-off between capturing the full value of the left-over acquisition potential and a quick sales process, since making too many bolt-on acquisitions in a buyout would probably prolong the holding period. This may explain why a private equity firm could be incentivized not to exploit a portfolio company's full M&A potential, and instead leave something "on the table" for a secondary buyer. However, IK did not believe that it left any "money on the table".

> "*We do not believe that we left particularly much value "on the table". Rather, we felt that we were properly compensated for the value we left. Triton paid a multiple that reflected the strong growth going forward*"[35] (C Jakobsson 2019, pers. comm., 24 April)

4.8 Where did the value creation stem from?

Through operational, financial and governance engineering actions taken by IK during its ownership of Ramudden, they managed to substantially increase the value of Ramudden.

The majority of the value creation was derived from increased earnings, primarily driven by add-on acquisitions; organic growth by expanding the depot network in Sweden; a strategic repositioning of the company; and an expansion of the service offering. Several recruitments to the sales team were also made as well as a new CFO. Ramudden also benefited from market tailwinds. The Nordics, and in particular Sweden, have one of the most developed regulatory frameworks for traffic safety in Europe; however, the level of compliance varies significantly between regions. During IK's ownership, Ramudden continued to grow the market by increasing awareness and creating local demand for its traffic control devices. Increased compliance has driven market growth and is expected to continue to do so going forward.

Furthermore, value also originated from multiple expansion, with the exit EBITDA multiple being larger than the entry multiple. IK benefitted from multiple arbitrages in their acquisition strategy as Ramudden's exit multiple was larger than the average acquisition multiple of the add-ons during the holding period. This is consistent with literature describing that add-on acquisitions are usually smaller companies that trade at lower multiples (Døskeland and Strömberg, 2018). Thus, IK managed to achieve multiple expansion owing to deliberate value-accretive measures during the holding period. However, IK also benefited from general market development that resulted in higher valuation multiples. This is consistent with previous studies describing private equity firms' skill in picking companies that are on a trajectory towards higher multiples (Guo et al., 2011; and Acharya et al., 2012) and could be explained by inter alia

[35] Following Triton's acquisition of Ramudden, Triton acquired two similar businesses. First, Triton acquired AVS Verkehrssicherung, a specialist provider of highway traffic safety services in Germany in January 2018. Then, it acquired Chevron Traffic Management, a UK-based work zone safety services provider in April 2018. Consolidating these players with Ramudden to establish a larger European player was arguably their investment case.

market timing skills and deal-making capabilities. Skeptics, however, could attribute this multiple expansion due to positive market development to IK simply being lucky.

The remaining value creation was largely derived from the dividend recapitalization of Ramudden in 2016. However, the value creation was negatively affected by dilution effects, a higher net debt level due to the recapitalization of Ramudden, as well as an unfavorable FX development for the Swedish krona against the Euro. The FX development itself slightly reduced the money multiple. The reason for this is that IK's funds are in Euro, and Ramudden was a Swedish company. This meant that the investment was made in Swedish krona, and when the krona depreciated against the Euro, IK suffered in the form of lower returns. This risk-factor was known beforehand, but hedging the currency can be difficult to do since the portfolio company's equity value at exit is difficult to know ex-ante, meaning that a PE player does not know how much to hedge.

5. Discussion and Concluding Remarks

This case study has analyzed the private equity firm IK Investment Partners' holding of Swedish specialist provider of temporary traffic control services, Ramudden. We discuss what IK saw in the company; what measures IK took and how they created value; the cultural and emotional aspects of the investment; and finally, how the exit process proceeded.

Prior to IK's acquisition, Ramudden was an entrepreneurial business with owner-managers that lacked any formal business education running the daily operations. We study how compatible private equity ownership is with a company whose management barely had heard about "EBITDA" let alone concepts such as buy-and-build. We find how private equity players can add value to such businesses by improving internal reporting and management practices, developing proper KPIs, as well as growing the company through geographical expansion, expanding the service offering, and finally through mergers & acquisitions by adopting a buy-and-build strategy.

The latter aspect, growing through mergers & acquisitions (buy-and-build), was one of the main focuses in this study. As the private equity industry has transformed and evolved from efficiency-driven acquisition towards growth-oriented acquisitions, buy-and-build strategies have become increasingly commonplace. We discuss the rationale of such investments, and how they can add value by inter alia market consolidation and engendering multiple expansion owing to multiple arbitrages.

However, add-on acquisitions should be analyzed through a broader framework than purely mathematical (i.e. examining the financial implications of the acquisitions). The implementation of add-on acquisitions is an important aspect to consider as well. Given that Ramudden in particular is a tight-knit and entrepreneurial organization where emotional aspects have been considered throughout its development, it was interesting to understand whether this also played a factor for selecting add-on acquisitions.

> "*The target companies were quite entrepreneurial, much thanks to the fact that they are small. But of course, it is important that there is a cultural match as well, otherwise the acquisitions are not possible to make. But this was not an issue in any of the add-on acquisitions we made. However, I can add that Ramudden's business is relatively local in nature, and the add-on acquisitions were often located in geographic areas where Ramudden was not previously present. This meant that the add-on acquisitions remained somewhat stand-alone and kept operating in their markets, but instead used a Ramudden logo in their business.*"
> (C Jakobsson 2019, pers. comm., 24 April)

In light of the abovementioned, we discuss how important cultural and emotional aspects can be, and how private equity owners balance this with the measures they need to take in order to implement their envisaged strategy for the company. First, we find that cultural and emotional aspects could both help explain why some LBO targets become acquired as well as why they might prefer a secondary buyout rather being acquired by a strategic buyer. This is because owner-managers might prefer continue running the business on their own instead of becoming a divisional manager in a larger corporation, or being let go altogether. Second, we find that cultural and emotional aspects can describe why some strategic and managerial decisions are taken during a private equity firm's holding period. For example, that senior staff may be redeployed to other positions if possible rather than fired, because entrepreneurial owner-managers might want to keep employees in the company, potentially due to a personal friendship.

One main caveat to this case study is the drawbacks inherent in case studies: how many sweeping and generalizable conclusions can really be drawn, and how much is specific to this particular case? The main objective of this paper is not to find statistically significant results, or results that are applicable to all private equity cases. Instead, we try to present thought-provoking nuances, new ideas and viewpoints, as well as introduce the importance of "soft values" such as cultural and emotional aspects in practice.

One main theme has been to describe that previous private equity literature needs to be read with caution since the time period when studies are written can potentially have a large effect on their findings. Furthermore, we describe how aggregate average results from previous studies can often differ from what happens in practice in specific cases. This paper has tried to explain reasons for this disparity by studying a real-life case and found that it can largely be explained by deliberate strategic reasons (e.g. that investors may choose a lower initial leverage ratio as more debt is needed to grow during the holding period), but also by cultural and emotional aspects.

Finally, it is interesting to think about what value IK and other private equity players *actually* add to their portfolio companies. It could be speculated that much of the value-add comes from the target company's management themselves. In this story, private equity firms help alleviate credit constraints rather than introduce new strategic initiatives. Thus, PE buyers add value by providing diversification to owner-managers who have a substantial part of their net worth tied up in the firm. When the private equity firm acquires the company, the managers become less risk-averse and can make investments needed to grow the firm. In this particular case, the main value creation may have actually stemmed from Ramudden's previous management rather than strong value creation by IK. In fact, Ramudden already had strong momentum and was already a market-leading player prior to IK's entrance.

Moreover, one could discuss the importance of "luck" in highly successful cases that yield a high money on invested capital ratio. Is this purely driven by management and private equity skill, or is luck important in regard to inter alia timing of acquiring a business when the market is growing substantially?

Nevertheless, our findings seem to support the conclusion of Døskeland and Strömberg (2018) that top private equity investors possess "*unique skills to add real value to the companies*" (p.2) and that "*these skills are difficult to acquire and/or imitate"* (p.2). Although it is easy in theory to say that many value-accretive actions taken by private equity firms are "commoditized" and "easily-acquired", they are evidently not implemented by all businesses in practice. If it was so easy, why does not every company run efficiently, with proper management practices, incentive structures, KPIs, etc. in place? In the case of Ramudden, it is true that they already had strong momentum when IK entered, but likewise, it is true that IK added value to the company (for example, by putting structures in place, repositioning the company, and growing through M&A). We argue that private equity firms, owing to their expertise, experience, and network, can add real value to target companies. Likewise, we argue that private equity ownership is compatible with entrepreneurial businesses, but that emotional cultural and emotional factors can play a large factor during the holding period and therefore need to be considered and managed properly to not alienate the management team.

5.1 Future research topics

There is significant amount of previous literature regarding private equity ownership and studies of whether they create value or not; if they are short-sighted cost-cutters or if they are compatible with entrepreneurial firms that want to grow; if private equity ownership leads to massive layoffs or if they are growth-oriented owners.

We suggest that future research focuses on the emotional and cultural aspects of portfolio companies as this is something that previous literature has largely missed. How much does the corporate culture in target companies affect private equity ownership? In what way? Are some private equity players better suited to certain targets? If so, what are the most important aspects?

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Appendices

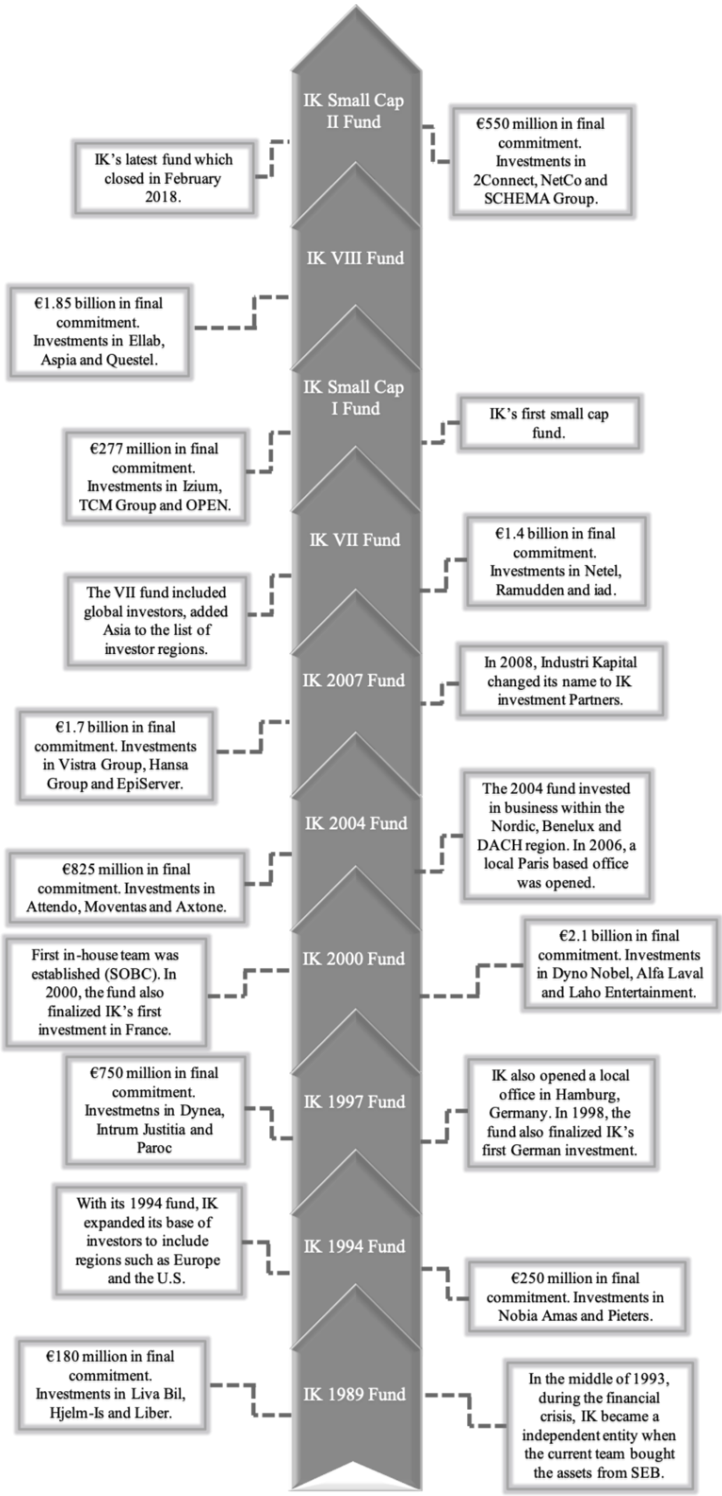
Clarifications

Agency costs	Costs that arise due to asymmetric information
Alpha	Excess return that is earned in relation to an applicable index
Bolt-on(s) / Add-on(s)	Additions to a platform company by a private equity firm or consolidations of a strategic buyer
Buy-and-Build	A value creation strategy that is based on acquisitions of platform companies and the leveraging of competences and synergies from these acquisitions
Buyout firm	Private equity firm
CAGR	Compounded Annual Growth Rate
Capital expenditure facility	A term loan facility earmarked for capital expenditure
Ceteris paribus	Other things equal
Committed capital	An agreement between an investor and a private equity fund that obligates the investor to contribute an agreed amount of money
Conglomerate discounts	A concept in which the market will place a lower valuation on a group of business and the respective assets which is lesser than the sum of its parts
Dividend recapitalization	Leverage recapitalization where new debt is issued with the purpose of paying dividend to the private equity owner
EBITDA	Earnings Before Interest, Taxes, Depreciation, and Amortization
EV	Enterprise value
Ex-ante	Before the event
Ex-post	After the event
Financial sponsor	A private equity firm that is involved in an leverage buyout
GP	General partner
IRR	Internal Rate of Return

KPI	Key performance indicator
LBO	Leveraged buyout
M&A	Mergers & Acquisition(s)
MBO	Management Buyout
Multiple arbitrage	Increasing the value of a company without operation improvements. Arbitrage from exiting at a higher multiple
NOPAT	Net operating profit after tax
P&L	Profit and Loss statement
PE	Private Equity
Platform company	A private equity portfolio company that completes one or more add-on acquisition
ROIC	Return on invested capital
Secondary leveraged buyout	When a financial sponsor (private equity firm) sells its ownership in a company to another financial sponsor
Sum-of-the-parts	Valuation approach where divisions within a company is valued as if they were available for sale
Target company	A company which is acquired by a private equity firm and results in a change of control and ownership
Value creation	Selling a company at a value exceeding the total investments of to the acquisition of the company

APPENDIX A

Fund-history of IK Investment Partners



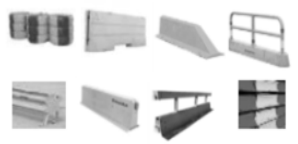
APPENDIX B

Product offering of Ramudden

TCD rental

Rental of traffic control devices (TCDs), classified as light and heavy

Light traffic signaling devices



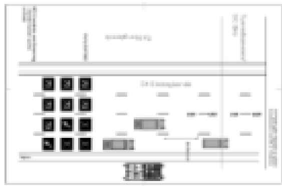
Traffic barriers

Vechicles

Heating and thawing equipment

Services

Planning, deployment, on-site services and changes to, or removal of, equipment



Planning

Deployment

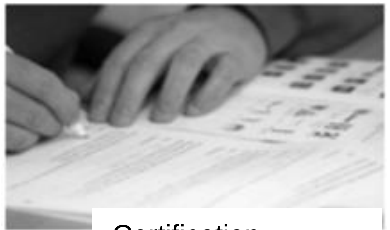
On-site services

Changes/removals

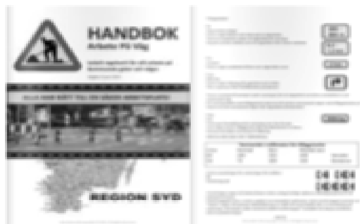
Education

Education services focusing on road work safety

Education/training



Certification



In-house education material - Handbook

APPENDIX C

Value chain of Ramudden

	Damaged lamp on municipal road	Contractor receives task to repair	Drafting of TA plan, application sent for approval	Delivery of TCDs	Establishment of work site	Repair within safe work site	Disestablishment of work site
	• Car crashes into lamp pole on high traffic intense road Repair of lamp-pole needed	• Has taken Ramudden courses • Aware of safety responibilities	• Drafting of TA plan • Approval by traffic engineer at the municipality • Application for other necessary permits e.g. construction permit	• Delivery of TCDs to the work site	• Establishment of work site according to TA plan • TMA vehicle assisting during establishment	• Ability to perform work on traffic intensive roads under safe conditions • Reporting of any eventual prolongation of work	• Disestablishment of work site • Cleaning of TCDs
Ramudden segment		Education	Services	TCD rentals, services	TCD rentals, services	TCD rentals, services	TCD rentals, services
Ramudden offering		• Provide education for awareness and understanding	• Drafting of TA plan • Assist in application for necessary permits	• Delivery of material	• Establishment of work site • TMA vehicle service	• Rental of equipment • Surveillance of work site	• Disestablisment of road work site • Transportation of TDCs • Cleaning and storage of TDCs

APPENDIX D

Comprehensive description of Ramudden's TCD offering

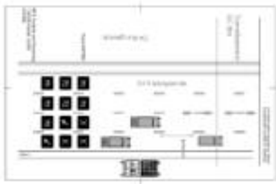
Rental portfolio breakdown	Product examples	Description	Application area
Light traffic signaling devices		• Traffic guide signs, traffic cones, fences, light steel barriers, etc. • Broad offering covering a broad range of potential equipment needs	• TCDs used to guide, deviate and prevent road users, workers and pedestrians from using a certain road
Traffic barriers		• Offering ranges from inner-city barrier systems (CityGuard) to impact tested barrier systems adapted for high speed impacts (Delta Bloc) • Exclusivity agreement to market the CityGuard protection barrier	• Broad range of road barriers designed to form a permanent road safety system • Protecting road users, workers and pedestrians
Steel road plates		• Ground protection plates in steel and plastic	• Steel road plates used to bridge construction gaps • Steel and plastic plates used to protect sensitive ground
Vehicles		• Vehicle mounted protection used to absorb the energy from an impacting vehicle in connection to road work sites • Safety vehicles are used to ensure the safety of road workers and road users	• Primarily used in connection to road works on roads with speed limit above 70 km/h
Heating and thawing equipment		• Heating and thawing equipment based on pumping hot water through hoses • Allow contractors to conduct work during winter	• Application areas include thawing of ground frost, heating/drying of buildings, concrete cast frame heating etc.

APPENDIX E

Areas within the business segment Services

Planning

- TA plans
- Administrative support (applying for permits)



Deployment

- Assembly
- Surveillance and supervision
- TMA vehicle

On-site services

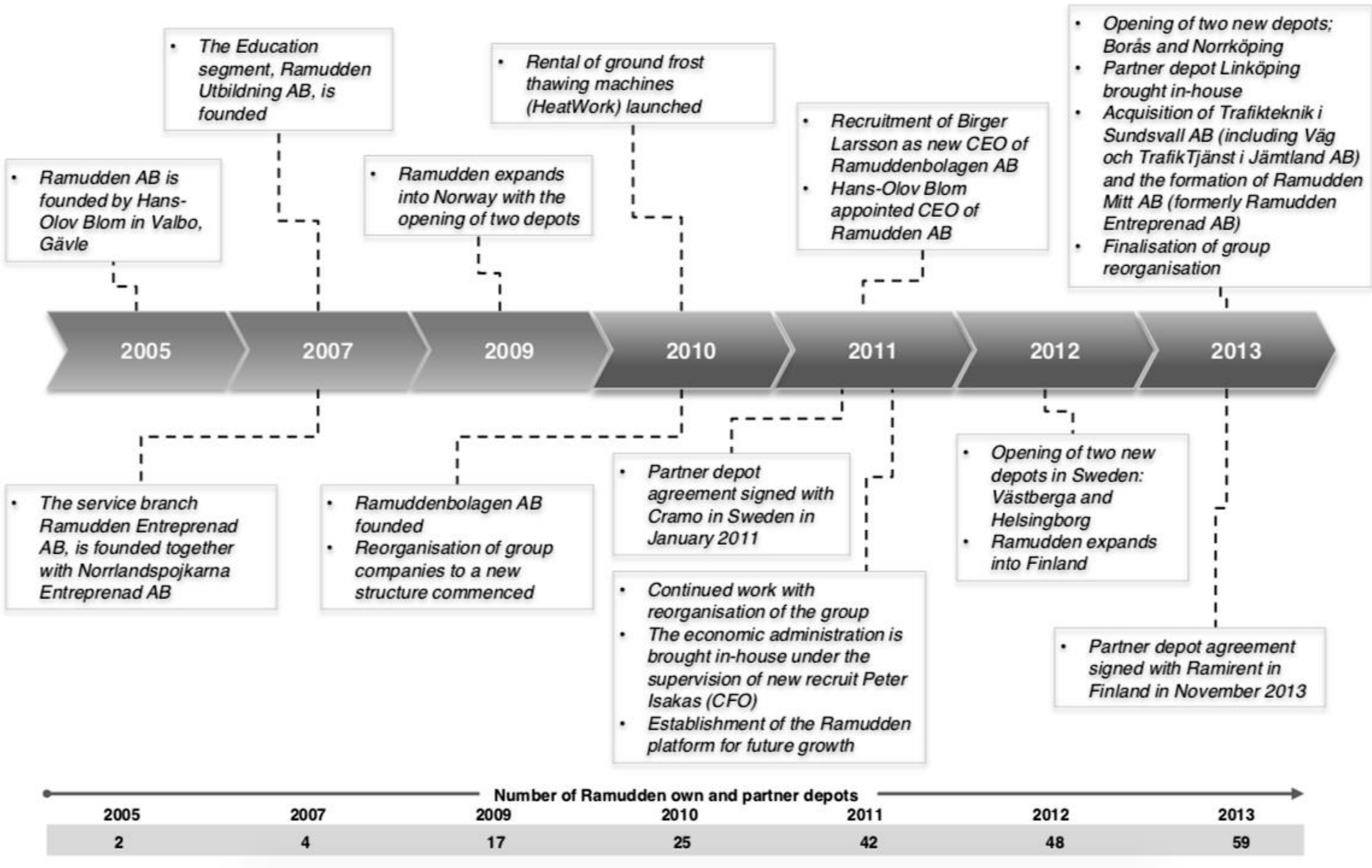
- Frost removal
- TMA vehicle
- Surveillance and supervision
- Flag guards
- Traffic pilots

Changes/removals

- Moving or changing equipment position
- Equipment removal
- Cleaning of equipment

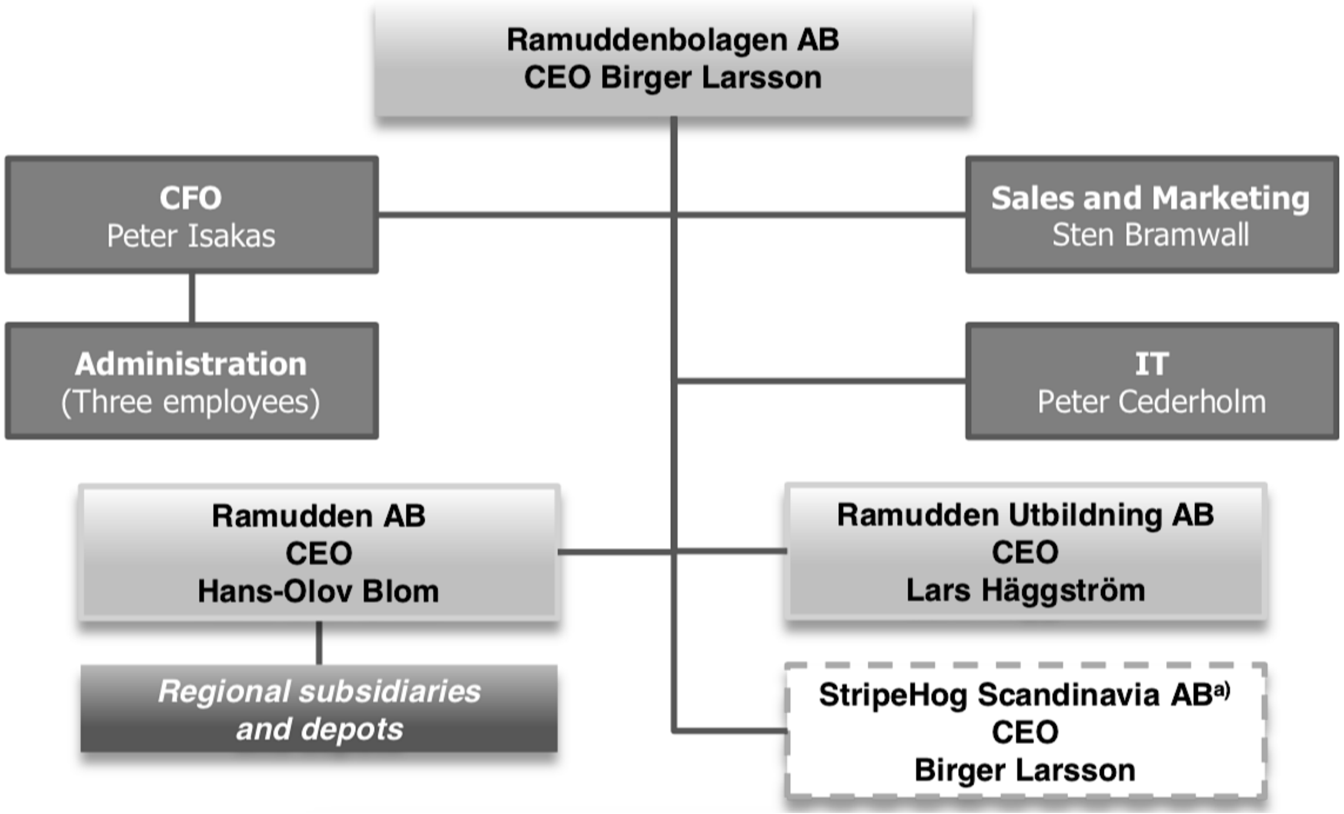
APPENDIX F

Timeline of important milestones in the history of Ramudden



APPENDIX G

Organization structure pre IK's investment



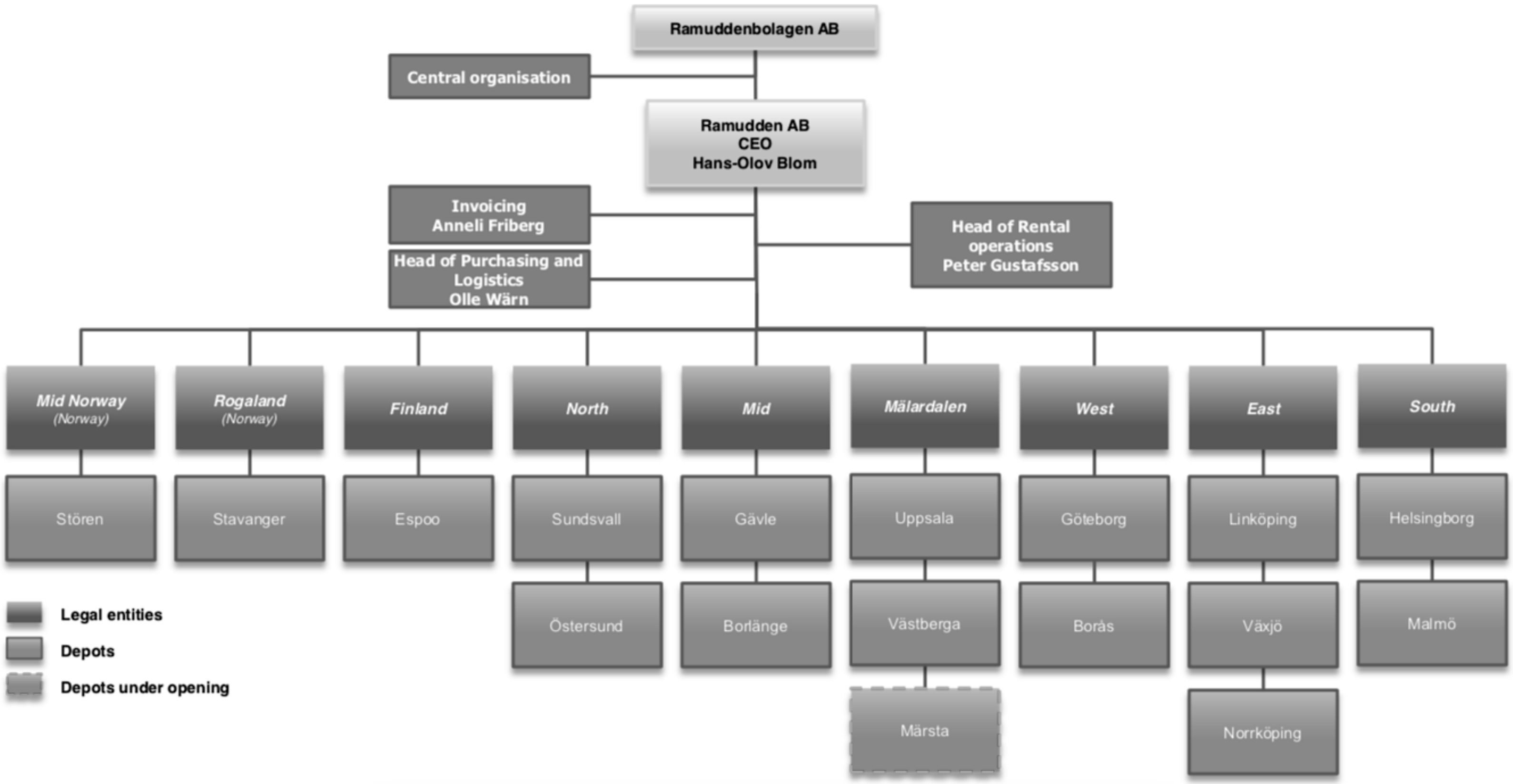
APPENDIX H

Description of management team

Name	Position	Age	Employed since	Education	Experience
Birger Larsson	CEO Ramuddenbolagen AB	54	2011	- HVAC engineer - Management courses 1982-2009 - Management gruppen AB's entrepreneurial school 1985	- CEO Birstaverken 1988-2010 - Trading from Asia 2006-2010 - Member of the board in various companies
Hans-Olov Blom	CEO Ramudden	46	2005	- Mixed work and studies in Defense Forces Since 1987	- Company commander UN service Macedonia 1997 - Founder of Ramudden
Peter Isakas	CFO	42	2011	- Degree of Master of Economics	- EY, authorized accountant - SEB business adviser/analyst - PwC authorized accountant
Sten Bramwall	Head of Sales and Marketing	54	2009	- Marketing and sales courses	- Sales/marketing automotive - Self-employed advertiser - Sales/marketing chemical industry
Peter Gustafsson	Head of Rental operations	48	2009	- HVAC engineer 1991 - Courses in quality & environment. leadership, sales and economy	- Brynäs IF - VM salesman - Lindab VM branch manager - Cramo depot manager
Lars Häggström	CEO Ramudden Utbildning AB	60	2011	- Technical engineer - Technical education Swedish army Military Academy 1986 - Sandvik Business Academy 2006	- Technical officer - After market manager - Site manager Catella Generics - CEO, Sandvik Mining and Construction - CEO Hesselberg Maskin

APPENDIX I

Ramudden's organizational structure



APPENDIX J

New organization structure post IK's investment