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IT integration in post-acquisition integration

The perspective of a serial cross-border acquirer

International Business

Master's thesis

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Mergers and acquisitions (M&As) are a significant means of strategy formulation and strategic renewal, and information technology (IT) integration is one of the most challenging parts of the M&A process. IT integrations in M&As have been widely researched for over 30 years, but there have been calls to research this field of study more comprehensively. Prior research has extensively focused on single M&As, and the perspective of serial acquirers has largely been undermined. This thesis attempts to investigate this unexplored view by combining well-known and widely used post-acquisition and IT integration theories. Additionally, the study focused on cross-border acquisitions to see if IT integrations differ in a cross-border setting.

The empirical part of the study was based on semi-structured interviews with professionals from serial cross-border acquirers. Existing literature on post-acquisition integration, IT integration and IT-business alignment were reviewed to form a comprehensive theoretical framework in which to examine the results of the study. The results of this study revealed that serial acquirers have limited options when it comes to IT integration methods to enable future acquisitions and integrations as well. The choice of IT integration method was found to be impacted by the overall M&A objectives and the post-acquisition integration strategy chosen to ensure IT and business operations and processes are aligned. In the cross-border context, taking into account the law and regulations and infrastructure of the target company's home country was found to be more important than considering cultural distance.

The study concludes that aligning IT and business through an appropriate choice of IT integration method is important. This ensures that IT supports both the internal operations and processes of the target and the shared operations of the acquirer and target. However, serial acquirers need to take into consideration the cost implications of different IT integration methods and the resources needed to maintain those integrations. Doing acquisitions cross-borders does not affect the choice of IT integration method but rather the execution of the integration through increasing complexity and extending the timetable. This should be taken into account when planning the IT integration. The IT integration methods found in previous literature do not cater for the needs of today's acquirers and they should be revised to fit the data volume and system complexity requirements of the digital age.

Key words: information technology integration, IT integration, mergers and acquisitions, serial acquisition, IT-business alignment, cross-border acquisition

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Yrityskaupat ovat merkittävä strateginen työkalu, ja tietojärjestelmien integraatio (IT integraatio) on yksi yrityskauppaprosessin haastavimmista osista. Yrityskauppojen IT integraatioita on tutkittu laajalti jo 30 vuoden ajan, mutta ilmiötä on toivottu tutkittavan laaja-alaisemmin. Aiempi tutkimus on keskittynyt laajalti yksittäisiin yrityskauppoihin ja näin ollen jättänyt huomiotta sarjaostajien näkökulman. Tämä tutkielma yhdistelee yrityskauppojen ja tietojärjestelmien integraatioon liittyvää tieteellistä kirjallisuutta ja keskittyy tuottamaan uutta tietoa erityisesti sarjaostajan näkökulmasta. Tutkimus rajattiin sarjaostajiin, jotka tekevät ostoja sekä kotimaassa että kansainvälisesti, jotta voitiin selvittää, eroavatko rajojen yli tapahtuvat integraatiot kotimaisista.

Tutkimus toteutettiin puolistrukturoiduilla haastatteluilla, joihin osallistui sekä suomalaisten että ulkomaalaisten sarjaostajien asiantuntijoita. Aiemman tutkimuksen pohjalta muodostettiin kokonaisvaltainen teoreettinen viitekehys, johon tutkimuksen tuloksia heijastettiin. Tulosten mukaan sarjaostajilla on valittavana rajallinen määrä IT integraatiometodeja, jotta mahdollistetaan myös tulevat yritysostot ja integraatiot. IT integraatiometodin valintaan vaikuttavat sekä yrityskaupan että yleisen integraation tavoitteet, jotta voidaan varmistaa, että IT ja liiketoiminnan prosessit ovat linjassa keskenään. Kansainvälisissä kaupoissa ostettavan yrityksen kotimaan lainsäädännöllä, säädöksillä sekä infrastruktuurilla on suurempi merkitys kuin maiden välisellä kulttuurisella välimatkalla.

Tutkimuksen perusteella voitiin päätellä, että sopivan IT integraatiotavan valinta on tärkeää, jotta yrityksen IT ratkaisut ja liiketoiminnan prosessit ovat linjassa keskenään. Tämä varmistaa, että IT tukee sekä ostettavan yrityksen sisäisiä prosesseja että ostavan ja ostetun yrityksen jaettuja prosesseja. Sarjaostajien tulee kuitenkin ottaa myös huomioon eri IT integraatiometodien kustannukset sekä resurssit, joita integraation ylläpito vaatii. Yrityskaupan kansainvälisyydellä ei ole vaikutusta IT integraatiotavan valintaan, mutta se vaikuttaa integraation toteutukseen tekemällä toteutuksesta monimutkaisempaa ja pidentämällä aikatauluja. Tämä tulisi ottaa huomioon suunniteltaessa IT integraatiota. Aiemmassa kirjallisuudessa löydetyt IT integraatiotavat eivät palvele nykyajan yrityskauppoja, ja niitä tulisi kehittää ottamaan huomioon nykypäivän datan määrä ja järjestelmien monimutkaisuus.

Avainsanat: tietojärjestelmien integraatio, IT integraatio, yrityskaupat, sarjaostajat, yrityskauppaintegraatiot, IT:n ja liiketoiminnan linjaus, kansainväliset yrityskaupat

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1 Introduction

1.1 Background for the study

Mergers and acquisitions (M&As) are a significant means of strategy formation and strategic renewal (Henningsson & Carlsson 2011, 441; Jemison & Sitkin 1986, 145). According to PwC (2024, Global M&A Industry – –), businesses consider M&As to allow them to best respond to market developments and transform their business faster. In 2024, companies are expected to develop their M&A strategies to support their growth and transformation (PwC 2024, Global M&A Industry – –) and also re-evaluate current business to identify and sell operations that do not support the current core strategy (EY 2024, Transaction trends Q4 2023).

M&As are organisational combinations (Henningsson & Carlsson 2011, 443) that aim for external growth (Giacomazzi et al. 1997, 290). There are usually two actors in an acquisition: the company that is acquiring the new assets, usually called acquirer, and the company that is being acquired, usually called target company. In an acquisition, the acquirer uses money, stocks, or a combination of these to acquire assets from the target company. In a merger, the stocks of the two companies are crossed and the companies are combined into one. This new company can either take the name of the acquirer or it can be a merger of equals, in which case the resulting company is completely new. (Giacomazzi et al. 1997, 290). However, literature usually uses the terms merger and acquisition interchangeably, and the equality, size, and power of the two companies does not matter when it comes to terminology (Alaranta & Henningsson 2008, 307). This thesis will focus only on situations where one entity acquires the other, which means that merger-of-equals situations are not considered. Still, the terminology approach of using mergers and acquisitions interchangeably is taken in this thesis as well.

M&As can provide a company with new capabilities and opportunities (Haspeslagh & Jemison 1991, 3), and companies have been shown to utilize mergers and acquisitions more than the expansion of productive capacity as a means of growth (Giacomazzi et al. 1997, 289). Even though they are frequent, with approximately 67 500 M&As performed in 2022 worldwide (Statista 2023), they are also a risky activity (Baker & Niederman 2014, 112), and over half of M&A's actually see a decrease in the combined value of the

companies (Henningsson 2007, 2) or fail to meet the earning potential expectations of shareholders (Harrell & Higgins 2002, 23).

Even if an M&A seems reliable, the synergies will only be derived from a successful integration of the companies (Haspeslagh & Jemison 1991, 6). The post-acquisition integration phase is recognised as a critical factor in the success of an M&A (Steigenberger 2017, 408), and it is deemed as a main source of value creation (Angwin & Meadows 2015, 235). Post-acquisition integration refers to the integration of the two companies in an M&A (Hassett 2011, 88-89). This thesis will focus on the post-acquisition phase of an M&A, namely on the role of information technology integrations in this phase.

Information technology (IT) integration is considered to be one of the most important and challenging parts of the M&A process (Alaranta & Henningsson 2008, 307; Harrell & Higgins 2002, 23; Henningsson & Carlsson 2011, 441; Wijnhoven et al. 2006, 5). According to a survey, 75% of companies reported delays and lost opportunities and revenue due to issues in the integration of companies' IT systems and IT related processes and structures (Harrell & Higgins 2002, 23). IT refers to the hardware, software and telecommunication equipment of a company (Piccoli & Pigni 2022, 24; Weill & Broadbent 1998, 6), and it can be seen to be a part of a company's information system (IS) which encompasses IT, people, processes, and structures (Piccoli & Pigni 2022, 24). IT can be seen as the concrete, technical part of IS while IS also takes into account the people using the IT and the operations around IT. Despite this distinction, these terms are often used as synonyms to one another (Piccoli & Pigni 2022, 23), and even scientific literature on the field is inconsistent with the use of these two terms (cf. Baker & Niederman 2014; Harrell & Higgins 2002; Wijnhoven et al. 2006). In this thesis, the distinction between the terms is recognised and terminology applied accordingly, but the focus is kept on the integration of IT, i.e., the software, the applications and the systems.

The integration of IT according to the M&A integration objectives is a time-consuming and complicated process (Wijnhoven et al. 2006, 5) that should take into account the role and importance of IT in the case at hand (Henningsson & Carlsson 2011, 449). Lack of integration can lead to resource redundancies and siloed data (Piccoli & Pigni 2022, 47). IT is important even when companies pursue M&A for reasons other than acquiring IT

capabilities; the unsuccessful integration of IT and related processes will lead to unsuccessful operations (Harrell & Higgins 2002, 23). According to Baker & Niederman (2014, 113), there are three reasons why IT integration is a critical part of the organisational integration as a whole: Firstly, many business processes are dependent on their supporting information systems, which is why the systems need to be accounted for in the newly formed company as well. Secondly, management is reliant on accurate and up-to-date data in their decision-making process, and the suitable integration of IT provides a solid basis for handling such data. And thirdly, because of the importance of the IT function, the assets of the department can also be substantial, and proper integration can decrease costs or increase capabilities. Due to its importance, lacking IT integration is a major threat to the performance of the M&A as a whole (Reynolds & Yetton 2015, 114), independent of whether IT is the driving force of the M&A or purely a tool to perform operations.

In today's highly digitalized world, the question of IT integration can be seen to be relevant in all M&As. Still, the significance of IT integration can vary according to factors like industry or M&A objectives. Hanelt et al. (2021, 4) talk about two contextual streams regarding IT integration in M&A: IT integration can be seen as an instrument in enabling processes and realising cost advantages, or IT capabilities can be the main driver of the M&A and the main source of value. For some companies, integrating IT solutions might not be important at all. This thesis does not take into account whether the M&A is motivated by IT or whether IT integration is seen as an instrument, but it focuses on companies where IT integration is relevant.

1.2 The purpose of the study

There has been extensive research on IT integration in M&A for three decades (Henningsson et al. 2018, 255). However, since the role of IT in M&A can be seen to constantly evolve, there have been calls for researching this topic more comprehensively (Aboagye-Drako et al. 2023, 2). One of the contexts that has been seen to be absent from current literature is that of serial acquirers (Alaranta & Henningsson 2008, 318; Henningsson et al. 2018, 272-275; Yetton et al. 2022, 20). IT integration literature usually focuses on single M&As, and even in cases of reviewing serial acquirers, the acquisition

has been treated as a single event and not as part of a series of acquisitions (Henningsson et al. 2018, 272-275).

Serial acquirers can be defined as companies that make multiple acquisitions in a defined timespan. A common criterion for a serial acquirer is that the company does five acquisitions in a span of five years (Navío et al. 2020), meaning approximately one per year. This thesis follows this definition. The serial acquisition context is important to explore further, as IT integration studies focusing on single M&As do not take into account many of the characteristics of serial acquisition such as learning effects. (Henningsson et al. 2018, 272-275.) IT structures can also be seen as being path dependent (Henningsson et al. 2018, 271), meaning that once a certain structure is set in place, it is difficult to change or reverse, at least without substantial resource contributions. This is why it has been suggested that IT integrations should be done in a way that also enables the company to take part in possible up-coming future M&As (Wijnhoven et al. 2006, 25). Serial acquisition strategies also imply very different challenges for managers compared to a single M&A (Henningsson et al. 2018, 271).

Following these calls for a better understanding of the serial acquirer context, the research question for this thesis is formulated as follows:

What is the role of IT integration in serial cross-border acquisition integrations?

Well-known and widely used theories and models will be used to discuss IT integration and post-acquisition integration. These theories have identified general typologies that will be utilised to simplify the complex phenomena of IT integration and post-acquisition integration and to drive attention towards the serial cross-border acquisition context. The research question is divided into 3 sub-questions:

1. *How do serial acquirers integrate target companies?*
2. *What characterizes IT integrations in serial acquisitions?*
3. *How does the cross-border dimension affect IT integrations in serial acquisitions?*

As mentioned earlier, this study will focus on the post-acquisition integration phase of an M&A and on M&As where IT integration is relevant. The context of serial acquirers is

narrowed down to companies that engage in one or more acquisitions per year on average. Additionally, the focus is on serial cross-border acquirers, because in these cases IT integration might be especially challenging due to cultural and institutional differences.

The structure of the thesis is as follows: In chapters 2 and 3, key theories regarding acquisition integration, IT integration and serial acquisition will be gone through. In sub-chapter 3.4, previous theories will be combined to gain a better view of how serial cross border acquirers integrate their IT during their acquisition integration according to previous literature. Chapter 4 describes the design of the study and data analysis, and it also includes a discussion of trustworthiness and research ethics. A qualitative study of semi-structured interviews with six case companies was conducted. Chapter 5 explains the findings of the study and what can be taken away from them. Chapter 6 gives the conclusions of the thesis in the form of answering the research questions, outlining managerial implications, and giving suggestions for future research based on the limitations of the current study.

2 Post-acquisition integration

The acquisition process can be divided into parts which scholars have looked into in more detail (Meglio 2022, 824). Usually, the process is seen to comprise of two parts: the pre-acquisition phase, or the buying phase, and the post-acquisition phase, or the integration phase (Hassett 2011, 88; Marks 2019, 1). Some models incorporate additional phases such as M&A strategy formation (Thorsten 2020) or organisational learning after acquisition (Marks 2019), but for the simplicity of the model, only two of the most commonly used phases will be taken into account. These phases, the pre-acquisition and the post-acquisition phase, comprise of smaller tasks and phases. The acquisition process is often presented as a step-by-step process for ease of understanding (Thorsten 2020, 8). Based on the above discussion, Figure 1 was created to depict a simplified acquisition process model.

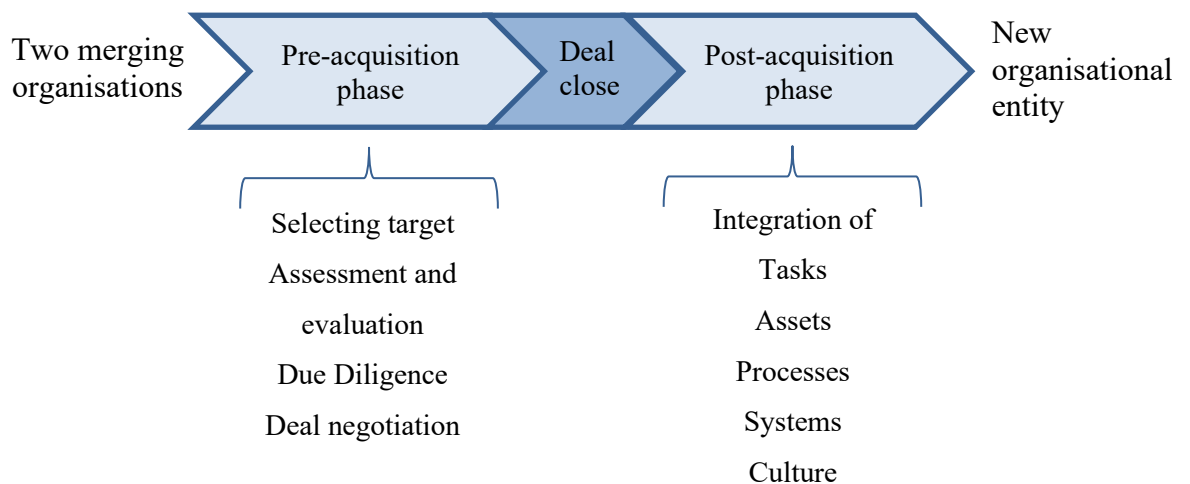


Figure 1 An acquisition process model

The pre-acquisition phase comprises of selecting, assessing and evaluating the target company, due diligence and deal making and negotiation. The post-acquisition phase refers to the integration of the merging companies, and includes task integration, human resource integration and cultural integration. Task integration involves the integration of assets, processes and systems belonging to the operational and functional levels, and human resource and cultural integration deal with the culture and values of a company. (Hassett 2011, 88-89; Marks 2019, 3-5; Thorsten 2020 11-14.) Different process models

depicting the acquisition process tend to over-emphasize the pre-acquisition phase and focus less on the post-acquisition phase of the M&A (Hassett 2011, 88), which might be especially due to its tasks' importance to the buying side of the acquisition, to ensure that the purchase price and the premiums paid are justified (Thorsten 2020, 13). Because this thesis focuses on the post-acquisition phase, models focusing purely on that are considered. The next sub-chapter presents the model used in this thesis.

2.1 Post-acquisition integration strategies

The post-acquisition integration process starts when the M&A deal is closed, and it consists of the concrete combination of the operations, culture, capabilities and resources of the two merging companies. Many models have been created to categorize the different integration approaches companies use in order to reduce the complexity of the phenomenon (Steigenberger 2017, 409). The most influential of these models is the categorization of Haspeslagh and Jemison (1991) that uses the strategic interdependence and organisational autonomy dimensions to differentiate between approaches (Angwin & Meadows 2015, 235; Steigenberger 2017, 409). In addition to being considered significant, the model is used in the IT integration literature that has been examined for this thesis (see eg. Baker & Niederman 2014; Wijnhoven et al. 2006). Because of this, the model of Haspeslagh and Jemison will be adapted to consider different post-acquisition integration settings. However, the additions made to the model by Angwin and Meadows (2015) will also be taken into consideration to achieve a more comprehensive and up-to-date understanding of the phenomenon.

Haspeslagh and Jemison approach the post-acquisition integration phase from the perspective of value creation. They argue that in order for an acquisition to create value, capability transfer between the merging companies has to take place (Haspeslagh & Jemison 1991, 28). A failure to realise the potential value of an acquisition leads to value leakage (Wei & Clegg 2020, 1644). Haspeslagh and Jemison identify three different ways of capability transfer: resource sharing, functional skill transfer and general management skill transfer. In resource sharing, assets from both companies are combined to eliminate duplicate functions and gain economies of scale and scope. Functional skill transfer refers to improving competitiveness of one company by bringing in functional skills from the other company. Creating value this way can prove difficult as skills are usually embedded

in the activities and routines of the company and are hard to imitate. General management skill transfer concerns the transfer of management skills to make the other firm more competitive through improvements to the range and depth of general management. (Haspeslagh and Jemison 1991, 28-31.)

The model of Haspeslagh and Jemison considers the mode of value creation and the relationship between the two merging companies. It utilizes two dimensions: how interdependent the companies have to be to enable the desired level of capability transfer and how much independence the target company has to have to preserve its capabilities (Haspeslagh & Jemison 1991, 139). These two dimensions can also be seen as the hard approach of realizing cost and revenue synergies, also called task integration, and the soft approach of managing the human aspect of the integration, also referred to as cultural integration. Being able to balance these two dimensions is a notable challenge in the post-acquisition integration phase. (Kroon et al. 2022, 1133-1135.) Task and human integration are interdependent, and one affects the other: for instance, greater employee satisfaction can have an effect on capability transfer and resource sharing, and having greater task integration can enhance the shared identity of employees (Birkinshaw et al. 2000, 399). According to Kroon et al. (2022, 1132, 1152), in order for a company to achieve a successful outcome, a combination of hard and soft approaches is needed, together with taking into consideration the requirements of the integration process.

The model of Haspeslagh and Jemison is presented in Figure 2. Strategic interdependence refers to the extent to which the boundary between the two companies is disturbed, or even dissolved completely, in order to make capability transfer possible. The three capability transfer methods require different levels of strategic interdependence: Resource sharing would require dissolving the boundary completely since functions will be combined. Functional skill transfer calls for maintaining the boundary, as skills stem from the practices of the company. General management capability transfer can create value through both more direct involvement in decision-making and a more permanent installation of management systems and practices. Organisational autonomy, on the other hand, refers to the extent to which the boundary between the companies has to be maintained to protect the strategic capabilities acquired in the acquisition. As mentioned, some of the capabilities are tied to the processes and practices of the company in question.

By interfering with the culture and the established way of working in a company, an acquirer might end up destroying the capabilities. The level and scope of autonomy needed varies depending on how the strategic capability is imbedded in the company. (Haspeslagh and Jemison 1991, 139-143.) In addition to examining the interdependence and the autonomy of the companies, it is critical for integration planning to consider the degree of integration intended (Lees 2003, 114). For each integration strategy, the degree of integration as seen by Lees (2003) is also accounted for.

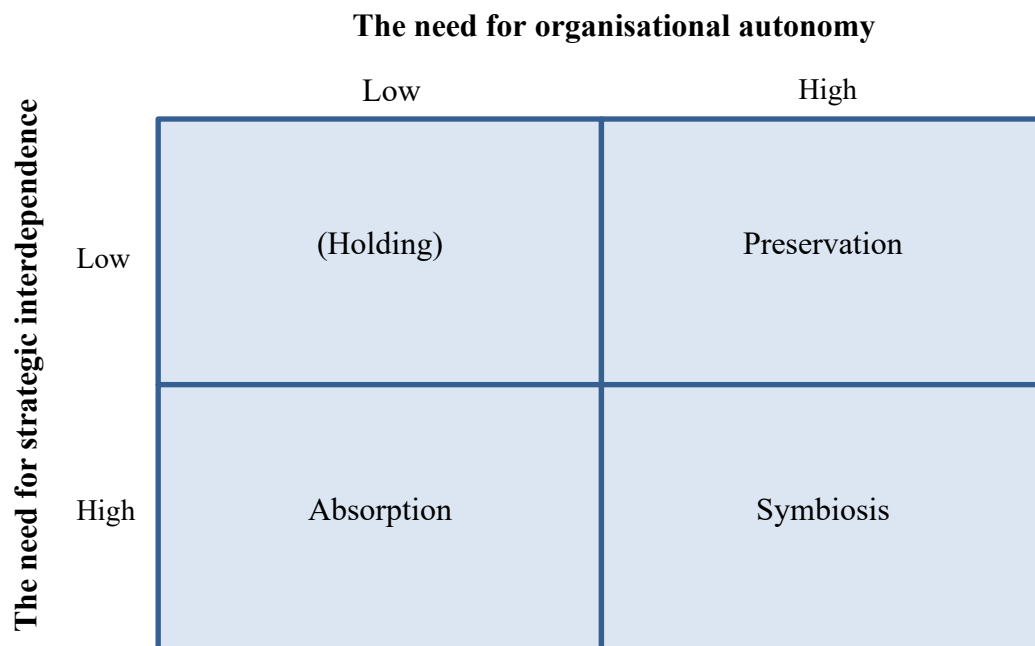


Figure 2 Types of post-acquisition integration approaches (From Haspeslagh and Jemison 1991, 145).

The model introduces three post-acquisition integration approaches: absorption, preservation, and symbiosis. In absorption, capability transfer requires high degree of interdependence, but the capabilities can be preserved without the need for autonomy. This approach usually implies fully integrating the target company to be a part of the acquirer. (Haspeslagh & Jemison 1991, 147.) Value is created through eliminating redundancies, absorbing assets, and taking control of core resources (Wei & Clegg 2020, 1674-1675). The companies can be considered fully merged after the acquisition, and the target is fully transformed into the acquirer's format (Lees 2003, 126). In preservation, the need for autonomy is high to preserve the organisational structure that the capabilities

of the target company are imbedded in, and there is low need for interdependence. The goal is to keep the target company intact to secure its success. (Haspeslagh & Jemison 1991, 148.) Integration is low, and the source of value creation is the acquired capabilities, know-how, and resources (Wei & Clegg 2020, 1677). This would be considered substantially autonomous in terms of degree of integration, meaning that there is very little changes apart from possible disposal of surplus operations, and capability transfer addresses those capabilities that are easy to transfer (Lees 2003, 118-119). In symbiosis, there is both high need for interdependence to enable capability transfer but also a high need for autonomy to preserve the capabilities. This approach is the most challenging for management, and usually the two merging companies first coexist and then gradually increase their interdependence. (Haspeslagh & Jemison 1991, 149.) Level of integration is moderate, and value is created through the interdependence of the firms, through boundary expansion and value sharing (Wei & Clegg 2020, 1676). This can be considered a variation of partial merging, a mutual merge, where best practices from each company are combined into a new organisation (Lees 2003, 126). A fourth approach is also introduced, labelled holding, but it does not involve integration, but creates value through other means such as risk sharing or financial transfers (Haspeslagh and Jemison 1991, 146-147; Wei & Clegg 2020, 1647). The target usually remains wholly independent and is considered to be a part of the portfolio of the acquirer. The value comes from the potential that the target already possesses, not the changes imposed by the acquirer. (Lees 2003, 115.)

The model of Haspeslagh and Jemison has been augmented by Angwin and Meadows (2015) who assessed multiple leading integration typologies to create a more holistic model. They argue that the original model does not take into account that acquisitions can be made with the intention of capturing value instead of creating it, such as in the cases where a target company is bought to explore a new market or gain tax advantages, and it fails to consider the condition of the target company before the acquisition (Angwin & Meadows 2015, 237). They confirm the integration strategies presented by Haspeslagh and Jemison but extend the model with two new integration styles: intensive care and reorientation. The extended model is presented in Figure 3.

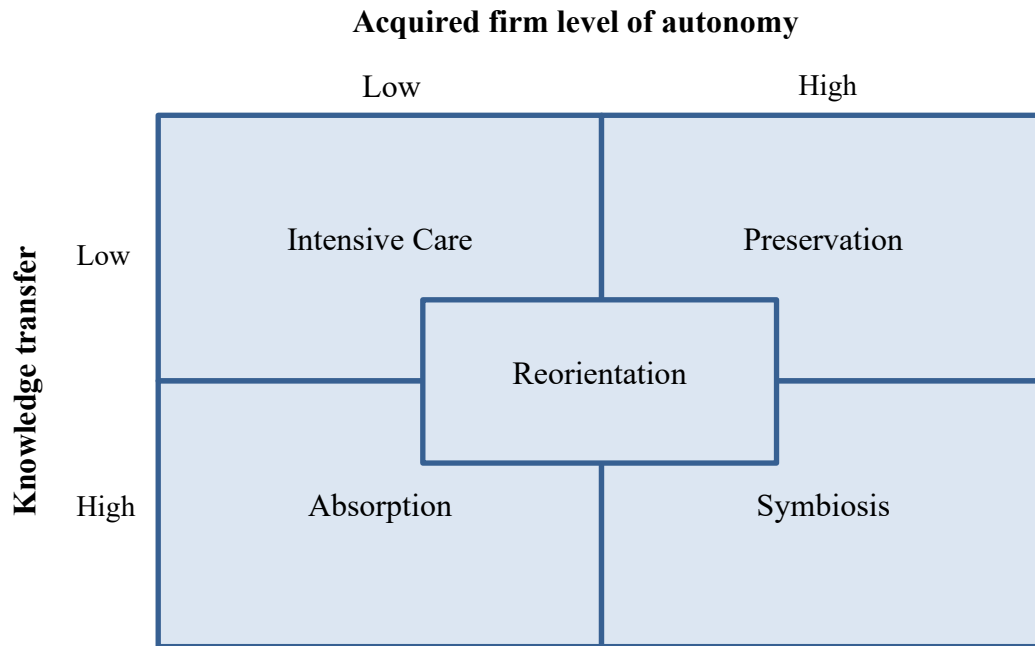


Figure 3 The extended post-acquisition integration model (From Angwin and Meadows 2015, 248)

Angwin and Meadows identified an integration strategy where a target company with poor financial health is being restructured in a very directive manner in order to restore it into a healthy condition. This integration style was named intensive care, and it replaced the mere holding approach in which no integration between companies is done. Speed of action, tight control and active intervention are important in this style, and the focus is on financial control to gain quick improvements. Contrary to the holding strategy, according to which the business is sold off eventually, it was found that in the intensive care strategy companies are retained and possibly even integrated further when in a better condition. (Angwin & Meadows 2015, 246.)

Literature has identified a need for hybrid approaches as well (Rouzies et al. 2019, 272). Research has found that all combinations of task and human integration have beneficial effects, which leads to ambiguity in which integration method to choose. It has been suggested that different integration approaches should be applied within a single M&A if the organisational context requires it. (Van Oorschot et al. 2022, 673-674.) Angwin and Meadows identified such an integration style called reorientation. It is characterized by the merging of administration and the quick harmonisation of customer-facing functions

like marketing and sales, while other areas of the organisation, such as the individual business units, are left independent. The target company is generally in good condition financially and there is no intention to restructure. The acquired company is being reoriented externally while its source of distinctiveness is being protected. (Angwin & Meadows 2015, 247-248.) The reorientation strategy can be seen as a middle ground between the other integration styles, combining different aspects of each based on the needs of different departments and functions.

Both intensive care and re-orientation can be considered substantially merged when talking about the degree of integration. This refers to a major, but not a total, restructuring of the target company. However, the approach is different: In re-orientation, the acquirer is seeking economies by integrating loosely related targets through merging the front-end functions while maintaining the targets core activities intact. In intensive care, the acquirer is buying turnaround, and deep intervention is needed to remodel the functions of the target into those of the acquirer. (Lees 2003, 119-120.)

Because of the continuous evolvement of IT solutions, it is important to take into consideration the more previous model of post-acquisition integration strategies proposed by Angwin and Meadows. This allows for developing considerations beyond those already existing in current academic literature (cf. Baker & Niederman 2014; Wijnhoven et al. 2006) and accounting for the different kinds of roles IT can have in these post-acquisition integrations, which will be discussed more in chapter 3.2. Even though there are many factors affecting the appropriate integration method, the model introduced above will be utilized as a starting point, and further considerations will be made based on it. One of these considerations is the context of serial acquisitions, which is discussed in the next sub-chapter.

2.2 Post-acquisition integration of serial cross-border acquirers

2.2.1 Characteristics of serial acquirers

Serial acquirers conduct multiple single acquisitions that can ultimately be seen to form an acquisition program. Motivations behind serial acquisitions can be financial or strategic, and acquirers with financial motives usually tend to aim for short-term gains while acquirers with strategic motives are looking for long-term gains such as growth

through value creation or strengthening its market power (OECD, Serial acquisitions and industry – –). Since the focus of the thesis is on the integrations of serial acquirers, acquirers with purely financial motives, such as private equity companies, that usually do not do integrations, will not be taken into account.

Compared to an individual acquisition, an acquisition as a part of an acquisition program is impacted by the previous acquisitions of the acquirer (Laamanen & Keil 2008, 663). Companies learn from their past acquisitions and develop routines which are refined by each new acquisition made (Chao 2018, 162, 166). The learnings from past acquisitions are referred to as acquisition capabilities, and include the processes, structures, knowledge and skills accumulated. These are unique to acquisitions made by serial acquirers since processes and structures are not worth establishing for an individual acquisition (Laamanen & Keil 2008, 664.) and knowledge and skills are acquired through experience and alongside past acquisitions (Chao 2018, 163). Path dependence can be assumed between previous and new acquisitions because of acquisition capabilities, but a serial acquirer's performance is also affected by its acquisition program characteristics (Navío et al. 2020, 425-426).

Due to path dependencies and links between acquisitions, managers need to manage series of acquisitions from the point of view of an acquisition program (Chao 2018, 167). Just as the acquisition program brings with it acquisition capabilities to improve the managing of individual acquisitions, it also requires the acquirer to focus on handling multiple, sometimes interlapping, acquisitions. A high rate of acquisitions places a strain on management as managers need to address the issues related to acquisitions while simultaneously running the existing business operations (Laamanen & Keil 2008, 664-665). Time between acquisitions also matters: Learning effects, routines and acquisition capabilities take time to develop (Chao 2018, 166-167) but a too long period between acquisitions can actually lead to the dissolving of the capabilities and routines (Laamanen & Keil 2008, 664). According to Navío et al. (2020, 426), transferable benefits from previous acquisitions are presented with intervals between 6 and 12 months. In addition, variability of intervals between acquisitions affects acquisition performance, as a low variability contributes to predictability and a better distribution of management capacity (Laamanen & Keil 2008, 665).

The effects of acquisition program characteristics are balanced out by other factors, such as the size and the past experience of the acquirer. Larger serial acquirers have more resources that they can allocate to the acquisition processes, while smaller ones face a trade-off between their existing business and the acquisitions. The familiarity of the industry of the target is also an affecting factor. If the acquisition program is focused on an industry where the acquirer operates, it is easier for the acquirer to manage the negative effects of factors like acquisition rate and variability. Acquiring dissimilar targets requires more organisational resources. (Laamanen & Keil 2008, 664-666.)

2.2.2 Post-acquisition integration in serial acquirers

Due to engaging in multiple acquisitions, it is worth it for serial acquirers to establish a dedicated M&A function that supports the M&A process. Jemison and Sitkin (1986) identified impediments in the M&A process that can result in the choice of an inadequate integration strategy. They argue that the acquisition process itself can affect the success of the integration (Jemison & Sitkin 1986, 148). As serial acquirers use the same processes in multiple acquisitions, it is paramount that these processes support the integration of each new target in order to avoid negative cumulative impacts. According to Weber et al. (2019, 297, 334), the existence of an M&A function has been identified to be important for improved decision-making and facilitating strategy execution throughout the M&A process. A dedicated M&A function can address the impediments brought about by the acquisition process.

Three of the four impediments identified by Jemison and Sitkin are especially important in the post-acquisition integration phase. These are activity segmentation, escalating momentum and management system misapplication. Acquisition activities are usually technically complex, which leads to the company segmenting the tasks between teams, and even relying on outside help. However, this task segmentation leads to a lack of integration and a bigger focus on the strategic analysis, contributing to task integration, at the cost of organisational analysis, contributing to human integration. (Jemison & Sitkin 1986, 148-151.) Serial acquirers can use different mechanisms through their M&A function to facilitate integration and prevent task segmentation. The M&A function can promote trust and information sharing, which leads to improved decision-making and a more integrated process. (Weber et al. 2019, 306-309.) Since serial acquirers make

acquisitions on a regular basis and can have a dedicated function for them, they also don't need to rely so heavily on external help. Another impediment affecting the choice of an integration strategy is escalating momentum. There are forces at play in acquisitions that contribute to completing the process too quickly, which leads to premature solutions and integration issues (Jemison & Sitkin 1986, 151). External forces and executive board level decision makers can drive the process forward too fast. The M&A function can apply control mechanisms, that allow decision making to be done in-house and at a pace where all matters can be taken into consideration without negative impacts of escalating forces. (Weber et al. 2019, 317-318.) The third impediment that can have a negative impact on the integration strategy is management system misapplication. The acquirer might have such a desire to help the new subsidiary that it becomes overconfident about its own capabilities and ends up being too heavily involved in the matters of the subsidiary (Jemison & Sitkin 1986, 159). This can be detrimental in acquisitions where target autonomy should be kept high to preserve value and capabilities. The M&A function can ensure a collaborative partnership with the top management teams to make sure they are included in the process but do not have too much control (Weber et al. 2019, 324). To conclude, the M&A function is important in controlling the M&A process in order to make adequate decisions on the integration approach. The function especially prevents too big a focus on task integration and too little consideration of target company autonomy and human integration, since many impediments in the M&A process might lead to an overemphasis on only one dimension of the choice of post-acquisition integration strategy.

Serial acquirers can improve their acquisition program performance by developing acquisition capabilities and forming a dedicated M&A function to oversee the process. Acquisition capabilities allow for a serial acquirer to have structure in its acquisitions so that they have something to draw from in each new acquisition. The M&A function ensures that the impediments of the process do not compromise choosing the appropriate integration strategy for each acquisition. This is critical, as it has been found that suboptimal integration ultimately leads to the depletion of integration capabilities. Colman and Lunnan (2024) identified a process in which incorrectly identifying the needed task and human integration of a target lead to a poor choice of integration strategy which in turn resulted in relational disruptions in the acquirer. These disruptions caused

strains on managerial capacity, issues in operations coordination and integration of people and a decrease in the ability to handle changes. The depletion of these human resources also led to a depletion of acquisition capabilities.

Though the process identified by Colman and Lunnan (2024) finds a link between suboptimal integration and serial acquirer acquisition capabilities, it also identifies another implication for the choice of post-acquisition integration style in serial acquirers. They argue that relationships are affected by integration restructuring, and when relationships face frequent changes, the organisational resources that enable both daily operations and new acquisitions deplete (Colman & Lunnan 2024, 3, 25). The relational disruptions arise time and time again in the acquirer's organisation, as they take part in subsequent acquisitions and their organisational structure, roles and relationships change. To prevent this from happening and to protect integration capabilities, serial acquirers should opt for integration strategies that impose minimal or no changes in the acquirer organisation. This would mean that especially the symbiosis strategy should be avoided as both the target and the acquirer need to make changes and adjustments to processes and culture in order to operate interdependently to preserve both companies' cultures and capabilities. This could, however, mean that the serial acquirer might not be able to utilise the full potential of the target company and might destroy some of the valuable capabilities of the target due to them being incorporated in the target's culture.

2.2.3 The cross-border dimension

Companies that do business across borders face additional challenges on configuring and coordinating their operations because of location complexities (Van Oorschot et al. 2022, 676). Cross-border M&A naturally deals with cross-cultural challenges (Liu & Woywode 2013, 470), and cultural compatibility, differences, and their implications such as the liability of foreignness have always been deemed impactful considering an M&A deal. The uncertainties brought on by cultural differences can be overcome by addressing them with proper organisational integration. The M&A function together with the HR department can implement tools and methods to ensure effective cultural integration. (Panibratov 2017, 1110-1115.) However, cultural differences also have an effect on the choice of the integration strategy as a whole (Liu & Woywode 2013).

Cultural distance, referring to the degree of difference between the cultures of two countries, has been found to enhance cross-border acquisition performance through providing opportunities for the formation of richer knowledge-based resources and a more diverse set of routines (Ahammad et al. 2016, 68, 73; Morosini et al. 1998, 137, 153). Companies from culturally more distant countries often have capabilities that the acquirer cannot find in their home country (Ahammad et al. 2016, 68), and these should be implemented in the acquirer organisation through knowledge transfer. In addition to providing a possibility for richer knowledge transfer, cultural distance also affects the choice of integration strategy. Liu and Woywode (2013) talk about how Chinese companies making acquisitions in Europe adopt strategies that emphasize the autonomy of the target, since the national cultures, which have an effect on the organisational practices, are so different. Too tight integration into the practices and processes of a culturally distant acquirer might leave the employees of the target confused and frustrated. (Liu & Woywode 2013, 477, 479.) However, Panibratov (2017, 1125) argues that changes brought on by integration and the new, integrated organisational culture overall help reduce national culture related issues.

Knowledge transfer is seen to be a strong indicator of cross-border M&A success (Ahammad et al. 2016, 73). The acquirer also needs to possess absorptive capacity, meaning they are able to understand and apply new knowledge available (Liu & Woywode 2013, 473), in order to perform knowledge transfer effectively. Ahammad et al. (2016, 68-69, 73) argue that national cultural distance and organisational culture differences have an impact on absorptive capacity through assisting in the formation of unique knowledge-based resources and encouraging knowledge transfer. Additionally, they also find a contradictory relationship between organisational cultural differences and cross-border M&A performance. On one hand, they find that organisational cultural differences have a negative impact on cross-border M&A performance, but on the other hand, their findings indicate that knowledge transfer and cross-border M&A performance are positively linked through the mediating effect of organisational culture distance. (Ahammad et al. 2016, 73-74.) In other words, keeping the target company autonomous and preserving the culture enable knowledge transfer and keep the organisational capabilities intact. However, since organisational culture distance affects the overall acquisition performance negatively, the target should be gradually integrated to be a part

of the acquirer. This can be especially tricky for serial acquirers, since they are not able to adopt symbiosis as a post-acquisition strategy due to the relational disturbances and acquisition capability depletion it causes.

Van Oorschot et al. (2022) approach the topic of cross-border M&A from the point of view of collocating. They found that when acquirer and target collocate, meaning some operations are centralised to a shared location, human integration needs to be emphasized, while task integration is the preferred approach when working in separate locations. They state that when companies collocate, people start working together more, which calls for human integration in order to prevent relational disruptions, despite the chosen knowledge transfer method. When working separately, it is essential to ensure the new organisation functions across different locations, which is why task integration needs to be emphasised. In other words, they argue that when a company works across borders, what primarily affects the choice of integration strategy is whether operations are colocated so that employees of the two companies work in the same location, regardless of whether interdependence is done through resource sharing or skill transfer.

To sum up, the cross-border nature of an M&A brings with it both opportunities and complexities in the form of cultural differences. Cultural differences on both national and organisational level promote knowledge transfer through richer knowledge-based resources, but organisational culture distance can hinder cross-border M&A performance. These uncertainties can be addressed with proper integration of companies, but too tight integration can affect the employees and processes of the target. This causes serial acquirers issues, since symbiosis as a post-acquisition integration strategy is off the table, and they are left with integration strategies that do not fully let them respond to the requirements or utilise the benefits cross-border acquisitions have to offer. Task integration might be enough in cases where companies work separately, but when collocating, cultural integration is necessary in order to avoid relational disruptions. It would seem that the reorientation or strategy would work best for serial cross-border acquisitions, if knowledge transfer is a high priority to the acquirer. This strategy would ensure that the target organisation would remain somewhat autonomous and core capabilities would be preserved, while still integration is promoted, which reduces conflict from cultural differences. The implications serial cross-border acquisitions have

on IT integrations will be discussed more in sub-chapter 3.4, before which IT integration is discussed more in the next chapter.

3 IT integration in mergers and acquisitions

IT integration refers to making two information systems function together by passing information between them (Gulledge 2006, 5). This usually refers to software and systems, such as customer relationship management software (CRM), enterprise resource planning software (ERP), order management system, point-of-sale system and so on. IT systems can be integrated into a collection of compatible systems that exchange data, or a separate, integrated application can be developed to replace the former systems (Piccoli & Pigni 2022, 48). These integrations can have one central place for storing data – such as a data lake or a warehouse – or they can be constructed on a point-to-point basis between two systems, something that is a much more expensive solutions if there are multiple systems in use (Gulledge 2006, 6). It is important to integrate IT systems to avoid siloed data and redundancy of systems (Piccoli & Pigni 2022, 47).

IT integration within a company can be seen to differ from an IT integration between two merging companies. Integrating a company's IT solutions usually deals with ensuring data flow between the systems and making them work together on the company wide basis. However, in M&A, companies have overlapping systems and equipment, and this needs to be addressed. IT integration in M&A context is mostly concerned with finding a way to deal with duplicate IT solutions that essentially address the same needs. For instance, if two merging companies both have their own CRM, ERP, servers and computers, the new merged company has to decide whether they keep these IT solutions as separate entities and make data flow integrations between them, or whether they integrate them by making a set of IT solutions into a global standard and removing duplicates. What is challenging with replacing existing systems is that IT solutions are organisationally embedded into the wider sociotechnical system of the company (Piccoli & Pigni 2022, 24), and changing them would require changing internal processes as well. Under pressure to finish the M&A integration quickly, companies might be tempted to use a short-term IT integration strategy of data flow integrations between company systems instead of implementing a long-term strategy of selecting global standard systems (Yetton et al. 2013, 20).

3.1 IT integration methods and IT-business alignment

IT integration approaches can be grouped into different subcategories based on the realised new structure in comparison to the IT landscapes of the merging companies before integration and the degree of integration. A well-known and widely used categorization groups integration methods under four headings: absorption, co-existence, best-of-breed and renewal. This categorization has been the prominent view in IT integration literature since the late 1980s. (Henningsson et al. 2018, 261.) The categorisation is visualized in Figure 4.

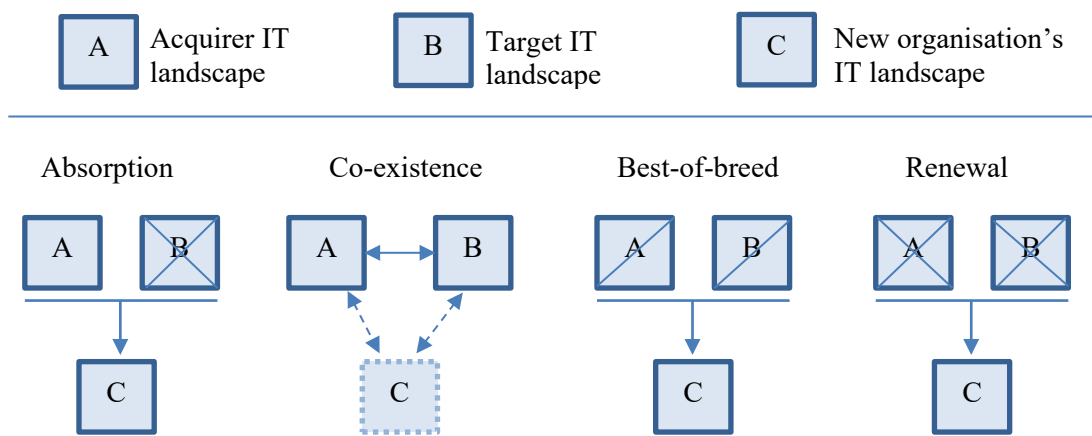


Figure 4 IT integration methods (adapted from Harrell & Higgins 2002 and Wijnhoven et al. 2006, 11)

Absorption refers to the use of one company's IT and thus eliminating the costs of the other company's systems. There are no integration issues, but the conversion might cost time and money. In co-existence, the two IT of the companies are both kept and there might be some integration through bridges between systems to periodically synchronize them. This approach recognises that the technologies might be organisationally embedded in very different ways, preventing further IT integration. However, it also prioritizes short-term gains over long-term, since there might be problems with information sharing and flow in the future. Best-of-breed method creates a new standard for the companies out of the best parts of both IT systems. This method realizes economies of scale, but the very different components of the two IT might be difficult to integrate. Lastly, renewal discards of both companies' IT systems and takes on a completely new IT system. This

ensures that both companies are using the same shared system, but it requires converting all business operations to the new system and training all staff members in both companies to use the IT. (Harrell & Higgins 2002, 25-27; Wijnhoven et al. 2006, 10-11.)

Integration can also be examined through alignment of IT and business. This consideration is important, since according to the alignment view, IT solutions can also have an effect on the strategy and operations of the company in general, thus improving the alignment between companies. However, due to path dependencies, this kind of influence might not be possible in serial acquisition cases. To address alignment, the IT-business alignment model of Henderson and Venkatraman (1992) will be utilised. The model has been deemed a classic (Reynolds & Yetton 2015, 102), and has been utilised to research IT integrations in the M&A context (Wijnhoven et al. 2006) and IT alignment in multi-business organisations (Reynolds & Yetton 2015). These extensions to the original model will be referred to later in this chapter.

The IT-business alignment model looks at how business operations and processes are aligned on two levels, the internal level of the company and the external, market facing strategic level. On the external level, a company's business strategy and IT strategy have to be aligned, and the connection between them reflects the role of IT strategy as both a supporter and shaper of business strategy. The competitive role of IT is highlighted: an IT strategy can be formulated to enable the realisation of the business strategy, but in order for a company to obtain new competitive advantages through IT, they have to be able to leverage IT competences to transform the business. On the internal level, the internal operations, processes and structures have to be aligned with the IT systems and solutions to ensure coherence between organisational requirements and the capabilities of IT. Additionally, the internal and external levels need to be aligned so that the company's external positioning in the market and the internal structures and arrangements support one another. (Henderson & Venkatraman 1992, 97-106.) However, Weill and Broadbent (1998, 40) argue that complete alignment is not sustainable as the context in which the company operates in constantly changes and IT portfolios take a long time to develop. This is the case especially for serial acquirers, which will be addressed after the next sub-chapter. This model can be used as a base to determine the best IT integration method to get the most out of the IT solution.

3.2 Combining post-acquisition integration strategies and IT integration methods

The choice of IT integration method should align with the choice of post-acquisition integration strategy to ensure M&A integration success (Baker & Niederman 2014, 112) since IT integration can be seen to be a part of the overall acquisition integration. However, interpreting which IT integration method sufficiently supports each post-acquisition integration strategy can be a complicated and time-consuming process (Wijnhoven et al. 2006, 5). To answer this, prior research has found combinations of post-acquisition integration strategies and IT integration methods to help with choosing compatible integration approaches.

By synthesising prior literature, the IT integration methods found by Harrell and Higgins (2002) can be examined using the two dimensions of the post-acquisition integration model found by Haspeslagh and Jemison (1991) and revised by Angwin and Meadows (2015): to what extent is knowledge needed, or wanted, to be transferred and to what extent does the acquired company's organisational culture need to stay autonomous. IT can be seen to play a significant role in the target company's processes and operations. IT is used by all organisational levels from functional operations to top management. If an acquirer is interested in a company because of its knowledge and capabilities, it should ensure that the IT solutions enabling those resources are integrated in a suitable manner. If the primary interest is resource sharing and the cost benefits it brings, IT integration needs to address the issue of duplicate solutions. In pursuing functional skill transfer, some or all of the IT of the target company should be preserved, or a similar IT structure should be established, since skills are often embedded in the operations of the company. IT is also heavily used by management to acquire accurate and up-to-date information to support decision-making. The transfer of management skills would thus require similar capabilities of data gathering and analysis from the integrated IT solution. In addition to other capabilities pursued in a merger, IT itself might be the resource the acquirer is after. In this case, the integration could be done to implement the IT into the practices of the acquiring company through a best-of-breed integration. Through the embeddedness of IT with processes and the ways of the people who use it, IT is also connected to the target company culture, and the intent of maintaining or dissolving the target company culture

should be taken into consideration in the choice of IT integration method. If it is important to maintain the autonomy and the unique culture of the target company, the realised IT solution should support this culture and the integration done accordingly. Vice versa, if the IT of the target company is something that the acquirer is after and wants to implement into the acquirer organisation, the target company culture should be kept intact in order to preserve the IT capabilities. However, if autonomy is low and the target company is being absorbed by the acquirer, there is no need for the IT integration to take into account how the target company's culture affects the relationship between IT, processes and people.

Wijnhoven et al. (2006, 19-24) found a rather linear relation between post-acquisition integration and IT integration in single M&A context. By adapting the IT-business alignment model, they theorized that the choice of IT integration method would be affected by the post-acquisition integration strategy chosen and the pre-merger organisational and IT structures. They also found other factors that affected the choice of IT integration method, such as differences in the type of IT and locational and market differences. Based on a three-case study, they found that best-of-breed integration approach was chosen for the symbiosis post-acquisition integration strategy, and co-existence method for the preservation strategy. They also mentioned that renewal was considered in two of the cases, coupled with symbiosis and absorption, but was either postponed to be realized in a later stage of the merger integration or changed because of a change in the post-acquisition integration strategy. These combinations of Wijnhoven et al. are in line with those of Baker and Niederman (2014, 115-116), who paired the organisational and IT integration styles as follows: absorption – absorption, symbiosis – best-of-breed, and preservation – co-existence. Any other choice of IT integration would lead to a non-aligned pairing where there would be more or less IT integration than would be suitable for the merger integration strategy. The non-aligned pairings were found to be the result of not including the question of IT integration into the due diligence phase of the M&A and thus underestimating the value of IS assets. However, the non-alignment could be balanced out with good quality communication and conflict resolution, leading to successful outcomes. (Baker & Niederman 2014, 119-120.)

The previous literature examined above has only used the model of Jemison and Haspeslagh when considering the different post-acquisition integration strategies. To get a more comprehensive idea of the merger and IT integration combinations in a single M&A context, the additions made by Angwin and Meadows are taken into consideration. In intensive care, being characterized by the poor health of the target company, the acquirer would most likely not want to have a combination of the two companies' IS in the form of best-of-breed. The directive manner and tight control of the strategy would also rule out co-existence of IT. The acquirer does not wish to transfer knowledge from the target, and target company autonomy is low, which is why absorption of target company's IT would be the best suitable method of integration. This would ensure quick and controlled redirection of the target company IS to restore its health. The reorientation strategy, on the other hand, is balancing between the integration of some parts of the organisation and the independence of others. The integration of externally facing functions such as marketing and sales would require the integration of their IT to ensure the flow of data in between customer facing teams. This could be achieved with absorption, best-of-breed or renewal methods. However, to protect the target company's source of distinctiveness and ensure a sufficient level of autonomy, full integration of IT should not be done. This could be achieved with co-existence. Due to the contradictory needs of different departments and functions of the companies, no one IT integration method can be used, but a combination of methods should be implemented to adhere to the post-acquisition integration objectives. The above discussion of post-acquisition integration strategy and IT integration method combinations is summarized into Table 1 where the first column lists the post-acquisition integration approach and the second column the possible IT integration methods to be utilized with that approach.

Table 1 Post-acquisition integration and IT integration combinations

Post-acquisition integration approach	IT integration method
Symbiosis	Best-of-breed
	Renewal
Preservation	Co-existence
Absorption	Absorption
	Renewal
Intensive care	Absorption
Reorientation	Mix of methods

Though the use of the typologies and their combinations reduces the complexity of the phenomenon, the larger context needs to be taken into account. General combinations can be created, but their adaptability needs to be evaluated based on individual cases. One of these specific contexts is that of serial cross-border acquirers, which will be brought into the picture in sub-chapter 3.4, after the preliminary overview of IT-business alignment in serial acquisition context in the next sub-chapter.

3.3 IT-business alignment in serial acquisitions

Previous literature assumes that business and IT are aligned at a single point in time and the alignment is adaptive after the initial alignment (Reynolds & Yetton 2015, 101-102; cf. Henderson & Venkatraman 1992). However, in a serial acquirer context, both the business and IT strategy landscape change constantly with the introduction of new acquisitions. This means that in addition to aligning the business and IT strategies in and between the acquirer and the newly acquired target, the acquirer also needs to confirm alignment with past acquisitions. Past acquisitions also restrict the alignment with the new acquisition due to path dependency, since already established IT solutions might prevent the implementation of other solutions, or significantly increase the costs of doing so.

Reynold and Yetton (2015) created a model for the alignment of business and IT strategy in a multi-business organisation based on the model of Henderson and Venkatraman (1992). They talk about three types of alignment. Functional alignment ensures that IT

supports the business strategy both on the corporate and business unit level. Structural alignment addresses allocating appropriate decision-making rights between corporate and business unit level in order to support both levels in competing in their own markets. Temporal alignment refers to path dependencies in IT decisions. Reynolds and Yetton argue that there are two components to path dependencies, one being the initial choice of platform and the other being the developments made during the corporate investment cycle. Both of these components reduce the flexibility of IT and limit future options. (Reynolds & Yetton 2015, 107-112.) Yetton et al. (2022, 7-8) revised the model further by talking about complementarity in the context of functional and structural alignment and by taking into account the alignment between business units. These two models act as a base for the IT – business alignment model in the serial acquirer context presented in Figure 5.

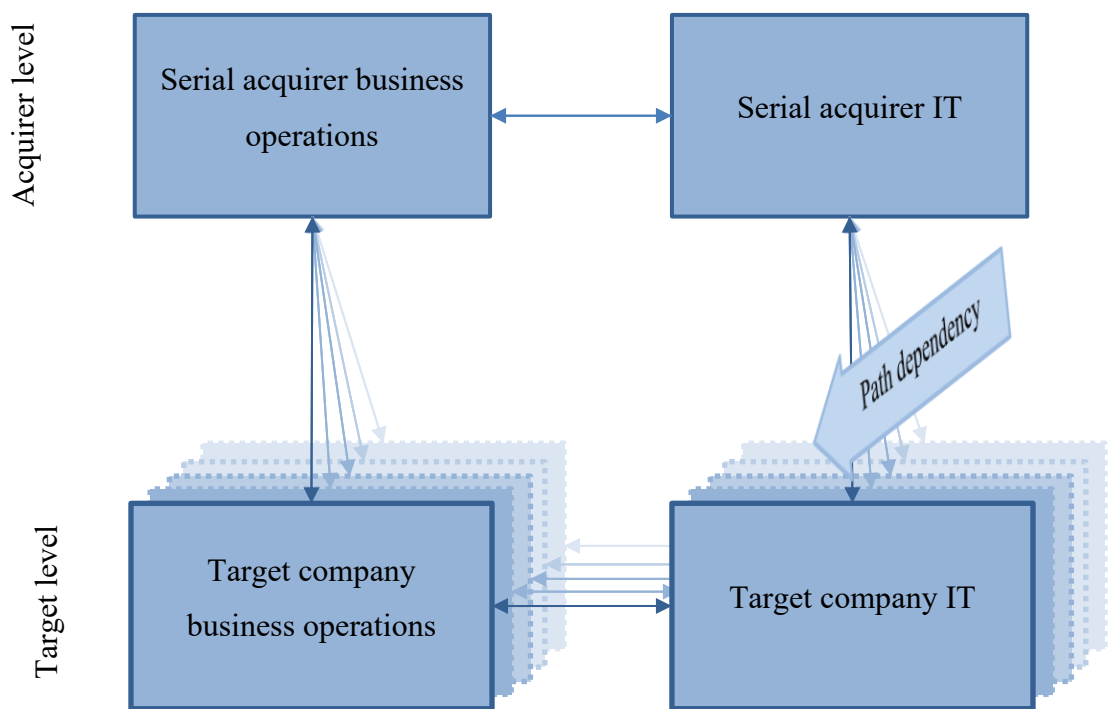


Figure 5 Operational level IT-business alignment in serial acquirer context (Adapted from Reynolds & Yetton 2015 and Yetton et al. 2022)

The two boxes at the top of Figure 5 represent the processes and IT of the serial acquirer, while the boxes at the bottom of the figure represent the processes and IT of all the targets the acquirer has acquired. The thin arrows represent the relationship between these

structures: the horizontal ones represent the alignment between IT and business inside an individual company, and the vertical ones reflect the alignment between the acquirer and its targets. Alignment between business operations and IT inside a company refers to business operations defining IT solution needs, and IT should be able to support business operations in order to preserve company capabilities. If operations change, IT should continue being aligned to ensure realization of business benefits (Yetton et al. 2013, 30). The overall alignment between acquirer and target has to do with choosing a proper post-acquisition integration strategy, which will be discussed more in the next subchapter. The alignment between acquirer and target IT is determined by the choice of IT integration method. The diagonal bold line above target company IT refers to how IT integrations in previous acquisitions affect the IT decisions in later acquisitions through path dependency.

IT integration should be done individually in each acquisition in order for the IT to support the target in its own market. Still, in a serial acquirer context, IT integration is affected by past acquisitions, which is depicted as path dependency in Figure 5. Henningsson (2015) talks about serial acquirers developing knowledge through routines and expertise that assist with implementing already used IT integration methods again in new acquisitions. However, he also states that serial acquirers can sometimes misinterpret the outcomes of past integrations and consequently apply methods that do not fit the context. This happens especially since IT does not have a direct impact on performance, which is why it is prone to outcome ambiguity. In addition to having capabilities to perform IT integrations, Yetton et al. (2013) argue that a scalable IT platform is a necessity for a serial acquirer in order to be able to manage different kinds of IT integrations. Future acquisitions can require either expanding or extending the IT solutions, and the acquirer's solutions should cater to both as well as possible. They say that absorption is the default IT integration option since it reduces the risk of IT complexity and eases the IT integration implementation. However, they also state that if the target's IT resources are superior to the acquirer's, they should be adopted as a standard, referring or best-of-breed method. (Yetton et al. 2013, 20, 22, 32-33.) Whichever method is chosen, the outcome should ensure horizontal alignment with business operations on both acquirer and target level.

The effects of previous IT integration decisions on subsequent acquisitions make the serial acquirer context particularly difficult. Previous acquisitions affect later acquisitions through path dependence, since already established IT structures are difficult to change. If the acquirer has decided on an IT configuration in the past, this might prevent it from using best-of-breed and renewal integration methods since these would require making changes to the acquirer's configurations, and to every configuration made with previous targets. Goumagias et al. (2022) identify two configuration pathways to address the situation: horizontal reconfiguration, referring to changing from one configuration to another, or in this case using best-of-breed or renewal, and vertical reconfiguration, meaning identifying complementary configurations, referring to co-existence. They argue that if changing the configuration completely would be too complex and costly or threaten the capabilities of the acquirer, complementary configurations, co-existence, can be considered. This will increase the complexity of IT, which can also be detrimental in the long run. (Goumagias et al. 2022, 78-79, 87.) However, it also prevents misalignment between target company operations and IT and protects both acquirer and target capabilities. According to Yetton et al. (2013, 31), misalignment between operations and IT can compound across multiple acquisitions, which would also lead to issues down the line.

It is crucial to choose an appropriate IT integration method for each acquisition in order to avoid misalignment between operations and IT and its compounding. However, due to path dependency, previous choices limit the possibilities in the future, because changing the entire IT infrastructure of both acquirer and past targets might prove impossible. Especially IT integration methods that require changes in the acquirer are off limits further down the line in order to avoid costly changes. However, this jeopardizes alignment between target company operations and IT and might even hinder the overall post-acquisition integration of the target into the acquirer. The post-acquisition integration view will be discussed more in the next sub-chapter.

3.4 Theoretical framework: IT integration in the post-acquisition integration of serial cross-border acquirers

The acquisitions made by a serial acquirer have to be examined as a part of an acquisition program. Previously made acquisitions have an impact on the following, and thus limit

the options available for integration operations and IT. The theories presented in this thesis have to be brought together to get a theoretical framework for IT integrations in serial cross-border acquisition integrations. The choice of IT integration method is determined by the used post-acquisition integration strategy, and these have to be aligned to ensure the alignment between the serial acquirer and the target and operations and IT between both companies. The cross-border dimension can be seen to affect IT integration indirectly through affecting post-acquisition integration as a whole. Figure 6 attempts to depict the phenomenon and its relationships as a whole from the point of view of alignment.

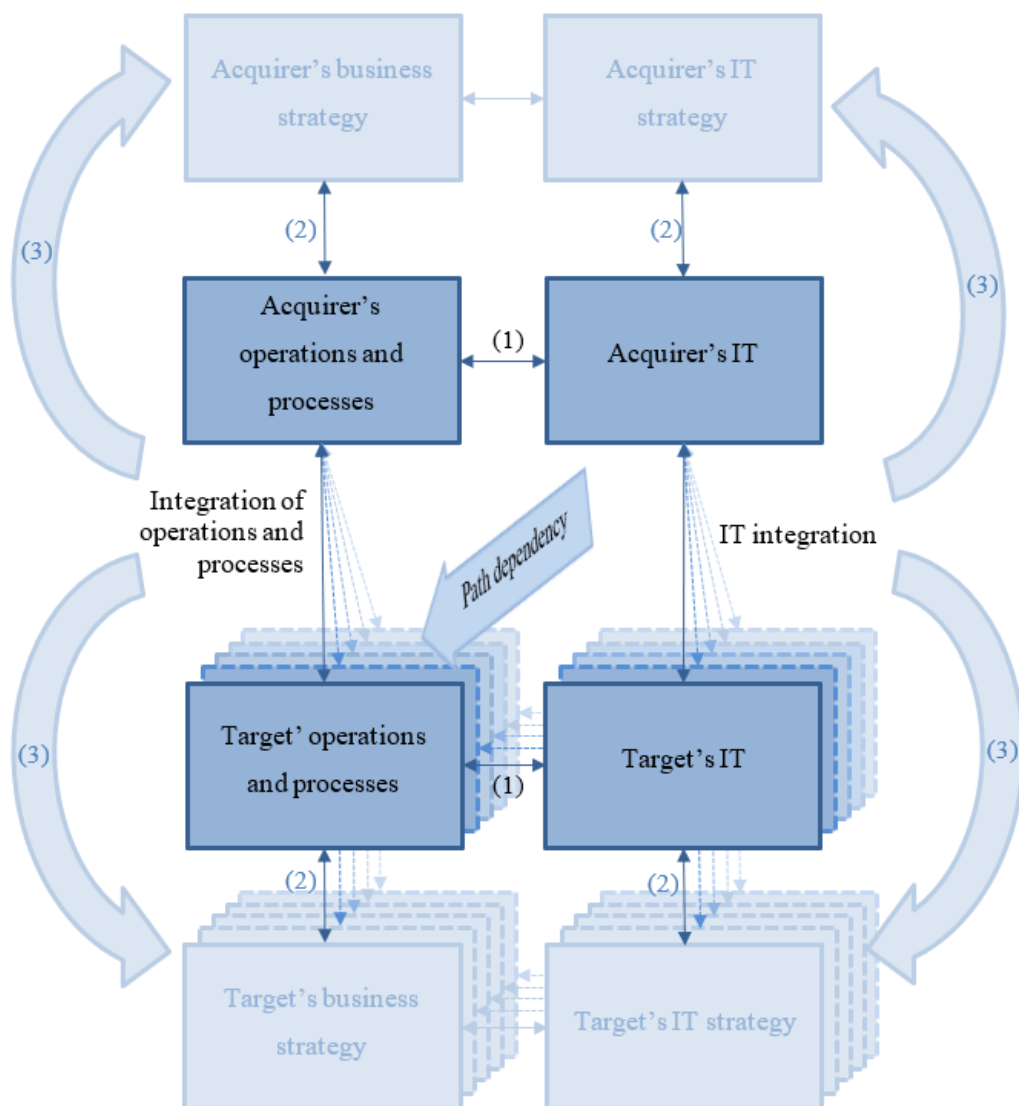


Figure 6 IT-business alignment in serial acquirer integration

Figure 6 depicts the IT-business alignment a serial acquirer has with its targets. The bolder area in the middle of the picture depicts post-acquisition integration, which is comprised of the integration of operations and processes and IT integration. Both of these are affected by the desired interdependency between companies to enable knowledge transfer and the required level of autonomy in the target to preserve capabilities. The horizontal arrows between operations and processes and IT (1) on both the acquirer and target level reflect the need for complementarity between these to ensure IT supports the execution of operations and processes and IT competences can be utilized.

The lighter areas of Figure 6 depict the strategic, market facing level of the acquirer and its targets. Even though they are not directly affected by the post-acquisition integration of the merging companies, there are some indirect implications: Since there is also a need for alignment between the operational and strategic level inside each company (2), post-acquisition integration can also have an effect on the strategic level of the company (3), depending on the integration strategy chosen. For instance, if the acquirer wants to leverage the competences of a target as a new area of business, it has to adjust its strategy accordingly in order to utilize the business opportunity. Conversely, if the acquirer absorbs the target and fuses it as an extension of its operations, the strategy of the target will be changed. Similarly, the introduction or termination of IT solutions has an effect on the overall IT strategy. These adjustments need to be made in order to align the internal structures and the external market positioning of the companies.

The biggest difference between a singular acquisition and an acquisition as part of a serial acquisition program is the effect the previous acquisitions have on the following. Path dependency prevents the acquirer from choosing certain post-acquisition integration strategies and IT integration methods, because already established structures and solutions would be difficult to change. Since the acquirer has already aligned its operations, processes and IT with past targets, new acquisitions are not able to utilize strategies that have large effects on the acquirer. Because of these, symbiosis and some cases of reorientation as a post-acquisition integration strategy, and best-of-breed and renewal as IT integration methods are out of the question as they would require making adjustments on the acquirer's side as well.

Cross-border acquisitions bring another dimension into post-acquisition integrations through limiting the possibility of value creation and retention. It was earlier established that symbiosis would be the most suitable post-acquisition integration strategy for cross-border M&As since it takes into consideration both the need for knowledge transfer and the effect organisational cultural distance has on cross-border M&A performance. However, since it is difficult for a serial acquirer to adapt its operations and processes to meet the expectations of the symbiosis strategy due to path dependencies, the acquirer is left with options that might not realise the full value of the acquisition because of an overemphasis on either task integration or cultural integration.

The discussion above is summarised into revised pairings of post-acquisition integration strategies and IT integration methods in Table 2.

Table 2 Post-acquisition integration and IT integration combinations in serial acquisitions

Post-acquisition integration strategy	IT integration method
Preservation	Co-existence
Absorption	Absorption
Intensive care	Absorption
Reorientation	Co-existence
	Absorption

Table 2 sums up the discussion above into post-acquisition integration strategy and IT integration method pairs that can be utilized in a serial acquisition setting. Compared to the original pairings in Table 1, symbiosis as a post-acquisition integration strategy and best-of-breed and renewal as IT integration methods have been removed due to them not being suitable for this context. The remaining strategies have been paired up with an IT integration method that would follow the knowledge transfer and autonomy requirements of the acquisition. Reorientation could be seen to utilize either of the two remaining IT integration methods based on the priorities and overall execution of the post-acquisition integration. IT-business alignment can be achieved with any of the pairings in Table 2 if used appropriately, since the IT integration method can be seen to complement the post-acquisition integration strategy in each pairing. Both Figure 6 and Table 2 will be revisited

in chapter 6.1.4 to take into account the findings of the study. Next, the research design and the findings of the study will be gone through.

4 Research design

4.1 Research approach

Research refers to investigating something systematically (Merriam & Tisdell 2016, 3). Two research orientations can be distinguished: quantitative and qualitative research. Qualitative research focuses on collecting data in a way that helps understand and interpret a phenomenon. Qualitative research approaches are used to study matters that are affected by their social and cultural context and cannot be expressed in numbers but in words. (Eriksson & Kovalainen 2016, 4-5.) Both post-acquisition and IT integration have to do with how people behave and interact, and they have a strong cultural dimension. Post-acquisition integration largely deals with being able to correctly interpret how the cultural elements affect the bigger picture and put these notions into action. IT cannot be examined in a vacuum but as a part of the organisation's IS, which includes the people using the IT and the practices that have formed around the IT solutions. Aboagye-Drako et al. (2023) also confirm that qualitative approaches are most used in the M&A IT literature. Because of these notions, qualitative research methods are suitable to use in this study.

This study utilises interviews for data collection. Interviewing is a suitable data collection method if the phenomenon cannot be studied by observing or if the event studied is impossible to replicate (Merriam & Tisdell 2016, 108). M&As are complex processes and the conditions are difficult to simulate or replicate. This is further complicated by the serial acquisition context. Each merger can be seen as its unique case with path dependencies creating ever more complicate structures. IT integration is also heavily tied to the context of serial acquisitions and cannot be studied through mere observation. Interviewing methods can be divided into three based on the desired amount of structure: structured, semi-structured and unstructured interviews (Merriam & Tisdell 2016, 109). Semi-structured interviews were chosen as the interviewing method. The interview is guided by a list of structured interview questions, but the questions are used flexibly in the interviewing situation. The wording or the order of the questions can be changed, allowing for the exploration of topics outside of the predetermined question list. (Merriam & Tisdell 2016, 110-111.) According to Eriksson and Kovalainen (2016, 94-95), one of the advantages with semi-structured interviews is their dual nature of having structured

interview questions but having the freedom keeping the tone of the interview conversational to allow other important topics to be brought up by the interviewee. In this study, the use of semi-structured interviews enables the inclusion of previous theoretical positions into the interview through the interview questions, but also ensures that new angles of the phenomenon can be explored to verify or complement previous theories.

4.2 Data collection

Data were collected from experts in larger Finnish and international companies which are serial acquirers. In this study, a company is considered a serial acquirer, if it does at least one acquisition each year. In order to find potential informants, serial acquirers were identified with the help of company websites. The larger size of the companies could also be seen to imply a more complex IT landscape and thus stronger path dependency effects. Suitable companies were found based on the recommendations of the researcher's thesis instructors or fellow students. Eight companies were contacted, out of which six agreed to participate in the study.

Due to the nature of the topic of the study, the aim was to principally interview two people per company, one specialist on post-acquisition integration and M&As in general and one specialist on IT, in order to get data on both processes. However, there were instances in which one person was able to provide data on both processes as they were involved in both. Additionally, in one instance, the IT function of the company occasionally takes a bigger lead in the general post-acquisition integration process, which is why only IT specialists were interviewed. The companies, the interviewees and the interviews held are listed in Table 3. One case company asked to be completely anonymized, which led to anonymizing all the case companies and their interviewees in order to keep the text coherent. The companies are presented with a made-up pseudonym, and the interviewees with their job titles.

Data were collected via semi-structured interviews. A list of interview questions was prepared based on the theoretical framework of the study (see Appendix 1), but because of the semi-structured nature, some follow up questions were added in during the interviews to get a better sense of the topics discussed. The interviews were conducted as online interviews via Zoom and Teams to facilitate for both the interviewees and the

researcher's schedules. Online interviews also enabled recording the interviews and transcribing them later, which ensured accuracy of the data and eliminated the possibility of relevant data being lost in the interview process. One company had a policy of not allowing interview recording, in which case only notes were made during the interview. When schedules allowed, interviews were held as group interviews with both interviewees from the same company present. Interviews were held in either Finnish or English based on the interviewees' mother tongue. Table 3 gives an overview of the conducted interviews, after which a short description of each case company is given based on interview data and other documentation collected from online sources. The online sources were anonymized as well, and they can be found in the references list.

Table 3 Interviewees and conducted interviews

Company	Interviewees	Interview duration
Property Partners	Chief Information Officer	80 min
Property Partners	Group Strategy and Business Development Director	
Software Solutions	Business Operations and Data Analytics Officer	40 min
Production Co.	IT M&A Lead	60 min
Production Co.	IT Strategy Director	
TeleSoft	M&A and Corporate Development Executive	60 min
TeleSoft	IT M&A Manager	35 min
Load Group	Information Management Project Manager	90 min
Automation Ltd.	M&A Senior Analyst	65 min
Automation Ltd.	M&A IT Program Manager	

Property Partners is a company in the property services business that operates in the Nordic countries and Germany. The company's revenue is measured in hundreds of millions, and it has over 18 000 contractual customers consisting of both residential and commercial customers in both private and public sectors. Property Partners made their

first expansion acquisition in 2015 and started expanding abroad in 2019, and currently the company is making approximately 30 acquisitions per year.

Software Solutions is a software company that has its main presence in Europe but also operations in Latin America. The company's revenue is measured in billions, and they have 1,7 million customers. Software Solutions prefers entering new markets through acquisitions and has made close to 300 acquisitions in the last 10 years. In 2022, Software Solutions acquired over 40 companies in 8 countries.

Production Co. is a production company with operations mainly in the Nordic countries. Production Co.'s revenue is measured in billions, and in the last 20 years the company has made about 20 larger M&As, and many smaller ones in addition. In the last 10 years the company has focused more on divestments and carve outs.

TeleSoft is a telecommunication and software company. The company operates across the globe in Europe, North and South America, Asia, and Africa. TeleSoft has publicly made approximately 40 acquisitions in the last 20 years, and most of the acquisitions have been in North America because of its over representation on the field due to better innovation capabilities compared to other markets. The company's revenue is measured in tens of billions.

Load Group is a company in the cargo and load handling business. The company's revenue is measured in billions. Load Group operates in over 100 countries across all continents and has publicly made 15 larger acquisitions in the last 10 years.

Automation Ltd. is a company in the elevator, escalator, and automatization business. The company's revenue is measured in billions, and it operates in over 60 countries in Europe, Middle East, Africa, Asia Pacific, and America. M&A is a part of Automation Ltd.'s core strategy, and annually the company does 20 to 30 M&As.

4.3 Data analysis

Data analysis refers to making sense out of the collected data (Merriam & Tisdell 2016, 202). It is the most difficult, yet the most important part of qualitative research (Basit 2003, 143), and requires the researcher to use a systematic process to determine what is worth analysing (Vaughn & Turner 2016, 41, 50). However, since different kinds of

qualitative methods have evolved on different fields of scientific research, there are also multiple ways to perform data analysis (King 1994, 25; Eskola & Suoranta 1996, 123). According to Basit (2003, 152), since qualitative data is unstructured and non-numerical, it can be organised and made into a sensible form through coding and categorizing.

The recorded interviews were transcribed using denaturalised language to make the analysis of the transcripts easier. This meant removing filler words but maintaining the tone of voice and choice of words intact (Mero-Jaffe 2011, 232). Initial transcription was done using the transcribe feature of Microsoft Word, and after this, the text was cleaned manually. According to King (1994, 25), it is important that the researcher familiarizes themselves with the data before starting the process of analysis. Manually going through the transcriptions allowed for the researcher to get to know the data on a more detailed level.

After familiarisation, the transcripts were coded. Coding refers to allocating codes, meaning tags or labels, to bits of data in order to give them meaning. (Basit 2003, 144, 152.) Coding helps with highlighting important data (Vaughn & Turner 2016, 50), making comparisons across data and building hierarchical structures of the data (Basit 2003, 152). The utilized method of coding was to open code, meaning that all potentially relevant data was identified and highlighted in the material (Merriam & Tisdell 2016, 204). This ensured that no important information was unaccounted for.

After coding the data, categories or themes were formulated based on the codes. These categories can be seen in the last column of the operationalisation table seen Appendix 2. This allows the researcher to bring up themes that are relevant to the research question, and this kind of analysis method is often used to solve practical problems (Eskola & Suoranta 1996, 135, 139). Categories should be constructed in a way that helps with addressing the research questions and ensures that they contain all relevant codes identified (Merriam & Tisdell 2016, 212). Category creation helps ask questions and compare codes across the data and to make a hierarchical order with the data. Categories were formulated with the help of the operationalisation table (see Appendix 2), which allowed for aligning the categories with the sub-questions of the research and themes from the theoretical background of the study.

After category formulation, the coded data was manually sorted into the categories to analyse the pieces of data together. The data was analysed in the language in which the interview was held in order to avoid meanings getting lost in the translation. Parts of Finnish interviews were only translated into English if the part was used as a quote in the thesis.

4.4 Research evaluation

The evaluation of trustworthiness is a part of good scientific conduct and a central characteristic of research. Trustworthiness refers to the findings being independent of irrelevant or arbitrary factors. (Aaltio & Puusa 2011, 153.) Explicit criteria for the evaluation improve the transparency of the study and enable the identification of strengths and weaknesses (Eriksson & Kovalainen 2016, 303). Trustworthiness is traditionally evaluated by using the concepts of validity and reliability, but these concepts of quantitative research need to be adapted to fit qualitative studies (Aaltio & Puusa 2011, 157). Because of this, the widely used criteria established by Lincoln and Cuba (1985) will be utilized in this thesis. They identify four concepts, credibility, transferability, dependability, and confirmability, to be used as equivalents to the conventional concepts (Lincoln & Cuba 1985, 300). These concepts are partly overlapping in assuring the transparency and trustworthiness of the study.

Credibility refers to carrying out the study in such a way that the findings will be credible and that they represent the realities of the phenomenon (Lincoln & Cuba 1985, 296). It also requires the researcher to make the deduction and reasoning of the study transparent (Aaltio & Puusa 2020, 180). The study was conducted in the form of semi-structured interviews, which gave the interviewees a chance to speak openly and in their own words. Additional questions were asked in order to fully understand the phenomenon. The findings and discussion section gives a clear outline of what came up in the interviews, how it relates to previous literature and what can be deducted from this, meaning that the logic behind the findings has been laid out. The credibility of the study might be decreased by the low number of case companies due to time and resource constraints. However, the companies represent multiple different fields of business, which increases representativeness, and the interviewees are professionals in their respective fields, which enhances credibility.

Transferability refers to how well the findings can be generalised. Because of the qualitative nature of the study, transferability needs to take into account the similarity between contexts or settings: findings can only be generalised in similar settings. (Lincoln & Guba 1985, 291, 297.) It requires the researcher to discuss whether the findings would be possible in another similar research setting or whether the topic could be re-examined, and to make the research process transparent (Aaltio & Puusa 2020, 181). Both the interviews and the interviewees have been described in detail and the interview questions have been formulated based on previous literature, which improves transparency and enables doing a re-examination. Due to the companies representing multiple different fields of business and thus offering a wide perspective on the phenomenon, getting similar results with a similar research setting is possible. However, the nature of the phenomenon is such that it might also yield very different results: even the companies participating in this study showed signs of differences in practices and viewpoints. However, the small population of the study also presents the possibility that the case companies did not present certain attributes or aspects that might otherwise be important regarding this phenomenon. The findings are tied to the company setting and the views of the interviewees.

Dependability refers to outside factors, such as the researcher, the research design, or the research environment, not affecting the findings of the research (Lincoln & Guba 1985, 292, 299). It is increased by two separate researchers or studies having similar findings. However, since the behaviour of people is tied to their context, it is impossible to assume that two different researchers would reach similar findings. Dependability of the study is shaped by the research process, the analysis of the data and the reasoning behind findings. (Aaltio & Puusa 2020, 180). The interview questions were formulated in a non-biased way so that the views of the researcher would not affect them. However, a semi-structured interview also gives the chance to change the wording of the questions or ask additional ones, exposing the interview to the views of the researcher. The deduction and reasoning used is logical and coherent and based on both the research data and previous literature. The analysis is done objectively by using open coding and deriving the analysis categories from previous literature, so that no important data gets discarded due to the views of the researcher. Some interviews had some disturbances due to a bad internet connection or interruptions, which might have some implications on the data collected.

Confirmability refers to the data being truthful, confirmable, and applicable (Lincoln and Cuba 1985, 300). It refers to other researchers seeing the findings to be true and being convinced that the study has been conducted appropriately and in accordance with general research practices (Aaltio & Puusa 2020, 181). The interviewees were professionals in their fields and responsible in their companies for the issues and phenomenon being studied. This gives confirmability to the data collected. Some data might be impacted due to the disturbances mentioned earlier, but this does not take away from their truth value, because all misunderstandings were avoided by asking clarifying questions, made possible by the semi-structured format of the interviews.

4.5 Research ethics

In addition to the discussion on trustworthiness, research evaluation should also address the ethics of the research and ensure the highest possible quality of research ethics (Tutkimuseetiikan eurooppalaiset käytännöt - - 2023, 2). Ethics refers to doing good and avoiding harm through the use of appropriate ethical principles (Orb et al. 2000, 93). The ethics review requirements change based on factors such as who is conducting the research and where (Ells 2011, 883). Since this study is conducted in Europe, more precisely in Finland, the All European Academies (ALLEA) framework for ethics review will be utilized. ALLEA has provided a framework for evaluating the ethics of research in their code of conduct (Tutkimuseetiikan eurooppalaiset käytännöt - - 2023, 2, 4). The framework addresses four characteristics of research: *reliability*, referring to the appropriate choice of research methodology, style of analysis and use of resources, *honesty* in performing the research and reporting on it, *respect* of research participants, society and environment, and *accountability* for the research process from ideation to publishing and beyond.

Reliability can be established by having a good study design and description of the process, and by supplying references to back up the design (Ells 2011, 886). In this study, reliability has been ensured with an appropriate description of the used research approach and methods of data analysis. All choices made are justified through both the nature of the study itself and previous literature on the field. Appropriate descriptions and justifications also strengthen the *honesty* of the research, alongside the proper referencing of used literature and the use of a plagiarism detection software, Turnitin. Honesty was

also ensured in the interviews by providing sufficient information of the study to the interviewees in the form of an interview consent form (see Appendix 4).

Respect for research participants was accounted for with timely and sufficient communication of research intent and structure and the rights of the participants, the possibility for participants to review interview transcripts before use in the study as well as by ensuring the proper collection, storing, and managing of data and personal information with the help of a data management plan (see Appendix 3). Avoiding exploitation and abuse of participants requires recognising the vulnerability of the interviewees and their contributions to the study (Orb et al. 2000, 96). Interviewees can be empowered and the balance of power between the researcher and participants changed by providing an opportunity to view and approve the interview transcript (Mero-Jaffe 2011, 244). All the participants were sent the transcript after the interview and offered a chance to make alterations or exclude information. Additionally, all participants had a chance to review the interview consent form of the study, which stated the purpose and structure of the study and a privacy notice (see Appendix 5), which relayed how the study complied with General Data Protection Regulation (GDPR). *Accountability* stems from proper planning and timely execution of the research process, but also entails managing the wider impacts of the research after the execution, which will be accounted for by publishing with the researcher's own name.

One emerging field of research ethics is the utilization of artificial intelligence (AI). It is already changing many practices, and challenges with issues such as privacy and responsibility have been brought up. (Bouhouita-Guermech et al. 2023, 1.) Two AI powered tools were used in this thesis, both in Microsoft Word: spell checking and recording transcription features. Since both of these tools reside inside of the university provided Microsoft Word software, they do not constitute a threat of a third-party getting access to the research data. The transcription feature processes the recording through the university OneDrive, which is where all other research related data is stored.

5 Findings and discussion

This chapter will go through the findings of the interview study and discuss how the findings relate back to previous literature. Findings are presented under the sub-questions formulated for this thesis to aid answering the research question. The sub-questions are:

- 1. How do serial acquirers integrate target companies?*
- 2. What characterizes IT integrations in serial acquisitions?*
- 3. How does the cross-border dimension affect IT integrations in serial acquisitions?*

Each sub-question will have sub-chapters to account for the diversity of the findings and underlying theory and to keep this chapter clear and consistent.

In addition to presenting the findings in writing, a table is formed to help understand and perceive the individual cases at hand and especially address the IT-business alignment of the case companies. The table is presented in parts throughout the first and second sub-chapters in Tables 4 through 7, and the complete table is presented in Table 8.

5.1 Integration in serial acquisitions

5.1.1 Acquisition and integration objectives

The objectives and goals of both the acquisition and integration were found to have an impact on the choice of organisational integration style and IT integration. The connection is discussed further in their respective sub-chapters. The case companies were found to have diverse objectives for acquisitions and organisational integrations, and they could be seen to derive from the business field the companies operate in. Table 4 lists the objectives of the case companies.

All the case companies were found to make acquisitions to support their existing strategy and operations. Only two companies, Property Partners and Automation Ltd., reported using M&As for growth. This could be traced back to their fields of business: Property Partners' property management market is traditionally very fragmented and local, which has made it possible to grow via acquisitions, and in Automation Ltd.'s field of business it is generally easier to grow via M&A.

The business case has been that this property management market is very fragmented. If we think back in history, this has always been very local. -- in principle, all the companies that produce services are really small -- this has guaranteed us a good growth potential because it is kind of easy to find [companies] to buy.

– Property Partners, Group Strategy and Business Development Director

If we want to do market expansion, that's typically much easier to do with M&A in our field than trying to grow organically.

– Automation Ltd., M&A Senior Analyst

Software Solutions is focused on introducing new products that suit their existing product offering and looking into cross sales opportunities with M&A. Production Co., TeleSoft and Load Group all reported that they have multiple business areas or groups under them which all make decisions on how to improve their area. This is why the objectives can vary based on the strategy of the individual business area. The other individual acquisition objectives reported by interviewees can be found in Table 4.

Table 4 Case companies' acquisition and integration objectives

Case company	Acquisition objectives	Integration objectives
Property Partners	Growth by acquisition, market entry and expanding offering	Target cost efficiency and general optimisation, unifying business management
Software Solutions	Market entry and expanding offering	Ensuring collaboration, employee registration
Production Co.	Support for business strategy, acquiring a new customer base, acquiring production facilities	Integration objectives vary based on deal type
TeleSoft	Support for business strategy, complement competences, expanding offering	Integration cost efficiency, integration objectives vary based on deal type
Load Group	Acquiring critical suppliers and maintenance providers, expanding offering, support for business strategy	Target becomes a profitable and sensible part of business
Automation Ltd	Market expansion, support for business strategy, growth opportunities	Customer and employee retention, safety

Integration objectives could be seen to reflect the acquisition objectives as well as the business field of the company. Property Partners buys small local companies that are diamonds in the rough, sometimes even unprofitable, and they turn them into profitable parts of their company. They implement their management model and create synergies

from improving the targets. Software Solutions focuses on ensuring that teams can collaborate, and all employees are registered in their employee database. This can be seen to reflect the company's acquisition objective of expanding their product offering: in order to make the product a seamless part of their offering, the teams have to be able to collaborate to offer customers similar service. Production Co. and TeleSoft did not report any specific integration objectives, as these vary depending on what kind of a deal they have at hand. The M&A and Corporate Development Executive at TeleSoft did mention that one of their key goals is to not waste money when doing the integration, which could be considered to be a goal for the integration process but not the integration itself. Load Group's integration objective is that the target becomes an integral part of the company. This can be seen to derive from their acquisition objectives to have critical production and maintenance in-house to secure their product and service offering. Finally, Automation Ltd. reported customer and employee retention to be important for them. This reflects back to their acquisition objectives of expanding to new markets via M&A, since customer retention in acquiring market share and employee retention in acquiring new products and services are critical. Safety was also a critical objective for them due to the nature of their field of business:

We operate in a somewhat dangerous industry and there can be some accidents when our equipment are used. Typically these businesses that we acquire, they don't have similar standardised safety processes as we do, or at least they are not as tight, so we want to implement sufficient safety procedures right away when we acquire a business to ensure that they are compliant in that manner.

– Automation Ltd., M&A Senior Analyst

Acquisition and integration objectives also reflect themselves on the acquisition integration process, which will be discussed next.

5.1.2 Post-acquisition integration strategy

The post-acquisition integration strategy can be seen to comprise of process integration and cultural integration. The process and cultural dimensions can be seen to be interdependent and also dependent on the acquisition and integration objectives of the acquirer. Both of these dimensions will be covered for all case companies, along with

general findings on adapting the integration strategy. Table 5 (on page 58) summarizes the findings discussed in this sub-chapter.

Property Partners was found to integrate the targets into their supplier agreements and background processes heavily in order to get cost reductions. They identify points of optimisation already in the due diligence phase and can change those in order to enhance operations. However, they also leave local freedom to customer operations to account for local differences and better service customers. They also note that their pace of 30 M&As per year would not be viable with full integrations and leaving some target operations independent helps with keeping the pace of growth. Both optimising operations and processes and leaving local freedom are in line with their objectives of cost efficiency and growth by acquisition. They point out that leaving local independence in processes and operations also hinders the cultural integration of the target into Property Partners. This is something that they have consciously decided to do, and they accept that the cultural side will come with time and will be focused more on later.

There's an old saying that culture eats strategy for breakfast -- strategically we have consciously left certain things that are very culture-bound so that we accept certain things and certain differences at this point. Because we just simply don't have time or resources to interfere with it, because it would slow down our pace of growth.

– Property Partners, Group Strategy and Business Development Director

Software Solutions leaves targets very independent and only integrate processes that are strictly important and benefit the target as well. Software Solutions doesn't even use the term integrate because they see it as meaning full integration. Instead, they use the term onboard, as it reflects their approach better.

We try to not interfere that much because they have been acquired because they are doing something good today, right? So we want them to continue on that journey as well and then help them grow even more. So we try to minimise the impact we have, but at the same time there are some things that everyone in [Software Solutions] needs to be onboarded to and take part in.

– Software Solutions, Business Operations and Data Analytics Officer

Culture is also something that Software Solutions leaves independent; they do not want to interfere since they see that culture is also something that has gotten the company to where they are today. This target independence emphasizing approach is in line with their objectives of expanding their product offering: a company's competences are often tied

to the processes and culture, and changing those could result in destruction of those competences and their value. Since Software Solutions aims to acquire new products to suit their existing product offering, they would not want to make changes in the target in order to preserve their offering.

Production Co. reports to typically integrating the target's processes, operations, and functions into theirs, it is just a matter of how fast and in what ways it is done. The interviewees give examples of acquiring a customer base, in which case there is no need to integrate anything but to just move the customers into their systems, and acquiring production facilities, in which case the facilities need to be integrated into their processes, networks and brands. Integration is done to gain synergies:

It really is often part of the business case to aim for some kind of synergies, it would be a bit silly if they were not aimed for in the extent that they are available.

– Production Co. IT M&A Lead.

Cultural integration is done similarly to process integration; if the target is integrated into Production Co.'s processes and operations, the culture is also integrated. If the target is for some reason left as a stand-alone, their own culture can also be preserved. Production Co. also recognises that cultural change takes a lot more time and is a longer process. The process and cultural integration of Production Co. is in line with their aim of the target supporting the strategy of the acquirer's business areas, since integration is done in a way that enables synergy benefits for the acquirer.

Similar to Production Co., TeleSoft also integrates its targets into its own operations, and specifically the business unit that owns the acquisition. It is rare to leave targets as stand-alones since maintaining those kinds of companies takes up a lot of resources. The M&A and Corporate Development Executive of TeleSoft also remarks that companies in their field of business are generally very homogeneous which contributes to targets adapting to TeleSoft. This might be a reason why they opt for not having stand-alones, since there usually are no problems with integrating the targets. TeleSoft heavily integrates targets culturally as well, and they say that maintaining the targets culture and ways of working runs the risk of creating hiccups. Tightly integrating the processes and culture is in line with their objectives of supporting their operations and complementing existing competences as well as aiming for cost efficiency while integrating.

Load Group reports to integrating their targets to be a part of their business operations. Global support functions such as HR processes, financial reporting and information management are integrated immediately after a deal is closed, and the rest of the integration follows. The Information Management Project Manager of Load Group notes that some processes, like payroll, do remain independent as they are local. Similar to process integration, cultural integration is also tight, and the aim is to make them feel like they are a part of Load Group.

The goal is to get the company as soon as possible as close as possible.

– Load Group, Information Management Project Manager.

Tight process and cultural integration are in line with Load Group's acquisition and integration objectives of insourcing critical business components, supporting the overall business strategy and making the target a sensible and profitable part of their business.

Automation Ltd.'s approach is similar to that of Production Co., they integrate the target into their existing operations and processes, but it is just a matter of how fast they do it. The M&A Senior Analyst of Automation Ltd. remarks that there are some cases where they leave the target as a stand-alone, but there needs to be a clear commercial reasoning behind it, such as better customer retention than if the target was integrated. Still, the stand-alones are connected to the acquirer in other ways, such as having an umbrella reporting structure for instance. In cases where the processes are integrated, the culture of the target is also integrated. With stand-alones, it is easier to let them have their own culture.

Table 5 presents the case companies' ways of doing their process and culture integrations. Based on the findings, it is concluded that Production Co., TeleSoft, Load Group and Automation Ltd. all use integration methods that are compatible with the absorption strategy identified by Haspeslagh and Jemison (1991). Target companies are fully integrated into the acquirer, and value is created through taking control of the resources and absorbing assets. Target company autonomy is low since capabilities can be preserved without it. All these case companies also reported the target supporting their overall business strategy being one of their M&A objectives, which might point to a link between this objective and absorption integration style: the acquirers are merely interested in boosting their own operations and strategy execution with the help of the

target, not expanding into new areas through acquisition. Property Partners' integration can be seen to match the intensive care strategy identified by Angwin and Meadows (2015), which is characterized by speed of action, active intervention, financial control and quick improvements. Software Solutions uses a more autonomy emphasizing style of integration which reflects the preservation integration strategy of Haspeslagh and Jemison. Capabilities need to be preserved by maintaining autonomy, and the goal is to keep the target intact to secure success. All of the integration styles could be traced back to integration strategies found by previous research. All of them also adhered to the presumption that symbiosis as a post-acquisition integration strategy would not be utilized due to it having an effect on the acquirer.

Table 5 Case companies' integration strategies

Case company	Process integration	Cultural integration	Post-acquisition integration strategy
Property Partners	Target integrated to same background processes and supplier agreements to gain cost reductions; customer interface left as is, a lot of local freedom with customer service	Local freedom hinders cultural integration, is invested in later down the line	Intensive care
Software Solutions	Target left very independent, only some mandatory background processes integrated if target wishes so	Culture is left independent	Preservation
Production Co.	Target usually heavily integrated into the acquirer; if a stand-alone, support functions still unified	If target processes are integrated, culture is also; stand-alone companies can keep their culture	Absorption
TeleSoft	Target integrated heavily into the relevant business unit, stand-alones are a rare exception	Culture is integrated heavily into acquirer culture	Absorption
Load Group	Target integrated into the acquirer, support functions unified, some functions left independent because of local differences	Culture is integrated heavily into acquirer culture	Absorption
Automation Ltd.	Target integrated heavily into the acquirer, sometimes left as stand-alone if there is a clear business case	If target processes are integrated, culture is also; stand-alone companies can keep their culture	Absorption

Even though all case companies reported having an established way of integrating targets, five of them also highlighted the importance of the case-by-case nature of M&As. It was found that even though the end goal and the framework are the same, differences can occur on the way due to target characteristics, such as their size, geographical location or current workload, or acquirer goals, such as what kind of benefits the acquirer is after.

There are examples of doing such big M&As in some countries that it actually has over doubled our size there, meaning that the target is bigger than our existing business there, those we of course have to plan in a very different way, there might be more complete processes and systems than we have.

– Property Partners, Chief Information Officer

-- if there are any kind of business phases that we should also consider. If it's their peak season, maybe we can try to postpone some things, or if their peak season is happening in two months, let's speed it up now and be ready by then and so on.

– Software Solutions, Business Operations and Data Analytics Officer

Process I would say is mainly similar -- the basis in each company are different -- it brings its own spices.

– Load Group, Information Management Project Manager

This kind of adaptation of integration strategy can help the acquirer integrate and align the target better to derive and create value. It can also assist with avoiding management system misapplication, one of the impediments of the integration process identified by Jemison and Sitkin (1986). When the acquirer is ready to adapt its integration process to the requirements of the target, it does not get too heavily involved and ensures that the target is integrated properly.

5.1.3 M&A function and acquisition routines

All the case companies were found to have some dedicated unit that takes the responsibility for seeing the integration through. This is in line with the underlying theory that serial acquirers benefit from having such a function. Property Partners and Software Solutions have an M&A team that is in charge of the integration process and works together with other project members. The other case companies report having different streams that take responsibility of their area, such as IT, HR, financial and legal. In Load Group and Automation Ltd., these streams are led by an integration manager. In Production Co., the integration process is occasionally led by the IT stream since they usually have a bigger role in the process as a whole, so it is natural for them to oversee the entire process. Other times the business unit associated with the M&A takes the charge. TeleSoft did not report having any dedicated manager.

This difference in having an M&A team versus separate streams that account for their own areas might be due to size, M&A activity, the utilized integration strategy and the

resulting degree of integration. Property Partners and Software Solutions are from the smaller end of the spectrum when comparing the case companies, yet they make between 30 to 50 acquisitions yearly. It might be more beneficial and efficient for them to have a single M&A team as opposed to all functions having their own M&A workstreams to be able to coordinate large volumes of deals with fewer people. All the other case companies were also mainly doing absorption integrations, meaning that they need to consider how the existing operations of the target are converted into those of the acquirer. The degree of integration is also higher in these strategies since the target can be considered fully merged with the acquirer, which means that the integration also requires more effort. Property Partners intensive care integrations might be easier to do since the target is generally in worse condition, which gives the acquirer the chance to optimise their operations. They even have had to implement some processes that the target did not have in the first place, such as financial reporting, which is easier than changing already existing processes. Degree of integration is high, but restructuring is not total, and some operations and processes are left untouched, which makes this integration strategy less work intensive. Software Solutions on the other hand uses a preservation strategy and maintains the status quo in the target. This does not call for a big M&A team, since there are only minor changes made and the target is substantially autonomous when considering the degree of integration.

Five out of the six case companies were found to have an integration manual or a playbook which lays out the steps of the process, despite there being case-by-case changes to the process. TeleSoft, the case company that does not have a manual, still reported having their process specified due to certain legislative requirements. Those case companies that have an integration manual in place can be seen to have developed acquisition and integration routines, learnings and capabilities that they have then encapsulated into a manual. This is in line with prior literature on serial acquirers developing such resources to be used in subsequent M&As.

5.1.4 Integration challenges

Despite having a dedicated M&A function to work on the M&As and integrations, most of the case companies reported having difficulties with resourcing. This is because even

though the case companies themselves have sufficient resourcing to make M&As, the target company's employees are also placed under a workload during the integration.

The companies have been under a DD process for some time, maybe they have been out there looking for new owners for a long time. That is very time consuming. And then finally they land the deal and then welcome, here's some extra work.

– Software Solutions, Business Operations and Data Analytics Officer

Our counterplayers are people that have had a certain work assignment up until this point, and the workforce does not suddenly increase in the acquired companies to do the work that they have previously done and the work that should be done in the integration phase, so it is clear that there is temporarily going to be a really big load in the acquired company.

– Load Group, Information Management Project Manager

Quite often all these sort of M&A stuff that people are doing, it's on top of their daily work. So it requires extra effort from them to get things done. We have these dedicated M&A people, let's say the M&A manager is acting as an integration manager, but then he or she only manages that project and it always requires effort from the local team.

– Automation Ltd., M&A Senior Analyst

The case companies were found to combat resource shortages by adjusting their integration process as previously mentioned. This way, they were able to accommodate to the available resources the target company had at hand.

You can't plan for it to happen when there are the worst snowstorms and everyone is shovelling or ploughing snow.

– Property Partners, Chief Information Officer

Another common challenge was found to be change management in the target. Even though the companies that named change management as a challenge also reported having change management packages and programs in place, they still saw it as a recurring challenge. This was addressed with making case-by-case changes to the integration process.

In the beginning we were doing a lot of one-time implementations, meaning that we changed the whole world on the first day of the month. And there we realised that the amount of change is too big, that there is too many changes and you don't have time to process it.

– Property Partners, Chief Information Officer

We do have normal change management packages and going over them and let's say that unfortunately each time it feels that we are doing too little active change management.

– Load Group, Information Management Project Manager

Even though making adjustments case-by-case to the integration process that a serial acquirer has formulated might lead to more work and mental strain to the acquirer, it can be helpful with combating common problems with the integration process and ensuring that the target performs better without an unreasonable extra workload. Additionally, most changes reported by the case companies have been to schedules and not so much on the actual integration itself, so the end result will stay the same. The changes affect the timeframe in which the acquirer can perform the M&A and start creating value off of it.

5.2 IT integrations in serial acquisitions

5.2.1 IT integration objectives and priorities

The IT integration objectives and priorities were found to reflect general M&A and integration objectives and the field of business the case company operates in. This makes sense since IT integration is a part of the overall acquisition integration, which means that it should support it. The IT integration objectives and priorities of each case company are presented below in Table 6.

Table 6 Case companies' IT objectives and priorities

Case company	IT integration objectives and priorities
Property Partners	Obtaining critical information is important for optimization, integration of financial reporting
Software Solutions	Collaboration tools are critical to secure internal communication, otherwise light or no integration
Production Co.	Priorities change based on deal, some legal obligations exist, TSAs have to be exited on schedule
TeleSoft	Keeping to budget and timetable, integrations are up and running before the end of TSA
Load Group	Security and business continuity
Automation Ltd.	Business continuity, no major issues, security and safety

Property Partners emphasized the importance of being able to obtain critical information from the target as soon as possible. This information helps them make decisions on what to optimize and how to streamline in the target. The most important IT system they want to secure is financial reporting to produce the needed data to run the target's business, though they also note that in their field of business entrepreneurs usually use feeling rather than data to run their business.

The approach is very different and very data oriented, information oriented compared to what the feeling-based view of the local entrepreneur is, because they are not so interested in data since they have done it with their own hands.
– Property Partners, Chief Information Officer

These priorities are in line with their M&A objectives of growth by acquisition, since they would need to have the key information to run the companies, and their acquisition integration objectives of optimizing the operations of the target and unifying business management.

Software Solutions highlight the importance of getting the target up and running with their collaboration tools, referring to a Software Solutions email address, entrance key to internal systems and migrating to shared platforms. They do have other IT systems that are lightly integrated, but only collaboration tools are the IT solutions that are a requirement. This reflects their aim to expand their offering but only ensure collaboration with their target and otherwise leave them independent. In order to seamlessly make the target's product offering a part of theirs, Software Solutions needs to ensure that internal communication and collaboration is functioning.

Production Co.'s priorities for IT change based on the kind of deal they are doing, similar to differences in overall integration objectives. They do have some legal obligations such as financial systems and HR systems that need to be up and running on day one, however, other systems depend on what kind of a target they have acquired. This supports their aim to have the target support their existing business strategy. Production Co. also mentioned transitional service agreements (TSAs) when discussing IT integration priorities: TSAs allow the acquirer to temporarily buy, for example, systems as services from the seller until they can get their own systems up and running in order not to disturb the business. TSAs have a schedule, and they need to be exited on time.

TeleSoft regarded keeping to the budget and timetable a top priority for IT integration. This is in line with their overall integration objective of being cost efficient. In addition to this, the IT M&A Manager of TeleSoft also mentioned the importance of making the necessary integrations before the TSA for the deal is exited. Implementing TeleSoft security guidelines is also extremely important for them.

Load Group emphasizes two priorities for IT integrations: security and business continuity. The emphasis on security is in line with their overall integration style of keeping the target close:

If we left the company floating at an arm's length, [Load Group] would be responsible for a possible information security violation but could not affect them, and because of that [Load Group] has chosen this integration strategy.

– Load Group, Information Management Project Manager

Securing business continuity in IT integrations is in line with their aim of integrating the target to be a sensible and profitable part of Load Group's existing operations. They wouldn't want to risk accidentally causing harm to the business that they have acquired due to its competences and value. The Information Management Project Manager of Load Group also explains that it is important for them to establish the basic infrastructure first, on top of which the rest of the integration can be built according to the needs of the business area.

Automation Ltd., similar to Load Group, brings up the importance of business continuity and having no major issues like data loss. They name many IT systems as a priority in their IT integration, since their business operates around IT.

The systems are so embedded in our business that if there's issues in the systems, we cannot service our customers, we cannot invoice our customers, we cannot manage the employees. To be honest, everything sort of culminates into the systems, so that's really a key part in the integration in order to ensure that we are able to retain all the customers and retain all the employees, which ultimately makes or breaks an M&A deal as well.

– Automation Ltd., M&A Senior Analyst

They also highlight the importance of information security, but also talk about security in the context of safety:

So if we're transitioning from a tool that looks after the lift or monitors a lift and we'll change it to our tool that monitors a lift, we can't just stop it. We have to understand there should be a transition so that people are safe.

– Automation Ltd., M&A IT Program Manager

These IT priorities are in line with Automation Ltd.'s overall integration priorities of employee and customer retention and overall safety.

5.2.2 IT integration methods

Each of the IT integration methods used by the case companies was found to correspond to those identified by Harrell and Higgins (2002). Table 7 summarizes the discussion below into IT integration methods for each case company.

Property Partners was found to replace all necessary IT systems with their own. They have a couple of global systems that the target needs to implement as a standard. This makes sense, given that the targets are in a bad condition to begin with, and Property Partners is better able to manage the targets' operations if everyone has the same IT solutions in use. The bad condition of the target also means that there might be nothing to integrate:

Their basic equipment has per se, one could bleakly say, not much anything valuable. In other words, the quality of information is very weak -- it is often easier to bring a system there that is used according to our instructions so that the data we want to receive starts forming.

– Property Partners, Chief Information Officer

Because of this, Property Partners might not even have the option of using IT integration methods which utilize the target's IT systems.

Following their priorities and objectives, Software Solutions only integrates their collaborations tools by bringing the target employees into their tools and systems. Nothing else, such as the ERP, financial reporting or payroll, is touched since Software Solutions does not collect this information into one central system to begin with. For instance, financial reporting is done so that the target reports the numbers to Software Solutions, and based on those numbers, they make their own reporting. The Business Operations and Data Analytics Officer of Software Solutions even said that if the target cannot or doesn't want to switch to their collaboration tools due to specific configurations

they have in their existing tools, that is also allowed, but the target then must realise that they themselves are making collaboration more difficult.

Production Co. reports that their targets typically implement Production Co. systems in both shared services and support functions and business IT systems. An exception where target IT systems and solutions would be preserved is if Production Co. has acquired new business operations that they do not have systems for, since then they are not able to replace them with their own. In these kinds of cases, these target systems would be run on the side.

TeleSoft's targets also implement their systems in their targets. They state that the systems that they are using are industry standards, which is why they must be implemented in the target as well. According to their IT M&A Manager, it is not viable to take into use the target's systems, since they would need to be implemented corporation wide. This is in line with what previous literature has argued about serial acquirers not having the capacity to change their existing IT systems due to how ingrained they are in their existing organisational structure.

Load Group's IT integration is comprised of two parts: IT infrastructure integration and IT system integration. According to their Information Management Project Manager, the IT infrastructure is rolled out to all targets, referring to networks, laptops, intranet and certain support functions, but on the IT systems side only those that strictly need integrating are integrated. This is thought of in terms of if the systems lifecycle is coming to and end, if the target's system poses a security risk, or if the business unit that the target is integrated into would like to harmonize certain systems. Sensibly replaceable systems are unified, examples being using the same browsers, PDF viewers and zipping tools, but overall there has to be a clear need or purpose to integrate systems. This is also due to Load Group's complex IT system landscape:

Typically we have a very integrated system landscape. So for example SAP, our main ERP, is integrated to 30 other systems if I remember correctly, so that means that there comes the SAP and a couple of other friends with it, or our HR system, it is integrated with 20 other systems. So we kind of have to make sure that we cannot say that now you take that one system into use. We have to make sure that the whole landscape is intact.

– Load Group, Information Management Project Manager

For Automation Ltd., the most typical solution is to integrate the target into Automation Ltd.'s IT systems either on the global level or the country level. Stand-alones are allowed to have their own setups, if there are no security implications and they can work within the technical restraints placed by Automation Ltd. Targets are moved to Automation Ltd.'s systems to eliminate parallel systems and extra costs of running two similar systems. Instead of preserving target's systems, the systems of Automation Ltd. can be modified with new layouts to better correspond to the needs of the target.

Table 7 Case companies' IT integration methods

Case company	IT integration method
Property Partners	Absorption
Software Solutions	Co-existence, some absorption of collaboration tools
Production Co.	Absorption
TeleSoft	Absorption
Load Group	Absorption of IT infrastructure, co-existence and absorption of IT systems and software
Automation Ltd.	Absorption

In accordance with previous theory, the case companies were found to utilise only two of the four IT integration methods, absorption and co-existence. Property Partners, Production Co., TeleSoft and Automation Ltd. can all be identified to use absorption IT integration method. Software Solutions and Load Group were found to use a mixture of absorption and co-existence to cater to their organisational structure and integration objectives. The alignment between the post-acquisition integration strategies and the IT integration methods of case companies is further discussed in the next sub-chapter.

Two of the case companies remarked that the only situation where they would consider negotiating which company's systems would be taken into use, referring to a best-of-breed IT integration method, would be that of a merger-of-equals.

Maybe taking the better system into use out of two options are more relevant in those cases where the merging companies are in rather similar in size.

– Production Co., IT M&A Lead

If there are two same sized companies -- in that case you start a discussion on do we take this system from you and this system from us -- as long as clearly one is acquiring the other, I would say that then the buyer dictates what is run. In equal deals there might be a different approach.

– Load Group, Information Management Project Manager

This further shows true the presumption made based on previous literature that serial acquirers do not use best-of-breed as their IT integration method, since serial acquisitions are usually cases where a bigger company acquires a smaller one. Using methods that do not affect the acquirer's setup keeps the IT landscape scalable and prevents having to make large-scale changes to the corporate IT landscape during each M&A.

It is also worth pointing out that only Production Co., TeleSoft, Load Group and Automation Ltd. brought up TSAs in their interviews when discussing IT integrations. This could be due to them being much more meaningful and important for them compared to Property Partners and Software Solutions, since they presumably need to have those services running until they are able to move to using acquirer IT systems purely. In the case of Property Partners, there are usually not many IT systems in place, or they are of no value to begin with, leading to the acquirer instantly implementing their own IT systems. For Software Solutions, a TSA is not important to begin with, since only collaboration tools are unified and other systems and software are left as was.

5.2.3 IT-business alignment

Table 8 summarizes the post-acquisition integration strategy and IT integration method pairings of each case company, along with M&A and integration objectives. Property Partners' intensive care – absorption and Production Co.'s, TeleSoft's and Automation Ltd.'s absorption – absorption pairings are in line with the findings of previous literature. Software Solutions and Load Group were found to use both co-existence and absorption IT integration methods, which does not align with previous research that has solely suggested pairings of absorption – absorption and preservation – co-existence. However, both companies were found to mainly adhere to the pairings found in research, and the deviations were found to promote interaction between acquirer and target, as in the case

Table 8 Case companies' M&A and integration objectives, integration strategies and IT integration methods

Case company	Acquisition objectives	Integration objectives	Process integration	Cultural integration	Integration strategy	IT integration objectives and priorities	IT integration method
Property Partners	Growth by acquisition, market entry and expanding offering	Target cost efficiency and general optimisation, unifying business management	Target integrated to same background processes and supplier agreements to gain cost reductions; customer interface left as is, a lot of local freedom with customer service	Local freedom hinders cultural integration, is invested in later down the line	Intensive care	Obtaining critical information is important for optimization, integration of financial reporting	Absorption
Software Solutions	Market entry and expanding offering	Ensuring collaboration, employee registration	Target left very independent, only some mandatory background processes integrated if target wishes so	Culture is left independent	Preservation	Collaboration tools are critical to secure internal communication, otherwise light or no integration	Co-existence, some absorption of collaboration tools
Production Co.	Support for business strategy, acquiring a new customer base, acquiring production facilities	Integration objectives vary based on deal type	Target usually heavily integrated into the acquirer; if a stand-alone, support functions still unified	If target processes are integrated, culture is also; stand-alone companies can keep their culture	Absorption	Priorities change based on deal, some legal obligations exist, TSAs have to be exited on schedule	Absorption
TeleSoft	Support for business strategy, complement competences, expanding offering	Integration cost efficiency, integration objectives vary based on deal type	Target integrated heavily into the relevant business unit, stand-alones are a rare exception	Culture is integrated heavily into acquirer culture	Absorption	Keeping to budget and timetable, integrations are up and running before the end of TSA	Absorption
Load Group	Acquiring critical suppliers and maintenance providers, expanding offering, support for business strategy	Target becomes a profitable and sensible part of business	Target integrated into the acquirer, support functions unified, some functions left independent because of local differences	Culture is integrated heavily into acquirer culture	Absorption	Security and business continuity	Absorption of IT infrastructure, co-existence and absorption of IT systems and software
Automation Ltd	Market expansion, support for business strategy, growth opportunities	Customer and employee retention, safety	Target integrated heavily into the acquirer, sometimes left as stand-alone if there is a clear business case	If target processes are integrated, culture is also; stand-alone companies can keep their culture	Absorption	Business continuity, no major issues, security and safety	Absorption

of Software Solutions, or simpler IT integration and IT infrastructure in the target, as in the case of Load Group. For Software Solutions, this promotes complementarity, or alignment, between acquirer and target, while for Load Group, this promotes IT-business alignment in the target.

All case companies recognised the importance of business processes and IT being aligned. For some this meant adapting their integration process accordingly and for others a more in-depth integration. Property Partners and Automation Ltd. take this into account by focusing more resources on training the employees of the target in the acquirer's processes and ways of working. TeleSoft also reported requiring target employees changing their processes in order to use the systems similarly to TeleSoft. It was found that this kind of change does have challenges:

-- systems change fast and processes and ways of working a bit slower. The challenge, the friction, is how fast are they able to come to terms with it, how fast the new way of working or moving from the old way of working to the new happens.

– Property Partners, Chief Information Officer

However, the change might be easier depending on the situation and the required integration method. In the case of Property Partners, the target usually does not have as well-established processes, and especially linkages between processes and IT. This might make it easier to establish alignment in the target.

Production Co. and Load Group see IT, and processes as well, being divided into two: support functions and business units. It was found that support function IT systems and processes come as a given and are something that is done in basically all acquisitions. Because of this, they can also be seen to be aligned well. However, business units have their own say in how they want to form and run their processes, and especially in the case of Load Group, they also have a say in which IT systems they want to harmonize. This might lead to misalignment between acquirer and target or between IT and business on the target level if operations and processes are not integrated to the same extent as the IT.

The Information Project Manager of Load Group brought up a point that relates to creating sustainable alignment: the innovations and changes being introduced in the field of IT changing the way things are done. She states that Load Group does IT integrations

in the way they are doing them because of the current IT and system architecture they have and the current security implications that come with it. However, this might all change in the future if more uncontrolled IT solutions become more broadly available in the business setting.

Now the world is going to a state that we are talking about bring your own device or zero trust and there are no similar restrictions as we for example have today. And if this happens and the architectural decisions change, then likely our way of doing these integrations changes. -- We are doing these now like this because the architectural principles and rules tell us to do so.

– Load Group, Information Management Project Manager

The field of IT is constantly evolving, which might make sustainable alignment in the long run unattainable. According to previous literature, absorption and co-existence give the best capabilities to be able to manage different kinds of IT integrations in the future as well and avoid making constant changes to the acquirer's business. Therefore, it can be concluded that all the case companies IT and business are aligned well when taking into account both the requirements of present day and future acquisitions.

5.3 The cross-border dimension of serial acquisition IT integration

5.3.1 Cross-border implications on serial acquisition IT integrations

None of the case companies were found to make changes to their post-acquisition strategies or IT integration methods based on whether the M&A was domestic or cross-border. All case companies reported there being some differences that needed to be taken into account when doing the integrations if the acquisition is cross-border, but only one, Production Co., brought up the cultural aspect. They state that in a cross-border deal they try to take culture into account by involving local representatives in the integration process in order to avoid having a foreign acquirer with a foreign team telling the target what to do. The reason for only Production Co. taking culture into account might be in their acquisition volume: they make the least acquisitions out of the case companies studied, which might imply that they have more resources to take the cultural differences into account.

Most case companies actually emphasized the significance of differences in laws and legislation which have an effect on the integration process and some choices made.

In [Software Solution's home country] we have some laws and regulations and other countries have others, so it's impossible almost to create something that fits everyone in all countries.

– Software Solutions, Business Operations and Data Analytics Officer

We try to have common global guidelines on how to do certain things, but obviously the local legislation and the local ways of working might impact how they actually do certain things and it also impacts the approach that will be taken. For example personnel related legislation really impacts the decision that should we integrate all the people to our own [Automation Ltd.] legal entity or actually keep them as a separate legal entity because it might have some sort of commercial impact as well on the deal.

– Automation Ltd., M&A Senior Analyst.

Case companies were still found to choose their existing post-acquisition integration strategies and IT integration methods, even if there were some changes in the choices made in the process based on local legislation. The end goals remain the same, but the journey might have some complications. An example of this could be when Load Group acquired a target in Brazil and their IT integration took much longer and much more work than it normally would:

And then there are these countries of high complexity, well luckily I've had fewer, but Brazil was one learning experience -- Lenovo had a factory there that manufactured computers but our computer partners didn't have a delegate there and it was really strict that we couldn't import anything there, they had to be bought in the country but we didn't have a partner who would have bought and prepared them. Then one server was sailing across the world, that we had to buy from the States, it could not be for some reason, don't ask what, for some custom politics reason, sent to Brazil -- And then the taxation things there are really strange. Then we wanted to put one solution into a cloud, but we realised that they have such poor and scabby networks there that we couldn't.

– Load Group, Information Management Project Manager

For TeleSoft and Property Partners, their field of business also brings with it differences in cross-border versus domestic deals. In the telecommunications field, each European country wants to control the deals made, but not always based on competition but national security, since telecommunications have military use cases in addition to peaceful use. This is why TeleSoft needs to go through different officials in different countries to acquire authorizations and permissions to go through with a deal. For Property Partners, there is a pivotal difference in the market: in their home country there is a partition between maintenance and real estate management, but in other markets that they operate

in, there is no such partition. This implies different processes and systems to begin with, which also has an effect on how the integration is done.

Based on the findings, it can be concluded that national cultural differences are in fact not relevant when it comes to choosing the post-acquisition and IT integration methods. Overall, cultural differences were found to have a small effect on serial acquisition, and more significant are the local laws and legislation. However, these were not found to affect the integration style either but were found to bring their own complexities to carrying out the integrations. Having no effect on the choice of integration style might have to do with the acquirer already having competences and routines for doing integrations, and changing the style would result in not being able to utilize those accumulated capabilities. For some companies it might not even be possible to take cross-border differences into account because it would take up too much of their resources or affect subsequent acquisitions.

5.3.2 Local organisations

Two case companies, Load Group and Automation Ltd., have separate local organisations to which the targets are usually integrated. This means that for Automation Ltd. for example, targets bought in France are integrated into Automation Ltd. France. Because of this, they might not even consider that they are doing cross-border acquisitions, since the target is integrated into a company in that country.

-- it also depends on how do you define cross-border and domestic deal. Typically I would consider our deals sort of domestic deals because typically our local business purchases the business to be acquired, let's say for example in France we have [Automation Ltd.] France, typically that [Automation Ltd.] France business, if we are doing an M&A deal in France, makes the acquisition and purchases that business under the [Automation Ltd.] France portfolio

– Automation Ltd., M&A Senior Analyst

This might reduce the need for adjusting to national cultural differences and make the integration process smoother. Since acquirers do not, and cannot, adjust their integration to cultural differences by opting to use another post-acquisition or IT integration method, they can reduce friction by integrating with a company from the same country rather than their global group level which would be foreign to the target. It could be assumed that

even though the local organisations are a part of the acquirer's group, they can have local differences in their ways of working and organisational culture. This means that even the same integration method can be very different based on which local organisation is in question, and absorbing the target into the group organisation would have very different implications than absorbing it into the local, more similar organisation.

Only two case companies were found to have entire local organisations to which the new targets are integrated into. Still, two other case companies reported having a local officer or a local support organisation that was in charge of the integration process on the local level. This might also reduce friction in the integration process, and even though the integration method remains the same, the communication and change management might be smoother due to having a local counterpart performing the integration.

6 Conclusions

6.1 Theoretical contributions

The aim of the thesis is to answer the research question *What is the role of IT integration in serial cross-border acquisition integrations?* To do this, the three sub-questions need to be answered first to get a clear picture of the different components of the research question.

6.1.1 Sub-question 1: How do serial acquirers integrate target companies?

The first sub-question addressed how serial acquirers integrate target companies. In the literature review, five post-acquisition integration strategies for M&As were identified, namely absorption, preservation, symbiosis, intensive care and re-orientation (Haspeslagh & Jemison 1991; Angwin & Meadows 2015). It was also found that all strategies apart from symbiosis could be utilised in a serial acquisition context. This is because in symbiosis, both companies would need to make changes to their operations, processes and culture in order to be able to create value through interdependency. For serial acquirers, this runs the risk of creating relational disruptions and depleting their acquisition capabilities, which ultimately enable the acquisition program nature of their M&As (Coleman & Lunnan 2022, 3, 25). In the study it was found that the majority of the case companies' integration styles followed the absorption integration strategy. In addition to this, one company was found to follow the intensive care strategy and another the preservation strategy. Hence, it can be concluded that symbiosis as a post-acquisition integration strategy is not suitable in a serial acquisition context. There was also no evidence found in the study of re-orientation, since even the case companies that did not use absorption made harmonisation in internal operations of the target and conversely left the external-facing functions more independent. This might suggest that re-orientation as a strategy is not suitable for serial acquirers due to its focus on harmonising the external facing functions and leaving the internal operations independent.

It was also found in the literature review that serial acquirers often have a dedicated M&A function to oversee and conduct the integration. This was found to be beneficial since the existence of such a function improved decision-making and strategy execution and

decreased the effects different impediments of the acquisition process might have on the choice of acquisition integration strategy (Weber et al. 2019). Poor choice of integration strategy was found to ultimately lead to the depletion of the acquirer's acquisition capabilities (Coleman & Lunnan 2022), which is why an M&A function is crucial to a serial acquisition program. In the study it was found that all case companies have some sort of party responsible for the M&A integrations, whether it is a dedicated M&A team or different streams taking care of their own share of the integration. The structure of the M&A function was found to vary based on a combination of factors such as acquirer's size, M&A activity and the integration strategy. Overall, it can be concluded that an M&A function is an essential part of serial acquisitions, and the composition of the function can be adapted to the context of the serial acquirer.

The literature review suggested that serial acquirers develop M&A routines and learnings from past acquisitions, otherwise known as acquisition capabilities (Chao 2018, 162, 166). Additionally, it brought up that multiple subsequent and overlapping acquisitions place a strain on the management of the acquirer (Laamanen & Keil 2008, 664-665). It can be assumed that having these capabilities and routines that can be utilised in each acquisition alleviate the strain serial acquisition places on management. Five out of six case companies in the study were found to have some sort of an integration manual or a playbook that they utilise when integrating targets, which suggests that they have formed these kinds of capabilities that can be utilized in subsequent acquisitions. However, it was also found in the study that most case companies experienced integration challenges related to the target's resourcing and change management, which ultimately led to having to make changes and adjustments to the integration process. This could put additional strain on management and counteract the capabilities formed in previous acquisitions, since they might not be usable. However, each of these instances where the integration process has to be adjusted can be argued to create new learnings and capabilities that can be utilised in the acquisitions to come. Thus, it can be concluded that both the acquisition program nature of serial acquisitions and the challenges related to the integration process put pressure on the management of the acquirer, but they also enable the creation of acquisition capabilities which allow the serial acquirer to adjust its actions accordingly in future acquisitions.

6.1.2 Sub-question 2: What characterizes IT integrations in serial acquisitions?

The second sub-question dealt with what characterizes IT integrations in serial acquisitions. Previous literature has identified four IT integration methods that can be utilised in an M&A: absorption, co-existence, best-of-breed and renewal (Harrell & Higgins 2002). Out of these, only absorption and co-existence are suitable in a serial acquisition context due to the need to keep the acquirer's IT platform scalable and prevent misalignment compounding (Yetton et al. 2013, 20, 22, 31-33), and take into account the path dependency caused by previous acquisitions. The study found that all case companies are utilising either absorption or co-existence, or a combination of them, as their IT integration method. Other solutions were not seen as being viable due to the need to make implementations organisation wide, which would not be possible in a serial acquirer's situation with multiple target companies integrated into the acquirer. Best-of-breed was only seen viable in the case of a merger-of-equals, which would change the context of the acquisition. Thus, it can be concluded that absorption and co-existence are the main IT integration methods to be used in a serial acquisition context.

According to the literature review, IT integration can also be examined through alignment of IT and business, which means that IT and business operations and processes should complement one another on both internal and external level. In a serial acquisition context, alignment is especially difficult, since in addition to aligning with the currently acquired target, the acquirer also needs to take into account alignment with past acquisitions. Additionally, past acquisitions and the integration methods used limit the integration possibilities in subsequent acquisitions. Previous literature suggests confirming alignment by using absorption and co-existence as IT integration methods to enable the best alignment possible in the future as well as maintaining alignment with past targets (Yetton et al.2013; Goumagias et al. 2022). Complete alignment might not be achievable, but it might also not be realistic due to the changing competitive environment the companies are in. As mentioned, all case companies in the study were found to utilize either absorption or co-existence, or combinations of them. All case companies also took IT-business alignment into account by either adapting their integration process or making sure that IT and operations and processes were integrated on a similar level. Furthermore, the changing business landscape and the resulting changes in IT-business alignment were

also brought up by one case company in the study. To conclude, IT-business alignment is important to ensure that operations, processes and IT support one another, but in serial acquisitions both the path dependency from previous acquisitions and the temporal element brought on by the acquisition program nature complicate the pursuit for alignment. Sufficient alignment can be ensured by choosing the proper IT integration method to complement the overall integration.

6.1.3 Sub-question 3: How does the cross-border dimension affect IT integrations in serial acquisitions?

The third sub-question was formulated to examine how the cross-border dimension affects IT integrations in serial acquisitions. Previous literature highlighted the implications cross-border acquisition has on the post-acquisition integration strategy, which also affects the IT integration strategy. The literature review focused on cultural distance and national culture differences and found that the longer the distance, the better the possibilities for richer knowledge-based resources (Ahammad et al. 68, 73; Morosini et al. 1998, 137, 153), but also the bigger the requirements to leave the target more autonomous due to differences in practices and ways of working (Liu & Woywode 2013, 477, 479). It was also found that keeping the company autonomous enables knowledge transfer and has a positive effect on cross-border M&A performance. Conversely, organisational cultural differences have a negative effect on cross-border M&A performance, meaning the target should be gradually integrated to be a part of the acquirer. (Ahammad et al. 2016, 68-69, 73-74) Previous theories also brought up the matter of colocating operations which would require higher cultural integration than keeping operations in separate locations (Van Oorschot et al. 2022). Based on the theoretical findings, it could be concluded that reorientation or symbiosis would be the best post-acquisition integration strategies in cross-border situations. However, due to other restraints placed on integration through the serial acquisition nature, symbiosis is out of question, which means that re-orientation could best correspond with the requirements of cross-border acquisitions when cultural distance is taken into account. Both absorption and co-existence IT integration methods would be compatible with and support the re-orientation strategy, meaning that the cross-border dimension would not limit the choice of IT integration method.

Contrary to previous literature examined, only one case company even brought up the cultural aspect when discussing cross-border acquisitions, and most case companies actually put an emphasis on the differences in laws and legislation between countries. This could be due to them making so many acquisitions yearly that they do not have the capacity to take cultural distance into consideration. Additionally, this thesis has a focus on IT systems and their integration, which might have an affect on the significance of culture in the matter: cultural differences might have more meaning when examining the integration of IT teams, since culture has a large impact on how people behave and perceive things.

Case companies were found to account for the differences in regulations in how the IT integration is performed in practice. Some case companies also have a structure in which they integrate the target into their local organisation in that specific country or region. In these cases, they do not even consider those M&As as being cross-border in nature, and the IT integration is done similarly regardless of target home country. Overall, none of the case companies were found to change their style of post-acquisition strategy or IT integration method based on whether or not the deal was cross-border. To conclude, the laws and regulations of a country are more significant in the context of serial cross-border acquirers than the cultural distance between acquirer and target home countries. Still, neither of them seems to have an effect on the choice of post-acquisition integration strategy or IT integration method.

6.1.4 Main research question: What is the role of IT integration in serial cross-border acquisition integrations?

Finally, based on the theoretical and empirical contributions of each sub-question, a more holistic picture of the role of IT integration in serial cross-border acquisition integrations can be formulated. Prior literature had examined IT integration in M&A only by utilizing the three post-acquisition integration strategies identified by Haspeslagh and Jemison (1991). This thesis took into consideration the revised integration strategies made by Angwin and Meadows (2015), and one of these strategies was also found to be used by one of the case companies in the study. Based on previous literature, it was also found that only two of the four IT integration methods, absorption and co-existence, could be utilized in a serial acquisition context due to path dependencies (Yetton et al. 2013, 20,

22, 31-33), and these two methods were the only ones utilised by the case companies as well.

The cross-border dimension was found not to affect the choice of post-acquisition integration strategy or IT integration method, but it impacts the execution of the integrations in terms of complexity and time. However, since serial acquirers are found to develop acquisition capabilities from their previous acquisitions, it can be assumed that such capabilities form for IT integrations as well. These capabilities develop in each subsequent acquisition, and thus decrease the effects of cross-border differences, since the acquirer already has learnings and routines on how to combat the differences the cross-border dimension brings with it.

The choice of IT integration method was found to be dependent on the chosen post-acquisition integration method, as IT integration should support the overall integration. Based on previous literature, it was theorised that the integration of target companies into the acquirer would affect the business and IT strategies of the acquirer and the target (see Figure 6). The acquirer's strategic level was theorised to be impacted in order for it to leverage the competences of the target as a new area of business for instance. However, based on the study, it was found that both overall acquisition integration and IT integration objectives were in line with the M&A objectives of the company, and the target is actually acquired and integrated in accordance with the strategy of the acquirer. In other words, the acquirer is actually carrying out its own strategy by integrating the targets in a suitable way, so the strategic level of the acquirer can be seen to affect the acquisition and IT integrations, not the other way around. Furthermore, IT integration objectives were in line with the overall acquisition objectives, which further supports the view that the choice of IT integration needs to align with the choice of the post-acquisition integration strategy.

Pairings of post-acquisition integration strategies and IT integration methods suitable for serial acquirers were found based on prior literature (see Table 2). Though some of the case companies adhered to these pairings, two of them used a mix of the two IT integration methods to respond to the specific needs of their acquisitions. Because of this, it can be assumed that the pairings found by prior research might be too absolute and not take into consideration that different situations need different, more adaptable methods.

It can also be argued that the IT integration methods identified at the turn of the millennia might not be applicable in today's context. Business IT systems and landscapes are much more complex today than they were 25 years ago, and fitting these different solutions together even in a singular acquisition might require utilizing multiple IT integration methods, not to mention the context of serial acquisitions. One interviewee in the study remarked that the support functions are usually always harmonised but other, business IT systems might have variability in the way they are integrated. Another interviewee highlighted that IT integration is dependable on the current solutions available, and integration might look very different even in the next five to ten years. Because of this, it can be assumed that even though most companies can be seen to mainly follow a certain IT integration method, only one IT integration method can rarely be used. A modern system landscape might require multiple integration methods to address both the acquirer's and the targets' needs.

In addition to the IT integration methods not taking into account the increased number of IT systems in a company, they also fail to consider the exponential growth of data. Between the years 2010 and 2020, the volume of data in the world increased by 3000%, and the increase from 2010 to 2025 is estimated to be almost 9000% (Volume of data --, Statista). By 2025, the world will create an estimated 463 exabytes of data in a day, which is the equivalent of over 210 million DVDs (How much data --, World Economic Forum). Because of the sheer amount of data companies have to process in their day-to-day operations, it can be argued that maintaining multiple IT solutions and systems in the form of co-existence integration is not viable in the long run. Co-existence as an IT integration method was created at a time when companies had considerably less data to synchronize between systems, and less IT systems for that matter. Especially in the case of today's serial cross-border acquirers, the volume and form of data produced and handled across the corporation is so vast that synchronisation between systems is extremely costly and complex. Software Solutions, the case company that mainly used co-existence as an IT integration method, had solved the issue of costly and complex synchronisation by not doing data flow integrations between solutions, even in cases where it needs data from the targets, such as that of financial reporting. The targets actually report their numbers to Software Solutions separately, and then Software Solutions makes its own reporting based on the reported numbers received from the

targets. It can be concluded that even though the IT integrations done by companies today can be traced back to the methods identified in the late 1990s and early 2000s, the IT integration methods would need to be revised to match the system and data intensive environment of the digital age.

In conclusion, the role of IT integration in serial cross-border acquisition integrations is to support the overall integration of the target into the acquirer and enable shared operations and processes of the companies, whether they are totally or partially merged. IT integration should respond to the requirements and characteristics of current IT systems and solutions and enable maintaining the IT-business alignment inside and in-between the merging companies. However, due to the fast-changing landscape of IT and the exponential growth of data which feeds to the complexity of IT, the only realistically available IT integration method for serial acquirers is absorption. Co-existence as an IT integration method should be revised to take into consideration the impossibility of maintaining data bridges between multiple complex and technically different systems and solutions. Maintaining such a structure would require tremendous amounts of resources due to the rapid development of IT solutions and systems and the exponentially growing amount of data. New IT integration methods should be developed, and they should take into account the fact that there might be a need for several different integration solutions in one acquisition in order to ensure alignment across multiple acquisitions in a serial acquisition program.

6.2 Managerial implications

This thesis drives attention towards the role that IT integration plays in the acquisition integration of serial cross-border acquirers. Overall, the IT integration should support the acquisition integration of operations, processes, culture. This ensures that IT supports the business operations of the target, the IT and operations of the acquirer and the target are aligned, and no important capabilities of the target are lost due to improper integration. When acquiring targets across borders, serial acquirers should take into consideration the different laws and legislations and the condition of infrastructure in the target's home country and the implications this has on the length and complexity of the IT integration process.

When choosing how to integrate the target's IT to that of the serial acquirer's, the method should be chosen so that the overall IT landscape and infrastructure remain flexible and scalable to enable future acquisitions and integrations. The cost of the IT integration and the required resources to maintain the new integrated IT landscape should also be taken into consideration: it might be more cost efficient to use absorption and change all target IT systems and solutions to those of the acquirer instead of maintaining both companies' IT landscapes through co-existence and having to keep the different systems synchronised. The fast-changing requirements that IT systems need to meet in today's digital world also call for keeping them up to date, which is much easier with only a selected group of systems, rather than all acquired companies having their own parallel solutions that need to be managed.

6.3 Limitations and future research agenda

This thesis does not come without limitations. Due to the novelty of the topic, the serial acquirer context, the most widely used theories and frameworks were utilized to tie this study to previous research on the field and get comparable results. However, it is recommended that future research on IT integrations in serial acquisition integrations would take into consideration other integration models and frameworks as well to get a more comprehensive view of the phenomenon.

This study was limited to examining only the post-acquisition integration phase of serial acquirers. However, the meaning and importance of the pre-acquisition phase, especially the due diligence process, was brought up in both previous literature and the discussions with interviewees. Because of this, it is suggested that future research would examine this phenomenon from the point of view of the pre-acquisition phase. Mergers of equals were also ruled out of this study, but this point-of-view would bring an entirely new perspective into this phenomenon. It became apparent in the interviews that in a merger of equals situation, serial acquirers could not utilize absorption as an IT integration method, but instead opt for a more mutually inclusive method such as best-of-breed. Future research should study how this kind of a context would affect the alignment between the acquirer and its past targets and the capabilities and internal relations and processes of the acquirer.

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Appendices

Appendix 1: Interview questions

Background questions

1. Who are you and what is your job description in your company?
2. What is your experience on M&As at your company?
3. Could you briefly tell about your company's M&A history? How many acquisitions has your company made, what kind and where?
4. Are M&As your company's main source of growth?

M&As in general

5. Based on which criteria do you usually choose M&A targets?
6. Who in your company makes the decisions on M&As?
7. How do you prepare for M&A's and the integration process?
8. Are you a part of the decision-making and integration prep in the M&A? If yes, in what kind of a role?

Post-acquisition integration

9. What are your most important objectives when integrating the target with your company?
10. How do you integrate the target into your company?
 - a. Could you give an example of a successful integration process?
11. Does the integration process always look the same or does it differ case by case?
12. Do you have M&A guidelines that all acquisitions mostly follow?
13. What kinds of challenges have you come across while integrating targets into your company?
14. How have these challenges been resolved?

IT integration

15. Which IT systems in your industry are the most important / critical to get up and running after an M&A? Are there IT systems that you focus more on during integration?
16. What are your most important goals when integrating IT systems?
17. How do you integrate IT systems after an M&A? Do you keep the systems as they were and ensure data flow through APIs or data lakes or do you replace some or all of the systems in one company?
 - a. Could you provide an example of a successful IT integration process?
18. Is the IT integration process always similar or does it differ case by case?
19. What kinds of challenges have you faced when integrating the IT systems of the targets into your company's systems?
20. How have these challenges been resolved?

Appendix 2: Operationalisation table

Heading of the study	Research question	Sub-questions	Theoretical background	Interview themes	Analysis categories
IT integration in post-acquisition integration – The perspective of a serial cross-border acquirer	What is the role of IT integration in serial cross-border acquisition integrations?	How do serial acquirers integrate target companies?	<p>Post-acquisition integration strategies</p> <p>Aim of the integration</p> <p>Acquisition capabilities</p> <p>Effects of changes in the acquirer</p>	<p>Acquisition objectives</p> <p>Integration objectives</p> <p>Integration tasks and patterns</p> <p>Integration challenges</p>	<p>Acquisition and integration objectives</p> <p>Post-acquisition integration strategy</p> <p>M&A function and acquisition routines</p> <p>Integration challenges</p>
		What characterizes IT integrations in serial acquisitions?	<p>IT integration methods</p> <p>IT-business alignment</p> <p>Path dependency</p>	<p>IT integration objectives</p> <p>IT integration structure</p> <p>IT-business alignment</p>	<p>IT integration objectives</p> <p>IT integration methods</p> <p>IT business alignment</p>
		How does the cross-border aspect affect IT integrations in serial acquisitions?	<p>Cultural distance</p> <p>Colocation and separation</p>	<p>Integration of local vs foreign companies</p>	<p>Effects of laws and regulations</p> <p>Local organisations</p>

Appendix 3: Data Management Plan

Research data management plan

This document gives an overview of how the data collected for the study is managed.

This document will help you plan how to manage your research data. More detailed instructions for each section are available online in the Research Data Management Guide for Students.

1. Research data

Research data refers to all the material with which the analysis and results of the research can be verified and reproduced.

In the table below, all the research data that was used in the research is listed.

Research data type	Contains personal details/information*	I will gather/produce the data myself	Someone else has gathered/produced the data	Other notes
Interview recordings	x	x		Were made with Zoom and saved on the researcher's personal computer
Interview transcriptions	x	x		Were made based on the recordings by using the transcribing feature of Microsoft Word
Interview notes	x	x		Were made during the interviews in Microsoft Word

* Personal details/information are all information based on which a person can be identified directly or indirectly, for example by connecting a specific piece of data to another, which makes identification possible. For more information about what data is considered personal go to the Office of the Finnish Data Protection Ombudsman's website

2. Processing personal data in research

If the data contains personal details/information, the researcher is obliged to comply with the EU's General Data Protection Regulation (GDPR) and the Finnish Data Protection Act. For data that contains personal details, a Data Protection Notice must be prepared for research participants and the controller for the research data has to be determined.

I will prepare a Data Protection Notice** and give it to the research participants before collecting data

The controller** for the personal details is the student themselves the university

My data does not contain any personal data

** See the Privacy Notice prepared for research participants in Appendix 5.

3. Permissions and rights related to the use of data

This section lists the permissions and rights for each data type to use them in the thesis.

Necessary permissions and how they are acquired:

Data type 1: Interview recordings

- Permission to use the data was confirmed by the participants with an interview consent form.

Data type 2: Interview transcriptions

- Permission to use the data was confirmed by the participants after having the chance to view the transcriptions.

Data type 3: Interview notes

- Permission to use the data was confirmed by the participants after having the chance to view the interview notes.

4. Storing the data during the research process

Where will you store your data during the research process?

In the university's network drive

In the university-provided Seafile Cloud Service

Other location, please specify:

The data is kept in the OneDrive cloud service provided by the university and the personal, password protected computer of the researcher to work on the data. Data security is ensured by the careful managing of the data in safe networks and only on the two data storage locations mentioned.

5. Documenting the data and metadata

How would you describe your research data so that even an outsider or a person unfamiliar with it will understand what the data is? How would you help yourself recall years later what your data consists of?

5.1 Data documentation

Can you describe what has happened to your research data during the research process? Data documentation is essential when you try to track any changes made to the data.

To document the data, I will use:

A field/research journal

A separate document where I will record the main points of the data, such as changes made, phases of analysis, and significance of variables

A readme file linked to the data that describes the main points of the data

Other, please specify:

Separate documents for each phase of the research process to reflect the changes made. This includes having separate files for coded and categorised data to keep track of changes made to the original data.

5.2 Data arrangement and integrity

How will you keep your data in order and intact, as well as prevent any accidental changes to it?

I will keep the original data files separate from the data I am using in the research process, so that I can always revert back to the original, if need be.

Version control: I will plan before starting the research how I will name the different data versions and I will adhere to the plan consistently.

I recognise the life span of the data from the beginning of the research and am already prepared for situations, where the data can alter unnoticed, for example while recording, transcribing, downloading, or in data conversions from one file format to another, etc.

5.3 Metadata

Metadata is a description of you research data. Based on metadata someone unfamiliar with your data will understand what it consists of. Metadata should include, among others, the file name, location, file size, and information about the producer of the data. Will you require metadata?

I will save my data into an archive or a repository that will take care of the metadata for me.

I will have to create the metadata myself, because the archive/repository where I am uploading the data requires it.

I will not store my data into a public archive/repository, and therefore I will not need to create any metadata. ☒

6. Data after completing the research

You are responsible for the data even after the research process has ended. Make sure you will handle the data according to the agreements you have made. The university recommends a general retention period of five (5) years, with an exception for medical research data, where the retention period is 15 years. Personal data can only be stored as long as it is necessary. If you have agreed to destroy the data after a set time period, you are responsible for destroying the data, even if you no longer are a student at the university. Likewise, when using the university's online storage services, destroying the data is your responsibility.

What happens to your research data, when the research is completed?

The researcher will destroy all data immediately after completion of the thesis, because this has been outlined in the interview consent form (see Appendix 4). The researcher's access rights to the university OneDrive will also expire and the personal computer used for the research will be updated, which is why the integrity of the data will be much more likely ensured by destroying it.

Appendix 4: Interview consent form

DESCRIPTION OF THE STUDY

Name of the research

IT integrations in the post-acquisition integration of serial cross-border acquirers

Invitation to participate in the research

The aim of the study is to research how companies that engage in M&A internationally conduct the integration of companies and IT systems in the post-acquisition phase.

The study will include companies that engage in M&A activities internationally and use them as means for growth. The interviewees were selected based on their knowledge and experience of M&A and IT integrations in their company.

1-2 persons per company will participate in the study.

Voluntary consent

Participation in this research is voluntary. You can withdraw from the research or cancel your participation at any time without assigning a reason for this decision. Withdrawing or cancelling your participation does not result in any negative consequences. In case you decide to withdraw your consent, the data collected until that point will be used for the purpose of this study in an anonymized and confidential form.

Please, read this description of research with care. If you have any questions, you can be in contact with the researcher. The contact details are provided at the end of this document. If you decide to participate in this study, please sign the attached consent form.

Responsible researcher

The responsible researcher of this study is Julia Forsström as a Master's student with International Business major at the Turku School of Economics at the University of Turku.

Julia Forsström operates as the keeper of the register, and thereof is responsible of the lawful processing of the personal information gathered within the research. In scientific

research the processing of personal data is based on the societal task of universities defined in the university law and it progresses public good. You can find more information on the processing of personal data in the privacy notice.

The research method

The study is conducted through semi structured interviews. A list of questions will be used, but the interview can deviate from this list if needed.

The duration of the interview is 1-1,5 hours depending on the number of participants.

The aim of the interview is to collect information on the acquisition process, the post-acquisition integration process and the integration of IT systems.

With the permission of the interviewee, the interviews will be audio recorded and transcribed to text.

Confidentiality and data privacy

Only personal data that is necessary for the purpose of the study will be saved in the register. The researcher will not give your name or contact information to outsiders. In research findings and other documents, You and your company will be referred to by name, unless you separately request that these information be anonymized, in which case the information will be referred to only by using a code, for example a pseudonym. The register will be kept on the computer of the researcher and in the password protected cloud service of the university until the study has ended. Register data and study data will be kept separate.

If you choose to withdraw your consent, the data collected until that point will be used for the purpose of this study in an anonymized and confidential form.

The data collected will be stored until the thesis is finished and approved, after which the data will be destroyed.

Costs of research and funding

Participating in the study is free of charge for You. There is no compensation paid, and no possible loss of income or travel costs will be compensated.

The researcher is responsible for the funding of the study.

Further information

If you have any questions on the study, you can contact the researcher. You can discuss all questions you have during the study with her.

Contact information:

Julia Forsström

julia.a.forsstrom@utu.fi

+358 403588866

CONSENT FOR INTERVIEW STUDY

I have been asked to participate in an interview study.

I have familiarized myself with the notice of study and received enough information on the study and the data collection and processing.

The description of the study has been provided to me in writing and I have received a sufficient answer to all my questions related to the study. The description was provided by Julia Forsström.

I have had enough time to consider participating in the research.

I understand that participation is voluntary. I have the right, at any point during the study without providing a reason, to withdraw from participating. There will be no negative consequences from withdrawing consent. I am aware that the data collected until the withdrawal of consent will be used for the purpose of this study in an anonymized and confidential form.

I understand that I will not benefit directly from participating in this research. I agree to my interview being recorded. I understand that extracts from my interview may be quoted in the master's thesis.

With my signature I confirm that I am participating in the interview study described in the notice of study and consent to being interviewed.

Signature

Date

Name in print

Location

Email (for storing consent and potential later inquiries)

RECIPIENT OF CONSENT

Julia Forsström

Date

The original signed document will be stored in the archive of the research group. The consent to participate in the study will be stored securely as long as the data is in an identifiable form.

A copy of consent will be sent to participants primarily via email. If needed, the participant can ask for a paper copy.

Appendix 5: Interview privacy notice

Privacy notice

1. Name of the register:

IT integrations in post-acquisition integration of serial cross-border acquirers

2. Data Controller:

Julia Forsström, +358 403588866, julia.a.forsstrom@utu.fi

3. Contact information of the responsible person:

Julia Forsström, +358 403588866, julia.a.forsstrom@utu.fi

4. Purpose and legal basis for the processing of personal data:

The research collects data on the integration in M&A. Email addresses are used when sending out invitations to interviews. The interviews involve collecting information on the M&A process, M&A integration and IT integration of the company.

The legal basis for processing personal data in the Article 6 of the EU General Data Protection Regulation is:

Processing is necessary for scientific research (public interest, Point 1a of the Article 6)

Data subject has given their consent to processing personal data (consent, Point 1e of the Article 6)

5. Processed personal data:

The following information of the data subjects is stored in the register:
Name, email address and job title.

6. Recipients and recipient groups of personal data:

The data will not be transferred or disclosed to parties outside the research group.

7. Information on transferring data to third countries:

Personal data will not be disclosed to parties outside the EU or the European Economic Area.

8. Retention period of personal data or criteria for its determination:

The recorded interviews will be transcribed into text files. All data will be stored until the thesis is finished and approved, after which the data is disposed of securely.

9. Rights of the data subject:

The data subject has the right to access their personal data retained by the the Data Controller, the right to rectification or erasure of data, and the right to restrict or object the processing of data. The right to erasure is not applied in scientific or historic

research purposes in so far as the right to erasure is likely to render impossible or seriously impair the achievement of the objectives of that processing.

The realisation of the right to erasure is assessed on a case-by-case basis.

The data subject has the right to lodge a complaint with the supervisory authority.

10. Information on the source of personal data:

Names and email addresses are collected from public online sources or other employees of the company. The other data is collected directly from those who participate in the interviews for the study.

11. Information on the existence of automatic decision-making, including profiling:

The data will not be used for automatic decision-making or profiling.