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ABSTRACT

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Abstract

Although mergers and acquisitions are an increasingly popular growth method for firms, most of them fail to meet their financial, strategic or operational goals. This study analyzed the IT integration dynamics in a M&A context. The IT integration is a vital part of any acquisition process, and most of the IT integration happens in the post-acquisition integration phase. The technological integration was reported as the most difficult process during this phase, and IT integration as the third most common reason for an M&A failure. Despite the evident importance of IT, it has been somewhat overlooked in research literature and practice. The starting point of this thesis was to build a framework which relied on the findings of existing theories and studies. The theoretical framework combined the theories and illustrated their relation to IT integration.

This research was conducted as a single case study. The data for this thesis was collected by using semi-structured interviews, followed by a written survey which was done after each interview. The interviewees were selected based on access and their role in the case acquisition. The data was analyzed by using thematic analysis method, and the survey results were analyzed using simple quantitative methods.

The results of the empirical research were in sync with existing findings, but also provided new insights to the IT integration dynamics. It was concluded that IT integration cannot be viewed in a vacuum, but rather the process needs a holistic perspective. In other words, the recipe for a successful IT integration includes not only the IT integration internal factors, but the business context and IT integration external factors need to be considered as well. Out of the findings regarding the IT integration internal factors, there was evidence that the IT integration method mirrors the overall integration strategy used. However, no single IT integration method can be chosen for the entire process, the reality is closer to a mixture of methods. The IT integration critical success factors survey results recognized four CSFs in the case acquisition, which had some correlation between each other and relations to other factors as well. Also, the underlying causes for the difference between IT integration plan and implementation emerged from the empirical data. Albeit the study had its limitations due to resource and time restrictions, this thesis was able to illustrate the dynamics of an IT integration, and deepen our understanding of the factors which are included in the process.

Key words	IT integration, mergers and acquisitions
Further information	

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Tiivistelmä

Tämän tutkimuksen tavoitteena on selvittää mikä on IT integraation dynamiikka yrityskauppakontekstissa. Yritysostot ovat merkittävä kasvustrategia yrityksille, mutta valtaosa yritysostoista ei pääse niille asetettuihin tavoitteisiin synergiaetujen ja taloudellisten odotuksien osalta. IT integraatio on tärkeä osa yritysten integraatioprosessia, josta suurin osa tapahtuu yrityskaupan jälkeisessä vaiheessa. Tätä vaihetta pidetään tärkeimpänä osata koko yrityskauppaprosessia, ja tekninen integraatio on tutkimusten mukaan vaikein yksittäinen osa. IT integraatio on kolmanneksi yleisin syy yrityskauppaprosessin epäonnistumiseen. Vaikka IT integraation tärkeys on kiistämätön, aihetta aliarvioidaan edelleen sekä tutkimuksissa että yritysmaailmassa. Tämä tutkimus pureutuu tähän epäkohtaan rakentamalla viitekehyksen olemassa olevasta teoriakirjallisuudesta sekä alan julkaisuista.

Tutkimuksen empiria-osuus toteutettiin kvalitatiivisena tapaustutkimuksena yksittäisestä yrityskaupan jälkeisestä IT-integraatioprosessista. Data kerättiin puolistrukturoiduilla teemahaastatteluilla kuudelta ostettavan yrityksen edustajalta sekä kyselylomakkeella haastattelujen jälkeen. Haastateltavat työntekijät valittiin heidän käytettävyyden sekä integraatioprosessin roolin perusteella. Empiirinen data analysoitiin teemoittelulla sekä yksinkertaisilla kvantitatiivisilla menetelmillä.

Empiria tuki aiempia löydöksiä sekä teoriaa, mutta uusia tuloksia oli myös havaittavissa. Johtopäätöksenä todettiin, että IT integraatiota ei voi käsitellä tyhjiössä, vaan prosessiin tarvitaan holistinen ymmärrys sekä liiketoiminnan kontekstista, että IT integraation ulkopuolisista vaikuttavista tekijöistä. Lisäksi tulosten perusteella IT integraatiomenetelmä oli samankaltainen koko yritysoston jälkeisen integraatiostrategian kanssa. Tästä huolimatta yhtä IT integraatiomenetelmää ei voi valita kuvaamaan koko prosessia, vaan todellisuudessa IT integraatio koostuu useasta eri menetelmästä. IT integraation kriittisiä menestystekijöitä oli kyselyn tulosten mukaan neljä kappaletta case-yritysostossa, joilla on riippuvuuksia sekä toisiinsa että muihin tutkielmassa mainittuihin tekijöihin. Lopulliseen viitekehykseen lisättiin myös teorian ulkopuolelta syy IT integraation suunnitelman ja toteutuksen eroon.

Huolimatta pro gradu –tutkielman resurssi- ja aikarajoitteista tämä tutkimus syventää ymmärrystämme IT integraation dynamiikasta ja prosessiin liittyvistä tekijöistä.

Asiasanat	IT integraatio, yritysostot
Muita tietoja	

IT INTEGRATION IN A MERGERS AND ACQUISITIONS CONTEXT

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1   INTRODUCTION

In this chapter, a brief introduction of the background to the study is presented. The research topic is also introduced and key concepts used frequently in this thesis are dissected. Furthermore, the purpose of the study is presented along with the structure of the study.

1.1   Background to the study

Mergers and acquisitions (M&A) are not only a modern phenomenon of business. Companies such as Standard Oil and U.S. Steel were founded already in the 19th century by M&A's. (Jansen 2002, 371.) The phrase "M&A", or mergers and acquisitions, is used very often in this study, so it is imperative to define the two terms. Merger is a result of the fusion of two equal firms and is agreed by both parties, usually resulting in a new entity. Acquisition, on the other hand, is the combination of two companies with unique properties and size, and the agreement might not be mutually agreed on. (Jagersma 2005, 14.) The distinction between the two terms is noticeable, and in fact the term "M&A" consists mainly of acquisitions since true mergers of two equal firms rarely occur. However, in this study the phrases "acquisition" and "merger" will both be used, and they refer to the definition of an acquisition. (cf. Hassett et al. 2011.)

In general, the number of acquisitions has increased continuously, from 2,675 M&A's in 1985 to 50,600 in 2017 (IMAA Institute). At the same time, cross-border M&A's have risen from around 4,000 in 1997 to 9,000 in 2016, while their combined value has increased from $300 billion to $1,3 trillion (Figure 1). During this period there has been two significant drops in numbers; first one after year 2000 when the "IT bubble" burst and the second one after the financial crisis in 2008. This implies that cross-border M&A activity reacts strongly to global economic swings. (OECD 2017.)
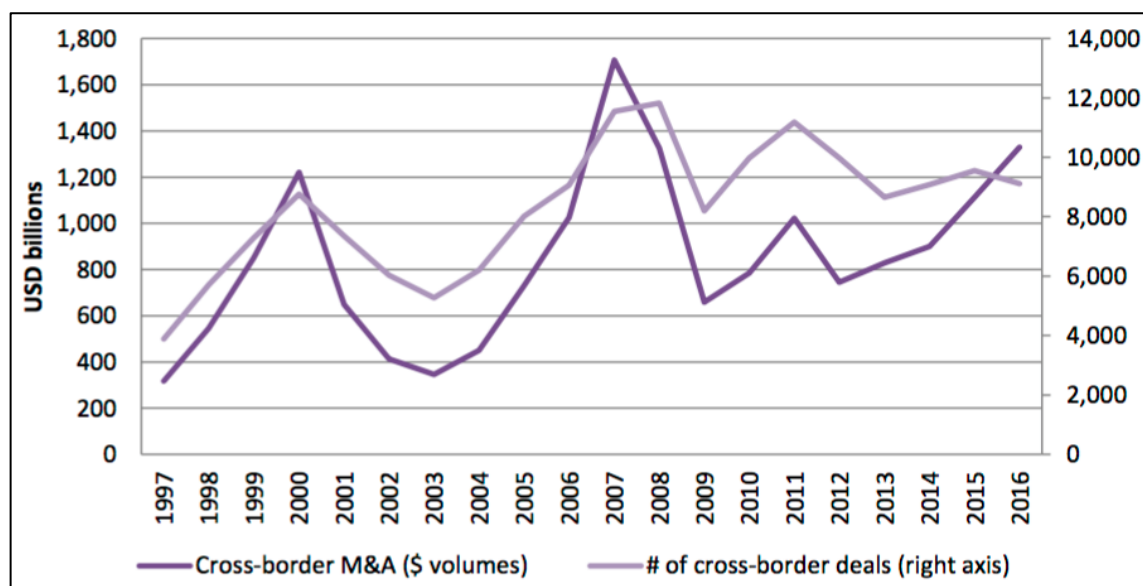
Figure 1   Number and value of cross-border M&A's 1997-2016 (OECD, 2017, 1)

The increased popularity of M&A's cannot be explained by their success rates, since various consulting firms claim that 50-80% of acquisitions fail to meet their financial, strategic or operational goals, and many result in divestures (Schweiger 2002, 4). Marks and Mirvis (2001) are along the same lines, stating that three out of four M&A's fail to achieve their financial and strategic objectives. According to Ruess and Voelpel (2012, 78), the failures can be linked to poor management in the post-acquisition integration process. Next, this thesis will briefly introduce the M&A process, and the apparent and underlying motives why firms do M&A's and also what methods are used in that process.

The traditional way of dividing the M&A process (see Haspeslagh & Jemison 1991; Mehta & Hirschheim 2004; Hassett et al. 2011) is to split it into three parts; pre-acquisition, acquisition and post-acquisition (Figure 2).

Figure 2   M&A phases (Adapted from Hassett et al. 2011, 90)

The pre-acquisition phase, also known as pre-merger and pre-combination phase, is defined as the period starting from the acquirer's first actions to use M&A and ending right before the acquisition deal is signed. The phase consists of numerous stages, such as strategic planning, target selection, due diligence, negotiations between the parties, initial implementation strategy and announcement to media and analysts. (Hassett et al. 2011, 88–89.) The due diligence is thought to be one of the most important pre-acquisition actions, as it results in a detailed analysis of the chances and risks of the acquisition.

Marks and Mirvis (2001, 81) state that one of the reasons for a M&A failure is a "financial tunnel vision", meaning that financial-minded analysts look only at target company numbers rather than soft values such as cultural or organizational factors. Pribilla (2002) agree that financial due diligence is not enough so the researcher proposed cultural due diligence as a tool to audit soft values in the pre-acquisition phase. Hassett et al. (2011, 95) add marketing, legal, environmental, organizational and IT due diligence to the list for a complete target evaluation.

Acquisition phase lasts the least amount of time out of the three M&A phases. It includes signing the deal and getting the approvals from authorities such as the EU commission. Although literature implies that the deal-making process is linear and straightforward, it actually requires dynamic procedures such as constant reassessment by both parties. This dynamic process can lead to either deal-makers or deal-breakers. Deal-makers include the positive signals received during the pre-acquisition phase from target selection, due diligence and negotiations. Deal-breakers can occur at any time, leading to the other party walking away. These deal-breakers include price, environmental issues, control, loss of trust, ethical issues and "cold feet". (Hassett et al. 2011, 99–101.) Approval of the authorities can also backfire, as was the case with Intrum and Lindorff in 2017 when the acquisition was halted by the European Commission due to competitive reasons (EU commission 2017).

The last phase, post-acquisition, can be defined as "the combination of the two organizations, the acquirer and the acquired, after the acquisition deal has been closed" (Hassett et al. 2011, 109). In other words, post-acquisition phase starts around the time the deal is closed, but sometimes it can be difficult to mark a definite end date to it (Marks and Mirvis 2001). The biggest challenge in this phase is the integration process between the acquiring and acquired company. According to Hassett et al. (2011) this phase can be split into two dimensions; human integration and task integration. Human integration can be viewed as the most critical part of the integration, referring to the organizational cultures and the way things are done in the firm. If people do not buy in on the new ways and standards, everything else regarding integration becomes irrelevant. Task integration is the physical, procedural and managerial integration, covering things such as product lines, IT systems, technology, accounting and logistics. Haspeslagh and Jemison (1991, 23) claim that the overall success or failure of an M&A is determined in the post-acquisition phase as it is the most important one for value and synergy creation. Since post-acquisition integration is a key concept in this thesis, it will be analyzed in more detail in the theoretical part of this study.

In order to grasp the context of this thesis better, it is important to understand why and how companies engage in M&A. A firm looking for long-term business development and uses strategic planning for it is required to consider between two growth options; acquisition or growth from within the company. Usually, the costs and expected benefits

determine which alternative is chosen. (Lorange et al. 1987, 3–7.) Lees (2003, 3–4) state that there are three alternatives for a company to grow: Organic growth, growth through an innovation or growth by acquisition. Organic growth is the slower option and it could be many years before a firm reaches a respectable size. On the other hand, growth through innovation might be costly and includes a considerable risk of technical failure. Hassett et al. (2011, 30–31) add strategic alliances, joint ventures and licensing as less risky strategic options for firms. However, these alternatives do not grant full control of the other party as acquisitions do. growth through acquisitions has the biggest incentives if and when a firm wants to expand its size and diversify its business portfolio within a short period of time. Therefore, the popularity of growth by acquisitions strategy does not come a surprise in various fields of business.

Other authors' studies also show why firms use mergers and acquisitions as a mean to grow their company; according to Goedhart et al. (2017) firms engage in M&A transactions to reduce costs or increase margins in the long run. Haspeslagh and Jemison (1991, 3) claim that acquisitions have properties that cannot be obtained through partnerships – the ability to seize all capabilities from consolidated and shared assets. Shin (2005, 46) argues that many firms use acquisition strategy to obtain core competencies and to enhance their own business capabilities. Acquisition of new technology is one of the most common capabilities which induce firms to M&A (Goedhart et al. 2017). Weber (1988, 1–2) argue that the most common incentive for M&A strategy is to obtain synergy benefits between the two units in order to increase competitive edge. According to Schweiger and Lippert (2005, 23–27) M&A's are a growth strategy which is used to gain these strategic goals:

- Consolidate the market within a geographic area
- Extend or add products, services, or technologies
- Enter new geographic markets
- Vertical integration
- Enter a new line of business

Haleblian et al (2009) divided the firms' acquisition motives into four categories: value creation, managerial self-interest, environmental factors and firm characteristics. Value creation can happen by gaining market power, increasing efficiency of business functions, redeploying resources, and getting rid of incompetent management after the acquisition is made. Managerial self-interest means that for example some managers can have their compensation tied to company growth, which leads to opportunistic behavior when managers seek growth through acquisitions. Managerial hubris is another factor that can affect overall acquisition activity and performance. Overconfident managers tend to pay bigger premiums and overestimate their personal abilities to create profits out of the acquisitions. (Haleblian et al. 2009, 475–476.) Environmental factors can be governmental regulations, imitation of successful acquisition behavior, and securing

valuable resources through acquisitions. The last category is firm characteristics, which implies in this case to the strategy and position of the firm. Studies have shown that firms using a multidomestic strategy are more likely to make acquisitions compared to for example firms that use a global strategy. (Haleblian et al. 2009, 478.)

Once the decision to use M&A as a strategy has been made, what options do firms have? According to Sharan (see Proft 2014, 12), M&A's can be categorized based on their strategy, corporate structure, and technique. An acquisition's strategic perspective can be horizontal, vertical or conglomerate. Horizontal M&A means that the two firms are in the same market with similar products or services. Usually this also means that the parties are competitors, and acquisition motive can be for example economies of scale or market power. Vertical M&A happens when a firm acquires another firm which operates in a different stage of the production process. For example, a car company acquiring a leather manufacturer is considered a vertical M&A, since now the car company can produce their car chair leather by themselves rather than buy it elsewhere. A conglomerate is a merger in which two firms or more merge without a shared field of business. This could happen if a company wants to expand their product portfolio or geographical presence.

Corporate structure perspective separates acquisition and amalgamation from one another. Amalgamation means that the two parties combine their identities to form a new identity, while in acquisitions usually the acquirer maintains its identity and the acquired firm either does the same or is integrated to some degree to the acquirer's identity. The last category, technique, defines the acquisition process as friendly or hostile. Out of these two, friendly approach is more common, since nowadays firms have a lot of ways to combat hostile takeovers. Hostile takeovers are usually done by buying company shares within a short period of time, whilst friendly acquisitions are characterized by various negotiations. (Sharan 2003, according to Proft 2014, 13–14.)

IT integration is one of the toughest challenges companies have to face in the integration process. Giacomazzi et al. (1997, 290) defines IT integration as exchange of data and organizational processes which are done according to the merged organization's needs. Mehta and Hirschheim (2007, 145) updated the definition to "changes in IT strategy, IT structure, and systems supporting the combined IT and business units that allow them to function as a whole." According to Harrell and Higgins (2002, 23) the technological integration was reported as the most difficult process in the post-acquisition phase. Another study by Rodgers (2005) shows that IT integration is the third most common reason for M&A failure. The IT integration is critical for three reasons (Baker & Niederman 2013, 113):

- Since business processes often rely on supporting IT systems, the IT needs to be accountable in order for business to thrive.

- Management decisions are based on accurate and timely information. This information is not available if the IT systems are not integrated.
- Well-planned IT integration may achieve substantial savings in both computing and human assets.

Although the IT integration is a vital part of the overall acquisition process, it has been overlooked in research literature (Wijnhoven et al. 2006). Additionally, IT integration does not receive the deserved attention in practice (Alaranta and Henningsson 2008). Vielba and Vielba (2006) add that most of the IT executives learn of the acquisition from the press. This is not a good start for the IT integration, since many authors agree that the acquiring and acquired firm have to start planning the integration method not after the acquisition is signed, but already during the due diligence phase (Harvis & Higgins 2002; Mehta & Hirschheim 2007). The next chapter will discuss the purpose of this study, where after the aforementioned theories are presented.

1.2   The purpose and structure of the study

The post-acquisition integration process is challenging regardless of the M&A type or size, and it is viewed as the single biggest reason for failure among cross-border acquisitions. Post-acquisition integration is a popular topic in research literature, but research on IT integration in M&A context is wanting (Wijnhoven 2006; Alaranta & Henningsson 2008). As the phrase "integration" is one of the key concepts in this thesis, it is relative to define it before any further analysis. In this thesis, integration implies a blending together of organizational components. In the IT context, the components include infrastructure, processes, people and culture. (Mehta & Hirschheim 2004, 265.) IT integration can be seen as a multi-layered concept, and Alaranta and Mathiassen (2014) present three concepts within the post-acquisition IT integration; process, content and context. Process refers to the question "how are the two IT systems integrated?" Content means the actual systems that are involved, and context refers to the broader organizational, cultural and geographical environment where the integration takes place.

In this study the focus will be on the IT integration dynamics in a M&A context. Since acquisitions often create changes in organizational structure and work processes (Bijlsma-Frankema 2001, 193), the context can be described as a constantly changing and uncertain environment. The dynamics of IT integration was chosen as the integral part of the main research question since dynamics in business studies refers to a pattern of change in a phenomenon (Merriam-Webster). In this study, dynamics refers also to the interrelations of different facets of integration. Therefore, IT integration dynamics concerns not only the changes happening solely in the IT department, but also its relation to other facets of the integration. Hence, the research question of this thesis is "What are the IT integration

dynamics in a M&A context?" The main question will be analyzed by using these sub-questions:

- How are the different facets of integration related to the IT integration?
- What are the IT factors which affect the IT integration?

The first sub-research question applies a large research scope. There are numerous elements that affect one another in an integration situation, regardless of the size or nature of the acquisition. Since some of these elements are also related to IT integration and have an effect on that particular process, this thesis will research what these external elements are and how they are related to IT integration. The theory chapter will introduce some widely accepted M&A integration theories and models, which will be used later in the empirical part to find out if they are recognized in the case company integration. Also, one of the researched elements will be the relation between business processes and IT integration.

The second sub-research question focuses solely on the IT integration context. Once again, there are many IT factors that affect the IT integration, but this thesis will introduce the most prominent ones through theory and empirical data. By combining the two sub-questions, the former examining external factors which are related to the IT integration, and the latter focusing on IT factors only, the end result should give a comprehensive understanding of what the IT integration dynamics are in a M&A context. Figure 3 presents the research scope of this thesis.
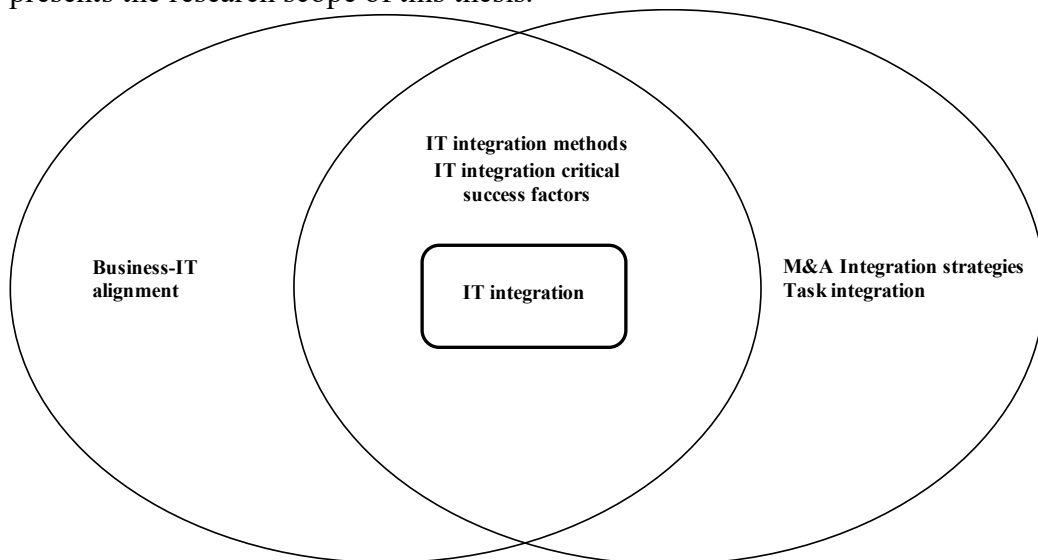
Figure 3   Research scope of the thesis

The first sub-research question is related to the two biggest circles of the research scope, namely the business-IT alignment, M&A integration strategies and task integration. The goal is to find relevant elements from these three areas which can be related to the actual IT integration. As previously mentioned, the second sub-research question views IT integration in a vacuum in order to understand the process better.

Because of the complexity of IT integration, the thesis uses multiple articles and sources to build comprehensive theoretical tools of both the IT integration methods and IT integration critical success factors. All of the abovementioned theories and topics are used to build the theoretical framework of this thesis, which is used for the empirical data collection and analysis phase.

According to Ghauri and Gronhaug (2002, 9), research in business studies is very similar to practical problem solving. It was also the catalyst for this thesis, as the researcher was working in the case company and asked if there was anything he could help with the integration. The answer indicated that the IT department could need some clarity and external research work to their integration and separation processes, since they were swamped with work. The researcher had already a general interest in the M&A context, but the IT environment was relatively unknown before this study. Therefore, conducting a research in a context that was already interesting about a previously unfamiliar topic was a great starting point to this thesis. The main question reflects the researcher's interest to find out what exactly happens during an IT integration, and what are the dynamics related to the process.

The empirical part is conducted as a single case-study of a mergers and acquisitions process between a Finnish and British-German company. The theoretical framework builds on existing literature and theories on business-IT alignment, post-acquisition integration, IT integration methods and critical success factors of IT integration. The empirical data consists mostly of the semi-structured interviews conducted at the acquired firm's headquarters in Turku. The framework is modified at the end of this study in order to create a final framework which includes the original framework and results of the empirical analysis. The final framework is used to answer both sub-research questions as well as the main research question.

Chapter 1 presented the background and purpose of the study along with some of the key concepts in this research topic. Chapter 2 presents the theoretical framework of this thesis which begins with post-acquisition integration strategies and task integration, followed by business-IT alignment IT, integration methods and critical success factors in IT integration. These two chapters will act as the literature basis of this study, while chapter 3 begins the empirical part by displaying the methodology and research approach used in this academic work. The results of the empirical data are then presented in chapter 4, where after the study combines the theoretical and empirical parts and offers suggestions for future research. Finally, chapter 6 will summarize this study.

2   IT INTEGRATION AS A PART OF POST-ACQUISITION INTEGRATION

The theoretical part of this study will start with a wide research scope of post-acquisition integration. This is needed for a clear overview of the complicated integration process that firms face after an acquisition is made. The research scope will eventually narrow down to IT integration methods and critical success factors of IT integration. The aim of this chapter is to build a logical framework to this study that can be used later on in the empirical part of the thesis. This framework will be introduced in the synthesis chapter after the theories are presented. The next chapter will introduce two post-acquisition integration strategies by Haspeslagh and Jemison (1991), and a revised model made by Angwin and Meadows (2015).

2.1   Post-acquisition integration strategies

As mentioned in chapter 1.2, the post-acquisition phase starts after the acquisition deal is closed (Hassett et al. 2011, 109) and the overall success of the acquisition is determined during this phase as it is the most important one for value and synergy creation (Haspeslagh & Jemison 1991, 23). One of the most recognized post-acquisition integration framework was made by Haspeslagh and Jemison (see Gomes et al. 2013, 22). They introduce four categories of integration degree depending on the strategic interdependence and organizational autonomy (Figure 4). The level of integration has great importance in the whole post-acquisition integration process, and therefore deserves to be studied in more detail (Quah & Young 2005, 66). In this framework, strategic interdependence is the relation between the two firms that has to be established in order to transfer capabilities. Organizational autonomy refers to the need to preserve intact acquired strategic capabilities after the acquisition. (Haspeslagh & Jemison 1991, 146.)

	Strategic interdependence	
	Low	High
Low	Holding	Absorption
High	Preservation	Symbiosis

Organizational autonomy

Figure 4   Degree of integration (Haspeslagh & Jemison 1991, 145)

Holding is the least integrative mode, and value creation happens through capital transfer or other means to optimize business processes without real integration. Usually the firms operate in the same market or are in such similar businesses that there is no need for integration. (Haspeslagh & Jemison 1991, 146–147.) The authors did not find any firms in their empirical studies which would fall into this category. However, subsequent researchers have found instances where Holding mode has been used (Child et al. 2001, 139.) *Absorption* is used when strategic interdependence is high, which leads to full consolidation of activities and complete integration of business units and corporate culture. There is little need for organizational autonomy, and usually this method is seen as the most complicated and time-sensitive integration method. The absorption process has to be swift for the integration to be convincing and avoid uncertainty from both parties. (Haspeslagh & Jemison 1991, 147.) The size of the acquirer is a factor in the degree of integration, and in Absorption mode the acquirer is usually considerably larger than the acquired firm (Child et al. 2001, 139). *Preservation* mode is a good choice when the acquirer wants to maintain their organizational autonomy, usually because they have competitive advantages or unique resources they do not wish to share. The reason could also be that the acquirer wants to keep the acquired benefits intact. Some interdependence can be seen even in this integration mode, for example risk or financial sharing and management skills transfer. Value is also created through the learning process of the acquiring company, and for the acquired firm the integration can increase ambition and professionalism in the management group. (Haspeslagh & Jemison 1991, 148–149.) Marks and Mirvis (2001, 85) added that Preservation mode is recommended when the

business culture of the acquired company needs to stay intact. *Symbiosis* is managerially very demanding, since it involves high strategic interdependence and organizational autonomy. This means that the firms have to exchange information, skills, culture and business processes, but still keep the boundaries of the firms in terms of their identity. (Haspeslagh & Jemison 148–149.)

Although the framework is deemed influential, it does have some shortcomings. The framework mainly focuses on domestic M&As, hence some aspects of the process is left outside the framework such as cultural differences and changing circumstances during the integration process. (Quah & Young 2005, 66.) The framework also relies upon the resource-based view of the firm (see Penrose 1959), meaning that value creation is based on capability transfers. Angwin and Meadows (2015, 236–237) note that this is one of the limitations of the framework, since the case data is collected by looking at value creation acquisitions and ignoring those that are made with other motives. For example, a cross-border acquisition can be made to gain benefits of the currency exchange rates or capitalize on tax advantages. Other limitations are the number of case companies used in the framework (only seven), partial correlation between the axes (strategic interdependence and organizational autonomy), and the fact that the framework does not take into consideration any pre-acquisition conditions. Therefore, Angwin and Meadows (2015, 239) introduced an updated version of the Haspeslagh and Jemison framework (Figure 5) with three identical categories and two new ones.
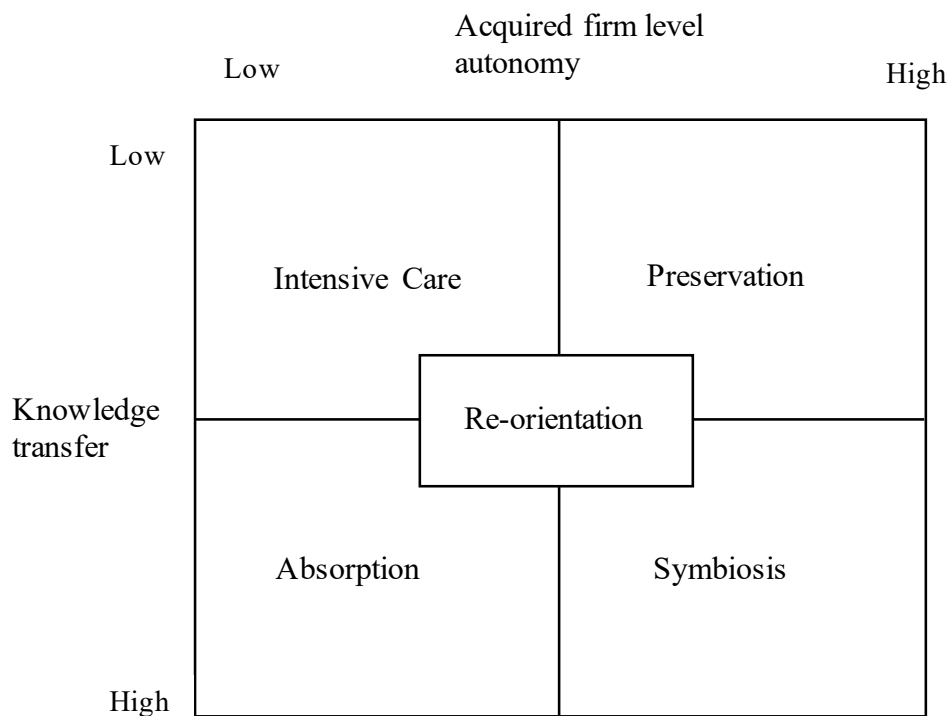

Figure 5   Five post-acquisition integration styles (Angwin & Meadows 2015, 248)

As seen in Figure 5, the axes parameters have changed from strategic interdependence and organizational autonomy to knowledge transfer and acquired firm level of autonomy as they found no correlation between the two factors in their study. Knowledge transfer refers to the willingness and amount of knowledge passed on between the merging companies, while acquired firm level of autonomy is the extent to which the acquirer's business culture and processes are maintained. The first major change compared to the framework of Haspeslagh and Jemison (1991) is the re-labeling of "Holding" to "Intensive care" as it describes better the active nature of the integration processes and changes evident in this category. Intensive care means that there are no integration intentions, but the acquirer may try to affect how things are done in the acquired company in order to improve their overall performance. Strict financial controls and strategy directives may be imposed to rejuvenate the company for better value in a future sell-off. This is evident for example with private equity firms as acquirers. (Angwin & Meadows 2015, 247.)

A completely new integration style is presented as well. "Reorientation" category is appropriately positioned in the center of the framework, as it is less aggressive compared to intensive care and absorption. These two strategies are very intrusive and change imposed to the acquired firm, while reorientation strategy leaves many business areas deliberately left independent and the areas subject to changes are discussed and reviewed by both parties. However, reorientation is more direct than symbiotic and preservation strategies, as there is purposeful and fast integration of administrative processes, sales and marketing. Reorientation strategy is used when the acquired party is in good financial health, well-managed and they have employees the acquirer would prefer to keep. Overall, the relations between the two parties are friendly as there is no intention to restructure the acquired firm too much, rather to harmonize certain functions such as finance, HR and communications. In short, reorientation is used when the acquired party's business is solid, but there is a need to align some functions with the parent company for a coherent external impression. The reorientation cluster encompassed around 40% of the cases in the study, but there is no evidence how this strategy affects acquisition performance. (Angwin & Meadows 2015, 248.) Also, there is some criticism that the integration style is too risky, especially for SMEs. However, the category is widely accepted as the most prominent one out of the five categories (Bauer 2018, 186, 196.)

The two integration strategies presented in this chapter are important even in the IT integration context. The integration strategy may very well enable or limit the options that IT has in terms of how much and in what ways IT will be integrated. Next, this study will split the post-acquisition integration into two parts and focus on the one that is more relevant in the context of this study, the task integration.

2.2   Task integration

Post-acquisition integration is a complex and time-consuming process with numerous factors to consider. Therefore, the process has been split into smaller parts in research literature for a more specific research focus. One of these divisions was made by Birkinshaw et al. (2000) by separating the process and organizational behavior into task and human integration. Human integration, also known as cultural integration (Proft 2014, 29), refers to the integration of people and the working culture of the employees of the two entities. Birkinshaw et al. (2000, 398) argues that generating satisfaction and creating a shared vision among the employees are vital to human integration. The goal is to establish a positive attitude of the integration process. Although some researchers argue that cultural integration is the most critical type of integration (Shrivastava 1986, 65), it will not be the focus of this thesis. However, the study acknowledges that task and human integration are not independent of one another – good human integration that leads up to higher employee satisfaction is likely to make task integration easier, and vice versa (Birkinshaw et al. 2000, 399).

Task integration is defined as "the value-adding activities of the two companies that are integrated to generate synergy effects and operational integration" (Birkinshaw et al. 2000). Shrivastava (1986) divided task integration into procedural and physical integration, the former referring to the integration of planning and control systems, legal units, accounting, sales and marketing, and the latter to the production lines and technologies, R&D projects and real estate. Good task integration means that the synergy effects available are recognized and integrated. For example, an acquiring company could recognize that after the merger they have two R&D units that have overlapping projects and functions, which could result in either changing the role of the other R&D facility, shut down the unit which is deemed worse, or integrate the two units into one. Sharing common resources requires excellent communication, commitment and management (Hassett et al. 2011, 118). However, although task integration is about the integration of non-human functions and processes, the decisions are affected by human beings. Birkinshaw et al. (2000, 411) note that there is a correlation between integration process problems and task integration level in the medium term (one to three years), meaning that if there is for example a lot of change resistance, technical issues or just bad management decisions, the firm will fix these situations at the cost task integration, which slows down the process. Quah and Young (2005, 67–70) also support a gradualist approach for the process, meaning that instead of rapid implementation of integration the changes should happen over a period of time in order to allow mutual understanding between the acquirer and acquired. The correlation is quite logical; if there are other issues to begin with, forcing an integration process on top of that will only make things worse as people tend

to dislike change and uncertainty. Figure 6 demonstrates the correlation between these two factors.
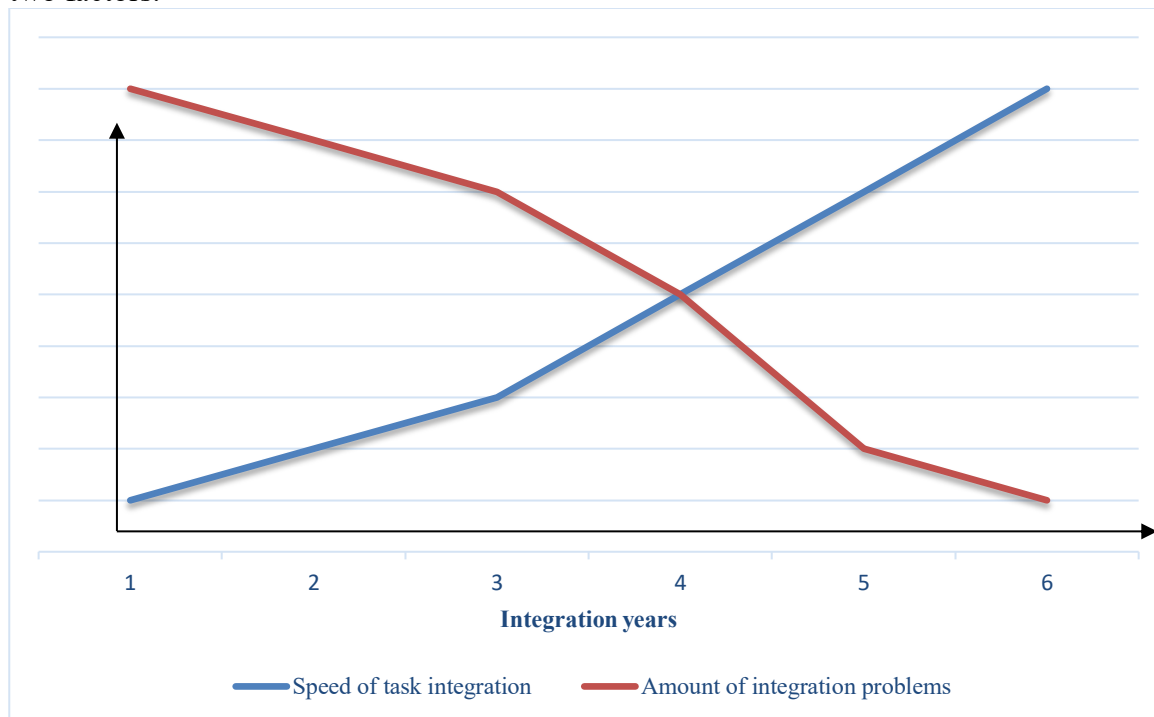
Figure 6   Correlation of task integration and integration problems

After these problems are solved, the firm will try to emphasize task integration in three to five years after the acquisition. Birkinshaw et al. (2000, 412) call this the second phase of task integration, which was triggered after the limitations in the first phase were removed. Another factor that enables the transition to greater task integration is the level of human integration. If employees are more satisfied and content, task integration becomes a lot easier. More specifically, if the HR functions are integrated well enough, this will also increase task integration success. A third factor that affects task integration is the current performance of the integrating unit. This means that if the unit is currently operating badly, the individuals responsible are more worried about their own performance rather than the success of the integration. For example, two well-functioning R&D units are a lot easier to integrate than two badly functioning ones. (Birkinshaw et al. 2000, 413–420.)

To sum up, task integration depends on other integration issues, the level of human integration, and the current performance level of the integrating unit. If any of these factors are not up to par, task integration will be delayed or the quality of the integration will suffer. This thesis has now introduced some of the more prominent post-acquisition integration theories. Next, this thesis will introduce the concept of business-IT alignment in order to understand better the relation between business and IT in M&A context.

2.3 Business-IT alignment

Although the importance of IT cannot be understated in any business environment (Mehta & Hirschheim 2004; Wijnhoven et al. 2006), at the end of the day it is still an auxiliary function to the actual business processes. Therefore, it is important that business and IT are aligned (Venkatraman et al. 1993; Giacomazzi et al. 1997; Mehta & Hirschheim 2007). Business-IT alignment is defined as "the degree to which the information technology mission, objectives and plans support and are supported by the business mission, objectives and plans" (Sabherwahl & Chan 2002, 14), meaning that the business objectives may determine what can and cannot be done in IT and vice versa. The business-IT alignment has been researched for three decades. Venkatraman et al. (1993) were one of the first to proclaim that an alignment between IT and business will result in more successful enterprises. One of the most common way to make sure such alignment exists is to invest in a firm's IT governance. IT governance is used to build a structured IT framework which ensures that IT actions and investments support the business goals of a firm. (DeHaes & Van Grembergen 2009, 123.) It is essential in aligning IT strategy with business strategy, and therefore a vital part of overall enterprise governance (CIO.com). According to Gentle (2004), the ultimate goal of IT governance is a harmonious business-IT alignment.

Business-IT alignment applies also to M&A context. The overall integration objective is a product of the acquirer's strategy, hence the IT integration objectives should be in sync in order to identify and acquire the potential synergies (Walker 2012). Most of the business-IT alignment literature is not specifically in the post-acquisition context, but Mehta & Hirschheim (2007) used the alignment theory by Venkatraman et al. (1993) and studied IT integration in three different mergers. A similar study with three mergers was made by Wijnhoven et al. (2006) in a different industry. Sarrazin and West (2011) noted that if a strong alignment exists between business and IT, acquirers are prepared to pay more because they know there are cost savings available in the IT integration process. Another notation from their study is that over 50% of the potential synergy effects in an M&A context have a strong connection to IT. Therefore, an agile and adjustable IT ecosystem is nowadays preferable, especially in M&A processes. Asper and Protsman (2013, 35) agree that IT is a key enabler in value creation and gaining synergies in any M&A transaction. Since IT governance is a vital part of business-IT alignment, the government models of the acquirer and acquired party should be aligned as well during the integration. Becker et al. (2009, 10) presented a framework for integrating IT governances during the post-acquisition integration phase, but also noted that since the integration processes are so different depending on the strategy and size of the M&A process, no single best practice can be named. The generalizable idea from their framework is for IT governance integration to have close ties with the rest of the

integration, and one way to make sure it happens is to form an intra-organizational steering committee to oversee that IT and business integrations are aligned.

Although the importance of business-IT alignment in a M&A process is evident in many studies, there are some contradicting research results. It is interesting that both Wijnhoven et al. (2006) and Mehta and Hirschheim (2007) stressed the business-IT alignment's imperative nature in M&A context, but most of the case acquisitions were still successful even though in some cases there was no effort by the parties to align business and IT strategies before the acquisition. Baker and Niederman (2013) showed similar results in their study of 22 acquisitions where successful M&A's contained both aligned and non-aligned business-IT combinations. According to Brown and Renwick (1996, 31) the business-IT alignment is weak in the beginning of an M&A process, since business and IT strategies of two or more entities are rarely in sync. There could be a pre-existing alignment if the acquisition is

- Within the same industry
- Parallel industry
- Vertical with a supplier or customer
- Conglomerate in a different industry

Robertson and Powell (2001) noted that many of the business-IT studies compare business strategies and IT strategies and aims to categorize which integration strategy is a good fit with an IT integration strategy. As mentioned before, the quality of IT governance is one of the key factors for a successful business-IT alignment. Furthermore, the researchers stated that industry context and business structure are factors which affect the alignment. Mehta and Hirschheim (2007) also noticed the significance of business structure in business-IT alignment, while Wijnhoven et al. (2006) added that national culture has a big impact on the alignment. Regardless of the type or size of a M&A transaction, the context-related factors are evident in every acquisition process. Country-specific legislation and policies, language, business practices in an industry, the habits and tradition in a country or industry. Although the business-IT alignment theory has some controversial results, it is important to understand the concept behind it. IT is an imperative part of any company, yet the auxiliary role makes it dependent on the business decisions and context, and this applies also when firms engage in a M&A process. Now that the relation between business and IT has been presented, this thesis will now move on to look at IT-related factors in mergers and acquisitions. The next chapter will introduce the IT integration methods available for firms in a M&A context.

2.4   IT integration methods

Information technology integration is one of the most critical tasks during the post-acquisition phase. As many as 75% of merging companies face problems in this area, which causes delays, decreased revenues, and failed M&A transactions. (Harrell and Higgins 2002, 23.) Therefore, there is a real demand for a better understanding what are the best ways IT integration can create value for shareholders in M&A transaction. One way to ensure value is created is by making sure the methods used in IT integration match the needs of the acquired and acquiring party. (Tanriverdi & Uysal 2015, 153.)

The selection of an IT integration method starts with an evaluation period, where firms identify the risks and opportunities of the integration options at hand. It is basically an analysis of the IT infrastructure and the costs, staffing and practical issues that may occur due to the integration. The outcome of the evaluation should be a solution where the merging companies gain the best synergy effects and operational benefits. Also, the IT department is often the target of cost reductions, as economies of scale should come into play. (Harrell & Higgins 2002, 24.) This is simple mathematics, since two separate IT departments (pre-acquisition) integrated into one IT department (usually the goal of an integration process) should reduce personnel and operational expenses due to economics of scale. Gronwald (2017, 79–80) adds that the IT integration methods regard mainly the technological consolidation of data centers, vendor contracts, software licenses and the software itself that firms use in day-to-day business. Potential IT conflicts need to be identified and resolved as early as possible. Also, the integration needs to be done without interrupting current operations and service, whilst maintaining the corporate security policies to protect sensitive data as per safety regulations. In general, IT processes are the key to look like a unified organization. Service desk, software development, procurement, and security policies must be stabilized with haste.

Gronwald (2017) presents four IT integration methods (Figure 7). A very similar framework is introduced by Harrell and Higgins (2002) and Wijnhoven et al. (2006) with different terms and small variations. This study will combine all three theories for a comprehensive understanding of the process. The first method, *symbiosis* or *status quo*, means that both IT systems are kept intact. The IT processes will continue to work the same way they did before the merger, with the exception of an information portal that is built on top of the existing systems in order to aggregate information. This means that the business as usual is not interrupted at any point and the whole process can be done swiftly, but the savings and synergy effects are very low. The next option, *absorption*, means that one of the existing IT systems is chosen to both firms. The firm where the system already exists skips most of the integration work, but the other company will face a tough implementation process as their whole system is replaced. It starts by converting the data of the other company into a format that is supported by the system that absorbs the old

one. The challenge is not only to change the system, but also to reengineer their business processes in all areas which are affected by the new IT system. A precondition for this option is the scalability of the absorbing IT system. This means that appropriate staff training and change management should be taken care of. The cost and time to convert are high, with low synergy effects. (Harrell and Higgins 2002, 25–27; Wijnhoven 2006, 10–11; Gronwald 2017, 81.)
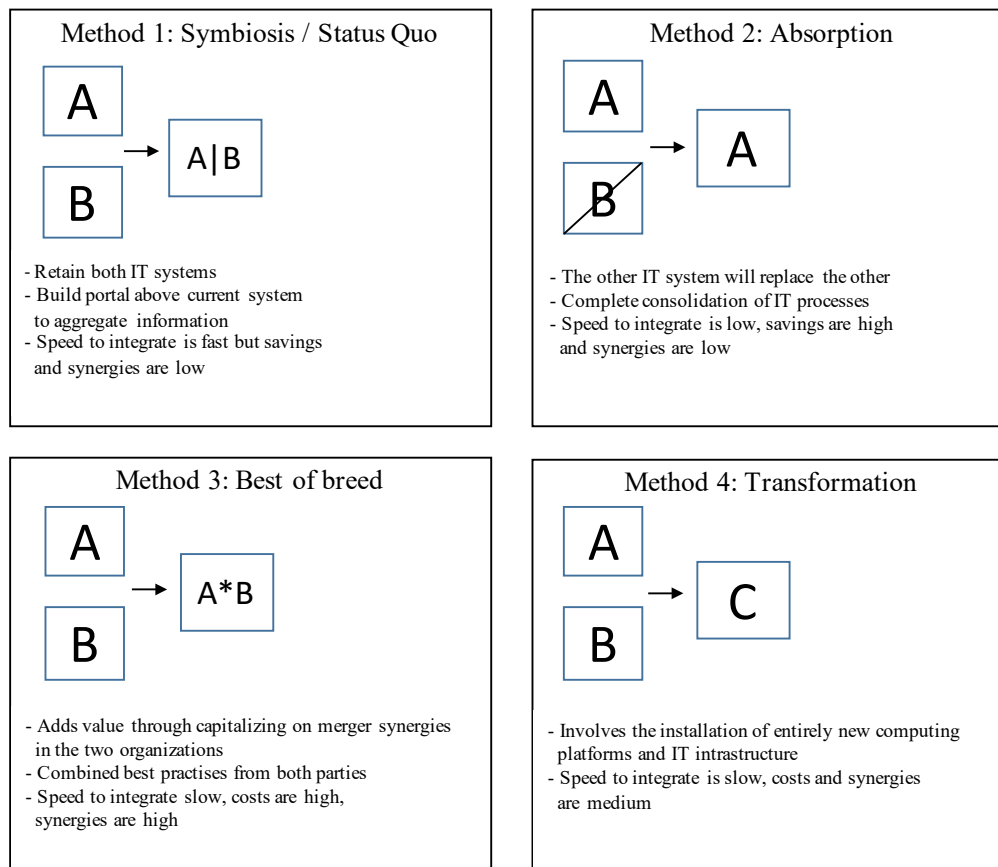
Figure 7   IT integration methods (Adapted from Gronwald 2017, 81)

Best of breed alternative acknowledges that both systems have some capabilities that the other one does not, hence the aim is to add value by capitalizing synergy effects. By combining the best of both systems, economies of scale can be realized. However, determining what process is actually the best can be problematic if both parties think that for example their user accounting software is superior to the alternative. Also, the integration process is the most difficult in this method, since the systems need actual integration to morph into one functioning IT enterprise. Speed to integrate is slow and the process is expensive, but synergy effects could be worth the time and money. (Harrell and Higgins 2002, 25–27; Wijnhoven 2006, 10–11; Gronwald 2017, 81.)

The fourth option is *transformation*, an implementation of a completely new IT platform and infrastructure. This is the most comprehensive and complicated procedure of the presented strategies, as both existing systems need to be converted to a new system and extensive staff training is required. This option is preferred especially if both existing systems are outdated or are incompatible with each other, and it emphasizes team atmosphere in a sense that all employees from both firms need to go through the same learning process with the new system. This is also a time-consuming process, but the savings and synergy effects are moderate. One of the downsides in this alternative is that business as usual is very difficult to maintain without any malfunctions as old systems are replaced with a new one. (Harrell and Higgins 2002, 25–27; Wijnhoven 2006, 10–11; Gronwald 2017, 81.)

Harrell and Higgins (2002, 27) mention a fifth option, which is to *outsource* the entire IT infrastructure. The third party needs to have the technical and functional capacity for both firms' business processes. This will allow the firms to focus on their core competencies instead of a burdensome IT integration process, and also prevents the integration costs of getting out of hand which may occur in other options. Instead, outsourcing has a fixed cost which can be used for future planning and pricing of products. However, this option does not offer any economies of scale, and usually requires long-term contracts with the third party.

This chapter combined three IT integration method theories for a comprehensive outlook of the options that firms have regarding IT integration. However, the theories do not disclose whether firms choose just one of the methods, or is IT integration in practice a mixture of methods depending on the situation. The empirical part of the thesis will try to answer this question. Next, this thesis will take a look at the critical success factors in IT integration.

2.5   IT integration critical success factors

According to Freund (1988) critical success factors are "those things that must be done if a company is to be successful", while Rockart (1979) defines CSF as the limited number of areas which, if at a satisfactory level, will ensure successful competitive performance. These are the areas "where things must go right" for the business to thrive. In the M&A field of research there are multiple studies and academic reviews that have compiled CSFs from other publications, of which Gomes et al. (2013) can be mentioned as one of the more respected articles. In the IT integration context, there are studies with topics such as analyzing CSFs for managing systems integration (Mendoza et al. 2006), CSFs in post-merger IT integration (Blanco 2017) and CSF's in information systems integration (Harrell & Higgins 2002). This study recognizes that due to the large amount of literature

available, all existing IT integration CSFs cannot be presented in this study. The list of CSFs is compiled of the three studies mentioned above, which have already eliminated a number of CSFs based on their empirical results. Therefore, the list is not by any means comprehensive, which is why more research is needed to identify additional CSFs to complete the list. Next, the studies will be briefly introduced, followed by a complied list of all the CSFs mentioned in the studies.

Mendoza et al. (2006) aim is to present a list of CSFs to manage information systems integration. Their framework takes into account the current level of integration of the firm's other business units and systems. Their research was empirical in nature, as they interviewed the employees of two companies to identify their CSFs. Systems integration can be defined as the combination of a company's information systems and databases to enhance the process flow (Markus 2000a). Their list consists of 20 CSFs, which are shown in Appendix 3. As can be seen from the list, the management focus is clear in the study, and it while it can be used in the M&A context, it is not exclusive to it.

The second study is an article by Harrell and Higgins (2002) who also study information systems integration, but unlike Mendoza et al. (2006) they do it in the M&A context. However, this publication does not have an empirical part, but is more of a guiding article to firms that need assistance in IS integration. A set of lists and checklists are presented which are compiled from previous literature. Among others, they mention the IT integration methods, which are presented in chapter 2.3. Their set of CSFs is adopted from Sumner (1999), shown in Appendix 3.

The last research is by Blanco (2017), who studies CSFs in the post-merger IT integration context. The list of CSFs was gathered from existing literature by using several online search engines with related search terms and query. The list was then tested by interviewing a number of IT integration experts from multiple companies. The results of the interviews were used to modify the list and remove irrelevant factors. The final list consists of seven CSFs in the post-merger IT integration context, although the author did discover that the process starts already in the pre-merger phase. Out of the three publications, it can be argued that this one correlates the most with the research context of this study. Therefore, the CSFs in Blancos (2017) study's CSFs will be evaluated as more relevant in the compiled list of this thesis. The list of all the CSFs from the three studies is shown in Appendix 3.

Table 1   Compiled list of IT integration CSFs

CSF1 Appointment and composition of an IT integration team
CSF2 Identify IT contracts and licensing
CSF3 Inventory of all applications
CSF4 Conduct training and on-going support
CSF5 Relevant user involvement
CSF6 Continuous support from top management
CSF7 IT integration project planning and management
CSF8 Effective overall communication throughout the process

Table 1 presents the 8 CSFs that were recognized as significant based on the analysis of the CSFs in Appendix 3. These critical success factors should be evident in the IT integration, or "things that must be done if an IT integration is to be successful" if one is allowed to repeat Freund's (1988) quote from earlier. An analysis of the CSFs is in order, and the first thing noticeable is that some of the CSFs happen during the planning session before the integration, some happen during the implementation process, and some are present during both phases. CSFs that happen in the planning phase are "Appointment and composition of an IT integration team", "Identify IT contracts and licensing", and "Inventory of all applications". The last two CSFs are part of IT due diligence, which these CSFs actually need to be done before any plans are made (Sisco 2002, 34–37). Those that happen during the integration process are "Conduct training and on-going support" and "Relevant user involvement" (Baro et al. 2008, 1472–1475). Finally, "Continuous support from top management", "IT integration project planning and management" and "Effective overall communication throughout the process" are present in both phases (Alaranta & Mathiassen 2014; Chang 2014). It can also be argued that these CSFs have an effect on the IT integration method or methods used. For example, it would seem odd if the IT integration method was chosen before inventory of all applications. So naturally, some of the CSFs are requisite before any decisions regarding the integration methods are made.

One interesting detail is the absence of integration speed; integration theories often stress the importance of swift actions after the deal is closed, and "the first 100 days" is a common phrase in research literature and practice (Angwin 2004). However, speed of integration was not mentioned in the three studies presented earlier, indicating that speed is not a significant factor in IT integration. Instead, maintaining other business processes intact without delays or errors is more important for companies (Baker & Niederman 2013, 113), which could lengthen the overall integration process. Next, this thesis will synthesize the theory chapter and present the theoretical framework of the study.

2.6   Synthesis

First, the integration strategies were presented in chapter 2.1 to illustrate some of the options that firms might have in terms of the overall integration. This thesis introduced two theories instead of one; the purpose is to give insight to the well-known integration theories and the evolution of the prestigious framework by Haspeslagh and Jemison (1991). Angwin and Meadows (2015) framework would not be as well understood without mentioning Haspeslagh and Jemison (1991), and vice versa. It would also seem as if the reorientation style from Angwin and Meadows (2015) is applicable to several acquisitions, not excluded the one of the case company. As one of the sub-research question deals with the different facets of integration and their relation to the IT integration, the empirical data will be analyzed and compared to these theoretical frameworks. Depending on the state of the acquired company and the intentions of the acquirer, integration can come in many different forms.

Task integration is the link between the general integration strategies and the IT integration. As mentioned in chapter 2.2, integration is such a multi-layered phenomenon that some partition is needed to clarify all the details. Since the main research question focuses on IT integration dynamics, the procedural and physical integration deserves a more elaborate focus than for example the human integration. The factors that affect task integration are equally applicable to IT integration, hence it contributes to the theoretical framework of this study. For example, Birkinshaw et al. (2000) note that if a company has other issues before the task integration process begins, usually the integration results are not up to par. This could very well be the situation in IT integration as well. The empirical part of this thesis will delve into this to find out if there are any current projects or issues in the case company that could stall the IT integration.

Next, this thesis acknowledged that despite the importance of IT in any business, it is still heavily dependent on the actual business of the firm. Therefore, the business-IT alignment does have an effect in an M&A transaction, as well as other business context aspects such as national culture, industry context and business structure (Mehta & Hirschheim 2007; Wijnhoven et al. 2006). These aspects do matter in every acquisition process and determine the options a firm has integration-wise. Also, IT governance was recognized as one of the best methods to enhance the business-IT alignment, which should also be taken into consideration in an M&A process (Becker 2009).

The IT integration methods are the core of the theoretical framework. The main research question regards the IT integration dynamics, meaning that the method used to integrate should be aligned with the strategy of the overall integration. A symbiosis method could be seen as peaceful and simple compared to a transformation method which creates a huge workload for both parties. So, the method chosen should be in line with the nature of the integration and thus the factors that need to take into consideration. Even

though IT is usually regarded as an auxiliary function of a company and depends on the business decisions of other departments, it's importance cannot be understated. The IT integration method theories serve as a basis for the second sub-research question, which deals with the IT factors that affect IT integration. As mentioned in chapter 2.4, the selection of the method starts with careful vetting of the IT infrastructure and the costs, staffing and practical hinders, resulting in a plan for the integration. In order to gain insight on the implementation of the chosen method, this thesis relies on the case company interviews for answers.

The integration method is not obviously the only factor that has an effect. Therefore, this study reviews some of the critical success factors of IT integration. A total of 32 CSFs were identified from the three studies. Several CSFs are mentioned multiple times, reducing the actual number of CSFs. Also, due to time restrictions, it is not reasonable to study 32 CSFs in the empirical part of this study. Hence, this study will use the list to create its own list of CSFs that will be used in the empirical part of this thesis. The list (Table 1) is created by using a simple method of elimination and clustering. CSFs that occur more than once are deemed as significant factors and included in the final list. Clustering was used if there were clearly very similar CSFs. For example, "Effective out going and in coming communication", "Project communication" and "Communicate with end-users throughout the process" is clustered as "Effective overall communication throughout the process". The final list consists of 8 CSFs required for a successful IT integration. The empirical part of this study will show whether these CSFs are evident in the case company. Figure 8 will demonstrate the theoretical framework of this study.
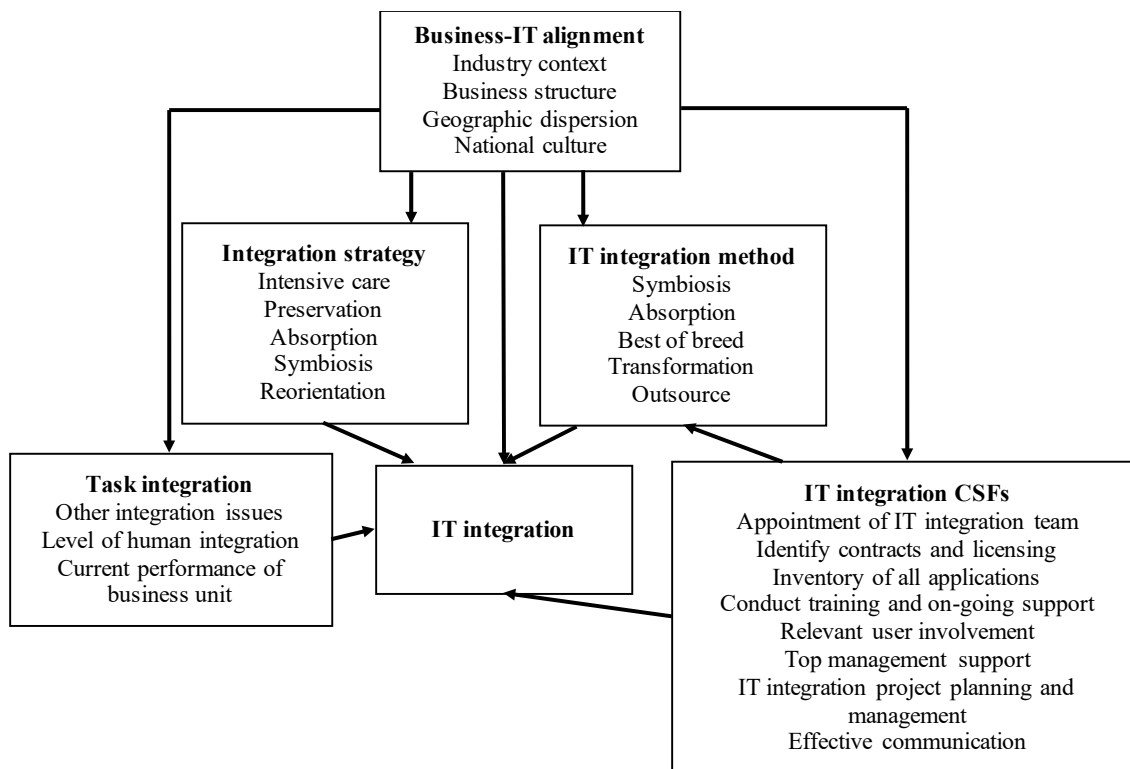
Figure 8   Theoretical framework of the thesis

The theoretical framework shows the relations between the presented theories and concepts. The framework aims to give the reader a clear and explanatory summary of the theoretical part of the thesis. As seen in Figure 8, the business-IT alignment and contextual aspects have an effect on all the other building blocks of the framework. In other words, all the decisions regarding the overall integration or IT integration specifically are subject to the factors listed under the business-IT alignment heading. The overall integration strategy which is chosen and task integration factors are related to the IT integration, partly due to the same reasons as mentioned above; IT integration cannot be viewed solely in a vacuum, hence the different facets of integration aspects do matter. The abovementioned building blocks are so called external IT integration factors, meaning that the aspects are not specifically IT-related, but affect the entire M&A transaction. The two remaining building blocks are related only to the IT integration; the integration methods and IT integration CSFs. The conclusion in chapter 2.5 was that the CSFs affect the IT integration method chosen. As seen in the framework, the IT integration is affected by a number of external and internal factors, at least theoretically speaking. The empirical data will show whether the framework is applicable in practice as well, and it will be modified according to the empirical findings. Next, the methodology chapter will present the research approach as well as the case description of this thesis. Also, the data collection and analysis methods will be disclosed.

3 RESEARCH DESIGN

In this chapter the thesis will first go through the research approach used. Then, the case description is presented, which includes a brief introduction of the case companies. Data collection and the analysis method are also introduced, along with a reflection of the trustworthiness of this study.

3.1 Research approach

The research approach of a study has a philosophical angle to it, which requires some self-reflecting from the researcher. In business research, the philosophical discussion is usually put aside since it is viewed as non-relevant or taken-for-granted. (Eriksson & Kovalainen 2008, 13–14.) This study draws its assumptions from two concepts; the idea of reality and existence, and the relationship between people, society and the world in general (ontology) and the view on knowledge and what are its sources and limits (epistemology). By these standards, this study takes on an interpretivist approach, meaning that reality is defined through social constructions and shared meanings (Eriksson & Kovalainen 2008, 19). It emphasizes plurality and relativism, and believes that knowledge is created in the processes by which people try to make sense of the world (Fisher 2010, 23). However, as the aim of the thesis is not only to find out how the different facets of integration are related to the IT integration, but also the IT factors that affect the IT integration, this thesis has some pragmatic characteristics to it. Pragmatism stresses the importance of action over doctrine and is an extension of critical empiricism. Furthermore, one of the goals of this thesis is to aid the case company in their integration process. Hence, the thesis aims to have a practical impact. The epistemology of pragmatism supports this, as knowledge becomes relevant when it can be used in practice (Pihlström 2007).

One of the most fundamental choices a researcher has to make before a study is the choice between a quantitative and qualitative study. The aim of a quantitative study is to prove an existing theory or a regularly occurring phenomenon by producing quantifiable results. This is done for example by creating initial hypotheses and testing them through experiments or conducting surveys. (Creswell 2007, 39–40.) This method is based on realist ontology, meaning that reality is built of objectively measurable facts. This also emphasizes the objectivity of the study and the researcher, which qualifies as a positivist view. (Hirsjärvi et al. 1997, 130–131.) Then again, qualitative approach views reality as a socially constructed entity, and is used when there is a need for a complex understanding of the problem. This requires in-depth interviews on the matter at hand with people who are familiar with the issue. Sometimes a qualitative study is favored in complex situations

where a quantitative approach is not possible. (Creswell 2007, 39–40.) However, according to Ghauri and Gronhaug (2002, 86) the line between a qualitative and quantitative research can be difficult to determine, as sometimes qualitative data can be transformed into quantitatively processed information. Hirsjärvi et al. (1997) see this as a possibility, as the two approaches can complement each other. Quantitative methods can be used to analyze qualitatively sampled data and vice versa (Eskola & Suoranta 1998, 13).

By combining the philosophical stance and the research approaches presented, this study chose a qualitative approach. The research question could be studied with quantitative methods as well, but this study aims to understand the phenomenon rather than testing a verified theory, hence the qualitative approach. (Ghauri & Gronhaug 2002, 86; Ghauri & Firth 2009, 30.) Qualitative approach is used when the object is to study a particular subject thoroughly or when there is not that much published research on that topic (Myers 2013, 9). Eskola and Suoranta (1998, 15–24) distinguishes features of a qualitative study which are present in this study. The empirical data collection method is qualitative by nature, as the data is mostly in written or verbal form instead of numbers. The data is collected from people who were chosen for this thesis rather than a random group of people. Furthermore, there is no hypothesis set for this thesis, as the goal is to find answers to the research question by comparing the theoretical framework built for this thesis and empirical data.

Besides the qualitative approach, another fundamental characteristic of this study is the case study approach. A case study often analyzes a phenomenon in a real-life context by using an empirical inquiry (Yin 2003, 13). In business studies, case studies are used to provide insight into issues in processes or management, or in new theory. In general, this approach is favorable when the research area is relatively unknown and the researcher tries to build a theory. (Ghauri & Firth 2009, 30.) In this study the basis of the theoretical framework is built of existing theories, and the goal is to develop this framework by using the empirical data gathered from the interviewees. This kind of theory building calls for a case study approach. Yin (2003, 1) added that case studies, and qualitative studies, are preferred when "what", "how" and "why" questions need to be answered. However, case studies are not exclusive to exploratory and descriptive research, but actually can be used in all types of research. Eisenhardt (1989, 548–549) agreed that case studies are well-suited to new research areas or areas where existing theory is wanting. Another reason for a case study approach is the cross-border nature of this study. According to Ghauri and Firth (2009, 31) case study method is well suited to international business research where data is sampled from cross-border settings. Piekkari and Welch (2011, 6) found support this statement as their research revealed that qualitative approach dominated in popularity in international business case studies. Next, this study will present the case description and divulge in detail why the researcher chose this particular case.

3.2 Case description

Since the empirical part of this study uses a single-case study, some basic information regarding the case companies are presented in order to justify the case selection and to give some context to this study. The context of the case does have a great influence, which is why the setting of the study should be described clearly to the reader (Eriksson & Koistinen 2005, 8). When the interviews started it became clear that Lowell Nordics was conducting several projects at the same time. In order to avoid misunderstandings and bring clarity to the case acquisition, the timing and different projects are mapped out in Figure 9.
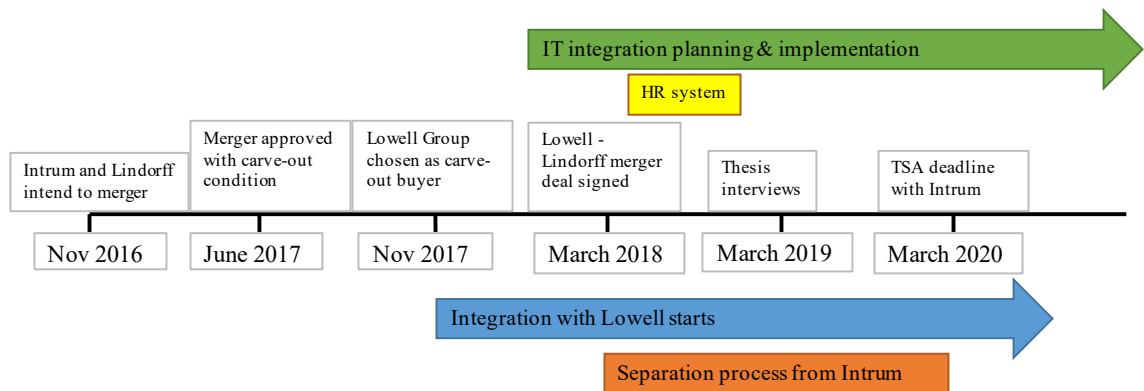
Figure 9   Case acquisition timeline

The figure shows the complete timeline for the previous merger with Intrum along with the case acquisition of Lowell, and the past, current and future acquisition-related projects. These projects are introduced in detail later in this study, but the figure is presented first to give an overview of the acquisition. Naturally, there have and will be other projects in the firm, but the ones shown in the figure are deemed most important in terms of the context of this thesis. The blue arrow contains a number of other integration-related projects, but as they are outside of the research scope of this study, they will not be discussed in detail. Only the projects which are relevant to the IT integration are mentioned. Next, this thesis will justify why this acquisition was chosen for this study. Then, the acquiring and acquired companies Lowell and Lindorff will be introduced, which is followed by a brief description of the acquisition process.

3.2.1 Case selection

According to Siggelkow (2007, 21–22) a single case study is appropriate when the purpose of the study is to generate deep contextualized insights into the phenomena at hand. The case selection for a single case study can happen without any actual choice at

all. In some instances, researchers are given a case to study, which suits their current situation and interest. (Stake 1995, 3.) A similar situation occurred to the researcher during his employment in the case company; the researcher's situation was that he needed a case to begin the thesis, and the field of research should preferably be M&A as there was genuine interest towards the subject. When the opportunity presented itself to research the case company's IT integration in a M&A process, it was easy to accept the task. Admittedly, Buck (2011, 193) note that case selection should ideally be based on theory rather than convenience. Due to time and resource restrictions, such ideology was not applied in selecting the case for this study.

As mentioned before, access was one of the biggest reasons for selecting this case specifically. The researcher had been working for the acquired company for a while, which made it easier to reach out to the company and inquire for research permission from a firm representative. This is usually the situation in single case studies as the researcher is dependent on the "gatekeeper" or key informant for using his or her internal network to arrange interview candidates (Piekkari & Welch 2011, 187). Since the thesis focuses on the post-acquisition integration process, the case company was suitable for conducting a study in this context; the acquisition happened about a year before this study was written. This means that the post-integration process is in full swing at the time this thesis is written, which enhances accuracy of the results from the interviews as interviewees had fresh experiences regarding the integration (cf. Eisenhardt & Graebner 2007, 28). Furthermore, the international context of the acquisition made the case more interesting, and allowed the researcher to include a cross-border aspect to the study. Also, the IT integration is a challenging multi-year project according to case company's initial estimations, meaning that they had a demand for external research help.

3.2.2 *Case company*

Lowell is a British/German credit management firm specialized in debt purchasing, third party collections, collection process outsourcing, credit management and e-commerce. It was founded in 2004 by James Cornell with a £20 million investment from Cabot Square Capital. Originally a British firm, Lowell Group has had a number of owners after 2004, leading up to year 2015 when Lowell was formed after combining Lowell Group and a German company called GFKL. At the moment Lowell is owned by Permira Funds and Ontario Teachers' Pension Plan. Lowell turnover was €580 million with around 3,000 employees in 2017. (Lowell.com.) Their background of multiple ownership changes and the eventual merger with the German GFKL to become Lowell as it is today may explain the firm's favorable attitude towards acquisitions.

Lindorff Group was founded in 1898 by Eynar Lindorff in Norway. The company has grown steadily over the years mainly through acquisitions, eventually becoming one of the biggest credit management and invoicing firms in the Nordic market. In Finland, the journey started as Contant in the 1970's with a provision-based pricing model that was uncommon in Finland at the time. The model was a success and the firm experienced a rapid growth. After a few ownership changes in the 80's and 90's Contant became Lindorff in 2000 when the Norwegian firm bought the company. The core business of Lindorff is collection and reminder services, invoicing and instalment services. Lindorff's headquarters are in Oslo, although before the Lowell acquisition it was owned by a Swedish capital investment firm Nordic Capital. (Lindorff 2018; Suviala 2014, 265–271.) Lindorff's turnover was €647 million with just under 4,000 employees in 2016 (Lindorff 2016).

The acquisition of Lindorff by Lowell was announced 02.11.2017. The background to the sale was a previous merger attempt by Intrum Justitia and Lindorff in 2016. Intrum bought Lindorff but the acquisition was halted by the European Commission due to competitive reasons. The Commission stated that the acquisition would kill the debt purchase and debt collection competition in Denmark, Finland, Sweden, Estonia and Norway. In other words, the two firms combined would have had too big of a market share in these business areas. Therefore, the acquisition was approved with the condition that the overlapping debt collection and debt purchasing in aforementioned countries should be divested, meaning that these business units were open for sale. (European Commission 2017.) As a result, Intrum announced that the Lindorff businesses in Finland, Sweden, Denmark and Estonia as well as Intrum's Norway operations were carved out and put to sale.

The condition set by the Commission opened up a chance for Lowell to enter the Nordic markets, as the company had operations mainly in Central Europe and England. As James Cornell, CEO of Lowell, said in the press release: "I'm pleased to be extending the Lowell family today. Our shared commitment to innovation and best practice for consumers and clients alike, will significantly strengthen our service proposition across the credit management value chain." The transaction was valued at 730€ million and the deal closed on March 21 2018. (Lowell 2018.) The acquisition seems to be horizontal in nature as the firms have similar products and services and could be seen as competitors. The motives for the acquisition are speculative, but gain of market power and entrance to new market area for Lowell are probably not far from the truth. Next, the data collection method and process is described.

3.3   Data collection

A qualitative research allows many various types of data collection such as articles, observation or focus groups, but the most common method in business studies is interviews. It is important that the interview process is described in detail since it is such a vital part of the study. (Eriksson & Koistinen 2014, 30–31.) There are many different ways to collect data in a qualitative study, but the most common in business research is interviews (Ghauri & Gronhaug 2002). There are many different types of interview methods, ranging from structured interviews (locked in questions and answers) to semi-structured and theme interviews (answers are open) to unstructured interview, which resembles an everyday discussion (Eriksson & Kovalainen 2008; Hirsjärvi et al. 1997). A typical case research relies on multiple sources of data (Yin 2003) in order to describe and explain the unique features of a case, as well as possible commonalities with other similar cases (Ghauri 2004, 109–110). Therefore, triangulation is often used in single case studies, meaning that data was is with multiple methods of the same topic. If one method appears to have a built-in weakness, triangulation ensures that these weaknesses are compensated by the strengths of other methods. It allows the researcher to create a more holistic picture of the phenomenon. (Jick 1978, 603.) In this study, data was collected from case company representatives with semi-structured theme interviews, and a survey which was filled after the interview. These two methods combined with the number of interviewees was enough to reach the saturation point for the empirical data.

In a theme interview the discussion is guided by a number of themes, each containing a series of open-ended questions. This allows the interviewee to answer questions by using their words instead of locked-in answers, which should provide more elaborate, describing and in-depth answers. Furthermore, one of the advantages of semi-structured theme interviews is also the possibility for follow-up questions, probing questions and clarifications. This enables flexibility in data collection as the interviewer can modify questions during the interview based on the situation, mood and general flow of the interview. Also, semi-structured interviews are preferred if the interview occurs only once. (Cohen & Crabtree, 2006, 1; Hirsjärvi et al. 1997.) However, as good of a method that interviewing is, it does have some inconveniencies. First, the method is quite time consuming and requires resources. Second, the knowhow of the interviewer has an effect on the overall quality of the interviews. Interview planning and "asking the right questions" as well as managing the direction of the interview will influence the data collection. Last, the overall situation of the interview could affect the responses of the interviewee, and the informants could manipulate answers just to give a positive image of themselves in the study. (Ghauri & Gronhaug 2002, 102; Hirsjärvi et al. 1997, 201–203.)

Semi-structured interviews were not the only method of data collection used in this study. This study used triangulation to build a more comprehensive picture of the IT integration as a phenomenon. The IT integration CSF table (Figure 7) was shown to the interviewees after the semi-structured interview, and they were asked to point out the method which was used in the case acquisition, or was the closest version to what was actually done. Also, the interviewees were asked to give examples to elaborate their point of view. The answers of the interviewees were compared to one another to see whether there were topics and themes that occurred often. In the IT integration CSFs, the table (Appendix 2) given to the interviewees and they filled out the form with the assistance of the researcher. Since the table produced some quantifiable results and the data sample size was small, the researcher was able to analyze it without any assistance of quantitative programs. Other triangulation methods were also considered, but due to time and access restrictions, no written data of the acquisition was used as data in the analysis part, although some company announcements and websites were used in the case description chapter.

The operationalization (Table 2) of the research was built in order to clarify the structure of the empirical part of this study. It is also used to connect real life and theory to each other (Eskola & Suoranta 1998, 75). The main research question is divided into two sub-research problems, which in turn are divided into themes that are examined more specifically through theory and literature.

Table 2   Operationalization of the research question

Research question	Sub-research problems	Main themes	Theoretical background
What are the IT integration dynamics in a M&A context?	How are the different facets of integration related to the IT integration?	Business-IT alignment	Baker et al. 2013; Mehta & Hirschheim 2007; Wijnhoven et al. 2006
		Integration strategies	Angwin & Meadows 2015; Haspeslagh & Jemison 1991
		Task integration	Birkinshaw et al. 2000
	What are the IT factors which affect the IT integration?	IT integration critical success factors	Blanco 2017; Mendoza et al. 2006; Harrell & Higgins 2002
		IT integration methods	Gronwald 2017; Wijnhoven et al. 2006; Harrell & Higgins 2002

The first sub-research problem, "How are the different facets of integration related to the IT integration?" has a quite large research scope, which is why this thesis focused first on the overall integration strategies and task integration process. Then, the IT aspect was included in the business-IT alignment chapter which presented also other context-related aspects that might affect the IT integration. Other aspects might emerge from the empirical data, and if the data clearly shows that they have an effect on the IT integration, they will be presented along with other findings. However, the main goal is to find similarities between these large-scope theoretical concepts and the case company, which is done in the empirical part of the study. Once these similarities are found, the next step is to see if they have an effect on the IT integration. For example, the interview answers reveal that the integration strategy has many of the same qualities as reorientation (Angwin & Meadows 2015) has. Whether this has an effect on the IT integration or not should also be evident from the empirical data. The bigger scope theories also serve a purpose to include some interview questions about the overall integration process. IT integration is just a part of any post-acquisition process, so the integration environment around it needs to be recognized as well.

The second sub-research question, "What are the IT factors which affect the IT integration?" is answered by reviewing the IT integration methods and IT critical success factors. IT integration methods are presented in the theory chapter, and the interviewees are asked about the IT integration and what has been done thus far. One section of the interview is about the methods, where the interviewee chooses a method which is the closest to reality in the case company. An interesting aspect of this sub-research question is whether there is a difference between planned and implemented IT integration. The initial idea for this question came from within the case company in the kick-off meeting between the researcher and the case company. The company representative inclined that there is a difference in planned and implemented integration strategy, and that it could be an interesting research angle. Hence, it was included as an interview question.

The CSFs are presented in the theoretical part of the study, and put to use in the empirical part by asking the interviewees a series of question regarding the CSFs. This is done through a table drawn by the researcher specifically for this purpose, shown in Appendix 2. The table was given to the interviewee at the end of the interview and the researcher gave a briefing of the purpose and contents of the table. After that, the interviewee filled the table and verbally explained his/her decisions, which were also recorded.

There were all in all of six interviews, all conducted in Lowell Finland headquarters in Turku. The interviews were face-to-face meetings in a meeting room without any interruptions and all the interviews were recorded after the researcher asked for permission from the interviewee. Some of the representatives had a long M&A history

with the case company and with previous employees, and for some this was their first M&A experience. Before every interview, the researcher disclosed what this thesis is about and a short introduction of the researcher himself in order to help the interviewees feel more comfortable. One recording was interrupted due to a technical malfunction, which caused a stoppage in recording of one of the interviews. This was noticed after the interview, but the situation was salvaged since the researcher made meticulous notes during and after the interview with the topics still fresh in his memory. The length of the interviews varied from 33 minutes to 61 minutes. All six interviewees represented either Lowell Finland or were part of a Nordic team. The initial plan was to interview people from Lowell UK, but unfortunately the researcher was unable to find a suitable person who would have agreed to an interview. Although the interview guide (Appendix 1) is in English, the interviews were conducted in Finnish as it was the native language for all participants. Table 3 shows the interviewees as well as their position, along with the length and date of the interview.

Table 3   Summary of the interviews

Position	Length	Date
Head of Digitalization & Value added services	61 min	08.01.2019
Head of PMO	56 min	08.01.2019
Digital Architect	34 min	10.01.2019
Head of IT	54 min	17.01.2019
HR Director	41 min	18.01.2019
Project Manager, PMO	51 min	22.01.2019

The interviewees were selected by one of the representatives after an initial meeting before the actual interviews, which constitutes as selective sampling in a case study (cf. Sandelowski 1995). The context of the study and research questions were discussed in the meeting, and based on that information the representative sent invitations to people he thought would have good insight on the subject. The representative was one of the interviewees as well, namely the Head of Project Management Office (PMO). After the selected employees had agreed to participate, the representative scheduled the meetings with each individual, and the researcher sent an introductory email about the thesis and the research problems to all parties. After the interviews were done, it was agreed by all parties that the researcher would not use actual names in the thesis, instead the interviewees' position in the company would be disclosed.

The data was collected using semi-structured interviews, which proved to have many positive sides, such as the freedom to adjust interviews questions, ask probing questions, and tailor the questions beforehand based on the interviewee. The original interview guide

(Appendix 1) was created before the interviews served as a starting point, and some editing was needed in between the interviews since there was a slight misunderstanding between the researcher and the case company. The researcher was under the impression that the case company had started the IT integration at the time of the interviews. However, it became quite clear that was not exactly true, since the case company's IT integration was slowed down by the separation process from the previous owner. The acquired business was a carve-out, which meant that most of the processes, IT infrastructure, applications and licenses had to be separated from the old owner, Intrum. This has been causing a substantial amount of work in the case company, meaning that the actual integration had to be postponed. Since the researcher's original interview questions were mostly about IT integration and how it has been going in practice, some adjustments had to be made to the interview guide to help steer the conversation to topics that interviewees had knowledge and experience of.

3.4 Data analysis

The data analysis phase can be identified as the most complex phase in conducting qualitative research (Nowell et al. 2017, 1). Data analysis should clarify the collected data and even create new information as a result of this process. The analysis phase comprises the data into clear and understandable form while keeping intact the informational value of the data. Since the amount of information in qualitative study can be substantial, it is important for the researcher to identify relevant data. As the analysis is made by the researcher in qualitative studies, there is an inevitable subjective bias present in the results. This bias should be minimized by not letting personal opinions or assumptions affect the interpretation of the data. Instead, the researcher should proceed without expectations and be susceptible to surprising and new information that may emerge during the analysis process. (Eskola & Suoranta 1998, 19-21, 138.) This is relevant in the context of this thesis as the researcher used to work for the case company, meaning that it was necessary to abandon previous assumptions and conceptions to decrease the bias. However, the previous work experience was useful in certain situations, such as understanding the business logic and some applications and software that were mentioned in the interviews. These details can be seen as objective information rather than subjective opinions or interpretations; hence it did not increase the bias.

The most common mistakes in the analysis phase is to read through the material and notice some themes and concepts that can be generalized, but these conclusions are not supported by an analytical and categorical framework. Instead, enough time should be put into the groundwork so that the analytical framework can be used properly in analysis, reporting and even in future studies. (Sulkunen & Kekäläinen 1992, 18–19.) As Gerson

and Horowitz (2002, 194) state, the analysis starts the minute the interviewee sits down and starts talking. However, after all the interviews are done, the researcher should try to look at the collected data through a larger scope, or "seek the shape of the forest amid the trees." The goal of the analysis phase is to transform the interview data into coherent and theoretically relevant entity that is related to the research subject.

In this thesis, a thematic analysis was chosen as the primary method for the empirical data processing. Thematic analysis as a method is used for identifying, analyzing and reporting certain patterns within the collected data. It is up to the researcher to determine what makes up such pattern or theme to begin with. (Braun & Clarke (2006, 79–80.) In order for a successful thematic analysis, an interaction between the theory and empiricism is required, which is shown in the thesis by going back and forth between them. (Eskola & Suoranta 1998, 176.) Gerson and Horowitz (2002, 194–196) also recommended that the existing theoretical background is used to compare the results of the analysis.

The transcribing of the interviews was done with extra care due to the fact that the interviews were in Finnish and the thesis is written in English, which required meticulous translation so that the true meaning of the words would not be lost due to bad rendition. After the transcribing was completed, enough time was reserved for going through the data and contemplation of the evident and underlying connecting factors between the interviews. This phase is supported by Eskola and Suoranta (1995, 151–153), who state that the first step after collecting the data and transforming it into quantifiable form is to sort the data. Once the sorting is done, the researcher can begin to shape up more comprehensive analytic concepts and categories, which are discovered by iterative and interactive process of looking at the data and concepts in turn. This iterative process should reveal the categories and the explanatory focus for the analysis is clarified, followed by an analytic grouping of the interview material. In the analysis of this empirical data, since there were only six interviewees, a pattern or theme would be identified if more than one interviewee expressed similar thoughts or opinions (cf. Braun & Clarke 2006, 82). This was evident after the researcher categorized all the answers under each interview theme and question, which made identifying pattern much easier. The main themes started arising from the transcribed material as they were grouped together. The first theme which emerged from the data was the relation of IT integration to the rest of the business integration. The second theme was all the IT integration external factors. The IT integration internal factors was the third identified theme, as many interviewees had similar answers regarding the IT related matters. Each theme follows the objective of the study and was analyzed under their own title.

One of the discussions in qualitative studies and the analysis of data is the relation between analysis and conclusions. The relation can be seen as a simultaneous and hermeneutical process, where analysis and conclusions are not explicitly divided into separate steps, so during the analysis some conclusions are made, and these conclusions

guide our analysis further. Another way to look at this process is to separate analysis and conclusion at least technically. This means that only after the data has been analyzed and reformed into a high degree of informational quality, can the researcher start making conclusions. (Eskola & Suoranta 1998, 150–151.) In this thesis, the process resembles the former option, so analysis and conclusions are intertwined and they form a hermeneutical ring. Next, the trustworthiness of the study will be discussed.

3.5   Trustworthiness

The trustworthiness of this study is evaluated using the recommendations made by Lincoln and Guba (1985). They determine the trustworthiness of a qualitative study by diving it to four sub-categories: credibility, transferability, dependability, and confirmability. According to Shenton (2004, 64) credibility, also known as internal validity, tests whether the study measures what is actually intended. The credibility of a research can be enhanced in many ways; by using identical research processes as previous studies, acquiring knowledge of the case company before the research, use triangulation as a research tool, and to make sure that the interviewees are willing participants so that they feel secure to discuss the research topics in detail. Lincoln and Guba (1985) add that ensuring creditability is imperative for establishing trustworthiness. Creditability can be increased by using multiple sources of information as a single data source may create a biased view (Eisenhardt & Graebner 2007, 28; Eskola & Suoranta 1998, 50). According to Meyer (2001, 345) multiple interviews can ensure that the data and research problem are in sync, since interviews allow the researcher to ask probing questions in unclear situations. Interviewing multiple persons from the same organization is preferred, and according to Nummela et al. (2016) suggest that interviewing key decision makers increases the validity of the study. In this study, credibility was increased by interviewing multiple persons from the same organization that were willing participants. It can be argued that the interviewees are key decision makers and possess extensive knowledge of the of IT integration due to their positions in the company. Furthermore, the credibility is increased by using triangulation as a method to get information from various sources in different forms, and by using similar research methods as previous studies.

Transferability means that the findings of one research can be transferred to other situations, events or populations. However, a qualitative study's results often apply to only a small number of environments or individuals, it is very difficult to prove that the results would work in other circumstances as well. (Shenton 2004, 69.) Lincoln and Guba (1985) add that it is the researcher's responsibility to give sufficient amount of contextual information to the readers for them to make the transfer. Details such as case description, interviewed personnel, the length of the interviews and questions asked, and how the

empirical data was collected and analyzed should be discussed (Shenton 2004, 69–70). Eriksson and Koistinen (2014) also state that case studies are scrutinized for the lack of transferability of the findings, which is why the aim should not be to achieve great transferability but to depict the case meticulously for the readers to understand the context which allows them to interpret transferability on their own. As to the transferability of this study, the context of the study is explained in the previous chapter along with the reasons why the researcher chose this case. Also, the background and timeline of the case acquisition is discussed in chapter 4 for a better understanding of the context of the study. Due to time, access and resource restraints the researcher was able to interview employees from only one company. The results of this thesis would have been more transferable and generalizable if a multiple case approach would have been used. Due to the single case study approach of the study, the transferability is wanting by nature. Also, the case acquisition happened in a somewhat unique environment, also decreasing the transferability of the results.

The third criteria is dependability, which refers to whether the study's results could be repeated in a similar environment, and the level of influence the researcher and environment have had on the results and findings (Lincoln & Guba 1985, 300, 316-317). Shenton (2004, 71–72) state that dependability requires detailed reporting of the research design and its implementation, operational detail of data gathering, and reflective appraisal of the project. Lincoln and Guba (1994, 110) also note that perfect replication of a study is usually very unlikely. The research design of this paper is introduced in the research approach chapter, and the operationalization table is presented in chapter 3.3 to clarify the data collection process. Also, all the interviews were recorded and transcribed in order to avoid inaccuracy of data. The inexperience of the researcher did have an effect on the quality of empirical data. The IT integration as a research area was in no way familiar to the researcher before this study, so it could be argued that bounded rationality affected the thesis and dependability. If this study was conducted again, the knowledge base of the researcher would be considerably better, which would probably increase the quality of the study and maybe even produce different empirical results as the researcher would have a better understanding of the context and IT integration in general.

The last criteria is confirmability, which refers to the objectivity of the study. The results should represent the studied situation without any subjectivity from the researcher, hence it could be argued that the last criteria binds reliability and dependability together. The confirmability can be improved by an audit trail which allows the reader to trace the research progress step-by-step through detailed report of themes, relationships and definitions identified. (Shenton 2004, 72.) The confirmability in this study is enhanced with a detailed depiction of the research process and methods used and including the interview guide in the Appendix. The subjectivity of this thesis is reduced by excluding

expectations and assumptions of the case company and research process, which were noticeable as the researcher had previously worked for the case company.

Trustworthiness of the study can be affected by the context of the study, and as mentioned above, such details should be disclosed to the reader. Regarding the case company presented in this study, there are two simultaneous ongoing processes at the time of this study. As there have been two acquisitions within a relatively short period of time, during the writing of this thesis Lowell Finland is simultaneously integrating with the new parent company Lowell UK and separating from their old acquirer Intrum. In Lowell Finland the priority is given to the separation process in order to get it completed as quickly as possible, meaning that the actual integration process in IT department was postponed to get the separation done. Next, this thesis will present the results of the analysis phase by combining the theoretical framework and empirical data. The aim is to find relations between theory and empirical data and subsequently look for answers for the research question and sub-research questions.

4   THE DYNAMICS OF IT INTEGRATION IN M&A CONTEXT

Collected and analyzed data from the interviews is presented in chapter 4. The objective is to analyze what are the dynamics of IT integration in a M&A context, and the problem is approached by using the sub-objectives of the study: 1) How are the different facets of integration related to the IT integration, and 2) What are the IT factors which affect the IT integration? The results will be categorized based on the thematic analysis method that was used to refine the empirical data. First, the background and setting of the acquisition will be discussed by looking at some of the business-IT alignment factors mentioned in the theoretical framework. Also, the different facets of integration which could have a relation to the IT integration are presented, or the IT integration external factors of the case acquisition. The focus will then shift to IT integration internal factors which affect the IT integration. The context-related factors which emerged from the empirical data will be discussed first, followed by an analysis why there could be a difference between the IT integration plan and implementation of it. The analysis will then move on to the IT integration methods, and finally the results of the IT integration CSF table are presented. As a clarification, the acquired party is called Lowell Nordics or Lindorff in the analysis, and the acquirer either Lowell UK or Lowell Group depending on the context.

4.1   Business context of the acquisition

In order to understand the acquisition as a whole, the motives and reasons for the acquisition should be discussed. Since the interviewees were all representatives of the acquired company, their answers stem from a different perspective compared to if the questions would be posed to a Lowell UK member. However, as most interviewees had dealt with the acquisition and one interviewee is in the Nordic executive board, there should be enough experience and information to speculate the motives and reasons of the acquisition. From Lindorff's perspective, one of the biggest reasons mentioned was that Lowell Group did not have any presence in Scandinavia. The acquisition could be described as horizontal, as a bigger company from the same industry acquired the carve-out from a new market area. Also, Lowell was very interested in Lindorff know-how of IT in the collection and invoicing industry. According to the head of PMO in Lowell Nordics, the group wanted to avoid unnecessary consolidations and give freedom to the Nordics since they had noticed that the IT team was very capable. So instead of the group enforcing new things to Nordic IT, they were more interested in learning from the acquired carve-out.

4.1.1   IT governance model

After the IT infrastructure of Lowell UK and Nordics is moved to the same server room, the parties can start planning further IT integration projects. However, it became clear during the interviews that the IT integration is dependent on the IT governance model which Lowell Group will decide to use:

The first question is what is the role of the group, does it have an auxiliary role or a leading role in IT. This will be decided quite soon, and I think it's going to be auxiliary. The role of the regions is equally important. Usually in this business the region's role has been to gather reports rather than to lead. But I think that will change this time, Lowell will build a stronger regional presence. And if we go to strong regional control, then the business and IT will also be strong regionally. (Head of PMO)

Based on the quote and the answers of the interviewees, it seems that Lowell Group has two options with the IT governance model. Either the regions serve as a mean to gather reports to the Group which is in control of the IT, or the regions have the responsibility of IT and report what they have decided to the Group. The reason why many interviewees thought that there will be a strong regional control is because of the diversity of the regions. If the IT governance model would be Group-led, there is a risk that the decisions made would not suit all regions. In a strong regional IT governance model the Nordic region would dissolve most of the country-specific teams and form Nordic-level teams. This will increase cost savings and synergy effects a lot. Multiple interviewees mentioned the situation in Denmark where there is just one person who takes care of the IT integration. With a virtual Nordic team, the situation would be very different since a team would share the responsibilities and risks of each country. So even though the IT infrastructure will be eventually centralized in Fujitsu server room, the decisions will be made locally or regionally. The applications used in each region serve the business needs, and as long as the business is local there is no use in consolidating the applications. There is no need to force a consolidation if business and IT work better with regional management.

According to the Head of IT, usually the acquirer has some sort of IT governance model, and the acquired party should be put in that model as fast as possible so that the acquirer understands exactly what they have bought and how does the IT environment look like in the acquired firm. In the case acquisition, it seemed that Lowell Group was in no rush to integrate the Nordics into their IT model, and once again the reason was that the Nordics was ahead in IT so the Group did not want to "fix anything that was not broke to begin with". The Head of IT also mentioned that Lowell Group did not have a clear consolidation strategy for IT, rather the regions have been in control of their own IT. The

goal is to consolidate within the region first, and then look at Group-level integration. In the Nordic region, the Lindorff business units in Finland, Sweden, Denmark and Estonia were mostly heterogenic but shared at least some similarities, making the integration a bit easier. However, the business operations in Norway was previously Intrum's business, which complicated the integration. Their IT environment was completely different compared to the other countries, so integrating Norway first into the Nordic IT model was the first step. Once the Nordic region is consolidated, Lowell Nordics can look for subsequent integration plans with the Group. This also supports the educated guess from the Head of PMO that regions would remain in control in IT, rather than the Group taking control of all IT integration operations.

4.1.2   *National culture*

One of the things that was included in the theoretical framework was the national culture aspect in business-IT alignment. The differences between Lowell regions are remarkable, affecting the overall setting of the integration, not excluding the IT integration. Multiple interviewees agreed that the level of IT is higher in the Nordics than in UK and Germany, and especially Finnish IT department is remarkable since most of the applications and systems are self-made rather than a commercial product. The interviewees agreed that there are a lot of differences between Lowell UK, Lowell DAH (Germany) and the Nordics. UK is a region which is only 10 years old and they are struggling with very fast growth, meaning that their systems, HR and management have not been able to scale up with the growth. In Germany, the situation is different. The DAH region consists of small companies operating independently with a common owner. Integration started three years ago when Lowell bought all of it, but the process has been very slow due to such a heterogenic group. The Nordic region is just five countries with their own legislation and systems, and because it is a carve-out they are missing some vital business organs. And rather than building the missing parts themselves they turn to Lowell Group for help. As the head of IT noted, making a group-wide integration plan is quite impossible with so diverse regions. It seems as if Lowell Group is a collection of regions that share the Lowell name but little else.

The interviewees also had opinions why Germany and UK are behind in the IT context. There are a lot of historical reasons, and also society is a part of it. Germans still like to conduct business on paper and they do not really like electric services. In UK there is more interest in the digital services, but according to the interviewees they do not have an infrastructure for ID online, such as TUPAS (strong digital authentication method) in Finland. One of the examples given was that when an UK citizen calls UK Lowell customer service, the company has their own team that does the ID part, asking a series

of questions from the caller. It is a different environment to start building any digital services, and one of the biggest obstacles is that UK citizens do not have a social security number or any other means to identify people online. Lowell Group was aware that the Nordic carve-out had technological know-how in IT and particularly in digital channels, and this is one of the biggest areas where synergies could be created. The empirical data shows that national culture does have an effect in the acquisition and IT integration, which was one of the factors in the business-IT alignment theory. The regional differences have had a huge part in shaping the IT functions. The Nordic society is ahead of UK and DAH in this regard, and customers are more used to digital self-service channels. This means that UK and eventually DAH regions will have to catch up to the Nordics IT standards, if their national infrastructure allows it.

4.1.3   Industry context

The nature and strategy of the overall integration sets the tone for the whole process, affecting also the IT integration. Knowledge transfer goes both ways especially in IT as the acquirer is aware that Lowell Nordics is ahead of them in digital services. Another big factor found from the data was the industry context, which affects the entire integration. The collection industry is very country-specific. The legislation and collection procedures vary in each country, which means that any cross-country integration of business processes would not be wise, for example centralizing customer service to Poland would not work mostly because people like to get customer service in their native language. Many companies centralize their automated processes, but collection procedures are different in every country. For example, in Finland the first collection letter is sent after 14 days the payment is overdue, but in the UK it is 7 days. Consolidation of any of these processes would be very tough. Also, collection is a niche industry without viable commercial products in use, which would make the integration a lot easier if Lowell had just one commercial platform with country-specific settings. Since platforms like that do not exist, all the countries have their own collection software and platforms which are tailor-made, some are commercial products and some have been developed in-house over the years. One example is the software used in Finland, a platform over 20 years old created by Lindorff developers. The technical debt is so large that there is no sense to even try integrating such system into Lowell UK.

Besides the fact that industry and invoicing businesses are controlled by the legislation and procedures in each country, usually the customers are also local. Even the multinational companies choose their collection and invoicing partners separately in each country, because there are rarely any possibilities of having one party take care of these processes in multiple countries. However, one of the synergy effects Lowell Group is

looking for is serving Pan-European customers better, something that the competitors are unable to do. The size and service portfolio of Lowell Group enables the company to provide multinational customers service in UK, DAH and Nordic regions, and also increase the variety of services the sales people can offer such clients. According to the HR Director, this requires extensive technical integration and can only happen after the IT infrastructure is common for all regions. Although in this case the industry context is a restricting factor, the company is looking for ways to create value by using the size and diversity they have.

As mentioned in the beginning of this chapter, the case acquisition could be labeled as a horizontal integration. According to Brown and Renwick (1996, 31) there is a bigger chance for a business-IT alignment if the acquisition is vertical and the parties are from within the same industry. However, the empirical data clearly shows that there is a weak business-IT alignment in this case acquisition to begin with, hence the statement by Brown and Renwick (1996, 31) does not apply in this case. The business structure and industry context along with national culture have shaped the IT environments of Lowell UK, DAH and Nordics very differently. Next, the analysis will move on to discuss the IT integration external factors.

4.2   IT integration external factors

Now that the business context of the acquisition is introduced, the thesis will now present the IT integration external factors. These factors affect the entire integration process, and consequently have an effect on the IT integration process as well. The first factor, separation from Intrum, does not exactly match these criteria, since it is done by the same IT people who handle the IT integration as well. However, it also falls in the category of "other integration issues" in the theoretical framework, which could slow down or postpone the integration process according to Birkinshaw et al. (2000). Hence, it is presented as an IT integration external factor. The other factors are the level of human integration in the case acquisition, and the integration strategy used by the acquirer.

4.2.1   IT separation from Intrum

As mentioned in the previous chapter, at the time of writing this thesis Lowell Nordics was swamped with the separation process from its previous owner. This has a huge effect on the integration process, and especially the IT integration. The head of IT Nordics mentioned that one of the reasons why the IT separation and integration is so complicated in Lowell Nordics is that most of the IT was hand-made in Lindorff, so they are not

commercial products which are easier to move around. Instead, the IT looks like a multi-layered web of intertwined services and applications, years of IT architecture just put on top of each other. At the time of the interviews the IT department's workload consisted mostly of separation work. According to the Head of Digitalization & Value-added Services, few people understand how much work the separation from Intrum's server room creates without any revenue. The separation is very technical and time-consuming by nature, since the amount of applications, services and platforms is substantial. The separation process is needed because when Intrum bought Lindorff in 2016 the acquisition was halted by the European Commission due to competitive reasons (European Commission 2017). Therefore, they had pick some parts of their Nordic business units and find a buyer for them. However, these parts were already integrated into Intrum, which is why the carve-out had to be separated from the seller:

When we were sold by Intrum to Lowell, we were a carve-out, not a self-standing organization. So all the auxiliary functions, IT and financials were centralized before, and the seller kept those parts when we divested, and Intrum still facilitates a lot of services. The Transactional Service Agreements by the EU Commission state that until Q1 2020 they will keep providing the services. Separation is critical because we don't want to be dependent on Intrum. (Head of IT)

It was agreed that Intrum would keep providing necessary services for 24 months after the carve-out was completed. The internal timetable in Lowell is tighter for many reasons; Lowell does not want to pay for the Intrum services any longer than necessary, keeping Intrum in the picture discourages innovation since Intrum would also get free business ideas, and to get the IT integration started. The separation process has a substantial effect on the IT integration process, since the separation is very technical by nature and poses tough IT-related challenges. As Birkinshaw (2000) noted, there is a correlation between integration process problems and task integration level in the medium term, and in this case the separation process can be viewed as a technical difficulty, hence decreasing the task integration level. Timewise the separation should be ready within 24 months after the deal was made, which constitutes timewise as medium term, further solidifying the correlation between the theory and empirical data from the case company.

The IT department has the biggest work load in the separation process since they have to migrate all the services, platforms and applications from Intrum and put them into a new server room provided by Fujitsu, which can be simultaneously considered as IT integration work:

We're moving to our own server room in Nordics, but we will do another migration after that when we move to the same server room as UK. So Lowell UK will move all their

IT infrastructure to Fujitsu, and after we have separated from Intrum we will migrate into the same server room as UK. I would imagine that once we're in the same room, we start to see some integration between UK and Nordic. (Head of Digitalization & Value-added Services)

This implies that the separation and IT integration processes are somewhat entangled to each other, since the separation from Intrum also enables the integration with Lowell UK and the new server room in Fujitsu. This would allow Lowell UK and Nordics to build an integrated IT infrastructure, which is one of the biggest synergy effects of the whole acquisition. However, the new IT infrastructure will be a challenging integration process, and especially Lowell UK might have a hard time to cope with the new procedures. They have accustomed to having their own IT infrastructure, meaning that if something is not working the bosses have been able to walk over to IT and say "make it work". The new infrastructure has a centralized IT service desk which is possibly in another country which makes it more difficult to fix things fast. According to one of the interviewees, there is going to be a lot of adjusting in Lowell UK, since sending tickets is business as usual in the Nordics.

4.2.2   *Level of human integration*

The level of human integration is another factor which was mentioned in the task integration theory that enables the transition to better results. If employees are more satisfied and content, task integration becomes a lot easier. More specifically, if the HR functions are integrated well enough it will increase task integration success. It is not a coincidence that the HR functions and procedures were one of the first IT-related units which were integrated throughout the entire Lowell Group. According to the HR Director, the HR system "Workday" had already been a big project in UK and DAH regions even before the Lindorff acquisition because Lowell wanted a group-wide HR system to control the rapid growth of the firm. A common HR system helps with managing of the current business divisions, and also the acquisition of new potential firms and integration of them. The Group had started with this project already in 2017 before they had any initial ideas of acquiring Lindorff, so timing for the acquisition was convenient for Lowell Nordics. They got help from UK and DAH who had already finished their integration which made the implementation of the new system go very smoothly. The integration of the HR system was evidently a success in the Nordics, even an internal benchmark how to handle changes in a new environment. The HR system has without a doubt helped Lowell Nordics, and will probably prove its worth when the Group decides to make bigger changes in the Nordics or integration plans.

The theoretical framework mentioned a third factor which could have an effect on the success of task integration, the current performance of the business unit. However, the empirical data did not show any evidence that it would have an effect. Although the Nordics IT department has been acknowledged to be well ahead compared to Lowell UK and DAH, one cannot draw conclusions that the task integration has had more success because of it. Therefore, further research is needed to find out whether such a correlation exists which would support Birkinshaw et al. (2000) findings. Next, the integration strategy of the case acquisition is presented, along with reflections how it could affect the IT integration process.

4.2.3 Integration strategy

The HR Director noted that there is a lot of integration work to be done in the Group, but the overall integration between Lowell UK and Nordics is picking up speed. The mood has been positive and as mentioned earlier, Lowell Group is looking for knowledge transfer to and from the Nordics. The reason for a relatively slow start was that the new owners did not want to make changes immediately because things were going well in Lowell Nordics. There was no mention of the "100 first days" which is a common phrase in integration literature and practice. The general feeling of the integration is that since the carve-out business units were in fact doing well, the Group did not want to make any quick changes right after the acquisition apart from changing the name and brand. Their objective was to find synergy effects in the post-acquisition phase by integrating some auxiliary functions and business units:

> … *All Nordic auxiliary functions like financials, HR, legal, they all report to the group. There the consolidation has happened at least in the procedures, maybe the day to day operations is not yet integrated but I think that will happen over time.* (HR Director)

All of the abovementioned facts point to a Reorientation integration strategy from the framework of Angwin and Meadows (2015). Reorientation strategy is used when the acquired party is in good financial health, well-managed and they have employees the acquirer would prefer to keep. Overall, the relations between the two parties are friendly as there is no intention to restructure the acquired firm too much, rather to harmonize certain functions such as finance, HR and communications. In Figure 5 the Reorientation box is centered, implying that both knowledge transfer and autonomy level of acquired party is moderate. In the Lowell case, it could be argued that the box would be positioned more towards the "high knowledge transfer" corner, since it is evident that both parties want to learn from each other. Other than that, the Reorientation strategy description and

the case acquisition are very close to one another. The relation between a Reorientation strategy and IT integration can be found by analyzing the general outlines of the integration styles. The Reorientation strategy requirement seems to be that the parties are in good terms with each other, and that there is some level of trust for a high degree of knowledge transfer. The IT integration has similar traits, since bilateral knowledge transfer in IT evident and the Group did not want to force any major changes in IT either. In a scenario where the integration strategy would have been for example absorption, it is hard to imagine that IT would not have been absorbed as well. Although further research is needed to find correlations and quantifiable results of the relation between integration strategy and IT integration, based on the case acquisition it seems that the IT integration mirrors the overall integration strategy used.

This chapter has discussed the business-IT alignment aspects and the different facets of integration which are related to the IT integration. As a result of the analysis, the more appropriate name in the context of this study would be "IT integration external" factors. The definition of this phrase is a factor which affects the whole post-acquisition integration process, but is also vitally related to the IT integration process. Next, the analysis will focus solely on the IT integration, and the "IT integration internal" factors which have an effect on the process.

4.3   IT integration internal factors

4.3.1   IT infrastructure

The IT integration in the case acquisition had not yet fully started at the time of the interviews. There were only a few finished IT related projects and some in planning phase, but most of the projects were waiting for the Nordics separation process from Intrum to end. However, since the separation and integration processes were somewhat intertwined, it was possible to do both at the same time. For example, probably the biggest IT integration project in the case acquisition is the integration of IT infrastructure. There are many reasons why the IT infrastructure is integrated. First of all, it will save money in the long run when economies of scale kick in when all the IT-related licenses and purchasing agreements can be renegotiated with better terms. Second, a common IT infrastructure allows subsequent IT integration projects because platforms, applications and software are much easier to modify when they are in the same place. Third, it will allow UK and eventually DAH easier knowledge transfer from the Nordics where IT know-how is at a higher level.

At the time of the interviews, Nordics was separating themselves from the Intrum infrastructure and moving all their parts to a temporary server room, provided by Fujitsu. At the same time Lowell UK also decided to move to a new Fujitsu server room, so that once Nordics has done the separation, they can migrate again all their IT infrastructure from their temporary server room to the UK server room. According to the PMO Project Manager, the first migration from Intrum to temporary server room is made so that the next migration to Lowell UK server room would be as easy as possible.

4.3.2   IT integration planning versus implementation

The difference between an IT integration plan and the implementation of it was initially one of the sub-research questions of this thesis. The idea came from the thesis kick-off meeting with the Head of PMO, who mentioned that he had a lot of experience of IT planning and executing the plans. According to him, in Lindorff there was a tendency of making elaborate IT plans, but the implementation did not usually go according to the plans. Hence, the researcher thought that it would be an interesting topic for this research. However, the empirical data showed that there were very few interviewees who recognized such a pattern in the current IT integration. Therefore, the sub-research questions were modified after the interviews to match the empirical data better. One of the reasons why such a pattern was not noticeable was probably because the IT integration of the case acquisition was in the preliminary planning phase or had not even started yet, so the interviewees did not have any fresh experiences of failed or modified IT integration implementations. Although the interviewees did not have any current examples of the differences between IT planning and implementation, they did have general knowledge based on previous integrations why there could be such a difference.

According to multiple interviewees, one of the reasons for an abovementioned pattern or even a failed IT implementation project is changes in management. Usually the IT projects are big and time-consuming investments and very technological by nature. If there are changes in the top management, they usually start to challenge the existing projects which seem to be going not so well. The IT projects are very susceptible to such challenges, and IT personnel often find themselves defending the IT project, which can eventually lead to unwanted changes or shutting down the project completely. Part of the fault lies also in the initial planning since the IT projects are made too big and ambitious, and the communication to the top management is not always up to par. Planning is usually the easy part of the project, but once the implementation begins people notice that all of the details have not been considered. This requires small changes to the initial plan, and slowly this cumulates into a snowball effect, and the end result rarely resemble the original plan. The HR Director noted that most people are very good at creating plans and

projects, but the number of people who can execute plans is too low in most firms. The Head of IT had an interesting quote about this topic which could probably be applied to other departments and businesses as well:

When people don't really know the business thoroughly they just raise the abstract level, so all of a sudden the main processes is just three arrows on a PowerPoint presentation, sales proceedings and invoicing. When these integration actions are planned, the default mistake is to be too abstract. And at some point, reality kicks in and there are issues to be solved. Usually, you have a small number of people who make the first integration plan, and because the number of people involved is kept to a limit, the knowledge of all the details is not shared around. When the process is thrown to the next phase, the complexity increases. But the approach should be that the plan is moving forward in general, not that it goes exactly to the original plan. Just have to make sure that the key elements are there all the way. Things are changing so fast, management, clients, processes, divestments, business. Plans made in the first place rarely look the same after the implementation due to internal and external factors. (Head of IT)

In the current business environment where changes happen at a record speed, this quote seems to be very relevant. Multi-year plans such as big IT projects are made without absolute certainty of what is going to happen in the future, and when things do inevitably change, the plans become somewhat outdated and needs to be changed as well. Therefore, as long as the key elements stay the same, it does not really matter how the plan is executed as long as the end result serves the original purpose of the plan. External pressure from management is not necessarily a bad thing, but in case the management wants changes just because they want to give an impression that they are making improvements, IT projects are often the casualties.

4.3.3   IT integration methods

After the semi-structured theme interview was done, the IT integration method figure (Figure 7) was shown to the interviewees, and they were asked to point out the method which was used in the case acquisition, or was the closest version to what was actually done. Also, the interviewees were asked to give examples to elaborate their point of view. All of the interviewees said that one cannot name just one of the integration methods, rather the reality consists of multiple methods in different parts of the IT integration. Next, the examples the interviewees gave from the case acquisition will be presented in Figure 10 to illustrate the complexity of IT integration, and that the whole process cannot be categorized into one IT integration box.
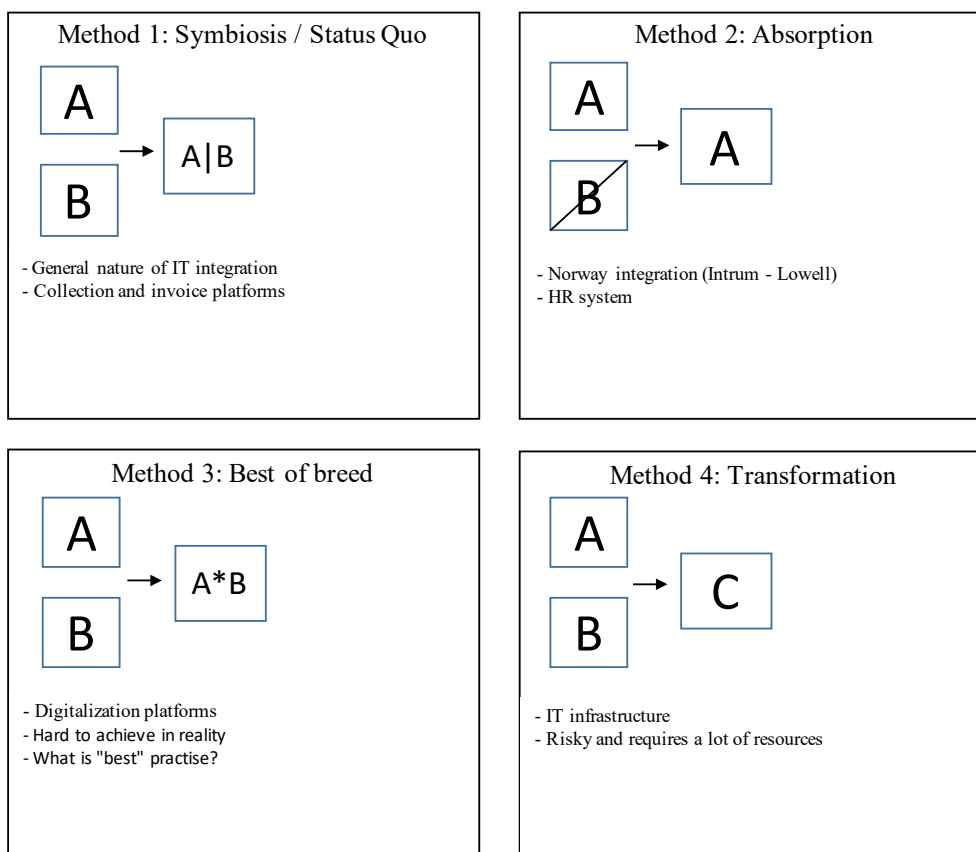
Figure 10   IT integration methods in case acquisition

The first method, Symbiosis, was the most common answer if only one method was to be mentioned, and it represents the current mindset of the IT integration quite well. Due to the locality of business and the nature of the acquisition in general, there have not been that many changes in the IT environment. The answers are affected by the timing of the interviews; it could be argued that if the same questions were asked two years later, the answers would be very different if the IT integration has picked up speed by then. Some detailed examples were given, the core collection and invoice platforms were one of them. As explained before, the platforms are so large and multi-layered that Symbiosis is the only option in short-term, at least in Finland. In other Nordic countries where they use commercial products, other methods could be used as well. However, the synergy benefits of integrating these platforms are meager due to the nature of collection and invoice business.

The second method, Absorption, is in use in Norway. Since Norway's business operations were previously owned by Intrum, it is the only business unit in the acquired carve-out which is not originally a Lindorff business unit. Therefore, all of their existing systems are replaced by the current IT platforms and applications used in Lowell Nordics. It was not discussed in the interviews which systems used in the Nordics will be

implemented in Norway. One could assume that the reporting models are first aligned with the Nordic IT governance model, and then the systems chosen to integrate in Norway are commercial products which are relatively easy to implement.

The other example mentioned of the Absorption method was the HR system integration. During the interviews there was speculation if the HR system would fall into Absorption or Transformation category since it had been in use in the Group for such a short time. The conclusion was that when the Group first implemented the HR system in UK and DAH regions, it was considered as Transformation. But when the HR system was implemented in the Nordics, it changed to an Absorption method. The practical difference was that since the Group had already made the "rookie mistakes" with the first integration process in UK and DAH regions, the integration was a lot smoother in the Nordic region which was able to avoid the mistakes made earlier. This was apparent also time-wise; the first integration lasted for 9 months, and the second one only 4 months.

The third method was least mentioned in the interviews. Many of the interviewees, including the Head of IT, thought that Best of Breed method is problematic in practice because of the different definitions of "best". Usually in an acquisition, both parties think that their version of an IT solution is the best, and that any changes would be unnecessary. The only example mentioned in the interviews was the digital platforms, and specifically from the Lowell Group point of view since they are looking at the best practices and services in the Nordics to figure out if they could implement some parts of it to their IT environment. Or to put it general terms, the acquirer is looking for solutions in the acquired firm which they could use since the acquirer is technologically ahead in IT. If the sides would be flipped, meaning that the acquirer would be ahead of the acquired in IT, the IT integration method would probably be Absorption. But as long as the acquired firm's IT department has qualities the acquirer does not have, Best of Breed is an option albeit a rather problematic one in practice.

The last method, Transformation, was recognized to be the method used in IT infrastructure integration. Both Nordic and UK are moving to a new server room, thus creating a new situation for both parties. As mentioned in the theoretical chapter, Transformation method is preferred especially if both existing systems are outdated or are incompatible with each other. In the case acquisition, it seems that only the UK system was deemed outdated. The Nordic system was actually a well-functioning entity, but due to the separation process they also needed a new server room. Transformation is a very expensive and demanding method, but apparently the Group saw that enough synergy benefits would be available if the IT infrastructure were integrated with the Nordics. At the time of the interviews, the schedule for this integration process was not yet clear, as the project was still in planning phase.

The biggest takeaway of this theme is that IT integration is in itself so complex and substantial that putting the entire project into one IT integration method category is

impossible. The interviewees noted that Figure 7 would serve as a very good roadmap even in practice and they recognized a lot of the methods from real life integrations, but the end result would have different parts of IT integration in various method categories. It is one of the more interesting findings from the empirical data, as there was no indication of such division in the theoretical literature. Next, the analysis results of the IT integration CSFs will be discussed.

4.3.4 IT integration critical success factors

The analysis results of IT integration critical success factors are summarized in Table 4. The answers for the first three questions were simple yes or no, and since there were 6 interviews in total, the maximum "points" in each question was 6. After the researcher had summarized all the answers, it appeared that there was a need to set a point limit which would indicate if a CSF was recognized, implemented, and viewed as truly a CSF. The limit was set to 4, so if an answers gained four or more points it was deemed as a "yes" answer. This limit was chosen because if an answer gets four or more "yes" marks, the majority of interviewees (4 out of 6) agrees with one another. The other part of the CSF sheet was the examples the interviewees gave. These answers were not analyzed with the same quantitative method since they were given verbally, but rather viewed the same way as the IT integration method answers.

Table 4   IT integration CSF analysis

Critical success factor	Recognizable		Implemented		CSF?
	Yes	No	Yes	No	
Appointment and composition of an IT integration team	6		4		3
Identify IT contracts and licensing	6		6		2
Inventory of all applications	6		5		4
Conduct training and on-going support	3		1		0
Relevant user involvement	5		3		2
Continuous support from top management	4		4		5
IT integration project planning and management	5		4		4
Effective overall communication throughout the process	5		4		5

The first CSF, "Appointment and composition of an IT integration team", was recognized and implemented in the case acquisition, but it is not viewed as a IT integration CSF since the score is below 4. Some examples from the interviewees were also given. he entire IT integration process, and reporting and decision-making is controlled better. This CSF was often connected to CSF number 7 "IT integration project planning and management" which was deemed as a CSF. Head of IT noted that an integration team that is separate from the normal organizational matrix is rare, but a number of people is needed to oversee the integration process. It improves the communication and decision-making process which is needed during the process. So if there is a group of people who plan the IT integration project and is responsible for the management of it, there is really no need for another separate team who implements the project. Therefore, CSF7 was viewed as more important compared to CSF1.

CSF2 "Identify IT contracts and licensing" was recognized and implemented in the case acquisition, but received only two "yes" answers when asked if it is a IT integration CSF. CSF2 was described as "basic IT integration hygiene", meaning that contracts and applications are necessary to identify to get started with the integration process. The providers of the contracts and licenses are usually in contact right after the deal is published, and if the firm is not aware of their current situation and what they actually need, the providers have the upper hand in the negotiations. This was a big task in the case acquisition since Intrum owned most of the licenses, which meant that the carve-out had to get new ones to Lowell Nordic in order to keep business as usual.

"Inventory of all applications" is the next CSF, and the first on the list to qualify as an IT integration CSF. The PMO Project Manager was responsible for this CSF in the separation project from Intrum:

All the decisions are made based on the list of applications. The list is updated constantly so we know which applications have been separated and how much work is still needed. This list was compiled for the separation project, and it is alarming that there was no such list before. After the separation we should maintain this list as an app library, it will help a lot in the integration process with Lowell Group. (PMO Group Manager)

Since the case acquisition happens simultaneously with the separation, the CSF3 was made already in the separation phase. The interviewees thought that it is a CSF, but there could be a small bias in the answers. It seems that more people were involved and had knowledge of CSF3 than for example CSF2, hence the answers may have a slight emphasis on the importance of CSF3. Both CSFs are done before any planning is made, because "no decisions can be made if we do not know what we have to begin with". It

seems odd that it would be more important to know what applications a firm has than to know the IT licenses and contracts they have.

The fourth CSF, "Conduct training and on-going support" received the least "yes" answers of all the CSFs. This CSF is usually done at the end of an IT integration process, so once again the timing of the interviews could have an effect on the answers. Nonetheless, these results indicate that CSF4 was not recognized or implemented in the case acquisition, and is not a CSF according to the interviewees. The Head of PMO commented that if there are major changes due to the IT integration, this becomes a CSF since people need to learn new IT skills and procedures. But, if there are no changes, there is no need to train people. Similarly, CSF5 "relevant user involvement" was not deemed as a CSF, but was recognized in the case acquisition. According to multiple interviewees, user involvement becomes relevant the closer the IT integration is to the business. So for example, user involvement is not important for supporting applications which run in the "background" and are not so relevant to most of the employees of the firm. However, if changes are made to applications which are used daily by several business units, there is a need for user involvement in the integration process.

"Continuous support from top management" was perceived as one of the most important CSFs in IT integration. There was only one interviewee who thought that it is not a CSF. Other interviewees had similar comments about the importance of top management support, and that nothing really works if the management is not aware and behind the IT integration project. Some interviewees felt that they had not received such support in the current case acquisition, which is why they marked CSF6 as not recognized or implemented. CSF6 is actually very much related to the things mentioned in chapter 4.2.3 about the changes in management and how it affects the implementation of current IT integration projects. The Head of IT, who belongs in the top management in this case, commented that they need to have a clear vision for the entire IT integration and know what the goal is for an individual integration project. There was an interesting controversy in the answers, as there was representation from both top management and people closer to the IT integration and separation work. The former thought that slideshows and discussions with the people who do the work is not going to help the integration work, while the latter wished for at least some level of communication with top management to see how they felt about the work they were doing. Nonetheless, CSF6 is imperative for a successful IT integration project.

The last CSF "Effective communication throughout the process" was along with CSF6 the most important factor in the list. The interviewees had many stories how good projects had failed just because the communication was not handled properly. This CSF is more about human psychology than hard IT know-how. People tend to dislike change, and when there are any projects, including IT integration projects, the initial mindset of people not involved in the project is negative, sort of "it is not going to work anyway". And when

the first rumors or news reach spread in the firm that the project had a setback, the whole project might be doomed just because people talk about it during coffee breaks and hallways in a negative tone. Therefore, early and positive communication is key in these situations. Even small accomplishments need to be praised in public to enhance the image of the project. This will also give the project managers more room to operate as there is less external pressure because of the positive image of the project. Apparently, the IT department in Lindorff had a reputation that only negative news were told to the rest of the firm, which decreased trust and eventually the efficiency of the whole department. However, many interviewees also noted that there has been an improvement in the communication between IT and the rest of the business departments.

One interesting notion about the last two IT integration CSFs regarding top management support and good communication is that they are probably needed in other business units and environments as well. And in a business as usual situation, these two are hard enough as it is. But in a M&A process, there are so many things which are changing, and top management is one of them. As mentioned in the previous chapter, the IT department had a bad reputation of their communication skills, and it is safe to say that it is probably not the only IT department which has similar problems. It may be due to the technology-intensive nature of IT or because IT personnel may not have the greatest intrinsic communication skills, but whatever the reason is it needs to be recognized and dealt with accordingly. In order to gain and maintain top management support in a constantly changing M&A process, the IT integration projects need to be communicated so that they deserve the support. The M&A process also brings in "the other ones", meaning the counterpart of the acquiring or acquired side. Similarly, these CSFs and especially good communication is needed between the two IT entities, since they will probably be working together during the IT integration projects. The relationship and dynamics of the two IT parties is a very interesting future research suggestion. This thesis did not have access to the Lowell UK representatives, which is why the empirical data is not sufficient to analyze the relationship of Lowell Nordics and UK any deeper.

To sum up the critical success factors of IT integration, based on the empirical data of this case acquisition, four CSFs were recognized: "Inventory of all applications", "Continuous support from top management", "IT integration project planning and management", and "Effective overall communication throughout the process". In other words, without these factors the IT integration would not be possible to execute. The CSF list was not comprehensive by any means, but rather a compilation of CSFs based on the three articles mentioned in the theoretical chapter. Therefore, there could be a number of CSFs which are missing from the list. Also, the number of CSFs shown to the interviewees affects the result, and also there would have been more CSFs if the criteria for the number of "yes" answers would have been different. Nevertheless, the factors which qualified as CSFs were backed up by many examples from the interviewees. It is

safe to say that these four CSFs are at least truly CSFs, and the question is rather what are the other CSFs if there are any. Also, the context of the case acquisition and sample size of the data are relevant factors, which is quite normal in a single case study. Next, the conclusions of this study will be presented, which includes the theoretical and managerial contributions as well as a reflection on the limitations of this study and future research suggestions.

5   CONCLUSIONS

This chapter will present the conclusions of this thesis in three parts; the theoretical contributions are introduced by using the modified framework of this study. Then, the managerial implications are discussed to give practical guidelines to managers who might face an IT integration. Finally, the limitations of this thesis along with suggestions for future research are introduced.

5.1   Theoretical contributions

The post-acquisition integration process is challenging regardless of the M&A type or size, and it is viewed as the single biggest reason for failure among cross-border acquisitions (Wijnhoven 2006; Alaranta & Henningsson 2008). Out of the many reasons why the integration process could eventually fail, Rodgers (2005) stated that IT integration is the third most common reason for an M&A failure. This thesis aimed to bring more clarity to the IT integration process by presenting a theoretical framework built from various post-acquisition and IT integration related theories. The modified framework is presented in Figure 11, where some factors have been deleted, and the new additions and modifications are underlined.
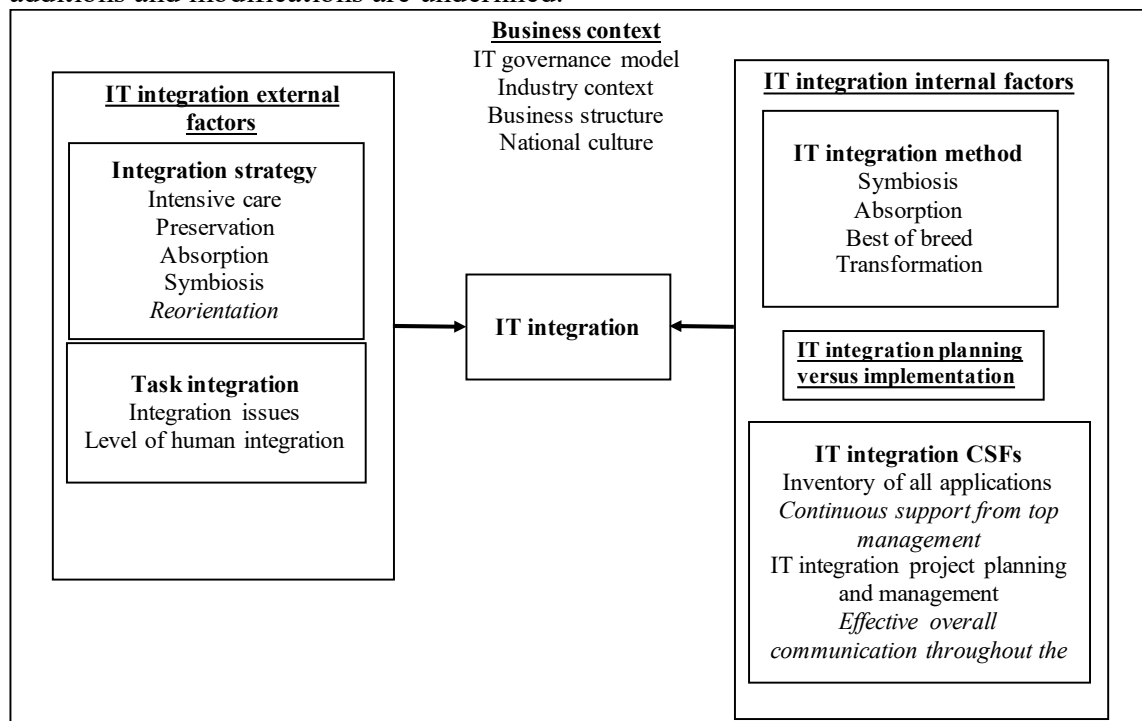

Figure 11   Final framework for IT integration dynamics in M&A context

The final framework divides the factors into two parts, the IT integration external and IT integration internal factors. The framework shows all the factors which were present in the case acquisition based on the theoretical framework and empirical analysis. The framework is outlined by business context which includes IT governance model, industry context, business structure and national culture. The empirical data supported the theoretical framework for these factors. In the case acquisition the IT governance model determined how the IT integration was going to shape. A strong regional IT governance model was the educated guess made by the interviewees, which would support the business structure of Lowell. Industry context and business structure affected the IT integration since the business was very local by nature due to legislation and country-specific procedures, and the collection and invoice industry is heterogenic in terms of the systems and platforms in use. National culture made a big dispersion on the level of current IT in Lowell UK, DAH and Nordics.

The IT integration external box includes the integration strategy and the task integration factors. The Reorientation strategy had the most similarities from Angwin and Meadows (2015) framework compared to the case acquisition. The integration strategy did have an effect on the IT integration, since the trust level and knowledge transfer willingness were evident in IT integration as well. Although further research is needed to find correlations and quantifiable results of the relation between integration strategy and IT integration, based on the case acquisition it seems that the IT integration mirrors the overall integration strategy used. The task integration factors in the final framework are integration issues and level of human integration. In the case acquisition, the integration issue was the separation process from Intrum, which postponed and stalls the IT integration. It may not be an "issue" which Birkinshaw et al. (2000, 411) had in mind, but more of an overlapping project which needs to be done before the IT integration can begin. In terms of the human integration factor, Lowell Group had integrated the HR system to all regions in order to control the rapid growth of the firm. According to Birkinshaw et al. (2000), task integration becomes easier when human integration level increases. Although there was no evidence in the empirical data that the IT integration would have become easier with the new system, the fact that HR system is one of the few IT-related components which have been integrated to the whole Lowell Group speaks for the importance of human integration.

The second box contains IT integration internal factors, and in this thesis the focus was on the IT integration methods and critical success factors. The biggest takeaway from the IT integration methods was that no single method can cover the entire IT integration. Instead, the reality is closer to a mix of different methods, depending on the situation and integration task at hand. However, the empirical data indicated that Symbiosis method would be closest to the current situation, since the IT integration had not really started yet. The timing of the interviews as well as the nature of collection and invoice business

did affect why interviewees mentioned the Symbiosis method. Nonetheless, the interviewees gave practical examples from the case acquisition where different methods were used. Although it can be argued that the IT integration of Lowell might be more complex than an average IT integration, they are still very diverse and difficult projects. Hence, the conclusion that no single IT integration method can cover the entire IT integration could be generalizable.

The IT integration internal factor which emerged from the empirical data was difference between IT integration planning and implementation. It was not included in the theoretical framework of the thesis since the importance of the factor was not recognized by the researcher before the interviews, and the researcher did not come across any literature about it. Nonetheless, changes in management, too big and complex projects, and too few employees who have the IT know-how were mentioned why there could be a difference between the IT integration plan made and the implementation of it. There was also a notion that due to external changes which nowadays happen at a record speed, all plans do inevitably change. Therefore, as long as the key elements stay the same, it does not really matter how the plan is executed as long as the end result serves the original purpose of the plan.

Based on the results from the CSF table filled up by the interviewees, four CSFs were identified in the case acquisition. The four other CSFs were removed from the framework, but their importance was also stressed in the interviews although they did not qualify as an IT integration CSF. Out of the four CSFs in the framework, "Continuous support from top management" and "Effective communication throughout the process" were mentioned as most important CSFs. The top management support was also mentioned in the plan versus implementation analysis, since IT projects are often challenged when there are changes in the current management. This leads to the other highlighted CSF; a good IT manager knows that big projects such as IT integration requires good communication to enhance the image of the project, which decreases external pressure from other departments or management.

The purpose of the study is to find out what are the IT integration dynamics in M&A context. The research question is approached by two sub-research questions. The reason why the final framework was presented is because it answers both sub-research questions. The first one, "How are the different facets of integration related to the IT integration?", is answered by looking at the business context factors and IT integration external factors mentioned in the final framework. The second question, "What are the IT factors which affect the IT integration?" is related to the IT integration internal factors which are also evident in the framework. The timing of the interviews affected the results in a way that there was not enough empirical data to discuss the implementation of an IT integration plan in more detail. Therefore, further research is suggested to gain insight on this matter. The main research question is about the IT integration dynamics in M&A context, and

based on the results it can be concluded that the IT integration cannot be viewed in a vacuum, but rather the process needs a holistic perspective. The IT is a vital auxiliary part of a firm and in a M&A context the IT integration should take into account the business context as well as the integration decisions made which apply to the entire integration. Next, the managerial contributions of this thesis will be discussed.

5.2   Managerial implications

The framework for the IT integration dynamics in M&A context (Figure 11) was created based on theory and empirical findings. Next, the results are analyzed from a practical angle to provide implications on the managers can prepare themselves for an IT integration and what practicalities do they need to consider before any plans are made. The managerial contributions presented are relevant to IT managers and top management as well.

The first managerial contribution is to understand the relation between business and IT in a M&A process. For IT managers, it requires some level of vision and interest in the core business of both parties in the M&A process. IT managers need to be involved in the overall integration process as early as possible in order to understand the changes happening due to the acquisition, and what are the external factors which affect the business structure and decisions. And for top management, IT should be viewed as an enabling function rather than be a technology-intensive burden. By including IT decision makers early into the acquisition process it reduces the risk for misunderstandings and allows better starting point for the IT integration planning. One of the biggest contributions of this thesis is that the IT integration has to take into account the business context, the IT integration external factors and IT integration internal factors. The priority order is to first understand the business context, which creates the guidelines how the IT integration can be done. After that, the IT integration external factors need to be taken into account before the IT integration internal factors mold the IT integration into its final form.

Another managerial contribution of this study is the IT integration critical success factors, and the relation between them. Top management support was listed as one of the most important CSFs in IT integration. Such support is easier to get if the management understands at least in general what is happening in IT and why it is done. This requires another CSF mentioned in the thesis, good communication by the people responsible of the IT projects. Basically, IT managers need to be able to translate technology-intensive IT jargon so that top management understands it. This is an easy thing to say, but especially in a changing and uncertain environment where acquisitions happen, it may be difficult to hold on to these traits. The IT integration process is a complicated process

which requires time and resources, but through good communication to top management and also other stakeholders the process will become a lot easier. The IT units are not known for their communication skills, which is why managers have to recognize such weaknesses and make efforts to improve the communication methods.

The final notion for managers is that once the IT integration plan is made, the implementation of this plan may not resemble the original plan. However, as long as the key elements of the plan remains intact, managers will have to tolerate changes in the implementation phase due to external and internal factors. The modern business environment is fast-paced and constantly shifting, which means that complicated projects such as IT integration will have to adjust in order to survive.

5.3   Limitations of the study and future research suggestions

There were a number of limitations which had an effect on the study. First of all, the single case study method of this thesis has its limitations. The empirical data was gathered from six interviewees, all representing the acquired firm. Therefore, the data could be argued to be too homogeneous. To clarify, the results would have been more interesting if there had been interviewees from both sides of the acquisition. It would have allowed a more detailed understanding of the dynamics and relationship of the two sides, and more specifically the two IT departments which were cooperating in the IT integration process. Although some triangulation was applied by using different data formats and analysis methods, this study relied heavily on the data from the semi-structured interviews, which is also a limitation in itself. A more diverse research method in general could have produced more trustworthy results. A quantitative method could also be used in future research for many aspects of this study. For example, it could be interesting to test if there are correlations between integration strategy and IT integration, or test the IT integration CSFs with a bigger sample size.

The timing of this thesis in relation with the research topic and the case acquisition was not optimal. As mentioned before, the IT integration had not really started at the time of the interviews, which affected the sub-research questions as well as the mindset of the interviewees. Therefore, a future research suggestion would be to conduct a follow-up interview 12 or 24 months from now to evaluate better how the IT integration and especially the implementation phase has been going. Subsequently, since one of the main findings of this thesis was the relationship between business context, IT integration external and internal factors, a multiple case study including cases from various industries is suggested to find out whether business context has a similar kind of effect as it did in this study. A multiple case study could also produce interesting results on how the overall

integration strategy has an effect on the IT integration strategy. In this study, it was evident that the IT integration mirrored the Reorientation strategy at least in some ways. More research is needed to see if this is the case in other types of acquisitions as well. Furthermore, the somewhat unique setting of the acquired party having more know-how in some IT-related aspects did have an effect on the results of this study. It increased the knowledge transfer willingness of the acquirer, but more research is needed to find out if these results are generalizable.

Admittedly, the inexperience of the researcher is also a limitation of this study. The researcher's previous inexperience of any M&A or IT related studies inevitably affected the quality of the initial setting and data analysis of the thesis. However, this also enabled the thesis to be conducted without any presumptions or bias based on the researcher's previous knowledge. As an overall disclaimer, every IT integration is different and complex in nature. Hence, there are no absolute truths presented in this thesis, and all the suggestions should be carefully examined and modified according to the setting of each acquisition.

6 SUMMARY

This study has analyzed the IT integration dynamics in a M&A context. The IT integration is a vital part of any acquisition process, and most of the IT integration happens in the post-acquisition integration phase, which is regarded as the most important and complicated part of the acquisition. Furthermore, the technological integration was reported as the most difficult process during this phase, and IT integration as the third most common reason for an M&A failure. Despite the evident importance of IT, it has been somewhat overlooked in research literature and practice. Therefore, this thesis set out to fill the research gap in literature and also make practical contributions to the subject.

The literature review part of the thesis aimed to develop a framework of all the factors which could affect the IT integration process. The sub-objectives of the study were to find out how the different facets of integration are related to the IT integration, and to see what IT factors affect the IT integration. The starting point of this thesis was to build a framework which relied on the findings of existing theories and studies. The building blocks of the framework were introduced, including theories from business-IT alignment, post-acquisition integration strategy, task integration, IT integration methods and critical success factors. The theoretical framework combined the theories and illustrated their relation to IT integration.

This research was conducted as a single case study. The data for this thesis was collected by using semi-structured interviews, followed by a written survey which was done after each interview. The interviewees were selected based on access and their role in the case acquisition. All six interviewees represented the acquired party, and the interviews were recorded and transcribed with great care. The data was analyzed by using a thematic analysis method, and the survey results were analyzed using simple quantitative methods.

The results of the empirical research were in sync with existing findings, but also provided new insights to the IT integration dynamics. The abovementioned framework was modified based on the empirical data, resulting in the final framework of the thesis. It was concluded that IT integration cannot be viewed in a vacuum, but rather the process needs a holistic perspective. In other words, the recipe for a successful IT integration includes not only the IT integration internal factors, but the business context and IT integration external factors need to be considered as well. Furthermore, there was evidence that the IT integration method mirrors the overall integration strategy, although no single method could be named for the entire IT integration process. In reality, the process is a mixture of methods depending on the context and task at hand. The IT integration critical success factors survey results recognized four CSFs in the case acquisition, which had some correlation between each other and relations to other factors

as well. Also, the importance of IT governance model and the underlying causes for the difference in IT integration plan and implementation emerged from the empirical data, hence included in the final framework.

The main purpose of this thesis was achieved by altering the initial framework based on the results from the empirical data analysis. Furthermore, managerial implications were included to help firms understand the IT integration dynamics and what are the factors needed to consider before and during the process. This study has some limitations regarding the timing of the interviews and homogenous empirical data. Moreover, the single case study method is not suitable for extensive generalization of results. However, the objective of the thesis was not to find a universal IT integration solution, but to obtain extensive insight to the IT integration dynamics in a M&A context.

REFERENCES

Alaranta, M. – Henningsson, S. (2008) An approach to analyzing and planning post-merger IS integration: insights from two field studies. *Information Systems Frontiers*, 10, 307–319.

Alaranta, M. – Mathiassen, L. (2014) *Managing Risks: Post-Merger Integration of Information Systems*. IEEE Computer Society, 30–40.

Angwin, D. (2004) Speed in M&A Integration: The First 100 Days. *European Management Journal*. Vol 22(4), 418–430.

Asper, J. – Protsman, W. (2013) Aligning Business and IT Strategy during Mergers, Acquisitions and Divestitures in *M&A Information Technology Best Practices*. John Wiley & Sons, 35–45.

Baker, E. – Niederman, F. (2013) Integrating the IS functions after mergers and acquisitions: Analyzing business-IT alignment. *Journal of Strategic Information Systems*. 23, 112–127.

Baro, G. – Chakrabarti, A. – Deek, F. (2008) Organizational and information systems factors in post-merger technology integration. *14th Americas Conference on Information Systems*, AMCIS 2008 (3), 1464–1478.

Bauer, F. (2012) *Integratives M&A Management*. Wiesbaden. Gabler Verlag.

Bijlsma-Frankema, K. (2001) On managing cultural integration and cultural change processes in mergers and acquisitions. *Journal of European Industrial Training*, Vol. 25 (2), 192–207.

Birkinshaw, J. – Bresman, H. – Håkanson, L. (2000) *Managing the post-acquisition integration process: How the human integration and task integration processes interact to foster value creation*. Journal of Management Studies 37 (3), 395–425.

Borys, B. – Jemison, B. (1989) Hybrid arrangements of strategic alliances: Theoretical issues in organizational combinations. *Academy of Managament Review*. Vol. 14(2), 234–249.

Braun, V. – Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, Vol. 3 (), 77–101.

Brown, C. – Renwick, J. (1996) Alignment of the IS organization: the special case of corporate acquisitions. *The DATA BASE for Advances in Information Systems*. 27 (4), 25–33.

Buck, T. (2011) Case selection informed by theory. In: *Rethinking the Case Study in International Business and Management Research*. Edward Elgar Publishing. UK. 193–209.

Chang, S. (2014) Information systems integration after merger and acquisition. *Industrial Management & Data Systems*. Vol. 114 (1), 37–52).

Child, J. – Faulkner, D. – Pitkethly, R. (2001) *The Management of International Acquisitions*. Oxford University Press. London.

Creswell, J. (2007) *Qualitative inquiry and research design: Choosing among five approaches*. SAGE Publications, Thousand Oaks, CA.

De Haes, S. – Van Grembergen, W. (2009) An Exploratory Study into IT Governance Implementations and its Impact on Business/IT Alignment. *Information Systems Management*. 26, 123–137.

Eisenhardt, K. (1989) Building theories from case study research. *Academic Management Review*. 14(4), 532–550.

Eisenhardt, K. – Graebner, M. (2007) Theory building from cases: Opportunities and challenges. *Academy of management journal*. 50(1), 25–32.

Eriksson, P. – Koistinen, K. (2014). *Monenlainen tapaustutkimus*. Kuluttajatutki-muskeskus, University of Helsinki.

Eriksson, P. – Kovalainen, A. (2008) *Qualitative methods in business research*. SAGE Publications, London.

Eskola, J. – Suoranta, J. (1998) *Johdatus laadulliseen tutkimukseen*. Vastapaino.

European Commission press release (2017) Commission approves acquisition of Intrum Justitia by Nordic Capital, subject to conditions. <http://europa.eu/rapid/press-release_IP-17-1602_en.htm>, retrieved 25.09.2018.

Fisher, C. (2010) *Researching and writing a dissertation. An essential guide for business students*. Pearson Education Limited. Essex.

Freund, Y. (1988) Critical success factors. *Planning Review*. 16 (4), 20–23).

Gerson, K. – Horowitz, R. (2002) Observation and Interviewing: Options and Choices in qualitative Research. In *Qualitative Research in Action*. eds. May, T. SAGE Publications, London.

Ghauri, P – Firth, R. (2009) The formalization of case study research in international business. *Journal für Marketing*. 48, 29–40.

Ghauri, P – Gronwald, K. (2002) *Research Methods in Business Studies: A Practical Guide.* Prentice Hall, Edinburgh.

Giacomazzi, F. – Panella, C. – Pernici, B. – Sansoni, M. (1997) Information Systems Integration in Mergers and Acquisitions: A Normative Model. *Information and Management*. 32(6), 289–302.

Gomes, E.– Angwin, D. N. – Weber, Y. – Yedidia Tarba, S. (2013) Critical success factors through the mergers and acquisitions process: revealing pre-and post-M&A connections for improved performance. *Thunderbird International Business Review*. Vol. *55* (1), 13–35.

Goedhart, M. – Kohler, T. – Wessels, D. (2017) Six Types of Successful Acquisitions. McKinsey and Company Strategy and Corporate Finance. <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/the-six-types-of-successful-acquisitions>, retrieved 10.04.2019.

Gronwald, K. (2017) *Integrated Business Information Systems: A Holistic View of the Linked Business Process Chain ERP-SCM-CRM-BI-Big Data*. Springer, Switzerland.

Guba, E. – Lincoln, Y. (1994) Competing paradigms in qualitative research. *Handbook of qualitative research*. 2, 105–117.

Haleblian, J – Devers, C. – McNamara, G. – Carpenter, M. – Davison, R. (2009) Taking Stock of What We Know About Mergers and Acquisitions: A Review and Research Agenda. *Journal of Management*. Vol. 35 (3), 469–502.

Harrell, H. – Higgins, L. (2002). IS integration: Your most critical M&A challenge? *Journal of Corporate Accounting & Finance*. 13(2), 23-31.

Haspeslagh, P. – Jemison, B. (1991) *Managing acquisitions, Creating value through corporate renewal*. The Free Press: A Division of Macmillan, Inc., New York.

Hassett, M – Räikkönen, M. – Rantala, T. (2011) *M&A as a strategic option: from opportunities to new business creation.* Teknova, Tammerprint.

Venkatraman, N. – Henderson, J. – Oldach, S. (1993) Continuous strategic alignment: Exploiting information technology capabilities for competitive success. *European Management Journal.* 11(2), 139–149.

Hirsjärvi, S. – Remes, P. – Sajavaara, P. (1997) *Tutki ja kirjoita.* Kirjayhtymä.

IMAA Institute, M&A Statistics. <https://imaa-institute.org/mergers-and-acquisitions-statistics/>, retrieved 11.09.2018.

Jagersma, P. (2005) Cross-border acquisitions of European multinationals. *Journal of General Management*. 30(3), 13–34.

Jansen, S. (2002) Pre- and Post-Merger Integration in Cross-Border Transactions: Trends, Tools, Theses and Empirical Tests of Old and New Economy Deals. In: *Handbook of International Mergers and Acquisitions: Preparation, Implementation and Integration*. ed. by Picot Gerhard. Palgrave Macmillan: New York, N.Y. 371– 398.

Jick, T. (1978) Mixing qualitative and quantitative methods: Triangulation in action. *Administrative Science Quarterly*. 24(4), 602–611.

Lees, S. (2003) *Global Acquisitions: Strategic Integration and the Human Factor.* Palgrave MacMillan: New York, N.Y.

Lincoln, Y. – Guba, E. (1985) *Naturalistic Inquiry.* SAGE Publications, Beverly Hills, California.

Lindorff Annual Report (2016) <https://www.lindorff.com/media/58259/lock-as-annual-report-2016.pdf>, retrieved 27.10.2018.

Lindros, K. (2017) What is IT governance? A formal way to align IT & business strategy. <https://www.cio.com/article/2438931/governanceit-governance-definition-and-solutions.html>, retrieved 10.04.2019.

Lorange, P. – Kotlarchuk, E. – Harbir, S. (1987). Corporate Acquisitions: A Strategic Perspective. In: *The Mergers and Acquisitions Handbook.* ed. by Rock Milton L. McGraw-Hill Book Company: New York, N.Y. 3–29.

Lowell website, Lowell to acquire carve-out business from Intrum, <https://www.lowell.com/media/1170/lowell-to-acquire-carve-out-business-from-intrum.pdf>, retrieved 22.10.2018.

Lowell (2018) Lowell website, Our Journey. <https://www.lowell.com/about-lowell/our-journey/>, retrieved 25.09.2018.

Marks, M. – Mirvis, P. (2001) Making mergers and acquisitions work: Strategic and psychological preparation. *Academy of Management Executive.* 15 (2), 80–92.

Markus, L. (2000a) Paradigm Shifts – E-Business and Business/Systems Integration. *Communications of the Association for Information Systems.* 4(10), 1–44.

Mehta, M. – Hirschheim, R. (2004) A framework for assessing IT integration decision-making in mergers and acquisitions. *37th Annual Hawaii International Conference on System Sciences.* 264-274.

Mehta, M. – Hirschheim, R. (2007) Strategic alignment in mergers and acquisitions: theorizing IS integration decision-making. *Journal of the Association of Information Systems.* 8 (3), 143–174.

Mendoza, L. – Perez, M. – Griman, A. (2006) Critical success factors for managing systems integration. *Information Systems Management Journal*. Spring, 56–75.

Merriam-Webster Dictionary, <https://www.merriam-webster.com/dictionary/dynamics>, retrieved 02.05.2019.

Meyer, C. (2001) A case in case study methodology. *Field methods*, 13(4), 329–352.

Myers, M. (2013) *Qualitative research in business & management*. Sage, Los Angeles.

Nowell, L. S. – Norris, J. M. – White, D. E. – Moules, N. J. (2017) Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International of Journal of Qualitative Methods,* Vol. 16, 1–13.

Nummela, N. – Saarenketo, S. – Loane, S. (2016) The dynamics of failure in international new ventures: A case study of Finnish and Irish software companies. *International Small Business Journal*. 34(1), 51–69.

OECD (2017) Cross-border M&A on the Rise. OECD Publishing. <https://www.oecd.org/investment/globalforum/2017-GFII-Background-Note-MA-trends.pdf>, retrieved 12.09.2018.

Penrose, E. (1959) *The Theory of the Growth of the Firm*. Blackwell Publishers Oxford, UK.

Piekkari, R. – Welch, C. (2011) Rethinking the Case Study in International Business and Management Research. Edward Elgar Publishing. UK.

Pihlström, S. (2007) *Pragmatismi*. <https://filosofia.fi/node/2409>, retrieved 05.09.2018.

Pribilla, P. (2002). Personnel and cultural integration, in G. Picot (ed.), *Handbook of International Mergers and Acquisitions*. Houndmills, UK Palgrave Macmillan.

Proft, C. (2014) *The Speed of Human and Task Integration in Mergers and Acquisitions: Human Integration As Basis for Task Integration*. Springler Gabler. Innsbruck, Austria.

Puro, A. (2016) The art of building trust via e-communication channels: *Post-acquisition integration as a special context. Master's thesis.* Turku School of Economics, Turku.

Quah, P. – Young, S. (2005) Post-acquisition Management: A Phases Approach for Cross-border M&As. *European Management Journal*. 23 (1), 65–75.

Rockart, J. (1979) Chief executives define their own data needs. *Harvard Business Review*. 57 (2), 81–93.

Rodgers, M. (2005) Stay hungry. *CIO Magazine,* <https://www.cio.com.au/article/164605/stay_hungry/?pp=4>, retrieved 19.10.2018.

Ruess, M. – Voelpel, S. (2012) The PMI scorecard: A tool for successfully balancing the post-merger integration process. *Organizational Dynamics*. (41), 78–84.

Sabherwal, R. – Chan, Y. (2001) Alignment between business and IS strategies: a study of prospectors, analyzers and defenders. *Information Systems Research* 12 (1), 11–33.

Sandelowski, M. (1995) Focus on qualitative methods sample size in qualitative research. *Research in Nursing and Health*. 18 (6), 179–183.

Sarrazin, H. – West, A. (2011) Understanding the strategic value of IT in M&A. *McKinsey Quarterly*. McKinsey website, <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/understanding-the-strategic-value-of-it-in-m-and-38a>, retrieved 19.02.2019.

Schweiger, D. – Lippert, R. (2005) Integration: the critical link in M&A value creation. In: *Mergers and Acquisitions: Managing Culture and Human Resources*. ed. by Stahl Günter K. – Mendenhall Mark E. Stanford University Press: Stanford, CA. 17–45.

Sharan, V. (2003) *International Business: Concept, Environment and Strategy*. Pearson. Singapore.

Shenton, A. (2004) Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*. 22, 63–75.

Shin, T. (2005) *Mergers and Acquisitions: Managing Culture and Human Resources*. ed. by Stahl Günter K. – Mendenhall Mark E. Stanford University Press: Stanford, CA.

Shrivastava, P. (1986) Postmerger integration. *Journal of Business Strategy*. 7, 65–76.

Sisco, M. (2002) IT due diligence: merger & acquisition discovery process. MDE Enterprises. ISBN.

Statista, Value of mergers and acquisitions (M&A) worldwide from 2013 to 2018. <https://www.statista.com/statistics/267369/volume-of-mergers-and-ac-quisitions-worldwide/>, retrieved 11.09.2018.

Sulkunen, P. – Kekäläinen, O. (1992) *WPindex-laadullisen aineisiton analyysiohjelma*. Gaudeamus, Helsinki.

Sumner, M. (1999) Critical success factors in enterprise wide information management systems projects. *Proceedings of the ACM SIGCPR Conference*. 297–303.

Suviala, R. (2014) *Velkaorjuudesta hyvään perintätapaan: perinnän historia*. Aditorium, Helsinki.

Tanriverdi, H. – Uysal, V. (2015) When IT capabilities are not scale-free in merger and acquisition integrations: How do capital markets react to IT capability asymmetries between acquirer and target? *European Journal of Information Systems*. 24 (2), 145–158.

Vielba, F. and Vielba, C. (2006) *Reducing the M&A Risks: The Role of IT in Mergers and Acquisitions*. Palgrave Macmillan, New York.

Walker, S. (2012) *IS & Business Strategy Alignment; The Impact on IT Integration In M&A. Case study - Technology Company.* Master's thesis, Aalto University.

Weber, J. (1988) *The effects of top management culture clash on the implementation of mergers and acquisitions*. University Microfilms International: Ann Arbor, MI.

Wijnhoven, F. – Spil, T. – Stegwee, R. – Fa, R. (2006) Post-merger IT integration strategies: an IT alignment perspective. *Journal of Strategic Information Systems*. 15, 5–28.

Yin, R. (2003) *Case study research: design and methods*. Sage, Thousand Oaks.

APPENDICES

Appendix 1 Interview guide

Background questions
- Tell me about your background, what is your role in the company and what you've done before?
- What kind of M&A history do you have?
- What is your role in this specific integration?

IT integration and integration in general

1.   How is the process overall integration going at the moment?

2.   What has changed / will change with the acquisition?

3.   What functions / teams / organizational structures will be integrated / left untouched?

4.   What do you think has been / will be most challenging overall?

5.   What is the schedule for the integration?

6.   How is the IT integration going?

7.   What synergy effects does the IT integration create?

8.   How does the cross-border nature affect IT integration?

IT integration planning
1.   Are there any current projects that could affect IT integration?

2.   How have you prepared for the integration?

3.   When did this process start?

4.   How much has Lowell UK affected the process?

IT integration implementation

1.   What will happen next in IT integration?

2.   What functions and software will be integrated?

3.   Will there be a new organizational structure in IT?

4.   Do you feel there is a difference between the planned IT integration strategy and the implementation of it?

IT integration method
Which of the following methods do you recognize in this IT integration?
- Symbiosis
- Absorption
- Best of Breed
- Transformation

Which of these resembles the most the current IT integration?

Appendix 2 IT integration CSF table

Critical success factor	Recognizable		Implemented		CSF?	Examples in practise
	Yes	No	Yes	No		
Appointment and composition of an IT integration team						
Identify IT contracts and licensing						
Inventory of all applications						
Conduct training and on-going support						
Relevant user involvement						
Continuous support from top management						
IT integration project planning and management						
Effective overall communication throughout the process						

Appendix 3 List of IT integration CSFs

Mendoza et al. 2006	Blanco 2017	Harrell & Higgins 2002
Effective out going and in coming communication	Appointment and composition of an IT integration team	Maintain good staffing by developing internal personnel and use external consultants
Appropriate strategy of security	Inventory of all applications	Obtain end-user input during the evaluation phase
Adequate management of project scope	Develop an IT integration project planning	Communicate with end-users throughout the process
Valuable support by senior management	Project communication	Obtain and maintain top management support
Change determined and justified at a productivity level	Conduct training and on-going support	Obtain and retain team members with knowledge of both the business processes and technical aspects
Known organizational structure	Perform an IT due diligence	
Appropriate outsourcing management	Identify contracts and licensing	
Standard data model documentation, unification and updating		
Appropriate configuration of the communication software		
Helpful technical support		
High-expertize project team		
Careful strategy of implementation		
Low impact of iS on the organization		
Effective organizational change management		
Effective internal and external training plan		
Relevant user involvement		
Valuable project management		
Effective project leadership		
Complete technological infrastructure		
Significant administrative support for the project		