

Investigation Made Easy? How AI Influences the Due Diligence Process of Mergers and Acquisitions

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Abstract

AI has been hailed as the new gold of the future. Not only does it replace a human in a variety of areas such as production, health care and business, it can also perform tasks in these business fields exponentially faster than a human. While AI is growing, M&As are showing signs of fatigue: half of M&As fail to create any long-term value. One of the biggest reasons for a failed M&A is the lack of due diligence, which is the investigation of the target with the main goals of reducing deal risk and inspecting the capabilities of the organisation. This investigation is something that AI can assist with, as AI due diligence tools can work as documents readers, analysts and forecasters in the due diligence process. At the same time, employees are shown to feel less attached to their work after new technology has been introduced. Studying the reaction of employees to the introduction of AI in the organisation can be done through employee engagement, which is about an employee being present at work both physically and mentally.

This research aims to understand how the use of AI due diligence tools influences organisations' due diligence process of M&As. It especially focuses on how the process has changed because of AI tools. The second part of the study concentrates on how AI introduction has influenced employee engagement of employees who work in the due diligence process with AI. The results give more insight into how AI can be leveraged by organisations better and how employees are most likely to react to the change. The study was conducted by semi-structured interviews collected from 10 different experts working in the business and consulting fields. Eight of the interviewees work in legal due diligence and two in technical due diligence.

The results of the study are varied: legal due diligence uses AI in the due diligence process mostly as a document reviewer, while in technical due diligence the influence of AI is still minimal. In some cases, AI due diligence tools influence the legal due diligence progress considerably, mainly because of efficiency gains and infrastructural benefits such as process management, transparency and overview purposes. At the same time, the boundaries in which the AI tools work are quite rigid, because of which accuracy, language and training problems were present. According to the study AI's influence on employee engagement ranges from neutral to considerable, as employees felt excited about AI, got to do more interesting work and to try new things. Some were still apprehensive about AI use because of limited time resources for learning to use the tool and because of understanding the limited capabilities the AI has. AI has influence on three aspects of an organisation: organisational, cultural and technical. Because of this large area of influence AI has an enhancing factor on due diligence, which in the future can result in better executed M&As.

Keywords Artificial intelligence, Due diligence, Employee engagement

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Tiivistelmä

Tekoälyä on pidetty tulevaisuuden uutena kultana. Se ei ainoastaan korvaa ihmistä monilla eri aloilla kuten tuotannossa, terveydenhuollossa ja liiketoiminnassa, vaan se voi myös suorittaa työtehtäviä eksponentiaalisesti nopeammin kuin ihminen. Samaan aikaan kun tekoäly kukoistaa, yritysjärjestelyt osoittavat väsymyksen merkkejä: puolet yritysjärjestelyistä eivät luo pitkäaikaista arvoa. Yksi suurimmista syistä epäonnistuneeseen yritysjärjestelyyn on due diligence- vaiheen vähäisyys, joka tarkoittaa kohteen tutkimista kauppariskin vähentämiseksi. Tässä tutkimuksessa tekoäly voi auttaa, sillä tekoälyn due diligence -työkalut voivat toimia asiakirjojen lukijoina, analysoijina ja ennusteiden tekijänä. Samaan aikaan työntekijöiden on osoitettu olevan vähemmän sitoutuneita työhönsä uuden teknologian käyttöönoton jälkeen. Työntekijöiden reaktioiden tutkiminen tekoälyn käyttöönotossa organisaatiossa voidaan tehdä työntekijöiden sitoutumista tutkimalla, joka tarkoittaa työntekijän läsnäoloa työssä niin fyysisesti kuin henkisesti.

Tämän tutkimuksen tavoitteena on selvittää, miten tekoälyn pohjautuvien due diligence -työkalujen käyttö vaikuttaa organisaatioiden yritysjärjestelyjen due diligence -prosessiin. Tutkimus keskittyy erityisesti siihen, miten prosessi on muuttunut tekoälytyökalujen ansiosta. Tutkimuksen toinen osa keskittyy siihen, kuinka tekoälyn käyttöönotto on vaikuttanut työhön sitoutumiseen. Tulokset antavat paremman käsityksen siitä, kuinka organisaatiot voivat hyödyntää tekoälyä ja kuinka työntekijät reagoivat muutokseen. Tutkimus tehtiin puolistrukturoiduilla haastatteluilla, jotka kerättiin kymmeneltä eri liike-elämän ja konsultoinnin asiantuntijalta. Haastateltavista kahdeksan työskentelee lakiasiaan ja kaksi teknisen due diligence -tehtävissä.

Tutkimuksen tulokset ovat vaihtelevia: laki- due diligence käyttää tekoälyä prosessissa lähinnä dokumenttien tarkastajana, kun taas teknisessä due diligencessä tekoälyn vaikutus on vielä minimaalinen. Joissakin tapauksissa tekoälyn due diligence -työkalut vaikuttavat laki- due diligence -prosessiin huomattavasti, pääasiassa tehokkuuden lisääntymisen ja infrastruktuurihyötyjen, kuten prosessinhallinnan, läpinäkyvyyden ja yleiskatsauksen vuoksi. Samaan aikaan tekoälytyökalujen mutkattoman toiminnan rajat ovat varsin tiukat, minkä vuoksi tarkkuus-, kieli- ja koulutusongelmia esiintyi. Tutkimuksen mukaan tekoälyn vaikutus työntekijöiden sitoutumiseen vaihtelee neutraalista huomattavaan, koska työntekijät innostuvat tekoälystä, saavat tehdä mielenkiintoisempia töitä ja kokeilla uusia asioita. Jotkut olivat hieman huolissaan tekoälyn käytöstä, koska työkalun käytön oppimiseen saattaa olla liian vähän aikaa ja koska he ymmärsivät tekoälyn rajalliset ominaisuudet. Tekoälyllä on vaikutust kolmeen osa-alueeseen: organisatoriseen, kulttuuriseen ja tekniseen. Suuren vaikutusalueen vuoksi tekoälyllä on due diligence- vaihdetta tehostava vaikutus, joka voi tulevaisuudessa johtaa paremmin toteutettuihin yritysjärjestelyihin.

Avainsanat due diligence, tekoäly, työhön sitoutuminen

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1. Introduction

The thought of artificial intelligence (AI) dates all the way back to the 1950s, when Alan Turing sparked the start of scientific thinking that has nowadays given us computers and intelligence of computers (French, R. 2000). The so-called Turing test was simple: can a person recognise that they are talking to a machine? If the answer is no, then that person is talking to an artificial intelligence (French, R. 2000). I bet that Turing couldn't guess where his discoveries would lead. In today's world AI is everywhere; machines are working for example as drivers, chat bots, article writers and factory workers (Furman, 2019). Computers can shift through and remember new information while doing it thousands of times faster than humans (Pannu, M. 2015, Young, J. et al. 2018). One of the most groundbreaking aspects of AI is that it's also able to learn through data that it is given; in 2016 Google's AI program AlphaGo beat the 18-time world champion of the game of Go by playing against itself millions of times while learning from the wins and defeats (Agrawal, A. et al. 2017). All of this condenses in a huge potential of profit, as it is estimated that AI generates more than \$60 billion worth of savings in productivity improvements annually in the United States alone (Castro, D. & New, J. 2016). AI also has the potential to change the future of work on a much higher level of magnitude compared to earlier revolutions (such as electricity in the latter half of the 1800s), as AI is unprecedentedly – alongside lowly educated fields – also influencing highly educated fields (Frank, M. et al. 2019). It definitely has earned its ambitious pet name “new gold of the future” (Furman, 2019).

While AI is growing in momentum, one of the most common ways of creating more value in an organisation, mergers and acquisitions, is showing signs of fatigue. M&As seem to be getting riskier compared to the 1990s, and in fact about half of them fail to create long-lasting shareholder value (Harvey, M. & Lusch, R. 1995, Perry, J. & Herd, T. 2004). The average time for finalising a merger has also grown by 31% in the last decade (Lavelle, J. 2019). One of the common reasons for this stagnation and eventual failure is the fact that the acquiring organisations often neglect to research the organisation they want to acquire well enough (Hodge, N. 2017). This is because of lack of due diligence, which is the process of investigating

the organisation in scope and about making sure that the buying company knows what it is actually buying (Forman, L. et al. 2017, Hodge, N. 2017). According to Ronald Recardo et al, due diligence “includes distribution channels, consolidation of physical assets, business strategies, value chains and processes, human resources practices, talent retention, and change management” (Recardo, R. et al. 2014). The amount of potential information is enormous and because of time constraints review of materials often relies on sampling material and extrapolating the results (Young, J. et al. 2018), which also contributes to the high rate of M&A failures.

To combat these uncertainties, companies have turned to AI, whose popularity is quickly rising to be one of the growing trends of the 2020s (Crabb, J. et al. 2021). For example, in PwC’s survey of 4410 CEOs worldwide, 69% were investing in deploying new technologies such as AI (PwC research, 2023). Investments in AI startups have multiplied by over 70 times from 2011 (Soni, N. et al. 2020) and it is estimated that 70% of organisations will have adopted at least one type of artificial intelligence technology in their operations by 2030 (Bughin, J. et al. 2018). These numbers correlate to M&A procedures as well; over 90% of CIOs see AI as an opportunity in M&As for example in the form of uncovering mistakes, and 74% of CIOs see technology integration in M&As as a source of competitive advantage (Gregg, A. et al. 2022).

No wonder that leaders in the business world are excited about AI: in the due diligence process AI can help in the evaluation of the business model, processes and resources. Most commonly though AI is used as a reviewer of contracts and important documents (Turuk, M. & Milovanovic, B. 2020), which means that especially the law field is interested in the possibilities AI can bring, as document reviewing is an integral part of the legal due diligence process (Jung, J. 2019, Becerra, S. 2018, Stoskute, L. 2020). These AI tools are mostly based on machine learning, which is about pattern detection and the ability to learn from the data the AI is given (Ray, S. 2019.) In other words, the more data the AI tool gets, the more accurate it becomes (Jordan, M. & Mitchell, T. 2015). This is particularly exciting for organisations looking to use AI in their due diligence process, as the AI is capable of training itself, leaving resources of employees for other tasks (Jordan, M. & Mitchell, T. 2015). In the due diligence process AI is mostly used in the form of AI due diligence tools (Jung, J. 2019, Becerra, S. 2018). These tools

come pretrained in most common due diligence aspects, and the organisation is also able to train the tool more when and if needed by giving it more data and showing it what it needs to find (Luminance, 2023). In the end, the AI tool is able to find similar data even if the written form varies. Most AI due diligence tools on the market work alongside “smart data rooms”, which are non-physical spaces on the internet or cloud where employees can upload data (Huhtamäki, K. 2022). The needed documents are uploaded from the data room into the due diligence tool, which then analyses the content, usually making an easily readable summary of the data found, which includes potential anomalies and missing information (Kira, 2023). The efficiency gains of this type of analysing can be enormous (Pannu, M. 2015, Young, J. et al. 2018).

So, as AI can be exponentially faster than a human, there is an opportunity for more thorough due diligence with the help of the machine. How efficient an AI due diligence tool can be is still somewhat in the dark as research on the subject is severely lacking. In contrast, research of AI’s influence in general is widely varied; sometimes AI models are more accurate than human employees (Freeman, K. et al. 2021) while sometimes their accuracy has been calculated to be as low as 35% (Coskun, B. et al. 2023). A meta study of 12 studies including over 130 000 participants on AI’s influence showed that methods of the research have usually been subpar (Freeman, K. et al. 2021). So, depending on who you ask and how you conduct the study can influence the end results. Also, there’s a clear need for more studying specifically for AI in due diligence, as there simply doesn’t seem to be any proper studies done about the subject.

As with everything new, technology and AI have brought on a common theme called “resistance to change”, which is the phenomenon of fearing the unknown and thus wanting to preserve the current state of affairs (Goodwin, W. 1972). When introducing new technology such as AI to an organisation it’s important to remember staff’s feelings about the process, as employees have been shown to feel more anxious, fearful and having the feeling of being replaced after the introduction of new technology in their organisations (Stam, R. et al. 2004, Yam, K. et al. 2022). There’s also a fear of losing one’s job to AI, which is not completely unfounded, as rises of new technologies have been linked to job loss (Chijindu, V. & Iniyama, H. 2012, Yam, K. et al. 2022). So, no wonder there is an increase in resistance to change as new technology is being introduced (Chijindu, V. & Iniyama, H. 2012). At the same time, introduction of AI can be seen

as something that actually improves employees' working lives, as it can bring on positive changes: one research concluded that managers found AI to be extremely helpful (Sari, R. et al. 2022) and in another study 60% of respondents thought of AI as a possible enhancer of employees' commitment to work (Rao, S. et al. 2020). Another research plainly saw employees' commitment to work rise after the introduction of AI (Prentice, C. et al. 2023). Hence, there's lots of research done on how the introduction of AI can influence employees' work with varying results, but no research has been done about the influence of AI in employees who work specifically in the due diligence process. As AI is slowly taking over multiple parts of work it's increasingly important to see how it affects employees who are going to have to get used to working with it.

One way of studying the effects of AI introduction on employees is through employee engagement, which in simple terms means that an employee is physically and psychologically present when performing at work (Kahn, W. 1990). A model from Robinson's et al. opens up the term into four categories which I will use in this thesis as a gauge for how AI has influenced employee engagement in the participants' organisations. These categories are involvement in decision-making, the extent to which employees feel able to voice their ideas and how managers listen to these views and value employees' contributions, the opportunities employees have to develop their jobs and the extent to which the organisation is concerned for employees' health and well-being (Robinson, D. et al. 2004). Having a strong employee engagement is an integral part of employee happiness and employee retention, as it also correlates to higher work satisfaction, commitment to work, feeling of gratitude and more positive manager- employee relationships (Applebaum, S. et al. 2013, o'Malley, M. 2000 s.143). According to the Corporate Leadership Council, moving an employee from "strong non-commitment" to "strong commitment" decreases turnover of employees by 87% (Corporate Leadership Council, 2004). So, having employees that are engaged at their work are all around better employees, as well as happier and less likely to leave the organisation, which make it an integrally important area to study.

1.1. Research Objectives and Research Questions

The first research objective of this study is to understand how AI has influenced the process of due diligence. This is achieved by interviewing employees who are working in the due diligence process and are using or are familiar with using an AI tool in the process in their respective organisations. The goal of the interviews is to find out what kind of AI due diligence tool the organisation uses, what benefits it has brought to the due diligence process and in turn what aspects the AI tool has potentially made the due diligence process more complicated.

This study aims to bring more of a solid research base into the area of AI due diligence tools and their capabilities. The topic is so new that the amount of research is still miniscule, which means that there is a clear research gap in between due diligence and AI. This research brings more light into how AI can influence an organisation's due diligence, therefore giving implications on its usefulness for organisations that are considering introducing such a tool to their processes. As this thesis dives into the literature review it is clear that M&As are highly risky and due diligence is often lacking, resulting in a considerable number of unsuccessful M&As. If research deems AI use in the due diligence process as something that will help organisations, then the amount of M&As being unsuccessful might reduce, which makes the area of research highly important.

The second research objective is to understand how the introduction of AI has influenced the interviewees' employee engagement. AI's influence on employee engagement is a controversial topic with research giving multiple different views on the impact, and depending on multiple factors the net count can either be positive or negative. Research on technology impact in general is robust, but it's rather reduced by tenfold when discussing AI specifically. Therefore, more research is needed to determine the overall impact of AI, which is what this thesis is trying to accomplish. In order to find out more about how employee engagement is affected by AI I'm researching how employees feel about their working roles and the due diligence process after the introduction of the AI tool. Contrast between before and after AI introduction is a clear way to get results on what specifically AI has changed in the workplace and in interviewees' minds.

As employee engagement is a highly influential factor in employee retention and effectiveness of the employee, it's important to understand how it fluctuates in different positions and operations in an organisation. So, understanding how AI influences employees working in the due diligence process in particular is important, not only to understand how employees are feeling now, but also to understand how the future of the whole due diligence process might evolve and change, and in turn how these changes might affect employees' engagement to their work. This thesis will also bring more insight into how employees regard new technologies which will aid organisations find the right way to support their employees in the process and set adequate retention plans in place in the case of potential resistance to change.

Based on the research objectives there are two research questions for this study:

1. How does the use of AI influence the process of due diligence in M&As?
2. How does the use of AI influence employee engagement in the workplace?

1.2. Structure and Scope

This thesis follows a traditional structure with a literature review about M&As, due diligence, AI, AI tools, employee engagement and AI's influence on employee engagement. After the literature review the research methodology is introduced, which expands more on semi-structured interviews as well as gives an overview of the interview process and analysis. After a brief introduction of the interviewees the research analysis and results follow the same plan as the literature review with a division into two main parts, one being for the due diligence process and AI and one for employee engagement. The first part starts with what kind of due diligence process the interviewees' organisations have, what kind of AI tools they use and how these AI tools have affected the due diligence process. The second part about employee engagement discusses how the introduction of AI has changed the work roles of the interviewees and what kind of feelings it has brought up. As most of the interviewees work in a leadership role, this discussion is not only about their own employee engagement, but how they see AI use affecting other employees as well. Both parts, AI tool usage and the effect of AI introduction on employee

engagement, are divided into chapters based on relevant themes from the literature review as well as based on commonality of the theme coming up in the interviews. To help with the structure of the analysis I have created a framework that divides these themes into organisational, cultural and technical aspects, which will also be heavily present in the part where practical implications of the study are discussed. Alongside the framework, for employee engagement I also gauge the effects based on Robinson et al. 's four theme model on employee engagement that was introduced in the previous section. Finally, the thesis concludes with future considerations, potential research topics for others that could be derived from this thesis and limitations of the study.

2. Literature review

This chapter concentrates on the literature review. The literature review is sectioned into four main parts, with the order of themes being M&As, due diligence, artificial intelligence and employee engagement. In the last two sections I also discuss the interconnections of artificial intelligence and the due diligence process as well as artificial intelligence and employee engagement.

2.1. Mergers and Acquisitions

In a merger an organisation buys another organisation (or often called the target organisation) in order to fuse the two, or more commonly some part of the target's operations, into the buyer organisation. The main target of a merger is to gain competitive advantage (Warter, I. & Warter, L. 2017). The goal for an acquisition is the same, but the target company is not fused into the parent organisation, instead it is kept separate as a subsidiary (Warter, I. & Warter, L. 2017). Mergers and acquisitions, or more commonly known as M&As, are a highly popular way of corporate development, and there's a common thought of M&As being one of the easiest ways to increase the value of the organisation (Cartwright, S. & Schoenberg, R. 2006, Warter, I. & Warter, L. 2017).

It's no wonder M&As are such a common phenomenon, as competitive advantage in an M&A can be derived from multiple different aspects, such as synergy savings, diversification of the firm's portfolio, strategic capabilities, technological advantages, international expansion and cultural aspects (Gupta, O. & Roos, G. 2001, Goedhart, M. et al. 2017). For example, Apple bought Siri, the nowadays famous voice assistant of iPhones, in 2010 to enhance their user experience. As Siri was already a complete product before buying it, Apple got an immense technological advance into their phones much cheaper than if they had developed the capability themselves (Goedhart, M. et al. 2017). Siri has become a worldwide phenomenon with iPhones being one of the most bought phones in the world as well as having references made about them from movies all the way to social media memes. The purchase seems to have paid off generously. This is one of the reasons why M&As are looked at as a somewhat easy road to

happiness, as the organisation doesn't have to develop needed capabilities, instead they can just buy them. There's also the fact that at least short-term revenue streams can usually be expected (Sirower, M. 1997, Bhagwan. V. et al. 2018), which is exactly what top management and CEOs want to see, because it creates a feeling of success, and in some cases, actual success (Hitt, A. et al. 2009).

2.1.1. Evolution of M&As

M&As have been around for a long time; first ones were executed in the United States of America all the way back in the 18th century (Malik, M. et al. 2014). As with most business phenomena, the popularity of M&As has fluctuated throughout history in wavelike movements, with six predominant surges. Each wave has had its own flair, such as the first wave of 1897-1904 where the goal of an M&A was monopoly in manufacturing, or the fourth wave of 1981-1989 which was notorious for hostile takeovers (Malik, M. et al. 2014). The 1980s and 1990s were especially the golden era of M&As because of the stock market boom: in 1999, M&A announcements totalled over \$3 trillion in value (Sirower, M. 1997, Sherman, A. 2006, p.2). Nowadays M&As are typically done with more thought, as the 2000s started a new trend of enhanced due diligence, which has resulted in organisations paying more accurate prices for their target organisations (Scott, M. 2014). This could be correlated to the fact that the number of M&As has decreased a bit from the golden ages. Still, respectfully, in 2021 there were over 60 000 mergers and acquisitions transactions completed (Kummer, C. 2018, Statista Research Department. 2022).

2.1.2. State of M&As Nowadays

Even though M&As are one of the most used techniques to gain competitive advantage and while endless studies show their positive outcomes and capabilities, they are contradictingly also one of the most failed ways to gain said advantage (Cartwright, S. & Schoenberg, R. 2006). There seems to be a clear reason for this, which is lack of long-term value. While M&As are reported to bring short-term value to the shareholders of the buyer organisation, they often fail to bring in any long-term value (Cartwright, S. & Schoenberg, R. 2006, Harvey, M. & Lusch, R. 1995, Perry, J. & Herd, T. 2004). In the end, almost half of all M&As fail in terms of leaving the organisations better off after the M&A (Harvey, M. & Lusch, R. 1995), which, given by the everlasting popularity of M&As, seems ludicrously high. These statistics have been seen by the business world as well, as the 1990s seems to have been the golden age, and now it is the time for the cool down period: M&As have decreased globally about 8% from the late 1990s (Kummer, C. 2018).

Reasons for failure are multiple, of which most common ones are the inability to create wanted synergies, paying too much for the acquisition, selecting wrong target companies, not investigating the target company well enough, managerial hubris and ineffective integration processes (Hitt, A. et al. 2012, Papadakis, V. 2007). For example, it has been studied that top management chooses M&As as “an easy way to create more value”, because, at least from the surface level, the following processes seem to make management more important, give them personal gains and enhance their power levels in the company (Hitt, A. et al. 2009). Other studies also underline paying too high of a premium for the acquisition; synergies aren’t magical creators of extra value. “ $2+2=5$ isn’t a working equation, no matter how you look at it,” said Mike Sirower in his book “The Synergy Trap: How Companies Lose the Acquisition Game (Sirower, M. 1997, p.5). Here it is also important to highlight that most of these problems could be resolved with a proper due diligence process, which I will discuss more about in the next section.

So, there seems to be an interesting cognitive dissonance in the basic premise in the world of M&As; it is a proven fact that M&As are an excellent way to grow an organisation's competitive advantage (Gupta, O. & Roos, G. 2001, Goedhart, M. et al. 2017), but at the same time, history has shown us that it's more likely than not that the M&A will fail (Harvey, M. & Lusch, R. 1995). Why is this? Ulrich Steger and Christopher Cummer call this phenomenon "The Vicious Circle of Pressure and to Failure", where the circle starts from the managers feeling pressure to grow the organisation. It coils around over competence and unrealistic expectations and finally to the commitment to the M&A, which is the point-of-no-return. As is common with new things, post-merger integration brings in resistance to success, which finally rounds the circle up to failure (Steger U. & Kummer, C. 2007).

But, as with everything else in life, all is not doom and gloom. Scott Moeller and Chris Brady bring up a very important counterargument to the talk about failure in their book "Intelligent M&A: navigating the mergers and acquisitions minefield": how do we know that an M&A was a failure? If it is by shareholder value such as the above-mentioned horrendous failure percentage of 50, how long of a period should be examined? At the same time, most, if not all, global giants have grown to their size with the help of M&As, which brings up the interesting question of an organisations' possibilities of growing without M&As. If all bigger organisations have reached their remarkable sizes by doing M&As, then the chance of failure can feel negligible, because the chance must be taken in order to succeed. Last but not least, Moeller and Brady also mention the audience's perceived failure rates of M&As; the media usually only talks about the failures, not the successes (Scott, M. & Brady, C. 2014 p.6). The amount of failure that a reader feels like is happening might be far from the truth. Vassilis Papadakis agrees with these points by also giving out a very optimistic view of future M&As in his article "Growth through mergers and acquisitions: how it won't be a loser's game". He stresses three facts that promise better M&As in the future: first, nowadays managers have a wealth of research and empirical evidence of past M&As to avoid common traps of past M&As. Second, the age of the internet has brought a significant change to the M&A process, as shareholders can be much more involved in the deal which will make decision makers scrutinise their deals with more care than before. Lastly, there has been a trend of M&As being more horizontal than vertical, which means buying out competitors. As the competition is probably very similar to

the buyer, there's no abrupt developments of new capabilities, strategies or operational skills, which makes the M&A and post-integration smoother (Papadakis, V. 2007).

Based on this contradictory information an M&A seems to be a gamble that an organisation must take to grow. So, no matter how high the percentage of failure is, M&As are here to stay, which means that research on how to be more successful at M&As is more important than ever.

2.2. Due Diligence

Due diligence is “a process that examines both tangible and intangible assets of the target company”, and its main goal is to make sure that the buyer organisation knows what it is buying (Harvey, M. & Lusch, R. 1995, p.7). Not only is due diligence about finding out what for example the organisational culture and monthly scorecards are like, but it's also an investigation into the questions the target organisation doesn't want to answer, but that can potentially save the buyer organisation from transactional difficulties, hidden liabilities and even lawsuits (Savovic, S. & Pokrajcic, D. 2013). On the other hand, due diligence is also for the target organisation; they must understand who and what the buyer is and be able to make a recommendation to the shareholders of the organisation on whether or not to accept the offer (Scott, M. 2014, p.193). Even though the talk of due diligence is strongly wrapped around the view of the buyer, it's recommended for both sides to do due diligence, especially if the organisations are equals to each other (Scott, M. 2014, p.194).

So, all in all due diligence can be summarised into two main objectives: reduce negotiation risks and reduce risk of the deal (Howson, P. 2018). As the buyer is paying more than the seller thinks the business is worth (as they are willing to sell it at such price), the buyer must know that the business is worth the money (Howson, P. 2018). Thus, due diligence is one of the most important aspects of the whole M&A process, if not arguably the most important (Savovic, S. & Pokrajcic, D. 2013, Morrison, N. & et al. 2008, Scott, M. 2014, p.203).

2.2.1. Different types of Due Diligence

There are numerous areas that due diligence should focus on. Most common of these areas are financial, environmental, human resources, cultural, marketing, intellectual property (IP), operational, legal, tax, strategic, technology, market and R&D (Bhagwan. V. et al. 2018, Savovic, S. & Pokrajcic, D. 2013). Usually, buyer organisations can't focus on all these aspects, as the process can cost a lot of money as well as be time consuming, so the areas picked depend on the scope and purpose of the M&A (Cumming, D. & Zambelli, S. 2015, Lambooy, T. 2010). Investors hope that the more profound the due diligence process is, the more likely the target company will yield positive results. The most common problem lies in the articulation of where the line of "enough due diligence" lies, which is seemingly hazy (Cumming, D. & Zambelli, S. 2015). Lawyers, employees and time itself cost money that could be spent elsewhere, but if that money means that the M&A is a success, is it worth it?

As due diligence is usually divided into two teams of strategic & financial team and legal team (Sherman, A. 2006), I'm going to delve a bit deeper into these two types of due diligence, alongside human resources due diligence as it has gotten more popular recently with increasing weight in the buying process (Harding, D. & Rouse, T. 2007). I'm also going to write about technological due diligence, as it will be relevant to the thesis.

Financial due diligence

Almost all due diligence processes include a financial analysis of the target firm, and it is the easiest to conduct because the majority of the material is strict numbers and easy to find (Howson, P. 2018, Harvey, M. & Lusch, R. 1995, Papadakis, V. 2007). The main goals of a financial due diligence are:

1. Making sure that the target firm's financials are shown in true light (Howson, P. 2018). This is usually done by an accountant with the help of financial statements, as they provide evidence of the organisation's financial health. Financial statements include

important information such as payroll, sales and inventory numbers (Mullins, T. et al. 2007).

2. Making sure that there are no hidden financial setbacks that might break the deal (Howson, P. 2018). It's characteristic of M&As that the seller and buyer have asymmetric information about the M&A. It's even possible that the target organisation tries to use this asymmetry to their benefit by hiding weaker assets or giving a too good of an evaluation of possible synergies (Cuypers, I. et. al. 2016, Sherman, A. 2006, p.66). All this might result in the acquirer buying the target organisation at too high of a price, which makes financial due diligence especially important.
3. Determining the assets and liabilities of the target firm (Howson, P. 2018). Assets are items that an organisation owns that will produce benefits for the organisation. Assets can be either tangible or intangible, such as cash, accounts receivable, training of personnel, trade secrets, share of market and customer loyalty (Harvey, M. & Lusch, R. 1995). While assets bring in competitive advantage, liabilities represent an obligation that usually brings in competitive disadvantage (Stam, C. 2009). Liabilities can also be tangible or intangible, such as loans, rents, payroll, off-balance sheet transactions, inadequate R&D and high employee turnover (Harvey, M. & Lusch, R. 1999). Knowing where an organisation's strengths and weaknesses lie is one of the the most important parts of due diligence (Cumming, D. & Zambelli, S., 2015, Howson, P. 2018).
4. Understanding possible areas of development that might forecast the future. One of accounting's principles is that while profit should be written down only when it is actually realised, losses should be recognised the moment the possibility of a loss is noticed (Howson, P. 2006, p.16). This also applies to financial due diligence, which should give as clear a picture as possible of post-deal implementation and procedures, both possible good implications as well as bad ones (Howson, P. 2006, p.17). Financial figures can be used to do this forecasting by calculating for example future expenditure, growth and earnings (Harvey, M. & Lusch, R. 1995).

5. Confirming that the target fits the buyer company and that the expected synergies can be reached (Howson, P. 2018). Synergies are one of the most common reasons for due diligence, as it makes reducing costs achievable. For example, financial synergies can be achieved when combining the target and acquirer's balance sheets results in a reduced weighted average cost of capital (WACC), which is one of the most common ways to calculate how much a firm's capital costs (Gupta, P. 2012). If buying another organisation means that in the long run the buying organisation is operating on less money with more capabilities, a merger or an acquisition seems like a good idea.

Legal due diligence

Legal due diligence focuses on possible problems and issues in the M&A, both during the M&A that might impede the ongoing transaction and after the transaction with issues regarding implementation. It also gives a framework for how the documents regarding the M&A are structured (Sherman, A. 2006, p.64). This is usually done by going through documents one by one or by simply finding out which documents are the most important and checking only those (Young, J. et al. 2018).

The legal team must review multiple different parts of the target organisation's business, listed here:

1. Documents regarding corporate matters, such as shareholder meeting minute books, list of countries where business is made, certificate of incorporation, agreements made between shareholders and all contracts that restrict sales of the organisation's shares (Sherman, A. 2006, p.69.) There can for example be a surprisingly common problem of incomplete contracts with the shareholders, which has resulted in managers getting the amount of power and control that might encourage self-interested behaviour (Shleifer, A. & Vishny, R. 1996).
2. Documents regarding financial matters, such as revolving credit and loan agreements, list of reports regarding the material aspects of the business operations, list of tax returns,

financial statements such as balance, income statements and projected budgets (Sherman, A. 2006, p.71). This is done in close cooperation with the financial team, as there is a lot of overlap (Sherman, A. 2006, p.64).

3. Documents regarding management and employment matters, such as employment agreements, collective bargaining and union contracts, retirement, medical and profit-sharing plans and contacts of key employees that have left the seller within the past three years (Sherman, A. 2006, p.72). For example, going through the employee agreements is important from the aspect of talent retention; gathering information from an employee agreement might help in gaining incentives to offer for the key employees to get them to stay in the organisation through the M&A. As talent retention is one of the most important factors of a successful M&A, it's crucial to go through all employment agreements with a precise eye (Harding, D. & Rouse, T. 2007).
4. Tangible and intangible assets of the seller, such as a list of owned property, mortgages, patents, trademarks and all commitments for rented or leased property (Sherman, A. 2006, p.73). Intellectual property is the main source of an organisation's asset portfolio as a source of competitive advantage, diversification and growth (Bughin, J. et al. 2018). Therefore, it's extremely important to identify, verify and scrutinise all the IP assets that the target organisation has (Howson, P. 2018). Here you can also see a lot of overlap with financial due diligence, which means close cooperation between the two parties.
5. Material contracts and obligations of the seller, such as purchases, franchise, distribution and agency agreements, joint venture agreements and documents regarding all the insurance policies owned by the target organisation (Sherman, A. 2006, p.74). As the target organisation is bought all its obligations and contracts are shifted to the buyer organisation. These contracts might be a source of possible synergies, if for example the target organisation has a better deal for materials than the buyer (Howson, P. 2018).
6. Litigation and claims, such as list of material litigation, settlement claims, description of labour relations history of the organisation and documentation of the correspondence with regulatory agencies (Sherman, A. 2006, p.76). These documents also give more information about the target organisation's way of operating regarding litigations;

shareholder lawsuits are the most common lawsuit that occurs during an M&A (Krishnan, C. et al. 2011), so knowing how the target organisation has dealt with similar situations before gives insight that might negate a possible future litigation during the M&A.

7. Other miscellaneous aspects and documents, such as press releases, resumes of all key employees, standard forms, financial analyst reports and schedule of long-term investments made by the target organisation (Sherman, A. 2006, p.77). With legal due diligence, thoroughness seems to be the word of the day.

Technological due diligence

Technical due diligence is in question when the target organisation's technology use as well as technology services are inspected (Andriole, S. 2007). If there is an IT department, then its procedures should also be vetted (Bhagwan. V. et al. 2018). The process should focus on potential problems in the IT related things of the organisation, but it should also look to the future and spot potential opportunities in the products and capabilities of the target organisation (Andriole, S. 2007, Howson, P. 2018).

Technical due diligence checklist can be presented in a seven-point checklist (Howson, P. 2018):

1. Product architecture: the organisation's technology's design, its capabilities and how it executes these capabilities. The design is also investigated for its scalability, robustness and quality. It's important to find out how this technology helps the organisation, for example, is it something required for the business to perform well (Howson, P. 2018)? Amongst these questions one should think about quantification; if the impact of the product can be calculated and compared to some baseline it's easier to convince the buyer to go through with the purchase (Andriole, S. 2007).
2. Underlying technology, which is about how developed the technology is; is it something that can be replaced in the future or is its lifecycle already at its end? How well can the target organisation leverage this technology (Howson, P. 2018)? This can also be described as a search for the "right" technology, which is a piece of technology that

works today as well as tomorrow. The goal is to find technology that is a part of a larger trend that will continue prospering in the future (Andriole, S. 2007).

3. Intellectual property is about the cost of commercialisation and the complexity of the IP. Are the plans for the commercialization of the IP in line with the business plan and does the target organisation have the proper skills and systems in place to leverage the IP (Howson, P. 2018)? Complexity is one of the most important factors, as it tells about the product's infrastructural requirements. If the product requires large investments to work, such as more powerful computers, selling the product might be harder as it needs more resources to work (Andriole, S. 2007).
4. Analysis of documentation: overall structure and core components of the documents. How is the quality and consistency of the documents (Howson, P. 2018)? This is quite similar to the analysis done in financial and legal due diligence, as the quality of the documents is of high importance (Becerra, S. 2018, Stoskute, L. 2020).

For technical due diligence it's also important to understand the market and the people working the technical aspects of the organisation, so human resources due diligence is also needed (Howson, P. 2018). The people in the organisation are the ones who know the technical aspects and how to run the services and products smoothly, therefore retention of the right people and getting the important information from their mindss is essential (Howson, P. 2018).

Human resources due diligence

Commonly the most important part of due diligence are thought to be the "harder" aspects, such as financial and legal parts (Horwitz, F. et al., 2002) and they are the most often executed due diligence types (Howson, P. 2018). After all, the whole term "due diligence" has arisen from the corporate lawyer world, where the term described compliance with the law (Lambooy, T. 2010). There's legislation on the state level as well as international level (for example European Union directives) and stock exchange rules (Lambooy, T., 2010) that make financial due diligence in some sense mandatory.

Nowadays the focus of due diligence has shifted more on the employee side, as organisations turn to search for new leverage of capabilities in their employees. Focusing on the talent of the

organisation has two main benefits: employees stay after the initial announcement and employee attrition stays at a good level (Harding, D. & Rouse, T. 2007). Neglecting the so-called “soft” aspects, such as human resources due diligence, is shown to hamper the whole M&A process and especially the integration after the M&A transaction (Horwitz, F. et al. 2002, Papadakis, V. 2007). A famous example of a failure in the human resources due diligence is the Bank One’s acquisition of First Chicago NBD in late 1990s: none of the 16 managers that were picked to run the merged company remained in the company for long term, which set the merger back severely (Harding, D. & Rouse, T. 2007). Therefore, retaining talented employees for long term after an M&A has quickly become one of the most important aspects of due diligence, especially in today’s world, as the lack of highly skilled employees underlines the fight for talent amongst organisations (Srivastava, P. & Bhatnagar, J. 2008).

Human resource due diligence is about finding out about employee-related costs in the organisation, especially the unseen costs that might not have been clearly written down (Chyekok, H. 2011). This is done alongside checking through documents - such as employee agreements - by visiting the target organisation and interviewing the people there. This is also a great opportunity for building a relationship with the target organisation’s employees, which might make them more perceptive to the M&A (Chyekok, H. 2011). Talking to the employees also has a vital role in understanding the target organisation’s culture; it might reveal for example strengths and weaknesses of the management team, if there’s need for restructuring and who are the key employees that the buyer organisation should try to keep in the organisation with all the incentives they can muster up (Horwitz, F. et al. 2002). In the end, human resource due diligence can bring up such important answers to questions of “will this organisation fit into ours” (Horwitz, F. et al. 2002), which is also a summary of one of the main goals of the whole due diligence process.

2.2.2. Due Diligence Is Often Not Done Well

The connection between the probability of a failed M&A and due diligence is the fact that a significant number of organisations don't perform due diligence well (Hodge, 2017, Scott, M. 2014 p.194). For example, a survey of recent M&As found out that $\frac{2}{3}$ of unsuccessful M&As had not identified key employees (Harding, D. & Rouse, T. 2007). This reflects the common trend of failed M&As; the "soft" aspects of the due diligence process are often neglected, or completely ignored (Horwitz, F. et al. 2002). There's no lack of bad due diligence on the more strategic aspects either, as it has been common to sample some contracts and files by random and then extrapolate the results companywide (Young, J. et al. 2018), which is an incredibly vulnerable method for mistakes. There are six main reasons for a failed due diligence, gathered by Michael Benoliel in his article "Hazards to Effective Due Diligence" (2015): biases such as confirmation bias, time pressure, self-interested agents, deal fever, narrow focus and complexity (Benoliel, 2015). These aspects correlate with Andrew Sherman et al's summarisation of the feelings on due diligence in the corporate world: "overall, the due diligence process, when done properly, can be tedious, frustrating, time consuming and expensive" (Sherman, A. et al. 2006). No wonder with descriptions like that businesses tend to glaze over the process as quickly as possible. If we compare reasons for failure in due diligence to the common reasons for why M&As themselves usually fail we can see a lot of similarities. It seems that if a mistake is repeated somewhere, it is usually repeated elsewhere as well.

In the end bad execution of M&As and bad due diligence has resulted in almost half of all M&As to fail and to M&A disputes having a record high of the last five years with experts recommending a "more enhanced due diligence" to mitigate these risks (Perry, J. & Herd, T. 2004, Hadi, M. et al. 2022, Papadakis, V. 2007). Though the business world seems to slowly be waking up to the importance of due diligence, there's still contradictory information that is against more enhanced due diligence. For example, Warren Buffet, one of the world's wealthiest people and a known investor giant, says that more enhanced due diligence is not needed as

simple understanding of the market and the current economic situation of the company is enough (Hopkins, J. 2022).

So, despite Warren Buffet's opinions, based on research literature there is a connection between bad due diligence and failed M&As, and that the probability of a successful M&A can be increased with better due diligence. There are many ways to enhance the success of due diligence, such as giving more scrutiny to softer aspects and the human capital as previously mentioned, but also modern invitations could be harnessed to make the due diligence process easier and more efficient. What better way to do that than taking the human element out of it altogether and letting the machine do the "tedious process" (Sherman, A. et al. 2006) of due diligence? As can be seen from the breakdown of different types of due diligence above, a large part of the process is about going through documents and simply checking what information there is. Machines and AI could replicate the work of the human in this regard and bring forth more throughout due diligence. Thus, AI and its potential in helping in the due diligence process is discussed in the next section.

2.3. Artificial Intelligence

“These are golden, and in appearance like living young women. There is intelligence in their hearts, and there is speech in them and strength, and from the immortal gods they have learned how to do things” said Homer to Hephaestus in 850 B.C (McCorduck, P. et al. 1977). This could be the oldest mention of automation, or even artificial intelligence, in the history of men. Humanity has been dreaming about non-living beings doing human-like things since our earliest memory. It took us a while to make the dream come true: 2800 years later, AI was established as an academic discipline with the colossal influence of Alan Turing’s famous “Computing Machinery and Intelligence” article, where he described how to create intelligent machines and how to test these machines for intelligence (French, R. 2000). The so-called Turing test was created, and in tandem in 1956 the term Artificial Intelligence was first established. This was a start of quick successes, and the Turing test was promptly conquered by ELIZA, a language processing tool, in 1966 (Haenlein, M. & Kaplan, A. 2019, Anjila F. 2021, p. 66).

By this point AI was mostly about mimicking intelligent human behaviour, such as playing chess and calculating, but during the 1970s the era of knowledge-based systems blew new winds into the world of AI (Buchanan, B. 2006). Now AI could do decision-making based on the data it was fed, and from the 1980s onward AI could be harnessed to solve real life problems (Tarihi, Y. 2015).

The next big thing came in the 21st century in the form of Big Data. Now data could be gathered about everything, all the way from how a customer moves their mouse on a web page to knowing how people move in the centre of the city based on their phone’s GPS location. All this data would be too much for humans to go through, but AI can do it thousands of times faster than humans and produce accurate analysis of the data (Pannu, M. 2015, Young, J. et al. 2018). AI has become a powerhouse of an invention with a myriad of other benefits: it doesn’t need sleep, it bases its decisions on fact and not emotion, errors are almost obliterated and the data is kept forever if needed, creating permanency (Anjila F. 2021, p. 71). This means significant improvements to almost all fields of life, such as commerce, science, education and government

(Luan, H. et al. 2020). In the 2020s the focus has shifted to regulating AI: now that it is clear that AI will become an integral part of the average human's life, concerns such as AI accidentally or purposefully learning biases based on the data it's fed have arisen (Haenlein, M. & Kaplan, A. 2019). A regrettable example of such bias comes from Amazon when their recruiting AI started discriminating against women based on the historical employee information that it was fed (Dastin, J. 2015).

So, in more scientific terms, what is artificial intelligence? Artificial intelligence is an umbrella term for computing techniques that can do tasks that would otherwise need human intelligence in order to be performed (Surden, H. 2019). As there are so many different types of AI, the term "intelligence" has become a hard thing to quantify into words. According to Cambridge dictionary intelligence is "the ability to learn, understand, and make judgments or have opinions that are based on reason" (Cambridge Dictionary, 2023), while more AI leaning meaning of intelligence is "the computational part of the ability to achieve goals in the world" (McCarthy, J. 2007). For example, a web page chatbot answers in a certain way based on what button the customer presses. It doesn't independently choose this option, instead it is an automatic response to a trigger. This would not qualify as intelligence in Cambridge Dictionary's definition, but it would qualify with McCarthy's definition. An example of an intelligent AI from both definition's view is the application ever growing in popularity called ChatGPT, which is an intelligent chatting machine that is able to formulate its own responses, apologise for mistakes and learn from them (Jiao, W. et al. 2022). So, we are able to confidently say what is intelligent, but the line of non-intelligent is still somewhat hazy.

2.3.1. Different Types of AI

There are three main types of artificial intelligence (Surden, H. 2019):

1. Machine learning

Machine learning methods are usually focused on detecting patterns in big amounts of data. The more data the AI gets, the more accurate it can become in noticing unusual patterns in the data as well as making decisions and doing forecasts based on said data (Ray, S. 2019.) Scientists noticed that training AI by giving it examples of desired outcomes allows AI to train itself, which is far easier than manually programming it with all the possible inputs and outcomes as well as what to do if certain input is given (Jordan, M. & Mitchell, T. 2015). As a field of study, machine learning is a hotpot of different disciplines; it crosses over from computer science and statistics all the way to psychology and even the study of evolution (Jordan, M. & Mitchell, T. 2015). Some common ways machine learning is used for various purposes are such as spam email detection, document reviewing and even disease detection, most notably for cancer (Ray, S. 2019, Surden, H. 2019). Machine learning is an incredible tool that will help humanity in a lot of ways, but as a relatively young scientific field it's not without its downsides; alongside the machine creating biases based on data such as the aforementioned Amazon example, there's also possible problems of data privacy and the ownership of said data (Jordan, M. & Mitchell, T. 2015). If a human willingly inputs personal data into an AI application, is the data now owned by the AI? We don't yet seem to have official answers for such questions, but the common consensus seems to be that private information should be kept from AI models because they are a concern for data privacy (Mhlanga, D. 2023).

2. Rules, logic and knowledge presentation

In this subgenre the humans are talking in the language of AI; it is given preset rules, which it follows as ordered by the human (Surden, H. 2019). These tasks are usually monotonous, and their automation is done in order to free up humans to do more skill intensive tasks (Malik, S. & Rana, A. 2020). The basics of this kind of presentation resides in language and how the rule is written; the AI must be able to convert language into followable calculus (Travis, I. 1990). An example of this kind of AI is a machine that calculates tax rates; it is given a simple list of rules to follow, for example, under the amount of 100 tax rate is 1 and over the amount of 100 tax rate is $1+y$ (Surden, H. 2019).

3. Hybrid AI systems

As the world gets more complex, machines need to get more complex too. As the name refers, there are AI systems that use both machine learning and rules, logic and knowledge presentation, or more officially put systems that “comprise statistical methods and neural networks as parts of the main algorithm” (Hagemann, S. et al. 2019). One of the most common of these kinds of systems is a self-driving car; it uses machine learning to train itself to drive, but at the same time it is given a coded set of rules, for example a hardline of staying a certain distance away from the car driving before it (Stilgoe, J. 2017). Hybrid AI systems are especially beneficial for complex tasks such as self-driving, as the process of getting and analysing the data that is required for a car do drive by itself used to be a manual job that took a long time to complete because of the high number of product variants that all need to be compared to each other (Hagemann, S. et al. 2019). Nowadays, that manual work has decreased significantly.

2.3.2. AI in Due Diligence

There is ample evidence that artificial intelligence is increasingly used to execute M&As more efficiently (Crabb, J. et al. 2021, Stoskute, L. 2020, Turuk, M & Milovanovic, B. 2020). AI can be used in due diligence processes on things such as evaluation of the business model, processes, resources or potential, but nowadays it is more commonly used as a reviewer of contracts and important documents (Turuk, M & Milovanovic, B., 2020). It seems that out of the three artificial intelligence types listed above machine learning is the most used one, as for example machine learning for document reviewing requires less resources than training a self-driving car (Crabb, J. et al. 2021, Stoskute, L. 2020). AI is also able to trifle through and catalogue information more cheaply, effectively and consistently than humans, which makes it perfect for the use of document reviewing. The human mind is fickle, while the AI mind is not (Pannu, M. 2015). AI is also a great help in international M&As, as it is capable of translating languages, so documents in a different language shouldn't pose a problem (Pannu, M. 2015). So, AI can also bring in profound potential regarding international expansions. Thomas Davenport and Rajeev Ronanki affectionately title this ability in their report *Artificial Intelligence for the Real World* as “analytics on steroids” (Davenport, T. & Romanki, R. 2018).

Especially the legal field seems to be able to take great advantage of the use of AI in due diligence, as research conducted by Jens Jung showed that out of 68 law firms, $\frac{2}{3}$ used some kind of AI in their due diligence process (Jung, J. 2019, Becerra, S. 2018). Legal due diligence is one of the most common due diligence processes to conduct because of liabilities and even rules stating that it should be conducted (for example the World Bank requires due diligence from its clients). It is famously also one of the most time-consuming fields as law firm associates spent almost a third of their working hours only on legal research, so trying to digitalize the field appears to be common sense (Sherman, A. 2006, Peters, A. et al. 2020, Lasters, S. 2012). The legal field greatly benefits from AI not only in document reviewing but legal research and other due diligence methods as well (Stoskute, L. 2020). This is a slightly contradicting fact, as the legal field is one of the most conservative fields known in the business world (Huhtamäki, K.,

2022). How come a business field that is known for its traditional habits is one of the first to adapt to brand new technology? There's a simple reason for it: because of the repetitive nature of legal due diligence, it is easy to trust the processes to AI, which fastens the due diligence process as well as significantly cuts down costs (Stoskute, L. 2020). Also, law documents are highly compatible with AI as the format is usually similar no matter what kind of file is at hand (Stoskute, L. 2020). Therefore, the legal field holding the title of trailblazer is understandable.

Research on AI due diligence tools in other due diligence types than legal due diligence is severely lacking, and very little number of respectable studies could be found on the matter. There's some general research on how AI can accurately estimate software development even when there's complex relationship between variables by adapting information from older problems that are similar to the current problem (Finnie G. & Wittig, G. 1996), which is a major part of technical due diligence, as for example a software's life cycle can be estimated based on it (Howson, P. 2018). This correlates with other research on machine learning's ability to help in software effort estimation, with one research giving it a percentage as high as 78% in prediction rates (Kocaguneli, E. et al. 2010, Pospieszny, P. et al. 2018). Machine learning can also be a fortifying agent in financial due diligence as it can help detect non-performing assets and even possible frauds (Bhatore, S. et al. 2020). Even though the more unique aspects of financial and technological due diligence are scantily researched in regards of AI, they still require a lot of the same type of document reviewing than legal due diligence (Howson, P. 2018), so some of the same user cases apply, making them potential opportunities for AI due diligence tools as well. There are also several AI based tools that are used in technical and financial due diligence, such as Embold and Cast (Embold, 2023, Cast, 2023.), so it does exist, the phenomenon is just too new for a lot of research to be had.

While we can see that AI is gaining popularity now, there's no clear consensus on what the actual percentage of AI use will be in the future; one research shows that 70% of firms are going to have at least one AI technology in their organisation by 2030 (Bughin, J. et al. 2018) while another states an astonishing conclusion of 96% of all tasks in due diligence being either in part or fully operated by AI in the next 10 years (Rien, A. 2018). At the same time, a study about M&A organisations showed that most of them aren't considering the use of AI now or in the

future (Jung, J. 2019) and that most tests of AI implementation end up in disappointment because of real life user cases being too complex for the machines (Lebovitz, S. et al. 2021). Apart from these studies showing both sides of the coin, the present consensus in research seems to be firmly on the side of “I don’t know”, as most studies show potential for AI but employers still feeling hesitant about it (Puaschunder, J. 2019, Stoskute, L. 2020, West. D. et al. 2009). How we work and do due diligence will change, nobody just seems to know exactly how much.

There is a reason for this kind of hesitancy in the opinions of organisations; even though it seems to be common knowledge that AI will bring in more efficient results (Pannu, M. 2015, Young, J. et al. 2018), concrete research on how AI influences the due diligence process is not well understood yet. This is mostly because the research of the field is predominantly young. Some research on AI’s competencies can still be found. For example, the addition of AI in the law system in general has been estimated as an accuracy increasing measurement (Pareekv, V. & Bansode. V. 2022). In a study about image recognition AI recognised anomalies with less accuracy than human employees (64.8% for AI versus 69.9% for human employees), while in another similar meta study of 12 studies totalling over 130 000 participants 34 of out 36 AI systems were better than one human employee, but the tests were of poor methodological quality and usefulness of AI could not accurately be presented (Freeman, K. et al. 2021). More similar data to AI due diligence tools could be found from language model research, as all AI due diligence tools are language models capable of understanding language. The results vary widely: in one study accuracy of the AI model’s language understanding was 90% (Samaan, S. et al. 2021) while another produced a precision score of 0.349 out of 1 (Coskun, B. et al. 2023). These results are not confidence inducing as the results either vary a lot or aren’t applicable in the first place, but the potential of these tools seems to be enough for organisations as the amount of interest suggests (Crabb, J. et al. 2021, Stoskute, L. 2020, Turuk, M & Milovanovic, B. 2020).

2.3.3. AI Tools Used in the Due Diligence Process

There are numerous artificial intelligence tools that focus on due diligence. Common examples of legal AI tools are Kira and Luminance (Kira, 2023, Luminance, 2023). The overwhelming majority of these applications work as “smart data rooms”, to which employees can upload documents and contracts and AI will organise the files, look for missing information and possible outliers in the data (Huhtamäki, K. 2022). Data rooms used to be physical rooms where the target organisation would bring files in for the due diligence personnel to check one by one, but nowadays smart data rooms and virtual data rooms are the norm. This is a profound improvement in the process of due diligence as multiple people can work on the same files at the same time with no physical limitations such as opening hours or travel time (Tortuero, J. 2013).

For example, Luminance is such a tool which “takes a first pass review of any incoming contract to automatically flagging contractual anomalies; from highlighting areas of non-compliance to be remedied, to labelling clauses or applying advanced AI-driven ECA” (Luminance, 2023). So, this kind of AI tool can check clauses and if they are correct or not, but also inform an employee of information that is missing or different from the rest. However, these tools do not do any kind of analysing, instead they bring forth outliers in the data as well as help humans organise the files in an easier format. Most of these tools come pretrained, which usually means that the most commonly used commands are already trained to the system, such as law clauses for law documents (Kira, 2023). These tools are based on pattern recognition as machine learning is about seeing the exact same data (so patterns such as words and sentences) enough times that it starts recognising differently worded sentences to mean the same thing (Jordan, M. & Mitchell, T. 2015). Even so, these tools don’t pass the Turing test right away, as they need to be trained in specific languages in order to understand the patterns the words have. As with the data they analyse, the language of the tool also gets better the more training data it gets (Beltagy, I. et al. 2019). Most of these tools come with some pretrained languages, for example Della AI boasts about having 10+ languages trained to the AI (Pannu, A. 2015, Della, 2023). There’s still a

strong bias towards English language models, making the research on the topic almost monolingual. Therefore, English is the base language for almost all of the AI due diligence tools (Conneau, A. & Lample, G. 2019). There is some resource cost to training a language that the tool doesn't yet have, as it needs multiple examples of the new language before being able to extract information with it (Beltagy, I. et al. 2019).

Common financial due diligence AI tools are for example Alteryx and Qlik Sense, which alongside contract reviewing are able to make analysis and data tracking based on the documents, which is the so-called “analytics on steroids” (Davenport, T. & Romanki, R., 2018). For example, Qlik Sense can help with AI-generated analyses and insights, automated creation and data preparation, natural language interaction and predictive analytics (Qlik Sense, 2023). In a way these tools are a step above legal due diligence tools, as they not only review the data, but also analyse it and format it to a visual presentation for the employee. These tools mostly belong in the genre of machine learning, as they are given a big chunk of data that gets analysed, and as more data is given the better the machine learns to analyse the current data as well as data in the future. Technical AI due diligence tools mostly focus on the software of the organisation, such tools are for example Embold and Cast. These tools check the composition of the software so the makeup of the software can be seen: how much of the software is its own source, open source or third-party components? These tools can analyse multiple other things as well, such as IP risks (legal exposures and security risks), architectural flaws (potential pitfalls in the construction of the software), technical debt (how much software maintenance could cost) and cloud readiness (how well are the right resources allocated to the right applications) (Cast, 2023). These tools are also able to scan code of the software (conveniently called code scanning) and review its quality based on vulnerabilities, code issues, anti-patterns and duplication blocks (Embold, 2023). All of these aspects tell the potential buyer how much the software is worth and if there are some potential risks in the software that could affect the buying price of the M&A.

2.4. Employee Engagement

Employee engagement as a term has become trendy in the past twenty years with countless articles and research detailing how it can bring forth better results in the workplace and employee productivity (Robinson, D. et al. 2004). Still, the term is quite ambiguous and no definite definition yet exists (Kular, S. et al. 2008). Some research says that employee engagement simply means to be “passionate at work” (Bailey, C. et al. 2006). More complexly employee engagement means that a person is physically as well as psychologically present when performing in an organisational role (Kahn, W. 1990). While these two sound very similar to organisational commitment, Robinson et al. categorised employee engagement as “one step above commitment” (Robinson, D. et al. 2004), to somehow differentiate it from previous terms. This has also gathered some criticism, as the term employee engagement can be looked at as an old concept with a glittery new term stickered on top (Kular, S. et al. 2008).

Robinson et al. argue that the main drive for employee engagement comes in the form of feeling valued in the organisation (Robinson, D. et al. 2004). Several factors influence the feeling of being valued:

1. Involvement in decision-making (Robinson, D. et al. 2004). When employees are given the ability to affect decisions the organisation makes, be it about themselves or about the organisation, it allows them a degree of control in the organisation, making them experience ownership about the organisation. This in turn makes employees more committed to their work (Han, T. et al. 2010). In other words, the more decision-making an employee has, the more engaged they are at their work. Here we can also see the intertwining terms; as decision-making increases, job satisfaction, commitment to work and positive manager-employee relationships also increase (Applebaum, S. et al. 2013).
2. The extent to which employees feel able to voice their ideas, how managers listen to these views and value employees’ contributions (Robinson, D. et al. 2004). This is especially tied together with manager-employee relationships. If an employee feels trust towards management it encourages more proactive behaviour in the workplace, such as

voicing out ideas (Applebaum, S. et al. 2013). Voicing out ideas is not only good for the employee's work engagement (Robinson, D. et al. 2004), but also for the whole organisation, as it encourages knowledge sharing (Han, T. et al. 2010), which in recent decades has been recognised as one of the most important strategic capabilities in organisations (Ipe, M. 2003).

3. The opportunities employees have to develop their jobs (Robinson, D. et al. 2004). A study on 230 bank employees revealed that career development has a substantial impact on employee engagement, and that boosting organisational performance could happen through offering more thorough individual development opportunities (Ali, Z. et al. 2019). Wanting to develop at a job can be caused by multiple reasons; the reward might be the job itself, the recognition for performing well or the perks that come along with a job that is more suited to the individual (Ganta, V. 2014). In the end it seems that it's all about motivation; those employees who are engaged at their job have incentives, in some way or another, that make them want to be better at their job and develop at it. This motivation in turn is a source of stronger employee engagement (Robinson, D. et al. 2004).
4. The extent to which the organisation is concerned for employees' health and well-being (Robinson, D. et al. 2004). Employees trust those organisations more that take their wellbeing seriously. They also feel more gratitude towards organisations who clearly show concern for employees' safety (o'Malley, M. 2000 s.143). This feeling of safety ties back into having more proactive attitudes towards work and stronger work engagement (Applebaum, S. et al. 2013). In simpler terms this suggests that employees are willing to show commitment and engagement to their organisations, but only if the organisations show commitment to the employees as well.

Recent times have shown that employee engagement might not be at the level it is supposed to be: in just the USA over 47 million people voluntarily quit their jobs in 2021, and unemployment had risen to an all-time high with 11%. At the same time, the war on talent is fierce, as over 10 million job openings in the USA are looking for employees that are apparently nowhere to be found, with only six million unemployed people in the country (Work Institute Retention

Report, 2022). Similar events are unfolding in other OECD countries, as in 2022 there were nine million new jobs compared to pre-covid times while at the same time labour shortages were a defining characteristic of the year (OECD, 2022.). Employees are leaving jobs in rows, while employers would need even more people to enter working life than before. Most common reasons for leaving a job were the exact points that I have listed above in characteristics of employee engagement: career (opportunities for growth), job (empowerment, availability of resources) and health & family (Work Institute Retention Report, 2022). These factors are brought up in other literature as well; lack of personal agency, lack of commitment from the organisation and lack of opportunities are common reasons for quitting (Hongori H, 2007, Rao, S. et al. 2020). It seems that the lack of employee engagement is one of the defining reasons for an employee to leave a job. At the same time, based on the number of jobs needing new employees, something needs to change in this regard in order for organisations to continue to thrive.

There is still a silver lining for organisations that are losing talent, which is the fact that a big percentage of this kind of quitting could be avoided: a survey measuring over 50 000 employees conducted by the Corporate Leadership Council found that an employee moving from “strong non-commitment” to “strong commitment” decreased the probability of the employee leaving the organisation by a staggering 87% (Corporate Leadership Council, 2004). So, even if employee engagement were an old dog with a new trick slapped on top, it’s still something that employers should make drastic investments on if they want to keep their employees engaged and working for the organisation. Now that technology and AI are getting thrown in the mix, new questions and challenges for organisations and employees are becoming apparent; are new technical innovations aspects that increase or decrease employee engagement? In the next section the impact of AI on employee engagement is discussed more in detail.

2.4.1. Influence of Artificial Intelligence on Employee Engagement

I have discussed a lot of studies that use different calculation tactics that are essentially studying how fast AI is able to progress to the point of being efficient and therefore wanted in organisations (Rien, A. 2018, Jung, J. 2019, Bughin, J. et al. 2018) and how well AI might actually work in these organisations (Pareekv, V. & Bansode. V. 2022, Samaan, S. et al. 2021, Coskun, B. et al. 2023). What these studies are not taking into account is the very demanding aspect of human resistance. Luddites were groups in the early 1800s whose principal object was to destroy advanced machinery in fear of losing their jobs to technology (Pynchon, T. 1984). Nowadays destroying AI is not common so Luddites don't seem to be coming back in big fashion, but a similar kind of fear has stayed: in a survey of 2000 Britons almost a third feared the rise of robots (The Guardian, 2014, Chijindu, V. & Iniyama, H. 2012). Employees are also found to be more anxious, resistant to change and feel more inconvenienced after the application of new technology in the workplace (Stam, R. & et al. 2004). Even though humans usually adapt after some time, these fears are not completely unfounded as automation, such as use of AI, is linked to job loss (Chijindu, V. & Iniyama, H. 2012). Alongside the fear of losing one's job, employees are also afraid of new technology taking over their work tasks, which makes them feel less important and more disposable (Yam, K. et al. 2022), which is oil on fire for employee engagement. While this fear of new technologies or the possibility of getting fired increases the anxiety of employees, it also might make implementing AI into the due diligence process much harder (Chijindu, V. & Iniyama, H. 2012).

While there is plenty of research into the fear people have about technology in general, AI specifically has a lot more positive reception, and not just in general, but when studying employee engagement as well. A study of 220 Australian service-based firm's employees found out that the use of AI actually increased employee engagement (Prentice, C. et al. 2023). In another study of 40 managers AI was found to be significantly helpful to management and in turn to other employees through increased employee engagement (Sari, R. et al. 2022), while another one had positive experiences and feedback from the healthcare sector when AI applications were introduced (Wang, W. et al. 2021). When asked about the possibility of AI

being an enhancer of employee engagement from professionals across four major industries, almost 60% answered as it being a possible enhancer (Rao, S. et al. 2020). Mostly the reaction has been positive because employees became more effective with the help of AI based tools and because they had enough organisational support and appropriate leaderships to navigate the introduction of AI (Prentice, C. et al. 2023, Wang, W. et al. 2021). So, there wasn't any fear regarding employees' own jobs, instead the use of AI was seen as something that makes employees' work easier. These findings correspond with research about AI effectiveness that was mentioned earlier (Pannu, M. 2015, Young, J. et al. 2018); who wouldn't like to skip all the tedious parts of their work and make everything happen quicker and easier?

So, there seems to be two schools of thought regarding AI and how it might influence employee engagement; employees might get scared and some might lose their jobs, but at the same time AI can be received very positively as it might actually enhance many employees' work life. How AI impacts employee engagement when introducing the context of the due diligence process to it will be seen in the next sections, where I talk more about the study of the thesis and results.

3. Research Design and Context

This research was conducted by qualitative semi-structured interviews with the goal of finding out how organisations use AI in their due diligence process, how the use of AI has influenced the due diligence process and how the introduction of the AI tool has affected the interviewees' employee engagement. In this chapter I discuss the length of the study first by discussing the type of the study, then moving on to give an overview of the respondents and the process of the interviews and in the end concluding the research design process with a more in-depth description of the analysis process.

3.1. Research Method of a Qualitative Study

This research was conducted by a qualitative study. By the words of Musab Oun and Christian Bach, "the qualitative research method examines and answers questions of how, where, what, when and why a person would act in a certain way toward a specific matter" (Oub. M & Bach, C, 2014). Therefore, the qualitative method was found superior over the quantitative method because of the emphasis on the interviewee's experiences, opinions and beliefs, which can be difficult or impossible to quantify (Hammarberg, K. et al. 2016). As the purpose of the study was to get personal opinions and experiences of the interviewees regarding AI, qualitative study was a natural way to do that. As the idea was to let the interviewees talk somewhat freely in the loose boundaries of the interview, having pre-determined questions in a questionnaire would have been contradictory. Also, because of the small number of experts in the area, a qualitative study gave much more concrete results as the interviewee pool could be smaller than for a quantitative study.

Qualitative research includes two major types of research: data collection and data analysis (Oub. M & Bach, C, 2014). Data collection was done with semi-structured interviews, where

the interview followed broadly formulated questions, allowing the respondent to steer the conversation to their preferred direction within loose boundaries of the interview questions. This is a very effective way to get data based on the interviewee's point of view as the researcher's own biases and beliefs don't affect the direction of the conversation (Busetto, L. et al. 2020).

3.2. Overview of the Respondents

Selection criteria for the interviewees was quite simple: the interviewee needed to be working in M&As and the due diligence process close enough to be able to comment on the process. They preferably used or had at some point used an AI tool in the due diligence process, but outside partnerships that offered AI based due diligence services to the organisation and/or profound knowledge in general about the subject was accepted as well. This criterion was selected based on the research questions, as to be able to answer how AI has affected the due diligence process or employee engagement one must have had to experience it. The sampling method for this thesis was expert sampling, as I needed to seek out interviewees in a highly niche area that only a handful of people in the business world expertise in (Etikan, I. & Bala, K. 2017).

Gathering interviewees turned out to be a challenge. The topic is new enough that not a lot of organisations use AI frequently in the way the study requires. Interviewees were sourced from multiple different platforms, consisting mostly of LinkedIn, articles about AI in due diligence, reference pages of AI tools in their respective web pages, simple Googling of possible interviewees and contacting the biggest and the most innovative organisations that could possibly be using AI. Contacts such as friends and family were also used, which underlined the importance of connections, as the success rate of getting an interview was much higher than by other means. All in all, 65 emails to potential interviewees were sent, of which six agreed to be interviewed. The remaining four were obtained through connections. The struggle to get interviews might indicate that the organisations that are a part of the interviews are at the forefront of AI adaption in due diligence, as only a few organisations seem to be advanced enough in the matter to comment on it.

Reference name	Country	Organisation	Type of due diligence
Interview 1	Finland	Consulting	Law
Interview 2	Finland	Law	Law
Interview 3	Finland	Consulting	Law
Interview 4	Finland	Law	Law
Interview 5	Foreign	Law	Law
Interview 6	Foreign	Law	Law
Interview 7	Foreign	Law	Law
Interview 8	Foreign	Law	Law
Interview 9	Foreign	Consulting	Technical
Interview 10	Foreign	Consulting	Technical

Picture 1, overview of the interviewees.

Four of the interviewees are from Finland, one from Norway, two from the United States of America, two from Germany and one from the Netherlands. Relating to the study nationalities are divided simply into Finnish and non-Finnish as the above picture shows. The purpose of this division is explained in the way AI is being trained by the organisation, where differences between Finns and non-Finns are considerable. Outside of Finland there was little variance, therefore further division on nationality was not needed. All interviewees' organisations are either medium or large enterprises with an international presence. M&A space is dominated by men which can also be seen from the gender distribution; 9 of the 10 interviewees are men. The interviewee pool consists of employees mostly in high positions, as usually contacts shared on the internet are of the lead employees. Work titles of interviewees include M&A Partner, Head of Technology/Data/Analytics, Consultant and Senior Consultant/Associate. Four of the interviewees work in consulting firms and six work in law firms, giving a satisfactory distribution between consulting and law firms. Types of due diligence were a bit less equal with eight of the interviewees doing legal due diligence and two doing technical due diligence. At first there was an attempt to get interviewees that specialise in financial and human resources due diligence as well, but I quickly noticed that finding any was nigh impossible. As the amount of research in legal due diligence is overwhelming compared to other due diligence types, this was to be expected. In the end, as there's more of a research base to legal due diligence,

connecting my own findings to previous studies was easier and prompted more discussion, so the majority being legal due diligence was a positive thing.

3.3. Conducting the Interviews

The interviews followed a structure of 10 main questions to loosely guide the interview in a semi-structured way. The questions were divided into three parts; the first part mapped out the interviewee's general background, work role and the due diligence process of the organisation. The second part dove deeper into the due diligence process and how AI is used in the process, while the last part concentrated on employee engagement and how the respondent felt about the use of AI. As the research area is quite new the goal was to keep the questions open ended and let the interviewees guide the interview as much as they wanted to in order to get relevant themes to ascend naturally.

The interviewees were conducted either online or face-to-face, with the end result of nine being interviewed online and one face-to-face. The interviews length ranged from 36 minutes to a bit over an hour, with the average length being about 45 minutes. All the interviews were recorded and the interviewer also gathered notes during the interview. Nine recordings were able to be recovered, with one's transcript based on the notes of the interviewer.

3.4. Process of the Analysis

Ethics of practical research were considered in the first part of the interview process by having the interviewees agree to being interviewed in written form. The interviewees were also given a consent notice that told the interviewees how the data they provided would be protected during the interview and analysis process. Considering the ethics continued in the analysis process as the audio files of the interviews were transcribed into literary form by hand and all identifying data was deleted. All data and transcriptions were kept in a secure place with no one else having

access to the data but the interviewee. All the recordings of the interviews were deleted immediately after the transcription was completed and the software tool used for the analysis process was provided by the university.

The transcriptions were analysed with the help of the software ATLAS.ti, a qualitative analysis tool, to where all the documents were uploaded. The tool lets the user code transcriptions easily making the analysis process more efficient. Coding was an easy choice of analysis as its main uses are to organise data and to introduce interpretations of the data (Oub. M & Bach, C, 2014), which means to connect the interview answers to theoretical terms and practices (Busetto, L. et al. 2020). During the analysis 25 codes were created that fell under five different themes: background information, AI, due diligence process, work engagement and others. Codes included terms such as “efficiency”, “negatives of AI”, and “more interesting work”. The number of terms multiplied and evolved during the process as more common themes started to emerge, which means that the same documents were codified multiple times. Alongside helping with the overall view of the analysis as well as compartmentalising themes ATLAS.ti provides analysis tools, of which the most used one was Code Co-occurrence analysis, whereby ticking certain codes the software showcases sentences in which both codes were used. This was helpful in finding correlations between different themes and for example in contrasting Finnish interviewees’ or consulting firms’ answers to others.

In spirit of the thesis’ research theme of artificial intelligence the analysis also included the use of ATLAS’s Beta version of Open AI software called “AI Summaries Beta”, which, rightfully according to its name, summarises documents. Even if the product is a bit unfinished and language challenges were present (which is extensively talked about later on in the analysis part of the thesis) the end results were neat summaries of the transcriptions, which were used to confirm highlights of the interviews alongside the manual code analysis.

4. Research Analysis and Results

The interviews gave an ample amount of new information on AI use in the due diligence process and how it influenced their employee engagement. In this analysis part of the thesis, I first describe the due diligence processes of the interviewees' organisations, as well as their AI due diligence tools alongside most common user cases, after which I first talk about how AI influences the due diligence process and second how it influences employee engagement. In order to carry out the analysis in a structured way I developed a framework (see picture 2 below) that divides the subthemes of the interviews into more macroscale themes of organisational, cultural and technical factors.

	Due Diligence	Employee Engagement
Organisational	Efficiency Training	More Interesting Work
Cultural	Language	Excitement Generational Differences Afraid of Losing One's job
Technical	Accuracy Circumstances That Deny the Use of AI	

Picture 2: overview of the framework for the analysis.

To conclude there is a chapter on future considerations, as most of the interviewees heavily emphasised future possibilities of these tools, making it relevant to include them in the analysis. As there were two types of due diligence performed by the interviewees with eight being legal due diligence and two technical due diligence, both types are talked about side by side, as the most common themes don't vary between the types. Still, there's a distinction being made between legal and technical due diligence when needed.

4.1. The Due Diligence Process

The due diligence process of the interviewees' organisations is different and same at the same time. The overwhelming majority concentrate on legal due diligence, in which the process concentrates on finding out possible legal problems before the purchase. This is done by gaining access to the organisation's documents and contracts, which the lawyers sift through and look for important information and liabilities. Two of the interviewees focused more on technical due diligence, which is about the technical capabilities and possibilities of an organisation that is being sold, for example the quality of the codebase of the organisation's product or software. The goal for all due diligence was the same, which one respondent summarised well: "you're really looking to identify the possible risks in post-closing. Is there anything that will create broader risk for the buyer? This will give you a risk profile, and then you can negotiate for example in price decrease (interview 7)". As most of the respondents are working in law firms it's no wonder that most concentrate on legal due diligence, but several of the interviewees' organisations do some other type of due diligence on the side as well. Different types of due diligence are usually tied closely to each other, as mentioned by several interviewees. Most common other types of due diligence were commercial due diligence, aspects of financial due diligence such as financial summaries, labour law, environmental checks such as for ground pollution and some surface level tax summaries. As previously mentioned, all of these aspects are closely related to legal due diligence so naturally they overlap a bit.

The majority of the organisations do buy and sell side (so either are helping an organisation buy another organisation or are helping an organisation sell their own business), but with this topic at hand naturally the talk was centred around being on the buy side, where the goal is to get to know the seller's business. What all had in common is customizability; the way the due diligence process evolves and who are involved in it change case by case. Variables mentioned include time available, scope of work, size of the client organisation and target organisation as well as the wants and reporting needs of the client. According to two respondents, team size can vary from anywhere from one person to twenty depending on the scope, as "some clients may need

an email saying “this is fine” while others may need a 200- page report. You can’t write a 200- page report with just one lawyer (interview 5)”. Resources seem to be highly flexible in all of the organisations and working teams are gathered after an evaluation of the clients’ needs.

Even though the number of people working on the due diligence fluctuates, the structure of the employees in the process is very similar in all interviewees’ organisations. Four respondents mentioned having a more senior employee in the leading position of the process, one with the title of for example Senior Associate, Senior Project Manager or Partner. This person overlooks the more junior associates, who actually do the due diligence checking, which is mostly about looking through the provided data and flagging down important and/or missing information. While only four explicitly mentioned having seniors in the umbrella position of the due diligence process, multiple others mentioned junior employees working in the actual data checking process, so it’s safe to assume that amongst the respondents’ organisations this is a common way of doing due diligence.

The basic process of due diligence is also somewhat similar between respondents: there’s a look of the seller organisation from the outside without the help of the seller. One respondent called this process “initiation week”, where the goal is to get to know the selling organisation from the outside as well as possible before getting the inside look (interview 10). Another one mentioned several reasons for having a more thorough outside investigation of the organisation; “They [investors] do internal due diligence but if you start from the outside, you can actually increase your bid, because you can increase your security and what you're expecting and what kind of value creation you can do after the M&A (interview 9)”. So, putting more effort into external scrutiny can be something that in the end makes the organisation’s buying offer more credible and financially secure. The external investigation is usually done by usual reports that are available to the public such as media articles, financial reports and behaviour in the stock exchange. There are multiple questions to be answered, such as how many employees does the organisation have, how does it operate in the media, what are its main competitors, what’s the organisation’s market share and how are they seen, innovative or conservative?

To either confirm or change the surface level information the potential buyer has gathered follows phase two of the process: the buyer organisation gathers a list of all the information it needs from the seller organisation and asks for all of this information from the seller. All of the

respondents use virtual data rooms (or as one respondent said “deal rooms”, interview 6) in these occasions, to where the seller uploads all the documents requested. This is where the AI tool is employed, which usually delivers a summary file of all the information asked from the AI. Alongside AI all respondents utilised human employees throughout the whole process, so actual employees do the information gathering and document checking too. The end result is usually a due diligence report, which summarises the findings and recommendations for the M&A. The depth of the report is based on the qualities of the M&A, and some had other parts of the organisation alongside the M&A team help such as IT, finance, tax and real estate teams. Usually this report is quite extensive, with one interviewee reporting the length to be anywhere from 60 pages to 150 pages.

4.2. The AI Tool and How it Is Used

There were four AI tools used amongst the participants: Kira, Luminance, Ebrevia and Della AI, with one interviewee reporting having an internally developed AI tool alongside an external AI tool. Kira and Luminance were the only common tools used in Northern Europe. All of these tools are large language models that use machine learning and large data sets to understand, find and summarise content. The two interviewees doing technical due diligence don't have a specific AI tool that they use in their organisations, instead based on the case they employ third party contracts that use AI in specific tasks such as analysing the quality of a software's code.

Even though the tools differ, the user cases are almost identical; all participants that use the AI tool frequently use their respective tools for document reviewing, and for all of them it's the primary use of the tool. The process is also the same for all: the tool is given a task. These tools then find and highlight parts of the contracts and create a summary of the findings, which is one of the most common uses for the tool amongst the participants: 8 out of 10 said that they use the AI tool for overview purposes. There's a long list of information that the AI is made to look at: interviewees mentioned for example starting or ending dates of contracts, participants of contracts, force-majeure clauses, liability clauses, rental agreements, termination rights, change of controls and auto renewals. It also gives you some other different types of information that

one wouldn't necessarily think of at first, as one respondent mentioned being able to instantly see which documents were corrupted because they couldn't be opened. So, right away they know to request for certain documents again.

After this an employee then checks the findings; half of the respondents described the process as not only looking for what the AI tool found, but especially what it didn't find. This is also something that the tool does, as it can give out for example a percentage of documents that don't include a certain sentence or a clause. A quote from one respondent: "is there something missing? Like something you may see in other documents or things [that] do not add up in the financial statements. So, you dig for it and ask questions. If there's an agreement that looks old and has been concluded for forever, then you can ask if this contract has been renewed, and if it has, then where it is (interview 8)". This is one of the most common descriptions of the goals of due diligence amongst the interviewees; to find what isn't there. So, the AI tool has given the employee a nice overview of how many documents there are, what kind of documents there are and what kind of documents there aren't. This gives the employee a sense of scope; how much work there is to be done.

There are also other uses for these AI due diligence tools, of which most common ones were classification of documents and process management purposes. Several of the interviewees emphasised how powerful AI tools are for classification purposes; it allows the user to divide the documents into different categories (one interviewee called these categories affectionately as "buckets", interview 5), which help the employee focus on what's important for the specific due diligence case. For example, one interviewee made the AI categorise the documents to "important", "not important" and "needs human eyes" categories, which drastically increases the efficiency of the due diligence process (interviewee 5). Unimportant documents can be cast to the side and the employee gets to focus only on what's the most important. It also allows customers to tailor the due diligence process more to their liking; three of the respondents mentioned negotiating with the customer about what kind of documents they want both human and AI eyes to check, what kind only the human to check and what kind only the AI to check, which is not only more efficient but also allows the use of AI to be baked into the cost of the service, allowing the customer as well as the organisation to have more cost certainty.

Process management was also one use that almost half of the interviewees mentioned; the AI tool allows all things related to the specific due diligence to stay in one place, which makes the all M&A process related work easier. All the tools mentioned allow for division of labour in the tool's platform, and they also track changes and completion percentage of the document reviewing. This helps managers see how the due diligence process is going as the information isn't in the hands of the employees anymore, instead the manager can just look at the AI tool and see the progress instantly. So, in a way it's also an employee monitoring tool, as what a single employee has contributed to the project can be seen instantly. A respondent correlated this to another phenomenon, which is the disappearance of middle managers. Top managers, as well as the customers, can now see all the data, so the need for the middle hand is slowly disappearing. This might indicate that AI might also change organisation structures in the future. So, all in all, the AI tool increases transparency in the due diligence process. One interviewee crystallised this point well; "the tool makes the process very manageable (interview 8)".

The user cases differ severely when talking about technical due diligence. Both of the interviewees that do technical due diligence deemed AI not yet smart enough for this type of due diligence, at least not in an encompassing way. Technical due diligence differs from legal due diligence in a way that the analysed data is usually not documents, instead it's product maps and code. This means that the technical due diligence process is about understanding the issues beneath searched indicators, so the AI needs to be more complex to be able to see causal connections between different measures. One interviewee demonstrates the difference with an example of hospital beds: AI might see that there's more hospital beds being used and conclude that more people are in need of a hospital, when the real reason could be population growth while the percentage of people being in the hospital is actually lower than before. AI can't see this type of causal relations yet, which makes using it in technical due diligence hard. The interviewee continued: "I'd need a data model that builds up several different models together and a language model that could generate a report [based on these several different models] (interview 9)".

Technical due diligence can still benefit from AI, which these two interviewees used by proxy by having third party contractors do analysis in which algorithms and AI is being used. Both interviewees mentioned code scanning as a very important part of due diligence, which is about

investigating the quality of the codebase of the organisation: how complex it is, how interconnected, how many times the same script is being used. The analysis also helps in locating where the important code parts are, as an example both interviewees mentioned a Shazam-like application that recognizes music. The code for the “share” button is not important as most applications in the world have it, but the fingerprinting code that actually transforms radio waves to digitally recognisable code and matches it to a database code is the important part. Knowing how good this code is happens to be an integral part of technical due diligence, as that is where the value creation lies. This is something that AI can help with, as it can create summaries of codebases and answer the questions asked above. Another part of code scanning that AI can help with is licensing; organisations can have proprietary code that they have developed themselves or they can use other’s code under a license, a popular license example being MIT. AI can correlate code in the codebase of a software to public code libraries in which these licenses are kept and create a summary of if and what kind of code can be found under a license. This is also extremely important information as according to the interviewees there can be security risks, or in worse cases even infringements that can cost millions of euros if these licenses are used inappropriately.

One interesting point about an interviewee’s due diligence process was the fact that the organisation’s due diligence process also covers the inspection of the target organisation’s AI use. None of the interviewees’ organisations that do legal due diligence officially track how the AI tool is doing, instead they mostly go by feel and opinions of the employees working with AI. So, this aspect brought up some new views on AI tool usage. According to the interviewee they also traditionally sent out a questionnaire as with other aspects of due diligence, but it’s focused on the AI tool with questions such as: what AI tools does the organisation use, what is their data strategy, how do they keep track of the parameters when training the AI model and how do they track different indicators such as accuracy. They also deep dive into the governance of the tool, so how are ethics and potential biases taken into account. This is an interesting point of view as there seems to be a bit of a gap between how profoundly organisations keep track of their AI use compared to how deep the technical due diligence of this organisation goes. For example, only one interviewee mentioned biases that could appear because of the AI tool and one other mentioned ethics as a concern in general. The gap could be explained by the type of due diligence that is being executed; it could be more expected from a tech company to have

processes in place for AI tool KPIs, but systematic tracking of a document reviewing tool? Doesn't seem as needed, which is a sentiment that can be verified quite easily from the fact that none of the organisations doing legal due diligence track their AI tool.

4.3. The Ways AI Affects the Due Diligence Process

According to the results AI affects the due diligence process in multiple ways. Referring to the framework provided at the start of the analysis section, AI influences the due diligence process in all of the three categories presented, which are organisational, cultural and technical. More in detail, the themes that emerged were efficiency, training, accuracy, language and circumstances that denied the use of the AI tool altogether, which will be presented shortly theme by theme. This chapter concludes with an overview of the main points and musings of AI's influence in the future.

4.3.1. Organisational Aspects in Due Diligence

The most often said advantage of using an AI tool was overwhelmingly efficiency. Efficiency in all resources, such as time and money as well as the number of documents that were able to be looked through, be it by a human or machine. None of the respondents' organisations officially track how the AI is statistically doing but estimates from the respondents on efficiency gains varied between 10-20x. The consensus was the same: resource savings because of efficiency are enormous. One example from a respondent: "They [other side of the transaction] looked back 4-5 years and did this gathering for 3-4 months with 10 000-20 000 documents. They gave them to us physically as well as on a disc that they downloaded to the data room – it took the whole of Wednesday to upload it to Luminance. There were three lawyers who all knew what we were doing. It took us three days to do it and we came back to them on Friday (interview 5)." So, just gathering the needed documents took the other organisation three months while the analysis of the same documents took the organisation with the AI tool three days. The efficiency gains do, in fact, seem enormous.

The efficiency gains don't get limited to only time, but also to the resources of employees; when the AI is taking care of the manual one by one checking of documents, the employees can focus on other tasks, which also – according to four respondents – means that the organisation is able to take on more M&A cases. So, AI tools can indeed increase productivity on personal as well as organisational level. There is one commonly thought downside to this kind of efficiency mentioned by half of the respondents, which is the effect on the billing system. Traditionally lawyers and consultants bill by the hour. If suddenly 20 hours are cut to one hour, revenue also decreases significantly. Multiple interviewees mentioned this as a start of change for the whole billing system in the law and consulting business as the current system might not be able to withstand the efficiency in time gained by AI tools.

Efficiency was the most talked about theme regarding organisational aspects, but training the AI tool is another interesting theme, as some said that the tool takes up too many resources in the training process while some said that they didn't really even train it in the first place. All of the tools have some level of pretraining done to them and in legal due diligence the most common law clauses in contracts were already programmed into all of the tools. These preprogrammed clauses seem to work well, as half of the interviewees mentioned them as a process simplifying aspect. The learning aspect is also something that all interviewees mentioned: "if Kira is given enough examples of a specific clause of a law, even if the clause isn't written in the exact same way in all the documents, it can learn and recognize that the clause is still the same and pick it up (interview 4)". So, AI tools are doing machine learning; when given enough samples, it can recognize something as the same even though it has never seen the specific sample before. In some of the tools this seems to work exceptionally well, such as with Della AI: "we had one large transaction with 6000 documents. We tested 10% of the documents as sample testing, so took documents randomly and double checked the results. We found that the termination clause for change of control the accuracy was about 91% percent and the rest 9% were false positives, so it found more than it should find, but it also found everything it should (interview 8)".

Outside of preprogrammed commands, training the tool to be able to learn is not necessarily a simple thing. Most of the respondents had a threshold of documents that there needed to be in

order for it to make sense to train the tool, though the height of the threshold varied significantly; one respondent said over 10, three said over 50, another 100 and another thousands. Two respondents had no thresholds; one because the organisation doesn't bill the use of AI from the client, so the cost barrier is no longer an issue, and another one because they use Della AI, which doesn't need pretraining, instead it is asked a question similar to ChatGPT and the tool formulates answers based on mathematical numbers it assigns to the words asked from it. This threshold of documents can lead to bigger firms adapting to AI tools more quickly, as one respondent muses: "You see bigger firms being able to leverage it a lot quicker because of the broader document base, so you might get some change trickling from top to bottom (interview 7)". This threshold might affect the way AI tools penetrate the market, with the bigger organisations implementing AI and smaller organisations following when they feel like it's vital in order to stay competitive with the bigger organisations. Based on the interviewees' answers it's still going to be harder for smaller organisations to implement AI: it works better the more documents there are, therefore the bigger the M&A, the better the training of the AI tool will be. Naturally because of limited resources smaller organisations take on smaller M&As, which might translate to not using AI and losing competitive advantage. In an extreme scenario smaller organisations might have to take on bigger M&As or slowly fade from the competitive market. An anecdotal first-hand experience I have of this is when trying to find interviewees from the Finnish market; the market is small even in the worldwide stage, which meant that finding organisations that use AI was extremely difficult. In the end, all Finnish and non-Finnish interviewees' organisations are large international organisations.

To conclude, there is a reason for the thresholds being so dissimilar; 80% of the respondents mentioned variance in the documents as a reason for inconsistent numbers. Standardised contracts are easy to teach to the tool because the learning process is quick, as all the contracts and clauses are very similar. One such example of "easy-to-teach" contracts would be real estate contracts, mentioned by one interviewee, as the variance between contracts is small. Three mentioned narrowness of the field to be a prohibiting factor of using AI. All echoed the same statements of it making no sense to train the tool with a small number of documents because it's faster to just do it manually. One respondent summarised this process: "often we find that we are able to do the manual reading process in the time it takes to choose things we want to find

in the AI tool – if there are short documents with only 1-2 variables, we usually go through the contracts without AI (interview 1)”.

4.3.2. Cultural Aspects in Due Diligence

Language seems to be a dividing topic amongst the respondents. AI isn't per say supposed to be reliant on language, as its function is based on pattern recognition, not language recognition. This doesn't seem to be true, at least to the Nordic respondents. All of the Finnish interviewees mentioned language as a challenge; the AI tools come pretrained in English, so they need to be trained in Finnish first to be able to understand Finnish documents. This might take resources from other work, which then might make the upfront cost of training the AI tool too high. Also, several interviewees mentioned that the language troubles don't end with just Finnish: other languages might need to be trained to the AI tool, such as Swedish, Danish and Norwegian. So, the process starts again if another language needs to be introduced, not even mentioning more unique languages such as Hebrew or languages where the reading direction is different. Because of this, two of the respondents' organisations use their respective AI tools in only a minority of possible cases. Also, one respondent was wary of teaching the AI tool a specific language; do others also benefit from the new language introduced to the tool? It hardly seems fair for one organisation to put resources and time into training the tool with a language only for the other organisations around them to pick it up at zero cost. As AI learns based on samples, in some cases it is unclear if training the specific AI the organisation has also trains the overall AI tool, which would in turn help future customers.

The language problem isn't as evident to other European respondents or Americans. Four of the non-Finnish respondents said they had no problems with language. This could be because of what one respondent considered: “most of the romance languages it is able to pick up, for example Italian and Spanish (interview 6)”. This suggests that the AI tool is also somewhat sentient between languages, as romance languages have a lot of similarities. Finnish seems to be too big of an outlier to be able to get scaling advantages from other languages. So, if the respondent uses the AI tool in the language that it has come preprogrammed in, the satisfaction in the AI tool is much higher than for those that need to program the language themselves. Here

the French Della AI seems to divide from the others; as it's the only tool in the interview pool that was invented by non-native English speakers, the respondent using it saw their focus on non-English languages as an aspect that pays off well.

4.3.3. Technical Aspects in Due Diligence

The biggest theme of the technical category was accuracy. It's an interesting topic, as it came up both as an advantage as well as a disadvantage. Estimates of accuracy in legal due diligence ranged diversely from 50-90% for the same reasons as for the training; it all depends on what kind of documents the AI tool is given and how standardised the documents are. Accuracy of the tools seems to be in the same range in legal and technical due diligence or a bit lower in technical due diligence, as one interviewee doing technical due diligence said the accuracy of AI looking for open-source components in the source code had an accuracy of 50%, forcing the team to manually clean up the data later on.

The low accuracy percentages mean that most were left disappointed, as two respondents summarise: "I would say our expectations were going to be 95% but in reality they are 50-70%, so there are concerns that it is not as good [as we thought] (interview 6)", "we use it for cases where we know that the quality is up to standard – but AI is still in its infancy so we are somewhat concerned about it [its performance quality] (interview 4)". Two respondents even said that introducing the AI tool was an experiment, and they didn't really have any kind of expectations for it, but they were still disappointed in how often it missed data and left gaps in the correct information. The consensus among the respondents is clear; AI is good – maybe even excellent – at things that are clearly defined with little variance, but it's bad at things that have a lot of variance and that it hasn't been trained to. Trusting it to be accurate by itself is not recommended. One respondent crystallised this well: "I've got one general tip for everyone using AI: think of its work as if the work was done by an intern (interview 1)". So, the work quality might be good, but you still need to check to make sure.

So, accuracy could be an aspect that made the tool to be more likely used or discarded altogether, but there were also several cases of the organisation regrettably not being able to use their respective AI tool because of outside forces, which were that the customers don't want to use it, data room compatibility or politics.

There are two sides to customers; those who are excited about AI and those who aren't. Almost all of the respondents mentioned competitive pricing as an advantage to AI tool use because it makes their services more desirable to customers. With AI, organisations can take on assignments that in the past weren't necessarily profitable enough to work on as productivity is much higher than before. This also results in customers having more options for choosing their service provider. Adding to this, as mentioned before, is the fact that if the company still bills by the hour, customers are excited about the efficiency of AI as a smaller number of hours equates to a smaller amount of costs. This is why four of the respondents said that they bill the use of AI separately from the customer, to offset some of the decrease in billing hour costs.

Even though customers were mostly interested in the use of AI there were some trust issues towards AI tools in particular: three interviewees mentioned negotiating what kind of documents AI is allowed to look at, and some of the most sensitive documents were decided to be for human eyes only. This seems to relate to resistance to change; some are always going to be apprehensive about technology, especially new technology. One customer even asked the age-old question: "We were talking about this topic [AI] with a customer and they asked why we were developing something that is going to take our jobs (interview 1)". So, on one hand the customers are willing to try AI tools mainly because of cost savings, but on the other hand apprehensions towards new technology and security concerns dim some of this excitement. This means that in some cases the AI tool can't be used at all, which, understandably, severely limits the possibilities of AI affecting the due diligence process in one way or another.

Still, when asked about security concerns from the organisation's side almost none mentioned any concerns regarding AI tools; all of the tools have trustworthy security protocols, one respondent even had the company providing the AI tool sign the organisation's own security contract. As these tools are not open ended, they can promise that no sensitive information is going to be used for the training of the tool, which is one of the main concerns of other open AI applications, such as ChatGPT. Also, most of the respondents didn't actually discuss what kind

of documents AI is allowed to look at with the client; if the document is in the data room, it is assumed that it can be taken out and processed through the AI tool.

Data rooms came up as a challenge for a lot of the AI tools. As mentioned in the literature review, a data room is an intangible space in the cloud that performs as a place for the due diligence documents to be uploaded to. The name comes from the time of physical data rooms to where all the documents were carried into as physical copies. There are many different data room platforms, and some are compatible with AI tools while some are not. This is one of the problems with using AI in the due diligence process, as four respondents mentioned having to have multiple different data rooms to be able to be compatible with the AI tool to be inefficient. Also, the customer can want a specific data room platform to be used, which might be incompatible with the AI tool the organisation uses. Some customers even have their own data room platform in the cloud for example, which might make taking the documents out hard or even impossible for reasons such as integration problems or confidentiality reasons, as two interviewees mentioned. All of these issues mean that the AI tool is going to have a hard time influencing the due diligence process if it doesn't get the data in the first place.

Politics find themselves into everything, AI not being an outlier in this case. One interviewee mentioned something interesting that the others didn't; especially when representing the buyer, a lot of times the representative side doesn't let the organisation use AI for the due diligence process. Or, if they are on the representative side, they don't let the other side use it either. This has to do with making sure that the other side is doing enough diligence: "we actually want them to spend a little time looking at the company using less powerful tools (interview 5)". So, the AI tool is useful when the organisation is in control of the process; if they aren't then they might not be able to even use it. This is an interesting play on politics and process control; making the other side do more work manually can be seen as a tactic in the M&A.

There's a caveat to using AI tools well, which three respondents mentioned; you need to be skilled in AI work and able to understand how it works to actually get tangible efficiency gains out of it. One respondent said that AI tools are "incredibly powerful if you only know how to use them (interview 5)" while another said that getting employees to use the tool can "be hard at some points", as they feel that learning to use the tool takes too much time (interview 8). There are differences in layouts for different tools, such as Kira being more customer facing

(easier to navigate) and Luminance more technical (customizable with lots of options). As mentioned before, for the tool to be good at classification the human needs to be able to divide the base into proper and efficient buckets. This might make the barrier to starting to use AI high, as the starting investment of learning the tool might take time which some might not have.

4.3.4. Consensus on Influence of AI in the Due Diligence Process

The consensus on AI use in the due diligence process seems to be that everyone was excited at first, but half were left disappointed. These AI due diligence tools still need a lot of human help, which to some of the interviewees is still too much effort. The cost of training and the upkeep of the tool needs to be lower than if the employees do the document checking manually, and in half of the respondents' cases, it is not quite there yet. Still, the other half is quite happy as the tools work well in English and other Romance languages. Their efficiency as not only document reviewers but their abilities at classification, process management and giving an overlook of the due diligence were highly praised.

All the interviewees also have hope for the future, as all mention following the market closely to see how AI develops. The two respondents who mentioned onboarding AI as an experiment explained this in other words; even though AI isn't seriously used yet organisation wide, it's still a great way to introduce AI to the organisation and employees for future considerations. The change might come in the very recent future as well; several interviewees mentioned things changing considerably during this year as the AI-powered language model ChatGPT is releasing newer, smarter versions in the Fall. One respondent mused about the development: "Our expectations from 2016 have grown exponentially, also with the release of ChatGPT 3.5. – I uploaded associate resumes and asked it to extract information such as name, school, activities etc, and it did it, and it worked. And it didn't have any training such as the legacy tools have (interview 6)". This could mean troubles for AI due diligence tools; why use something that you may have to train, using up considerable resources, compared to asking another tool whatever question you'd like that it can answer with much better accuracy? The future seems to be teetering in several different possible scenarios, which I will discuss more in depth in the discussion- part.

4.4. The Ways AI Affects Employee Engagement

Results on the influence of AI on employee engagement were also varied, but as employee engagement leans heavily into organisational and cultural context, the two categories that are present from the framework of the analysis are organisational and cultural aspects. The specific themes presented are excitement, more interesting work, generational differences and fear of losing one's job. The last part of this chapter also concludes on how the interviewees see AI in the context of their own work roles and possible future changes.

4.4.1. Organisational Aspects in Employee Engagement

The sentiment of “more interesting work” was echoed by the majority of the interviewees. The due diligence process is often described as tedious and slow, as traditionally you need to manually shift through documents one by one. AI can make this part of the job disappear or at least significantly reduce it, as previous results of this thesis show, which can also be heard from the interviewees: five respondents mentioned having more time to do something more interesting because AI is taking care of the manual parts. One interviewee even called AI a factor that improves quality of life; the associates of the organisation have so much work that AI taking some of it away is actively improving their working life and life in general. This ties into other respondents' answers; stress levels of employees are much lower because of the process transparency, so last call all-nighters are drastically reduced. Resources can be calculated in a whole new way to make sure that the employees have adequate time to do their job, and the job can lean towards more interesting work, which – commonly thought – is the analysis part of the due diligence process.

More interesting work is connected to training as the majority of people aren't AI wizards right from the start, and getting to do more interesting work with AI seems to take some practice. Several of the respondents' organisations have training sessions for using their AI tool: one interviewee mentioned that the employee in charge of the due diligence process is the one who

decides if the AI tool will be used, but if it is used, then employees get teaching lessons in order to be able to use it well. Two respondents said that they will train whoever wants to be able to use AI and one said that they want every employee in the organisation to be able to use their AI tool. One respondent summarised this nicely: “we want that the employees are actively a part of the development work. They probably know how the tool works better than me (interview 4)”.

At the same time there was some concern about tedious and easy work disappearing, especially from the point of view of juniors. As going through documents and verifying the same facts repeatedly is considered an easy job, it usually falls on the younger employees that have just gotten out of school. Three of the respondents were concerned about how the younger generation will be taught how to operate in an organisation, with a respondent having a gloomy outlook on younger generation’s due diligence work: “the need for a young army of lawyers is going to disappear (interview 5)”. One respondent described this same phenomenon more in detail: the hierarchy tree of a law firm is quite rigid. You start at the bottom (doing for example due diligence document reviewing), slowly work your way up in the firm and either stay there or – more likely – leave to go elsewhere. This kind of law firm is seen as a mentoring school almost, and it’s also silently expected from other organisations that law firms educate these young employees, after which they can move on to more demanding tasks in organisations that don’t necessarily operate inclusively in the law business. So, how do these young employees learn without the basic tasks being available to them anymore? Will the whole base of law firms being silent mentoring schools fall out?

A couple of other interviewees were more optimistic: four thought that there will still be a need for younger employees doing due diligence, just in a different way than before. One employee was even excited for the younger generation, as implementation of the tool in the organisation is almost done and the new wave of fresh graduates in the Fall will be the first ones ever to be trained in AI straight away. Employee engagement for the younger generation might then even increase, as they get to do more interesting work than before. There was also a counteracting thought that was mentioned by two respondents; even if you need less trainees to do due diligence work, you still need some of them. Also, if AI let’s organisations take on more M&As than before, then the net sum between needing less employees because of AI and needing more employees because of increased M&As can eventually be zero. We don’t still have any actual

research on this as the subject is so new, but relevant research about productivity increasing because of AI could give this thought some merit. One respondent looked even further to where their own job might change in the future: “I believe all this legal tech and AI will be a temporary thing, because now people still can’t use it. There was a time when every company had a computer department, but now everyone has their own computers and no computer department. But those people are doing something else, helping in other adjustments (interview 9)”. So, AI might be affecting the due diligence process in a much broader way than just within the process, as the interviewees might now be doing something that won’t even exist in the future.

4.4.2. Cultural Aspects in Employee Engagement

More interesting work curiously was not the first thing that came to interviewees mind: when moving on to ask questions related to employee engagement it quickly became clear to me that excitement was the word of the day, as when asked about how the respondents generally felt about AI being introduced to the firm six explicitly said the word. Responses varied from “being conservatively excited (interview 1)” to “the biggest feeling is excitement; I like to play with new toys (interview 7)!”. As most of the respondents work in a tech role this is unsurprising, as they have been an integral part of the introduction and implementation of the technology.

The reasons for feelings of excitement could be categorised into three main points:

1. The first reason for being excited came from being able to offer customers better solutions, as mentioned explicitly by four respondents. Previously, especially regarding big M&As, the process of due diligence and document reviewing could have been lacking because of the sheer number of documents that need to be looked through, which resulted in only a percentage of the documents being inspected. Now because of AI all material can be shifted through quickly, and the tool gives a summary of the reviewed documents, making getting an overview of the document base much easier than before. It also brings more accuracy, accountability and knowledge to the process, and according to three respondents it allows for more competitive pricing. One respondent summarised this: “If there is a fixed budget then we simply couldn’t have done that many hours

[checking the documents]. Because of these tools it could be a win-win on both sides, on the firm and on the client's side (interview 6)". Two respondents said that they were yet to see any positive changes in the profits of the organisation because of the introduction of AI, which is a clear minority.

2. The second reason for excitement boiled down to the large exposure AI has gathered around it; having something that has become a worldwide trend with lots of talk around it is a significant reason for the interviewees to feel excited about AI. There's a mentality of needing to have AI because others have it, which seems to also expand to clients and their requirements; one respondent mentioned clients specifically asking them if the organisation uses AI, while another one expressed relief, because "as a legal techie you feel like you need to have the tool, the whole world is talking about AI, [so] you've got to have one (interview 8)". Several of the interviewees mentioned having AI was a part of being competitive in their respective fields. It's natural for organisations to try to look as modern as possible to potential clients, which also expands to cutting edge technology such as AI. An organisation might want to have the reputation of a trailblazer, and what better way to showcase that than AI implementation? Still, two of the respondents that don't use the AI tool in everyday life said that they still keep the licence of the AI tool in order to be at the front row of development. Once they deem the tool to be good enough to be implemented organisation-wide, they are going to be ready with the tool already being familiar to them.
3. The last reason for excitement was that the employees are simply intrigued about trying new things. Half of the interviewees mentioned themselves as well as other employees being excited to try the new tool and having training sessions for the employees who want to become competent in the usage of these tools. Trying new things is exciting and for some there was no pressure in even trying to make the AI tool profitable, as the license was bought simply to check the AI's abilities out. This means that it was quite literally a playing tool that the interviewees could poke around and see how it reacts to different commands. There were still some that needed to be convinced, which according to two interviewees was because of lack of time. If an employee doesn't have time, then

learning a whole new platform might not seem worth it. One respondent mitigated this by trying to make the process of trying the AI tool as easy as possible: “I present them [employees] with ready-to-go user cases – it just takes 10 minutes (interview 8)”. It seems that employees need to see the advantages of AI use quickly in order for the adoption to be more favourable. There was another more surprising use for AI, as two respondents said AI to be an advantage in the external functions of the organisation as well, such as the recruitment process: “you can argue that by adding these tools your firm is viewed as more progressive and this will appeal to high caliber associates (interview 6)”. So, AI tools can also be used as marketing tools for the organisation in order to be seen as more modern and to lure in new employees with the promise of getting to try the newest exciting technology there is.

There was one differing opinion among the respondents; an interviewee’s organisation has had their AI tool since 2013, which is almost three years earlier than any of the other respondents’ organisations. The responses were almost funny in their differences, as the interviewee described their AI tool as “the same as Excel” and they “did not have any feelings about it (interview 5)”. The contradiction comes because of time, and maybe in 10 years the other respondents are also as nonchalant about it.

Younger employees were discussed with multiple interviewees. Generational differences are an interesting factor to study because of stereotypes of senior people not wanting to try new technology, but in reality, in this thesis differences in AI perception between senior and junior employees seem to be at most moderate. Some thought that younger employees would be more excited about AI, mostly because of the considerable amount of attention it has gotten during the past few years: “we’ve had especially the younger side be a part of the tools’ development discussions (interview 4)”, “the one who pushed the use of AI forward for the first time [in the organisation] was a young M&A partner, so the youth is probably a pushing force (interview 2)”, “I suppose when you’re beginning your career you don’t know what to expect so perhaps you’re a bit more excited to know that you’re using the latest and greatest tools (interview 5)”. It was also said that the youth might get excited about the fact that the monotonous due diligence work could be maybe replaced with something else: “[the young lawyers probably feel lucky]

when they don't have to write documents that summarise all the content (interview 5)", "I think the tools will help them [younger associates] do it [due diligence] better and accelerate their training (interview 7)". So, the process of due diligence can change drastically especially for younger employees who are usually doing the manual labour in due diligence, as the help of the AI tool can make the process look a lot different than what it traditionally is.

Initially one could assume that senior associates would be more reserved about AI or new technology in general, especially when numerous interviewees mention the field being "by nature risk-averse" and that the legal field might take much longer in adapting to new technology (interview 7). In reality, the interviewees haven't noticed big, if any, differences between the senior and younger employees in attitudes towards AI implementation in the organisation. Five respondents explicitly said that they haven't noticed any negative feedback from the senior employees, with a few saying quite the opposite: "We showed this technology to our partners in March and their jaws were dropping (interview 6)". Some did mention that senior employees could maybe see through the considerable amount of goodwill AI has gotten: "It can be that the senior employees are more sceptical about the functionality of AI (interview 2)", and "A seasoned employee might see the limitations of these tools more easily (interview 5)". What's most of the time connected to these concerns is the amount of resources of more seasoned employees: "The biggest challenge I'm facing is the fact that everyone is under time pressure so an AI tool might be an experiment and if it goes wrong, you lose time (interview 8)". So, the consensus is that senior employees can see the possibilities that AI can bring, but at the same time they are doubting some of the capabilities, which the interviewees see as something healthy that's naturally grown by experience. If senior employees have an easy time using the AI tool then they use it more readily and the upsides of AI can be recognised in the due diligence process. At the same time, younger employees are more of a pushing force in AI implementation, which could be because of new possibilities AI can bring to the due diligence process and also about being a part of something new and exciting.

The last cultural aspect of AI's influence on employee engagement is fear of losing one's job. Technology and AI has brought in a huge wave of research about how it might take people's jobs, so no wonder that almost all respondents had something to say about the topic. In the end,

the due diligence process can be affected quite severely by AI if there's simply no jobs that you can work with AI in the first place. Several of the interviewees had thoughts about AI reducing the number of employees in their organisations: "You might need less lawyers because AI is making the process more efficient (interview 5)", "I think some jobs will be obsolete (interview 10)", "If it does take some jobs, it will be from the younger employees' side (interview 4)". This seems like an understandable correlation to make, as more efficiency means that in order to complete the same amount of work you need a smaller number of people than before. Employees doing technical due diligence had no such qualms: AI is not doing a good job now for them as it's not sophisticated enough, so the time of thinking that AI could be a threat to their jobs is far away in the future.

Still, even though half of the interviewees recognised this possible reduction of employees because of AI, almost all thought about it more by the term "shift" than "reduction". Five respondents mentioned thinking that the job description might change, but there still will always be a need for a human in the process. This shift was thought of as a good thing, as now the employees can focus on other more value-adding work tasks. Three of the respondents mentioned their organisation's best capabilities do not lie in places that AI can replace, so there's no real worry about AI taking their jobs. Due diligence is after all only one part of the whole M&A, so even if the whole process could be automated, there is still a lot of work left. As one respondent describes: "It's the first step in legal due diligence. I doubt that people will get dropped because they write down the key points of agreements (interview 8)". There's also the matter of the value offering of an organisation; these consulting and law firms advertise themselves as high-end services with complex solutions to complex problems. AI is still not able to work on difficult problems with multiple variables, which means that there will still be a need for a lawyer or a consultant who can think more intricately than a machine can. One respondent compared this thought process to going on a plane that has no captain; even if you know that the autopilot is doing 95% of the job, you still want a human employee to sit in the cockpit and monitor the flight (interview 4). To close out the thought process, even if AI is at some point capable of solving more difficult problems, the trust of customers is still inherently higher for humans than machines with the multifaceted thinking that we're able to do.

Overall, there was a strong undercurrent of positive surrender. Several interviewees mentioned that there's no use being negative about AI, as the invention will go nowhere. Quite the opposite, it will just become bigger and bigger in the future as the tools get better. A consensus amongst interviewees emerged: the majority think that there's much to be positive about in the introduction of these AI tools, so being negative about the change is quite useless. One respondent summarised this well: "there are a lot of inventions that without them everyone would have a job, but our quality of life would be much worse – I believe that every employee would rather be in an organisation that is distributive instead of being in an organisation that is being disrupted (interview 4)". These opinions show the great adaptability of the interviewees as well as their organisations. Alongside excitement, positivity seems to be another word of the day.

5. Conclusion, Criticism of the Study and Future Considerations

This thesis' purpose was to study how AI is influencing the due diligence process of M&As and how the implementation of said AI is influencing employee engagement. In this chapter I connect the findings of the research to existing literature and reflect on the connections between this study and others. I seek to either strengthen the existing literature, give a different perspective on it or even lay ground for some new research. First this chapter describes AI use in the due diligence process and addresses the first research question of "how does the use of AI influence the process of due diligence in M&As?". The second part describes employee engagement and how AI has influenced it, as well as answering the second research question of "how does the use of AI influence employee engagement in the workplace?" I bring both of these results together with the help of the framework developed for the analysis part, which discusses the organisational, cultural and technical implications of the results.

5.1. Influence of AI on the Due Diligence Process

All interviewees that frequently use AI specifically use machine learning type of AI, which is based on giving the AI considerable amounts of data that allows the AI to train itself. This is based on how machine learning works: the more data the AI tool gets, the more accurate it becomes (Jordan, M. & Mitchell, T. 2015). In legal due diligence this means mostly document reviewing which correlates to previous research as one of the most used user cases of AI (Turuk, M & Milovanovic, B., 2020, Stoskute, L. 2020). According to the interviewees this is because of the repetitive nature of law contracts and documents, so the AI tool can pick up the frameworks of legal contracts more easily, which is also in line with research, as Stoskute mentions law contracts being highly compatible with AI because of the formatting being similar (Stoskute, L. 2020). In technical due diligence AI was mostly used for code scanning and analysis, which is more in line with financial due diligence AI tools. The lack of AI use in technical due diligence is reflected in studies, as the difficult underlying cause-and-effect mean that the user cases of real life are too complicated for AI (Lebovitz, S. et al. 2021).

Studies are unclear on how much AI is able to take work off of employees during due diligence (Puaschunder, J. 2019, Stoskute, L. 2020, West. D. et al. 2009). This previous research is fortified by this thesis, as all interviewees still keep the AI use in a somewhat small part of the due diligence process, which is mostly document reading. Six out of ten interviewees had their respective AI tool in active use, while the remaining four interviewees only used it in specific cases or through deploying third party services. The consensus amongst the interviewees is that the AI tool is good at specific simple tasks that it is well trained in, but it should not be trusted to be able to work by itself and human eyes are still needed to check the correctness of the data the AI gives. So, the overhype of the research can be dissuaded; estimations of 90-96% of the due diligence process being fully operated by AI in the next ten years (Rien, A. 2018) seems entirely impossible. More conservative estimates of 70% of firms having an AI tool in their repertoire by 2030 (Bughin, J. et al. 2018) sound much more credible. The emphasis of quick progression in the upcoming months was evident in the majority of the interviews, so changes to this percentage might happen quite quickly.

There are many ways that AI use affects the due diligence process mentioned by the interviewees, most common positive themes being efficiency gains and infrastructure given by the tool such as process management, classification and overview purposes. All of these aspects were seen as positive as these qualities resulted in more interesting work and better results for customers. Efficiency gains of 10-20x estimated by the interviewees are in line with current research about AI efficiency (Crabb, J. et al. 2021, Stoskute, L. 2020, Turuk, M & Milovanovic, B. 2020). There is not much literature on benefits of AI due diligence tools outside of efficiency, for example research on process management seems to be severely lacking with no tangible studies being found. What research does show is that there is overall a chance of artificial intelligence being able to assist in some other ways than the main use of the tool, such as a classification tool (Muller, P. et al. 2020), but there is no robust literature on the subject yet. It shows that the way we look at AI is still somewhat simple, and more effort could be put into researching all types of advantages AI due diligence tools can bring. According to this thesis, such positives should not be overlooked, as almost all interviewees mentioned multiple other good aspects about the tool than efficiency.

Training the AI tool is a theme that brought up a lot of differing opinions, as some of the interviewees don't use the AI tool as much as they want to because of the resources that training the tool takes, while some said that training was never a problem in the first place. Common law clauses the AI tool might be pretrained in can bring back satisfactory results, which showcases the basic workings of machine learning; the tool gets better the more examples it is given (Ray, S. 2019, Jordan, M. & Mitchell, T. 2015), and it works well according to the interviewees. Just the amount of training that needs to be done for the tool to work well in some cases may take up too many resources, as the threshold for training the tool varied anywhere from zero to thousands of documents.

Teaching and training a new language to the tool was the most dividing theme of the whole thesis, as half described language as a challenge while half didn't. AI operates using pattern recognition which means language shouldn't be a problem, which is also backed up by research (Pannu, M. 2015, Beltagy, I. et al. 2019), but in real life cases this doesn't seem to be the case. The AI tool needs to be trained in new languages, and especially the Finnish respondents had more challenges in training the tool in Finnish compared to romance languages such as English

and French. This correlates with research, as for most AI language models English is the base language which makes it easily the strongest language for the tools (Conneau, A. & Lample, G. 2019).

There are also multiple other aspects that have very little official research done, such as customer perception, data room compatibility, politics of using an AI tool and the skill level needed to be efficient with an AI tool. Customer perception has a lot of literature done from the point of view of interaction, such as AI-enabled customer experiences, which have had a negative impact on customers' trust and increased sense of loss of control and loss of privacy (Aneem, N. 2021), which is in line with general distrust of AI and technology (The Guardian, 2014, Chijindu, V. & Iniyama, H., 2012). It's also in certain aspects in line with the results of this thesis, as some customers did not trust the AI tool with the most confidential and important documents, which is also something that the interviewees echoed about their own thought process regarding confidentiality. In some cases, the customers didn't want to use AI at all, which means that AI's influence on that particular due diligence process was naturally zero. At the same time, the results about increased efficiency of AI tools means that the majority of the customers are happy about the use of AI (Crabb, J. et al. 2021, Stoskute, L. 2020, Turuk, M. & Milovanovic, B. 2020). This is because of the traditional hourly billing system consulting and law field have, as less hours means reduced costs for customers. This is something that multiple interviewees saw as something that will have to change, so in the future AI use might change the way the whole consulting and law world bill their services.

The first research question of this thesis was "how does the use of AI influence the process of due diligence in M&As?" Concisely put there were two main schools of thought amongst the interviewees: either their respective AI tool is already quite good and it's helping the organisation's due diligence process a lot in terms of efficiency gains, more interesting work and better results for customers, or that the AI tool is not yet good enough for organisation wide implementation because of accuracy and training problems, therefore because of little use it doesn't influence the due diligence process significantly. The due diligence process needs to be quite rigid for the AI to work well, as a large number of standardised documents and English language brought the best results. All of these aspects also concern only legal due diligence, as it's where the overwhelming majority of AI use is happening. For the other type of due diligence,

technical due diligence, AI is not yet smart enough because of its inability to understand cause-and-effect. Some smaller user cases, such as code scanning, were still done through outside contracts with the help of AI, where results were mediocre. All of this put together, if certain variables around AI use are met, then AI influences due diligence considerably and the results are impressive. If the variables are not met, AI influences the due diligence very little or not at all because it might not be used in the first place. Even if the results of the due diligence tools aren't as good as most interviewees expected, all of them are following the market closely in order to be up to date on new inventions, and future user cases were heavily implied. AI is seen as something that is able to give the organisation a competitive advantage, so in order to stay relevant in their respective business fields organisations must have their finger on the pulse regarding AI related proceedings.

5.2. Influence of AI on Employee Engagement

Excitement was the biggest take away in terms of employee engagement. The respondents were excited about the fact that something so new was being implemented at their organisation and that they were at the forefront of the process. They were also excited about the fact that with AI they are able to offer customers better solutions, have something in the organisation that is one of the biggest megatrends of the century and about the opportunity to try new intriguing things. All of these aspects strongly correlate to better work and employee engagement. From Robinson et al.'s model on employee engagement three out of four aspects are found: involvement in decision-making, how managers listen to their views and value employees' contributions and the opportunities employees have to develop their jobs (Robinson, D. et al. 2004). Almost all of the interviewees have been highly influential in the process of getting AI into their organisation and in the process of implementing and training the tool, which are great examples of being able to influence one's job, feeling of being heard and developing one's job role and tasks. The respondents have been able to influence their jobs to their liking and in the process have also gotten other employees to use the tool, making their employee engagement stronger as well. These results correlate with other research about AI improving employee engagement and quality of life (Prentice, C. et al. 2023, Sari, R. et al. 2022, Wang, W. et al. 2021). A more

mentally engaged employee is more engaged generally, and the use of AI seems to have a positive effect.

More interesting work was also a large theme in employee engagement: not only does it strengthen employee engagement through being more engaged with their work, AI could also make employees' quality of life better by taking some of the workload off of employees as well as give the ability to manage resources, such as time, better. Here also the last bullet point of Robinson et al.'s model about employee engagement comes to fruition: the extent to which the organisation is concerned for employees' health and well-being (Robinson, D. et al. 2004). A less stressed employee is a more engaged employee, and the organisation can create less stress by being better at the distribution of resources and time management because of process transparency created by AI tools.

Generational differences were not significant. There is some evidence that the younger employees are a pushing force in AI implementation, but adaptation to AI doesn't seem to differ. The key to easy adaptation according to this thesis is having training sessions, letting the employees who want to use AI have the opportunity to try it and making the AI tool easy to use. These findings correlate with research about reception to AI being more positive when there's support behind the transformation (Prentice, C. et al. 2023, Wang, W. et al. 2021). It all ties back to stronger employee engagement, as it's a great example of employees being able to influence their work tasks into the direction they want (Robinson, D. et al. 2004).

Having work disappear from the younger employees because of AI is an interesting phenomenon regarding employee engagement: employee engagement is stronger when there's interesting work (Robinson, D. et al. 2004). This is something that AI can elevate as due diligence work for younger employees is usually described as tedious with the main work being manual document shifting, which is a task that AI can take over. At the same time, there's no employee engagement if there's no job in the first place. There were mixed results about younger associates losing their work, as the majority thought that because of AI the nature of work would just change, not necessarily disappear altogether. This was also reflected in the participants' thoughts about AI generally taking away work in the due diligence process: consensus of the respondents is that some work will disappear, but their outlook is positive as overall work will just change from what it is now. All of the organisations interviewed are offering highly

adaptable and skilled services, which interviewees strongly believe isn't something that AI can replace at the moment. These findings correlate with research about AI being linked to job loss (Chijindu, V. & Iniyama, H. 2012) while at the same time being an employee engagement increasing phenomenon (Prentice, C. et al. 2023, Sari, R. et al. 2022, Rao, S. et al. 2020). There is some research about AI being able to take over high-skilled work (Frank, M. et al. 2019), but regarding due diligence, the interviewees are not concerned.

The second research question was: how does the usage of AI influence employee engagement in the workplace? Based on the research conducted in this thesis the answer is that employee engagement increases alongside the use of AI, mostly because of more exciting and interesting work. Support from the organisation in the form of for example training and easy user cases help with the implementation of AI, which is a big factor in employee engagement. The majority of the respondents were very excited about the future possibilities of what AI can bring. This is understandable, as in the case of new AI being introduced almost all of the interviewees will have an integral part of the implementation as their work roles are essential to the process. This is also a fact that leads to stronger employee engagement, as they get to be highly influential not only in their own work roles but in others' work roles as well. There really weren't any aspects that would reduce employee engagement: the potential job loss was thought to be only minor and the implementation of the AI tool has not brought up negative opinions or feelings in the interviewees. All of the interviewees were feeling positive about AI, as the newness of it and the technology behind it is seen as exciting, not potentially job threatening. Therefore, AI's influence on employee engagement seems to range from moderate to considerable, depending on how well the AI has worked for the interviewee.

5.3. Broader Implications of the Study

When putting these conclusions into the context of the framework given in the analysis part of the thesis, it can be seen that AI influences the due diligence process in all three categories of the framework which are organisational, cultural and technical. In employee engagement AI influences two aspects, organisational and cultural. These results show that there is a variety of things employers must take into account when thinking of implementing AI into the due

diligence process, of which the biggest aspect is cultural with four out of ten themes being in the category. In the due diligence process this means to be aware of language: for example, for a Finnish organization that operates mostly in Finnish the language of AI could be a challenge and something that needs to be carefully investigated beforehand. As language is a big part of any culture, understanding the implications of AI's language capabilities is essential. In employee engagement cultural aspects mean that fuelling employees' excitement might strengthen employee engagement. An integral part of the process is support in the learning process of AI. As there really weren't considerable differences in reception of AI regarding age or fear for losing one's job, the cultural category of the framework leans more to how AI can make work more positive for employees instead of what organisations should try to avoid culturally in order for the implementation to go well.

The second biggest category of the framework is the organisational aspect, under which efficiency, training and more interesting work fell. The due diligence part is especially the one to carefully watch out for: efficiency gains can be enormous if the amount of training doesn't mitigate the efforts. Organisations should examine their organisational capabilities regarding AI; are they willing to put enough resources to training the machine (as well as the employees) to get desirable outputs from it? Is the organisation the type to have large amounts of standardised data in their documentation that AI is very receptive to and or are their clients big enough that there's enough data to justify AI use? Here organisations should also look at their employees: the interviewed organisations in this thesis are all innovative organisations at the forefront of AI implementation, which could be a big reason for such a positive reception. If the organisation is known to be conservative and slow in technical advancements, the employees might as well be, which could result in bad implementation. The last aspect was more interesting work that could help an organisation in a lot of ways: employees are happier therefore maybe more productive, word of mouth can be more favourable for the organisation and it can even be used as a recruiting tactic.

The last category was technology, where due diligence was the main culprit: accuracy and multiple cases that deny the use of AI can either make or break the usefulness of these due diligence tools. Organisations that work with a standardised document base and usually with big projects are better off than those who don't. Organisations should understand the

circumstances in which the tool works ideally before trying to leverage it. Technology in general can be a fickle thing, but following these general guidelines the probability of the tool working well increases.

At the start of this paper there was a thorough briefing about how M&As are as likely to fail as to succeed, and a big reason for the failure is bad due diligence. In this thesis I have demonstrated that AI can bring forth better due diligence. AI can give a clearer view of the process and increased knowledge about the document base of the transaction. Managers have more insight into how the due diligence process is going and employees are able to get a deeper understanding of the documents at hand. Mistakes or anomalies are detected more easily. All of these aspects reduce deal risk greatly as the organisation gets more information about the target organisation, be it about weaknesses or strengths. The more information the buyer gets, the more accurate price it pays for the target organisation. As paying too high of a price for a target is one of the biggest reasons for an M&A failure, having this kind of leverage is priceless. At the same time, all of this can be done at best twenty times faster than by just humans manually. These results could indicate that enhanced due diligence can be achieved through the use of AI, which could have a snowball effect on the successfulness of the whole M&A. As these tools get even better in the future, this effect might become quantifiable in the form of a decreased percentage of M&A failure and an increased amount of M&As altogether. This, in turn, could categorically change the way we look at M&As and how organisations operate in their business fields relating to competitors.

5.4. Criticism of the Study and Future Considerations

This chapter will talk about the future of AI due diligence tools, as fast progress and future possibilities are a highly important factor to how the tools are viewed now, which is what the interviewees emphasised multiple times. The second part of the chapter will concentrate on criticism of the study, which is mostly about the newness of the subject and consequences of said fact. Lastly, I will give my recommendations for future studies based on the results derived from this thesis.

Throughout the whole study there has been a strong undercurrent of the fact that even though AI due diligence tools might not be perfect now, they will eventually get there as progress is happening at lightning speed at the moment. What hasn't been discussed yet but what several interviewees mentioned is what is going to happen to these tools in the future. According to three interviewees there are possible signs of other technologies and tools overpassing common due diligence tools. This is because of powerhouse organisations taking interest and figuring out their general language models that could overpass due diligence tools in their smartness. Three examples mentioned are Google's BARD, Microsoft's AI tools and OpenAI's CoCounsel. These models aren't based on training as the due diligence tools mentioned in this thesis are, instead an employee can talk to the application and ask questions from it. If you don't need to train the tool, it already interests at least two of the interviewees of this study, as training was mentioned as something that is too time consuming and taking up too many other resources.

When thinking of the future, the capabilities of these smaller organisations making due diligence tools compared to the tremendous resources and reach of worldwide organisations such as Google and Microsoft seem too low. Said three interviewees mentioned wanting to see what kind of solutions the bigger organisations can come up with. So, as the competition gets more intense and bigger players enter the field, the smaller more focused due diligence AI tools may have a hard time staying in the competition. It will be interesting to see how the market evolves: will the trend of AI due diligence tools die out before they even get properly rolling, or will the head start give them a competitive edge against bigger organisations that are entering the game late? Only time will tell, but the interviewees – as well as I am – are watching with interest.

There are several criticisms of the study, most of which are a side product of the research area's newness. The low number of organisations using AI for the purpose of the study hindered the process somewhat, as finding interviewees was extremely difficult. This means that there wasn't a lot of room for picking certain types of interviewees, which means that there's a lot of variance in for example the interviewee's country of residence, type and size of the organisation and what language the AI tool is used in. As was said previously, in the beginning of the thesis the idea was to get five legal due diligence interviewees and five financial due diligence interviewees, but in the end the interview pool was eight legal due diligence interviewees and two technical due diligence interviewees. This variance isn't necessarily a negative as it did give a lot of

interesting results such as with the language and training of the AI that necessarily wouldn't have come out with a more homogeneous respondent pool, but all the variables make the process of analysing a bit more difficult.

Also because of this the sampling size is largely composed of males with only one woman amongst the interviewees. This is because the business is highly male dominated which made finding female interviewees harder, but some of it also seems to be bad luck as about a quarter of the potential interview candidates contacted were women. As the subject is not based on for example social interactions that could be easily influenced by gender, this hopefully doesn't change the results much. Still, it could be interesting to see if there's any differences in the results with a more female-dominated sampling.

Another interesting future research could be about information: these AI tools are seemingly changing the way we look at and gather information. One technical due diligence interviewee mentioned customers who don't use AI at the moment but for whom they give consulting on how to gather and store information for future AI use to be as effective as possible. The way we store information is slowly changing already as multiple interviewees recognised that the AI tool was more effective on documents that have less variance. Preparing an organisation for the implementation of AI sounds interesting, could there even be an AI tool that forms the same types of documents of all of the document base the organisation has so that another AI tool has an easier time analysing the text? I don't know, but the possibilities seem endless, which could be an interesting future study.

In the end, this subject is very new and I seem to be one of the first two to study this subject as a Master's thesis in Aalto, so at least on school level this could be described as a somewhat trailblazer study. The study concentrates right on the time when organisations are starting to implement AI tools more tightly to their organisation structures and processes. Because of this the data might be incomplete, and I would suggest redoing this study in five to ten years, just to see how much the results differ. Now a lot of the results revolve around what the AI tool could do better in order for it to be more beneficial, so there's a lot of talk about the potential of AI, which for several interviewees was the main school of thought. When these AI tools have evolved to the point of being work changing in the due diligence process in a more encompassing way it might be easier to get more concrete results on how it has changed the

process and how the interviewees feel about it. Still, this study happened right at the edge of change regarding the way we work, so all in all, this moment might have actually been the perfect time.

6. References

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Appendices

Appendix 1: Question set of the interviews.

General questions	
1.	Tell me about yourself.
	Tell me about your role in your organisation.
2.	What is your organisation's due diligence process like?
	What are you doing in the due diligence process?
	Tell me more about the team that works in the due diligence process.
Questions related to the use of artificial intelligence in due diligence	
3.	How does your organisation use artificial intelligence in the due diligence phase?
4.	What tool does your organisation use; has it been purchased from an outside party/is it maintained by a party outside the organisation?
	How long has AI been used in due diligence in the organisation?
5.	How do you use artificial intelligence in your work?
	What other ways could you see AI being used in this process or does your organisation have plans to expand its use from the current usage level?
6.	Why did your organisation want to start using artificial intelligence?
	Have these goals been achieved?
7.	How has artificial intelligence influenced the due diligence process and your work?
	Has AI been more useful or less useful than expected?
	How has artificial intelligence affected the pace of work and the speed of processes?
	Has artificial intelligence made the due diligence process and your work more difficult, and if so, how?
	Do you measure the impact of artificial intelligence on work in some way? What results have been obtained from the inquiries?
Questions related to employee engagement	
8.	How has your job changed?
	Has artificial intelligence brought more positive or negative aspects to your work?
	Do you feel that there is more or less work than before after the introduction of artificial intelligence?
9.	How has artificial intelligence influenced your engagement to your job?
	What kind of feelings do you have regarding the use of artificial intelligence?
	Do you feel that after the introduction of artificial intelligence you are valued as an employee in the same way as you were before the introduction?
	Has the introduction of artificial intelligence changed your opinion regarding your organisation and your work?
	Are you afraid that in the future artificial intelligence might take your job or reduce your workload? Why?
	Does the use of artificial intelligence get you excited about the future possibilities of your work role? Why?
10.	Do you have anything else to say that didn't come up in the discussion?

