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Utilization of Artificial Intelligence in Enhancing B2B Sales Pipeline Processes

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ABSTRACT:
The B2B sales process has undergone numerous large-scale changes over the last few years. One of the notable changes has been the introduction of Artificial intelligence. This change has brought new dimensions to the operation of sales, such as easily available and processable data, and the automation of operations. Thus, the research objective of this thesis is to study how to enhance the B2B sales pipeline with the help of artificial intelligence. This study is needed for two reasons. Firstly, the development of AI and its incorporation to business processes is crucial since the focus has shifted to data-driven tools and analytics to support the function of sales. Secondly, the willingness and enthusiasm of companies for the potential of AI and the concrete knowledge of how to utilize this technology create two dimensions which create a gap that this study aims to close. This thesis is performed as a qualitative study, which features semi-structured interviews from B2B professionals as the data collection method. This thesis introduces several key methods in accomplishing the analysis of a company pipeline, such as the three-stage model and how to analyse it. The key findings of this research include where to direct the AI efforts when trying to augment the pipeline and to which tasks it should be leveraged for. The common consensus among researchers and workforce both is that AI has huge potential to save valuable man-hours, which in turn can be directed at targets which gain the most value from human interaction. All of the B2B professionals agreed that they value time above.

KEYWORDS: Artificial intelligence, Machine Learning, Customer Relationship Management, B2B Sales pipeline, Collaborative intelligence.

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TIIVISTELMÄ:
B2B-myyntiprosessi on kokenut lukuisia laajamittaisia muutoksia viime vuosina. Yksi merkittävimmistä muutoksista on tekoälyn käyttöönotto. Tämä muutos on tuonut myynnin toimintaan uusia ulottuvuuksia, kuten helposti saatavilla ja käsiteltävissä olevaa tietoa sekä toimintojen automatisoinnin. Tämän opinnäytetyön tutkimustavoitteena on tutkia, miten B2Bmyyntiputkea voidaan tehostaa tekoälyn avulla. Tätä tutkimusta tarvitaan kahdesta syystä. Ensinnäkin tekoälyn kehittäminen ja sen sisällyttäminen liiketoimintaprosesseihin on ratkaisevan tärkeää, koska painopiste on siirtynyt tietoon perustuviin työkaluihin ja analytiikkaan myynnin tukemiseksi. Toiseksi, yritysten innokkuus tekoälyn mahdollisuuksista sekä taito tekoälyteknologian hyödyntämiseen muodostavat kaksi eri ulottuvuutta, joiden välissä olevaa aukkoa pyritään tässä tutkimuksessa sulkemaan. Tämä opinnäytetyö suoritettiin laadullisena tutkimuksena, jossa tiedonkeruumenetelmänä käytetään puolistrukturoituja haastatteluja. Tässä opinnäytetyössä esitellään useita keskeisiä menetelmiä yrityksen myyntiputken analyysin toteuttamisessa, kuten kolmivaiheinen malli ja tämän mallin analysointi. Tutkimuksen keskeisiä tuloksia ovat muun muassa se, mihin toimintoihin tekoälyä tulisi ensimmäisenä hyödyntää ja millaisissa tehtävissä se on tehokas. Alan työvoiman ja tutkijoiden keskuudessa vallitsee yksimielisyys siitä, että tekoälyllä on valtava potentiaali säästää arvokkaita työtunteja, jotka puolestaan voidaan suunnata enemmän arvoaluoviin kohteisiin. B2B myyntialan ammattilaiset olivat yhtä mieltä siitä, että he arvostavat aikaa enemmän kuin mitään muuta. Toinen tekoälyn suuri vahvuus on tiedon vaivattomassa käsittelyssä. Käyttöönotossa olisi kuitenkin otettava huomioon työntekijöiden kyvyt, sillä teknologiasta ei ole hyötyä, jos työntekijät eivät osaa käyttää sitä oikein ja oikeissa operaatioissa.

AVAINSANAT: Tekoäly, Koneoppiminen, Asiakassuhteiden hallinta, B2B

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Abbreviations

AI = Artificial Intelligence
ML = Machine Learning
CRM = Customer Relationship Management
NLP = Natural Language Processing
DSS = Decision Support System
IDSS = Intelligent Decision Support Systems

1 Introduction

In the age of digitalization there is an increasing number of variables that businesses need to consider. Organizations need to be faster, more decisive, and adaptable in the modern field of competition. To accomplish this, businesses must adopt modern tools and learn how to use them effectively. One of those tools is artificial intelligence (AI). Artificial intelligence has seen significant improvements in the last decade. This is due to various domains like the advancement of algorithms, computing power, and availability of datasets. However, the technological advancements can only be taken advantage of if the user has the capability and processes to do so (Bellinger et al., 2004). This rapid development of this matter has brought new challenges and opportunities into the competitive field. This hasn't gone unnoticed by businesses, which have started to implement AI into their processes. A crucial area where the development is easily noticeable are specifically the B2B operations of company (Colter et al., 2018). Since the domain of B2B is not by any means immune to the huge paradigm shifts brought by the advancement of technology, the sector shows significant and rising interest (Paschen et al., 2020). Artificial intelligence must be leveraged if a company aims to maintain or grow their market share. The market balance is constantly shifting and organizations that have not adapted AI into their operations risk losing out on potential market share and profits. Moreover, the companies that have begun adapting this technology face the issue of how to utilize it correctly and efficiently. This is a double-edged sword. Companies that jump in right away take big risks and face complex obstacles but may reap big rewards in the end. In return, companies that come in late risk being left behind. So, research into this topic area may be beneficial to companies looking to enhance their sales department's capabilities. Additionally, this study may also discover gaps in processes or new areas of development and thus create insight on how we may develop these processes further into the future.

1.1 Research questions and objectives

This thesis focuses on the application of artificial intelligence in improving a company's business-to-business sales pipeline processes, which represents the end-to-end processes of a business's journey through lead generation to the closure of the sale. A survey done by McKinsey (2021) showed that the benefits greatly outweigh the risks of adopting AI into company's business processes. And specifically, it is outlined that the failure to recognize mitigation factors in terms of AI-related risks are among the top reason for a failed adoption of the technology. The research conducted on the area of AI may generate significant economic and societal benefits. Already the integration of Artificial Intelligence into various applications and even cross borders, is rapidly transforming associated economy. Major companies are investing huge amounts of money and time into researching the matter (Pan, 2016).

In essence, there are two major reasons why this study is needed. Firstly, the competitive field is undergoing major changes due to technological advancements. The amount of data and computing power is enormous compared to last century. The focus has shifted to data-driven tools and analytics to support the function of sales. For this reason, the development of AI and its incorporation to business processes is crucial (Colter et al., 2018). And secondly, there are two dimensions that have a disconnect between them. The willingness and enthusiasm of companies for the potential of AI, and the concrete knowledge of how to utilize this technology (Campbell et al., 2020). This study aims to help closing this gap. Thus, the research question is formed as such:

How to enhance B2B pipeline processes with artificial intelligence?

In essence, the purpose of this research is to study how Artificial Intelligence can be leveraged in B2B sales scenarios. Additionally, where the utilization should be focused on the pipeline and what actions benefit the most from the implementation.

Since computing power has increased exponentially and continuously over that last decades and has not shown any signs of slowing down, it is important for businesses to accommodate for the change accordingly. To put it into perspective, the performance in labour units has increased at a compound growth rate of over 30 percent per year for at least a century (Nordhaus, 2001). This capability should be funnelled towards the correct facilities in the business environment. However, it makes sense that some companies still show reluctance to incorporate AI into their processes. There is no lack of consensus among scholars and business leaders alike that AI will transform B2B sales process in a significant way, but there are no definitive answers to what kind of movements AI can bring to the current human-centric approach (Kietzmann & Pitt, 2020).

Pan (2016) has even suggested the term artificial intelligence 2.0 to be used, due to the long nature of development of this technology. He argues that the setbacks technology has suffered in the last half century, has been partly caused by incompatibility with other technologies, and that the development of AI has been driven strongly by societal factors. Now finally when the accompanying technology has emerged to be utilized, AI has also entered into a new evolutionary stage.

For this study, qualitative approach was selected for the following reasons. The problem area under study has undergone very recent discoveries and changes, and it can be described as complex. Additionally, the research question can benefit from a subjective opinion which can be gathered through qualitative methods such as interviews, which can in turn be transformed into textual data. Moreover, they are able to bring us as close to the source of answers as possible. Due to these reasons the approach used in this study was quite open-minded, and not subject to any bias. Additionally, one of the goals of this research was to keep high level of narrative freedom and to withhold making any unnecessary assumptions. Failure to do this could in the end hurt the results of the research. Arguably there isn’t an abundance of statistical data regarding the specific area of research, or even on the usage of AI itself, which would have in turn made quantitative analysis counterintuitive. Although the qualitative approach used here is not limited to

specific types of data. On the other hand, the lack of support from hard statistical data might eat away at the reliability of the study. The interview group might for example not be selected from a large enough sample or represent a wide enough spectrum of opinions.

1.2 Prior study and contributions

Prior literature shows that there is a consensus on the direction where sales technology is developing. There has always been a need for technologies that support the sales operations. The technologies are what enable the work and business growth (Paschen et al., (2020). The new technologies have significantly affected the B2B sales industry by a large margin, and in the modern era AI will bring fundamental changes to the industry (Martinez-Lopez & Casillas, 2013). However, many technologies and developments there are in the field of sales, the one thing that has been constant, is the decision-making process, which has been entirely nominated to humans (Paschen et al., 2019).

The AI has been extensively researched and developed. It can bring numerous benefits to those who can employ it effectively. It is able to transcribe large amounts of data into digestible information to be utilized by salespeople. Additionally, the knowledge can be used to develop the processes and effective sales strategies. However, there is no simple answer in this matter, since the environment and especially customer needs are constantly changing side-by-side with the technology that surrounds them (Colter et al., 2018; Ingram, 2004). From this we can also draw the conclusion that to combat the changes that modern digitalization brings, sales organizations core focus should not necessarily be in sales, but in knowledge management (Ingram, 2004). The building of said knowledge, should be based on the tacit in-depth information gained from customers, using frequent interactions. If this can be accomplished, it then can be leveraged into leading technical innovation (Abrell et al., 2016).

There should be an established dependency between sales operations and the technology that surrounds it, since the pressure to meet client expectations has increased significantly with the progression of technology (Venkatesh et al., 2003). A study done by Nelson (2004), shows that the most drastic investments made in technology are in CRM systems, and the implementation of these systems are in the top five initiatives for over half of the studied companies. The main objective of CRM systems is to extract the most amount of value from a customer relationship as possible (Baird & Parasnis, 2011; Nadeem, 2012), and therefore is in a key role in ensuring competitiveness in the modern landscape, since the concept of generating value from customer is ensuring the correct practices and methods regarding interaction (Kumar & Reinartz, 2018; Frow & Payne, 2009). More specifically in the context of sales management, the strategic benefit to this is faster and more accurate sales leads and sales lead generation, referrals, and customer inquiries (Kumar & Reinartz, 2018). Through this, the company can create a more satisfactory sales pipeline, since profits rise when customers experience more fulfilment with their experience (Edvardsson et al., 2000). For this reason, it is important to ensure that the people who execute sales operations have the right technology that they can utilize. This is essential in converting opportunities into sales and thereby improving the overall effectiveness of the sales pipeline (Stoddard et al., 2006).

Since the proper management of a sales pipeline largely dictates how successful the company is, it requires proper examination. This covers sales gap analysis, resource optimization, and win-propensity prediction. These methods can be approximated to provide quantitative outcomes that forecast whether a sale will be made within a certain time frame. These applications are becoming more and more important as data-driven models are employed more often to improve sales performance (Yan et al., 2015a). The analysis of a pipeline can be accomplished through sales engineered models, such as the three-stage model, that proposes three major areas of interest in the pipeline, which are lead generation, conversion, and closure (Smith et al., 2006).

Based on the interviews done in this research we shall show that there are many benefits in employing artificial intelligence correctly to sales operations. The successful timing and placement of the technology is a necessity and should be planned carefully. The implementation should be analysed based on where to make the investment, as in where the technology will help save the most time, while gaining the most results in the B2B pipeline. According to Paschen et al., (2020) the technology should assist, but not execute in decision-making processes, since humans are able to understand contradictory information often associated with these processes. But rather the strength of AI lies in organizing and analysing data. This is a key process in modern competitive field, since the large amount of available data and the ability to forecast based on it (Haleem et al., 2022). This also emphasizes the fact that it is just a tool, that when employed correctly, produces great results.

1.3 Structure of the thesis

This thesis is divided into six chapters: Introduction, two chapters of the theoretical framework, methodology of the study, results, and conclusions. The introduction describes the topic and the problem domain and their importance to the study, along with findings from prior literature and the approach of the study. After the introduction chapter, two literature review chapters follow, which showcase the conceptual environment and how the current study fills the gaps in knowledge.

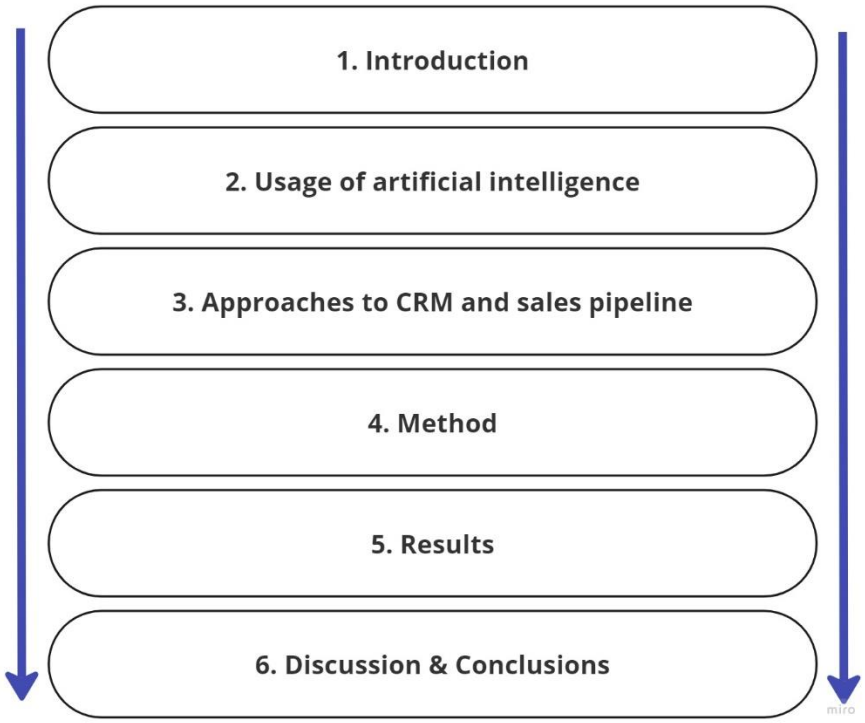

Figure 1. Structure of the study

In the first literature review chapter, previous studies relating to artificial intelligence in the context of this thesis are presented. It is defined along with the essential surrounding concepts, such as machine learning and algorithms. Additionally, concepts such as support vector machines, neural networks, and natural language processing are familiarized. This will also be applied to the sales aspect, and we will start to form an understanding of the application of AI to sales based on previous studies in the field.

The second literature review chapter shows prior literature concerning CRM systems and their importance sales management. This includes introducing the most common approaches to customer relationship management and the value it can bring when employed correctly. Additionally, it is explained how customer relationship management and sales pipeline are attached to each other, and what steps a company can take to manage their sales pipeline by using management models. The models are then explained in detail, and how they form the basis for managing sales pipeline.

In chapter four, the methodology of the study is explained. This research features the qualitative approach with semi-structured interviews as the data collection method. The qualitative method is explained as well as why it was chosen for this research. The data collection method is also introduced and after that, the method with which the data was analysed. In this case the data was analysed with the thematical analysis. Lastly in the chapter the research quality is evaluated.

After the methodology the results of the study are presented. In this chapter the extractions from the interviews are introduced and explained. The chapter is divided into themes recognized from the results of the interviews. The results are first briefly condensed which is followed by the actual word-for-word answers from the interviews. At the end of the chapter is a summary of the results.

Finally, the last chapter discusses the conclusions of the study. This includes the results and key findings of the research, which summarizes the findings of this research. After the key findings there is a discussion part, in which the results are considered by reflecting with existing literature on the field. Next is the recommendations for future researchers and practitioners, and finally the last chapter of the thesis is the research evaluation. This is followed by the list of references and appendices, which feature the line of questioning used in interviews.

2 Usage of Artificial Intelligence

Since its inception, the definition of AI has remained roughly the same. The term originates back to the 1950s, when it was used in a theory of machines being able to convey human intelligence (Helm et al., 2020). The purpose of the development of AI has been to replace manual labour, which can advance the innovation of mankind in various fields (Bhbosale et al., 2020). It can be seen as an umbrella term that covers many different types of applications and sub-concepts. In fact, it can be described even as a branch of science and technology, that has a purpose to create machines and programs to perform a variety of tasks, which require a certain degree of human-like intelligence (Buchanan, 2005). According to Copeland (2023), the term artificial intelligence refers to a computer or a computer-controlled robot being able to complete complicated tasks commonly achieved by humans. Key characteristics include the ability to learn from the past, generalize or discover meaning and produce results. However, it is noteworthy that while computers are able to achieve high performance results, they are not yet able to apply the same type of reasoning as humans, nor be as flexible. This is supported by Kok et al (2009) who define characteristics of AI as being able to engage in human-like thought processes. These processes include reasoning, self-correction, learning, and adapting. Many sources also propose a much less restricting definition, which is the ability to mimic human-like behaviour. AI is in fact, a broader term and is used more frequently. The term is also sometimes used to misrepresent the actual matter at hand. For example, a simple algorithm might sometimes be referred to as AI, when this is not the case. It is important to distinguish them from each other.

An algorithm is seen as a more basic piece of building block in computer science. Consequentially, we will use a very basic definition of algorithm, which states that it can be broadly defined as a step-by-step process for solving an end goal, additionally it usually involves a certain number of repetitive steps (Merriam, 2023). There are many more in-depth definitions available, but for now, it is important to understand how these fundamental AI concepts differ from one another. Since algorithms are only a set of

instructions or calculations, they cannot be referred to as artificial intelligence. However, AI and ML both use algorithms to provide intelligent responses.

To use any kind of artificial intelligence, the system requires data which can be gathered from the environment where it operates. Data can take many forms, but at its core it is values that conveys some type of information. However, it is only useful when it has been processed for its intended purpose, and only then can it be used to make informed decisions (Bellinger et al., 2004). In the case of artificial intelligence, the data inputs are either structured or unstructured. Simply put, structured data contains numerical values and unstructured data, of which there are considerably more, is anything that needs to be processed further to be used effectively, such as text, audio, or images (Paschen et al., 2020). The B2B sales industry adapted AI technology rapidly, since there has always been demand for applications that support the sales process, since these processes are at the core of company operations that allows it to work properly and grow (Paschen et al., 2020). It has delivered numerous results to salespeople, such as digestible and usable information adopted from large datasets, which in turn has improved the decision-making processes and sales strategies (Colter et al., 2018).

2.1 Benefits and drawbacks

AI has numerous benefits and can work in many applications, but to use it effectively, it is important to understand the restrictions of the technology. We are going to list some general positive and negative sides of AI. This helps us start to build an understanding of what the things are that it can be used for, as well as the areas where it is not as effective.

Bhbosale et al. (2020) list the advantages one might obtain when using the technology correctly. One of these positive sides of AI is the mitigation of human error, because humans are prone to making errors from time-to-time, so if the programming and input data is correct, then this negative impact is effectively removed. Humans are also prone to making decisions based on feelings or letting them affect a certain decision. This is

absent in AI. Machines are also capable of making large amounts of calculations or processing enormous amounts of data in a way that a human could never compete. Another point is made by Hastie et al. (2009), who argue that AI driven methods have the ability to accurately predict outcomes and assimilate much more complex relations between inputs and outputs, than humans can. So, when the complexity of the relations grows higher, the utilization rate increases as well.

On the other hand, we must be aware of AI's shortcomings. Bhbosale et al. (2020) list the following negative sides that might surface when utilizing AI. This includes the lack of flexibility, since AI is programmed to imitate human intelligence, but their capabilities essentially cease at the same parameters as their programming. Additionally, this is evident in the responses an AI gives. It will never achieve the same type of reasoning that a human is capable of. One problem that is more apparent in AI that reads or generates text, is the possibility of a misunderstanding. Some AI, for example the recently surfaced ChatGPT, has a tendency to sometimes give inaccurate responses to complicated questions, or even two different answers to one question (Sinha et al., 2023). Finally, it needs to be addressed that the value that AI brings is not always positive. According to the concept of value co-destruction, if there are noticeable discrepancies between resources, actors, or the practices of a company, the value might significantly decrease (Plé & Chumpitaz Cáceres, 2010).

Artificial intelligence	
Pros	Cons
- Mitigation of human error - Removes emotional based decision-making - Faster and more efficient in various tasks - Better understanding of more complex relations	- Lack of flexibility - Not able to use the same level of reason as a human. - Inaccuracy when dealing with written statements. - Possible value co-destruction

Table 1 Pros and cons of AI

In addition, Syam and Sharma (2018) list four crucial factors that make AI and ML stand out as superior to more conventional statistical techniques:

1. There are multitude of variables available for analysis,
2. the associations between the variables are uncertain, and possibly highly complex,
3. the values of each variable are evolving continuously,
4. and when understanding the correlation between variables is more important than causation.

Additionally, strategies that include AI are significantly more accurate and efficient when comparing to human labour. There is a strong possibility that it will be a vital component in the future concerning content development and user targeting, since it has the ability to engage users and personalize the experience for them by its strong ability in data gathering and analysis (Haleem et al., 2022). However, it is important to critically evaluate the promises that AI systems tend to make, such as increasing consumer efficiency, well-being, and happiness. Some have even stated that systems enhanced with AI capabilities have the potential to reduce poverty. These statements can often be very misleading, and it is advised to stick to the facts of the matter. (Puntoni et al., 2010).

2.2 Machine learning and further methods

The phrase initially referred to the study of programming computers to perform without being specifically instructed to do so, but a more recent and modern term is stated by Helm et al. (2020), who describe Machine Learning (ML) as a subset of Artificial Intelligence, which has the ability to demonstrate learning through the use of computational algorithms. Additionally, through learning it can suggest improvements and make recommendations or decisions. Essentially, ML is used to teach machines how to handle the presented data more efficiently. Since humans are often unable to interpret large masses of data, machine learning is applied, with the purpose of extracting relevant data

(Mahesh, 2020). ML specifically gathers information from large datasets and needs readily available computing power to be used effectively (Syam & Sharma, 2018). Fortunately, in the context of sales, a major advantage is that a large set of customer exposure and purchasing data is usually already available when dealing with retailers (Malthouse & Li, 2017). Consequentially, the rising number of datasets in return gives more relevance to machine learning. In essence, ML is a necessity for AI functions. ML is essential to AI operations. The core of machine learning is that If AI information systems are to function rationally on the basis of available data and information, then they must have the capacity to draw lessons from prior errors. The third major phase that includes the computational techniques that allow AI systems to learn from experience. AI can gradually perform better thanks to ML rather than needing to be specifically programmed to do so by humans (Paschen at al., 2019; Russell & Norvig, 2010).

One the key point which makes machine learning models so effective is making predictions, especially in situations where a theoretical prediction is successful. This explains why machine learning models are evaluated using cross-validated prediction accuracy, scalability and real-time feasibility criteria rather than internal and external validity and theoretical arguments that are better suited to classical models (Syam & Sharma, 2018). However, the ML's ability to accommodate more complex relations highlights the traditional methods ease of interpretability (Hastie et al, 2009).

There is a consensus among scholars that Machine Learning can be broadly categorized into two categories: supervised learning, and unsupervised learning. In supervised learning, the output variables correspond to those of the input variables. And on the other hand, in unsupervised learning the programs are tasked with recognizing patterns and determining the structure of miscellaneous data (Hastie et al., 2009). Additionally, the supervised machine learning algorithms need external assistance, whereas supervised algorithms do not. Some notorious examples of supervised machine learning algorithms are e.g., decision tree, naive bayes, and support vector machines. Unsupervised algorithms include principal component analysis and k-means algorithms. In essence, choose

supervised learning if you have fewer data points with well-marked training data available. For huge data sets, unsupervised learning would typically perform and produce superior outcomes. Consider using deep learning techniques if you have a sizable data set that is easily accessible (Mahesh, 2018). However, it is pointed out by various data scientists, that there is no ultimate ML method to solving problems. The methodology must depend on the problem at hand and needs to be assessed on a case-by-case basis (Mahesh, 2020). Next, we are going to take a look at three common methods associated with machine learning, specifically those that have a variety of business applications.

2.2.1 Natural language processing

As the name suggests, natural language processing (NLP) lies at the intersection of human language and that of the computer and belongs to the discipline of computational linguistics. It is the process of capturing human speech whether it be in written or spoken language and is set up to extract meaning from this. Many modern advances, particularly in the business sectors, have been achieved due to technical advances in NLP. The process has two separate steps: natural language understanding and natural language generation. Natural language understanding is the process of converting “natural language” to computational, such as speech recognition, which is a significantly more complex task than generating it. Modern NLP systems achieve their goals by linguistic classification (Syam & Sharma, 2018).

2.2.2 Neural network

The term neural network stems from its operation similar to that of the human brain, since it also includes highly interconnected nodes. The traditional approach to algorithmic functions is cognitive and depends on a set of instructions. Neural networks tend to solve problems in a different manner, since they are the most effective in a diverse and complicated environment where it is designed to identify trends and patterns,

resembling the way human's ability to solve problems. Most important function in neural network is to command the neutron on what output to generate based on the inputs that it receives. This method has been a common tool used in various sales and business applications (Syam & Sharma, 2018).

2.2.3 Support Vector Machines

Finally, the support vector machines (SVM) are utilized in conducting classifications, but unlike the traditional classification models, the SVM tries to maximize the margins between the classifications. The key advantage is that this is accomplished by only a subset of the input data points. On the other hand, when the margin is widened, it could result in miss classifications of the data points. Additionally, SVM's are also strong in forecasting applications (Syam & Sharma, 2018).

2.3 Decision support systems

An important concept to also introduce, and to also separate from artificial intelligence, is the Decision Support System (DSS). These are systems that are implemented into the decision-making process to support achieving better or more accurate results. The focus on the DSS is to improve the process and to help understand the drivers behind it. DSS can consist of any available or appropriate technology (Keen, 1980). This means that AI can be implemented to be a part of the DSS or encapsulate it fully. This is demonstrated in a more recent description by Phillips-Wren and Ichalkaranje (2008), who state that any systems used to help with the decision-making process that have artificial intelligence incorporated into them, can be called Intelligent Decision Support Systems (IDSS). These systems are also referred to sometimes in literature as Active DSS, Knowledge Based DSS, or Intelligent Decision Systems. Additionally, they are being increasingly used in various fields such as finance, commerce, and marketing. The primary goal of these systems is to provide assistance in making decisions. The AI based systems are able to

gather data and information as inputs and provide suggestions (Castenada et al., 2015). These systems can have a huge impact on how the company performs. If the DSS or IDSS systems are in place, they can be extremely valuable even on the lower levels of company hierarchy, since there the guidance is able to make significant contributions (Wilson & Daugherty, 2018).

3 Approaches to CRM and sales pipeline

According to Kumar and Reinartz (2018), CRM is the strategic process in which an organization selects the customers that it can serve the most profitably and shapes the interactions between a company and its customers. The ultimate goal of CRM is to optimize the current and future value of the interactions. In fact, the term customer value is critical to the successful management of CRM. It refers to the economic value of a customer expressed in net profit or a contribution margin. When used correctly as a decision-making instrument, it can positively benefit the optimization of effectiveness in these metrics. One of the main tasks of CRM is to ensure the success of customer-centric processes such as sales and is designed to extract the maximum amount of value from the relationship (Baird & Parasnis, 2011; Nadeem, 2012). Therefore, the sales pipeline plays a pivotal role in the modern competitive landscape. Moreover, given the concept of customer value, CRM can be described as the practice of determining practices and methods that maximize the lifetime value of a customer for the company (Kumar & Reinartz, 2018; Frow & Payne, 2009).

Xu et al. (2002) define CRM specifically from the perspective of the information industry, which considers CRM to be a term for different methodologies and capabilities that manages customer relations in an organized way. It can also be a database of information about the company's customers, that includes up-to-date data. Furthermore, they state that it is an approach that has the ultimate goal to integrate company-wide functions to keep the most profitable clients and to minimize costs, essentially maximizing the value of the customer. The internal solutions should aim to inherently increase efficiency. And when it comes directly to sales, the CRM wholly improves the salesforce by distributing and leveraging the highest performers. However, Reinartz et al. (2004) note this information industry centered approach to CRM must not be confused with CRM technology in itself. Furthermore, one of the key reasons why CRM projects fail, is to view it as a technology initiative (Kale, 2004).

Some of the strategic benefits that customer value management approach brings to a company includes the automatic and manual enhancement of sales leads generation, and faster and more accurate follow-up for sales leads, referrals, and customer inquiries (Kumar & Reinartz, 2018). Moreover, it can create possibilities for better anticipation and more ideal and tailored solutions for the client (Peterson et al., 2011). There is an apparent link between successful customer value management and the profitability of a company's offering. A study by Edvardsson et al. (2000), found that when a customer experiences more satisfaction with sales, the company's profits rise. Therefore, the likelihood of bigger profits rises when a company creates a more satisfactory sales pipeline.

Specifically, CRM technology tools that are designed for sales are developed to help businesses and the salespeople to achieve their goals for the management of customer relationships by gathering, analysing, and disseminating that improves prospecting, boosts communication and sales, and provides customized product variations (Hunter & Perreault, 2006). It is important to create an environment, where the salespeople have the right tools at their disposal, since the largest amount of time is spent on opportunity management, which is essentially the end-to-end process of reviewing prospects and converting them into clients. To help achieve high success of opportunity management, we need to ensure that the sales process is effective. The effectiveness of the sales process is defined as the ability to complete short-term objectives in the pipeline by analysing opportunities and improving the closing rate (Stoddard et al., 2006).

In the case of any CRM functions, it is important to understand why CRM processes are utilized in the first place. Peterson et al. (2011) note, that first and foremost, the CRM systems are in place to boost the effectiveness of the sales function. Especially when dealing with opportunity management, CRM technology can help to achieve better results therefore establishing a positive relationship between them. And not only this, it also positively reflects across sales and all other departments under an organization. This allows for strong cooperation which in the end also results in higher conversion rates and therefore larger margins.

3.1 Sales pipeline

The sales pipeline is a part of and supported by strategic customer relationship management (CRM), which can be understood as the steps which a customer and a company takes through the sales process (Kumar & Reinartz, 2018). There are various theories and models on the subject, for instance depending on whether you are viewing the circumstance from the perspective of the buyer or the seller. However, it must be noted that there are some gaps in the existing literature about Customer Relationship Management (CRM) dealing with sales pipeline processes. While highly technical and advanced, some of these systems and their surrounding concepts often lack consensus amongst scholars and practitioners and may be liable to confusion (Paulissen et al., 2007; Zablah et al., 2003).

The management of a company's sales pipeline is essential to its survival and success, and it depends on the analysis of the said pipeline. This includes win-propensity prediction, which includes applications such as resource optimization and sales gap analysis. The win-propensity scorer is one of the fundamental building blocks when assessing the process quality. These techniques can be estimated with quantifiable results that predict whether a sale can be achieved within a time window. These applications are increasingly vital, since data-driven models are being used more frequently to achieve better success in the field of sales (Yan et al., 2015a). So, the effective management of the pipeline will lead to better success in generating revenue. To use AI to manage and generate better opportunities for the business, we first need to understand the pipeline itself.

The basic concept of a sales pipeline or a sales funnel can be visualized in different ways. No matter what specific model we are dealing with, they essentially handle the different stages of a customer's journey from start to finish. The model is a visual representation of this journey. A start can be classified as the beginning of an interest and the end as action or a decision. One of the first models of this was proposed by Strong (1925) and it states that a buyer's journey can be described with a visual representation of different stages of the funnel. The stages are awareness, interest, desire, and action. This model

has also been referred to as the AIDA-model. As being one of the first models, it has been extended and improved. An argument could be made that the model is too simple and doesn't represent the needs that organizations have in the 21st century. Additionally, the model is created from the perspective of the customer, not the seller. However, the model in question has provided a solid foundation for models that have emerged since.

3.2 Three-stage model

A study by Smith et al. (2006) proposes a simple three-stage model that consists of lead generation, conversion (lead to appointment), and closure (appointment to sales order). These stages are specifically created to support the seller in the process. This model is supported, and further developed by Eitle and Buxmann (2019), who propose their model from machine learning perspective. The models are additionally divided into smaller segments and correspond to the end-to-end sales pipeline process.

A common approach to sales pipeline operation models can be characterized as follows: when new sales leads are identified, they are entered into the CRM or a corresponding sales pipeline management system. The leads are examined and divided into different categories, and the most promising ones are qualified as opportunities. A sales opportunity consists of one or several products or services that a salesperson is trying to convert into actual purchases. The opportunities are tracked and ideally converted into won deals that generate revenue (Kawas et al. 2013). To successfully manage and streamline the sales pipeline, Yan et al. (2015b) note that it is important to continuously collect data for analysis. This includes the scoring of leads, which helps to prioritize actions and resources, since time management usually plays a pivotal role in large and international companies. This becomes even more important to adapt, since AI has not been widely introduced in a B2B environment. Lastly, it is important to note that the lead-scoring system may be susceptible to a biased subjective approach, since the salesmen would be the ones assessing the score of the leads. This may open a door to modifying the score for personal gain. Additionally, since most companies adopt sales quotas, salesmen

might push meetings or deliberately stall on leads to achieve quotas for separate quarters.

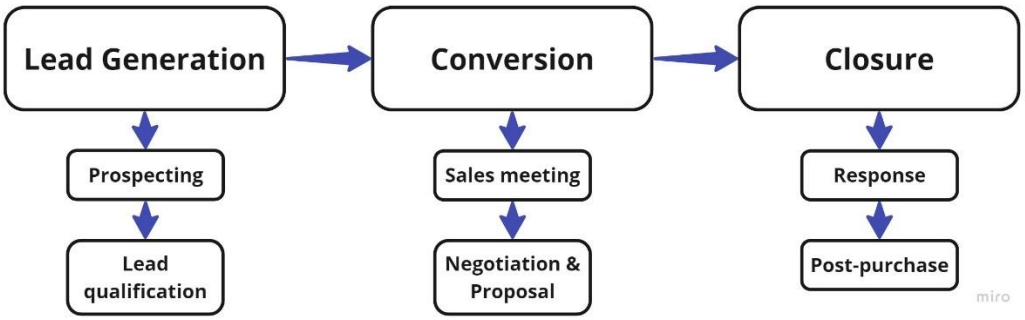

Figure 2. Visualization of the three-stage model

3.2.1 Lead generation

According to Smith et al. (2006) and their three-stage model, the sales pipeline process begins with lead generation. Although companies usually have a primary channel in which a lead can be generated, it can arrive at a company in a variety of ways depending on the form of the marketing communication. They include phone calls, e-mail, directories, internet, referrals, and repeat business. It is important to identify and gather information about the source the led the prospect to initiate contact. However, it is also important to identify if there is any carryover effect in the case where a prospect can trigger multiple leads. Additionally, seasonal variation may occur in the generation of leads, but this is more apparent in businesses which products or services are in some way tied to actual seasonal differences.

Lead generation is also comparable to the term prospecting, which is the process of expanding the customer base through various methods, which involve the selection and qualification of potential customers. The evolution of technology has made the process of lead generation more cost effective and has enabled additional channels to be utilized.

In particular, databases and CRM tools have had a significant impact in the success of prospecting (Moncrief & Marshall, 2005).

3.2.2 Conversion

The second stage in the three-stage model is conversion, which is the transition of leads into appointments. In some literature also referred to as the opportunity phase (Eitle & Buxmann, 2019). The type of appointment, whether it be a sales meeting, presentation, or an exhibit, depends on the nature of the business. But it can be generally classified as an opportunity to market or sell their products or services. Attrition is when leads are not converted into sales appointments, which can be due to many reasons. The appointment may be cancelled due to scheduling issues or delay from the lead generation to the appointment. The prospect might also just simply not return the request for contact, due to losing interest or finding a better alternative. Subsequently, according to the data, the attrition rate grows with delay. Additionally, the attrition rate appears to be unique to the communications source, moreover the rate may vary with the overall number of leads and as with lead generation can also vary due to seasonal differences (Smith et al., 2006).

This stage is similar to the approach, which is stated by Moncrief and Marshall (2005) as the process of a broad foundation-based relationship approach, in which the client's needs, problems, and issues are determined. This is of course easier if there is already an established relationship between the two parties. It can consist of strategies and tactics when building the initial rapport with the customer.

3.2.3 Closure

Following the sales pipeline process, the three-stage model ends with closing the deal. The consequence of a successful conversion is the appointment, in which the

salesperson prepares an offer based on the essential information. This is followed by the acceptance of refusal. However, an order may not result in acceptance. Similar dynamics apparent in the previous stages are also present in closure, in which the time lag negatively affects the probability of success. Moreover, the skill and experience of the salesperson can also have a positive or a negative impact on the closure of the deal (Smith et al., 2006).

The closure or the close can also be described as the successful conclusion of the sales presentation that results in a commitment to purchase the good or service. After any objections have been effectively dispelled, the closing process can begin. However, it must be noted that the effective management of the relationship in the long run is essential in reaching mutual goals, since the lifetime value should be mutually beneficial. The ROI can still fail to be positive, no matter how long the relationship might be, and these relationships must be recognized and be disposed of (Moncrief & Marshall, 2005).

3.3 Seven-stage model

An alternative way to divide the stages of the pipeline is a seven-stage model, sometimes referred to as the “seven steps of selling”. Although there are more stages than in the previous model, they practically correspond to the same operations, but are divided with more detail in mind. According to this model, the sales scenario therefore consists of the next stages: (1) prospecting, (2) pre-approach, (3) approach, (4) presentation, (5) overcoming objections, (6) close, and (7) follow-up, however the follow-up is the most recent addition and the some of the more traditional literatures do not include this step (Moncrief & Marshall, 2005). Since the inception of sales operations as a professional discipline, these steps have served as the foundation and the framework (Hawes et al., 2004). However, the more detailed division of the stages may be helpful in identifying which stages are more susceptible to being utilized differently than in traditional models, since many factors such as technology, expanding strategic importance, and team-based

approaches are becoming the key matters in the evolution of the sales process (Moncrief & Marshall, 2005).

When studying this model and the previous model, the similarities are apparent, since both models seemingly include the same operations, and additionally some stages might even have some overlap. The lead generation, which is the process of generating opportunities for the company, corresponds to (1) prospecting. The conversion of the three-stage model might include (2) pre-approach and (3) approach from the seven-stage model since the object of conversion is to generate appointments from the leads. Finally, the closure might occur anywhere between (4) appointment, (5) overcoming objections, and (6) close.

According to some studies, however, is that the natural trend in the progress of sales processes is to move away from the traditional seven steps, since the modernization of the industry has heavily affected how business relationships are formed and nurtured in the modern world. Therefore, the seven steps of sales have contributed largely to the sales function but is seen largely as a paradigm of the past (Moncrief & Marshall, 2005; Marshall et al., 1999). Despite this, it can still be used as a useful tool for the assessment of the pipeline.

3.4 Modern methods

The previous models and any additional models that follow the same pattern or portray the sales pipeline, have been used and modified extensively. Some modern models might follow the same blueprint but are altered in a way that better represents the industry they are in or the business they conduct. One such example is the pipeline presented by Salesforce (2023), according to which the pipeline consists of 7 stages. The stages resemble the 7 steps of selling but altered to meet modern standards. The stages are prospecting, lead qualification, sales meeting, proposal, negotiation, signing, and post-purchase. The model already emphasizes automation on several steps, such as

automating the qualification process by constructing accurate customer profiles. Moreover, the model suggests giving emphasis to the quality of the leads and maintaining healthy relationships.

4 Method

This study's theoretical framework introduced literature and earlier research relevant to the study topic. We are now getting into the specific methodology of the study and how it was organized and how the research was conducted. We will first sum up the definitions of methodology and the research topic. After this, the chosen approach is explained and justified. This is followed by one of the key methods of data gathering, which in this study is semi-structured interviews, and additionally, how this gathered data is analysed.

Metsämuuronen (2020) states that the term methodology refers to the broad research approach that the researcher has established. The technique should promote useful research, and methodological decisions are made in accordance with the objectives and open-endedness of the study. The research methodologies can be chosen when the methodological approach has been decided. A research method is a research technique that entails the procedures and actions performed in the analysis of data and observation of the research findings.

4.1 Qualitative research

Studies described as qualitative are built on 1) previous research and formulated theories on the subject under study, 2) empirical data (mostly textual or transformed data), and 3) the researcher's own thinking and reasoning. However, research approaches are not limited to specific types of data; qualitative research can use, for example, statistics or quantitative analysis of data (Saaranen-Kauppinen & Puusniekka, 2009; Töttö, 2004, p. 9-20). In qualitative research, it is also important to acknowledge what has been researched before because of two reasons. It allows the incremental building of knowledge on top of what has already been established, and it also stops the researcher from finding conclusions that others have already done (Zorn & Campbell, 2006; Schryen, 2015).

According to Eskola and Suoranta (2000, p. 13-24) some of the most common characteristics of qualitative research are listed as such:

a) data collection methods; e.g. interviews, biographies, letters, observation, diaries, and use of various cultural products,
b) discretionary or theoretical sampling; relatively small sample sizes, examining samples of social reality,
c) qualitative-inductive analysis of data; theory building from the data but also theory orientation and theory-bound analysis in which the methods of analysis differ from those of quantitative research,
d) hypothesis-free; no preconceived assumptions about the results, since the task of the analysis is not so much to test hypotheses but rather to invent them,
e) style of research and presentation of results; no strict format for reporting or narrative, and lastly,
f) the role of the researcher; freedom of choice, imagination, and subjectivity.

Since the goal of this research is to study a certain phenomenon with prior literature and focused interviews, with keeping a narrative freedom, and without making unnecessary assumptions or hypotheses, qualitative approach was selected. Furthermore, the research question is subjective, and this type of study does not warrant unnecessary strict formats. The conclusions represent narrative freedom since the author's own reasoning is heavily applied based on the results of the research.

4.2 The unstructured or semi-structured interviews

This qualitative research included an interview. Specifically, an unstructured interview or a semi-structured interview. According to Fontana and Frey (2000) in these types of interviews, there is a set of questions prepared before the interview, but there is room for discussion and asking more precise or additional questions. So, the lack of a strict script allows the interviewee to provide detailed and well-structured answers. In this study, the

interviewer was the same as the researcher. Additionally, Myers and Newman (2007) state that Semi-structured and unstructured interviews are flexible due to incomplete script, and require flexibility, improvisation, and openness from the interviewer's part. This allows the researcher to explore interesting lines of questioning, and open doors to surprises. However, the interview is still scripted to a certain extent before the interview. It is the interviewer's task to ensure to cover all the necessary questions during the interview.

The unstructured or semi-structured interviews are a good fit for qualitative research and are the types of interviews most often used in qualitative research in information systems. This is also the reason why it was chosen for this research. The research question begs for detailed and strong answers from the industry professionals. The purpose of the interview is to provide information that is then compared to existing literature on the subject. We want to explore the on-hand experience that the interviewees have and their opinions. This is done by questions that lead the participants to answering in a way that is close to the research question. This is emphasized by Tiainen (2014) who states that when using interviews for data collection, you need to plan not only the interview topics but also other things. Even the interview invitation gives the interviewee clues as to what kind of answers the interviewer wants. The beginning of the interview situation also directs the interviewee's thoughts to what the interviewer possibly wants to discuss, and all these actions need to be planned in advance.

4.3 Data and analysis

In the chapter before we justified the choice of research and the conducting of the interviews. This section describes how the data was collected, how the interviewees were selected, and how the acquired data was analysed. We also briefly describe the categorization of the participants and the line of questioning. At the end of the chapter the research quality is briefly discussed.

4.3.1 Data collection

Data collection was mainly performed by means of interview. Some statistical knowledge was gathered through internet sources, or from existing literature in the field. The structure of the interview was conducted in a manner that allows all of the planned topics to be addressed. Furthermore, if any interesting topics or opinions formed which were outside of the planned realm, there was room to expand the conversation. The interviewees were given plenty of time to answer, and opportunities to ask for clarification or even counter questions. The questions asked during the interview were inspired by existing literature in the field and were formed to give answers to the research questions of this study.

The interviewees were selected based on eligibility and relevance to the topic. Every participant was a professional and currently working in the field of B2B sales with several years of experience. The majority of the participants were employed at major national/international organizations, with established sales departments. After the interviews, the participants were divided into two different groups based on their answer to one of the questions. The question was whether they utilize artificial intelligence in sales-related work. Group 1 (G1) are the participants that already have implemented AI into their sales operations in some way, and Group 2 (G2) interviewees do not. Specifically, if the interviewee uses AI in daily and routine tasks, it was deemed a positive answer. However, despite some interviewees using AI in their work, the volume of use was minor or infrequent which resulted in a negative answer. This was done to extract the most out of both answers, resulting in a more accurate outcome. Moreover, the question specifically asks for sales related work, so the participant might or might not use AI on another area of their work. This may raise the question of whether it is justified to ask participants questions about AI if they have not used it in direct sales work. The question is justified because the answer to the research question itself could hypothetically be that AI may not be utilized in an effective manner. It is important for the purposes of this study to hear the participants' opinions on why AI could not be used in processes, or why the organization hasn't implemented AI into their processes in the first place. Failure to ask

this question may open the door to survivor bias. Moreover, the person might have insight into the usage of AI in their previous line of work, or simply just an innovative idea. One of the reasons for this is also to have a different perspective on the matter since we are interviewing a line of professionals in the B2B sales trade. Lastly, it is important to mention that generative artificial intelligence was utilized in the interviews. One of the interviewees was a chatbot which was ordered to act as a salesperson with a mix of the actual interviewee's backgrounds. This was done as an experiment to see if the technology itself agrees with the rest of interviewees opinions.

Metsämuuronen (2000) states that the selection of the participants is usually done randomly, which is usually considered to be the more reliable option of the two, but sometimes non-random is also a justifiable option. In this research the participants weren't chosen randomly. The selection process is justified since the participants need to be experts in certain areas of discussion. Random selection would have required significant resources and assistance which weren't available. Due to the nature of the questioning, any personal details about the interviewees will not be disclosed. The interviews lasted about 20-30 minutes each, and the answers were written down. Interviews lasted from August to September of 2023.

4.3.2 Thematical analysis

Next, we will go over how data can be analysed, and specifically how the gathered data from interviews research was analysed. This part is usually seen as the most crucial step in any research, and the purpose of it is to rearrange the gathered data into a meaningful entity. When this is accomplished, it is up to the researcher to use it meaningfully as to answer the research questions presented without making any unnecessary assumptions or hypotheses. There are a variety of methods to accomplish the evaluation of the data. Since there is an explanatory approach in this study, the most common way to evaluate the data is by statistical or qualitative analysis and drawing conclusions. The

compatibility of the analysis method should be considered based on the choice of research (Hirsijärvi et al., 2009, p. 223-224).

This study uses a thematical approach for analysing of gathered data. It is one of the most widely used approaches to data analysis in qualitative research. It is often chosen due to the flexibility it can offer to the research. At its simplest, it is the process of identifying patterns in data. These patterns help the researcher build an understanding of the phenomena under study. When the patterns are identified they can then be analysed and reported. Thematical approach is based on recognizing themes within a data set. This includes the researchers own voice in interpreting the results. For the thematical analysis to work effectively, the researcher also needs to give a rich description of the dataset. (Braun & Clarke, 2006).

In this study the thematical approach is used in analysing the answers from the interviews. For example, if three or more interviewees have given more or less the same answers, this can be interpreted as a theme. However, the extent of the similarity in the answer is still up to the researcher to determine, whether it satisfies the boundaries of the theme. The goal of this study is to assess the practical perspectives in utilizing AI. The nature of this research is highly compatible with qualitative research and semi-structured interviews. The interviews support this approach with the addition of focus on narrative writing.

4.4 Research quality

Finally in this chapter the quality of the research is critically assessed. The main evaluation of this study should be aimed at the reliability of interviews, and how they compare to the existing research. Main hurdle is the concern for the lack of interviewees and their evaluation since it can sometimes prove difficult to proclaim when an individual actually has the knowledge and expertise necessary to answer the questions. However, if the interviewees opinions reflect those of the existing literature on the field, we can deem

the selection at least partly successful, since according to Saunders et al. (2016) the quality and the trustworthiness of the study are evaluated by comparing the findings to existing literature. So, the reliability of a study increases if the study is able to prove or replicate similar findings that already exist.

5 Results

In this chapter the key takeaways from the interviews are presented. The extractions include direct answers in quotes and opinions on both the research question and the broader subject area. Additionally, some statistics are gathered from the answers which will be analysed and portrayed. After the extractions and the analyses from the interviews, visualizations of the results from the rest of the research are laid out. However, the conclusions are left for the final chapter.

5.1 Extractions from the interviews

In this chapter the results are exhibited from the interviews. There are 5 sub-chapters in total, which showcase the answers the industry specialists have given during the interviews. The specific questions can be found on appendices one and two. As mentioned before, the interviewees personal information is redacted from the answers.

5.1.1 Impact of AI on the sales sector

There was perceivable common ground among the interviewees, that there has been notable impact on the sales industry or sector due to the increasing use of AI. First and foremost is the amount of time it saves. The level of automation from utilizing AI is significant, and it is persistent even in the most entry-level applications. The salespeople valued their time above everything else. The time spent on doing tedious tasks could be in turn used for activities that advance the pipeline. In addition, there is a lot of variation in the usage also in the team level.

> *"The use of AI is most definitely growing, and the big breakthrough happened especially around and after the release of ChatGPT. Within a team, the level of AI usage varies greatly between people from different backgrounds as well as*

experiences. One of the biggest impacts of AI is freeing up time for different aspects of sales and specifically the pipeline. For example, if you are performing client outreach or planning leads, AI can automate most of the work." G1

"The whole sales industry has experienced an impact. For example, when simply reviewing sales pitches or preparing for customer meetings, you can easily use chatbot technology. The implementation process for wider operations has not yet been noticed within the company, but there are many examples from other companies where AI is widely used." G2

"The company has a smart chatbot that helps, for example, in simply transcribing meetings or negotiations with customers. The biggest perceived benefit so far is time saved. The salesperson can save hours on tasks that the AI can complete in no time." G1

The implementation has also had an effect also on the predictability of the clients. Their habits in terms of seasonality are easier to read and understanding of their processes has increased. This can lead to higher sales volumes if the company has the knowledge to do so.

"The understanding of customers' activities and processes has increased with AI. For example, seasonal variations in sales and the impact of public holidays are easier to assess. The decisions that a customer makes in a certain situation has become increasingly easier to predict, in turn increasing volumes. The data is there, but you need to have the capability to read it." G1

However, noteworthy is to understand that the level of impact alters in terms of the industry. There is a varying level of utilization among different industries. The common understanding at a company level is that a change is coming and there is a need to react to this change in some way.

“So far, the change has been very industry specific. However, at the moment there is a recognition at the company level that we are at some kind of tipping point. Artificial intelligence can be used to make work more efficient in a wide variety of ways. In some workplaces, there are no AI tools available for everyone per se, but at an individual level some software is used by salespeople. In some companies there is software available across all business units and levels of employment.” G2

"AI has revolutionized our sales processes. It streamlines lead scoring, automates routine tasks, and provides valuable insights, enabling us to focus on high-value interactions. The result is increased efficiency, quicker decision-making, and improved customer engagement. Overall, AI has elevated our sales performance and transformed the industry landscape" G1 (OpenAI, personal conversation, 24.1.2024).

5.1.2 Improving the sales pipeline with AI

One of the major points discussed with the interviewees is the risen quality of lead scoring. Is has become easier to find good prospects with satisfiable conversion rates. The salesperson is informed about new leads and what interest the customer in question might have. This allows targeting offers to specific needs that client has. Especially when the company has existing structured data from the client. However, the interviewees emphasize that ultimately, it is up to the salesperson to execute the actions and make the necessary decisions.

“With AI, it will be possible to search for leads much more efficiently than today and Prospects can be tracked accurately. The software keeps the salesperson informed about the quality of leads and new opportunities. It can identify customer interest, making it easier to approach them. AI is based on historical data, learning and pattern recognition. While the software gives an indication of which leads are

likely to produce the best results. However, ultimately it is the salesperson's own judgement that is the deciding factor." G1

"The software which has artificial intelligence incorporated into it, recommends sales for customers based on the data it receives from them. The quality of leads has improved dramatically, and they lead to much bigger deals than before. It is therefore much easier to predict customer needs." G1

"Automated lead scoring refines prospect prioritization, boosting conversion rates. AI-driven analytics enhances sales forecasting accuracy, aiding strategic planning. Additionally, customer profiling benefits from AI, enabling personalized interactions based on deep insights. These aspects collectively elevate the entire sales process, making it more data-driven and effective" G1 (OpenAI, personal conversation, 24.1.2024).

When it comes to actually executing the actions to achieve better pipeline management, there are varying ways and helpful software to accomplish this. For example, one company has an interactive software, that helps salespersons to prepare for a meeting by asking specific questions that the customer might have. Mainly the interviewees highlighted the software that allows you to track leads and study the scoring given to customers. Additionally, using AI to speed up manual work help in saving the salespersons time to more creative tasks.

"Firstly, chatbot software is useful in helping you prepare for customer meetings and speed up processes in manual work. Secondly, in-house developed AI to assess the quality of leads/prospects. Helps identify customers that can lead to better conversion rates. Thirdly, a proprietary AI training tool to help with interactive sales situations." G1

“Current company has a software in which you can see calculations based on data from customers and sales. This helps in making decisions about sales-related day-to-day work." G1

"In our company we utilize AI tools like Salesforce Einstein for predictive analytics and HubSpot for lead scoring. These tools enhance our decision-making, automate routine tasks, and provide valuable insights." G1 (OpenAI, personal conversation, 24.1.2024).

The utilization of AI also helps in tailoring offers or personalizing presentations or meetings individually to customers, since the data available is much larger in scale. The manual work that is spent in reading through customer material can be done in seconds. This is reflected in customer behaviour, since they have made larger orders due to this. Additionally, it can help predict the customers behaviour in terms of procurement. AI can also help in creativity, and it can be used to make important suggestions for topics and questions that otherwise could have been missed.

“Customer data is much more comprehensive, which helps to tailor your offer. Customers have responded by making much bigger deals. For example, data helps to understand customer needs and make offers based on them. AI also helps identify customer buying behaviour.” G1

“Artificial Intelligence has definitely had a significant impact on the ability to personalise sales pitches. It has prepared salespeople for different situations and tangibly improved their ability to tailor speeches and offers to customers. For example, when working on new customer acquisitions, a lot of emails are sent, and this is where AI can be used as a basis for crafting messages. However, the templates are a bit too generic, so they need to be personalised to some degree. The chatbot also helps you to come up with topics and questions for meetings, so it's also helpful in terms of creativity.” G1

"AI has transformed our ability to tailor offers and personalize interactions. With tools like Salesforce Einstein, customer profiling is more nuanced. AI-driven insights enable us to understand preferences, anticipate needs, and craft highly personalized pitches. Customers have positively reacted, appreciating the tailored approach. This personalization not only strengthens relationships but also contributes to increased customer satisfaction and loyalty" G1 (OpenAI, personal conversation, 24.1.2024).

5.1.3 Considerations when moving to an environment with AI

There are some major benefits to be had when transitioning to an environment or systems that have Artificial Intelligence incorporated into them. Before the decisions were based much more on subjective opinions and feelings, whereas AI cuts right through this, and bases its suggestions purely on data, which is also much more available. As a result, the industry has shifted the focus from products to customers. There are still large companies that have not even considered utilizing the large-scale benefits that AI has to offer. One of the reasons may be the investment that it takes, and it can bee seen as risky. But there is a high chance that the investment will pay itself back profusely.

“In the past, not much AI was used in lead generation because the technology was not readily available. There would be no reason to go back to a time without AI. Companies are using automation more and more every day and the level of digitalisation is high. Large companies have not yet exploited even a small part of the potential of AI. The use of AI may be expensive at first, but it will pay for itself many times over." G1

"Sales have become much more knowledgeable. It greatly improves our ability to anticipate the future. Sales used to be based more on subjective opinion and marketing than on data. the industry moved from a product-centric approach to a

customer-centric approach. Today, there is much more data available which helps to make more informed decisions." G1

"Previously, without AI, processes were more manual, time-consuming, and decision-making relied on intuition. With AI, there's a paradigm shift. Automation has increased efficiency, predictive analytics guide strategies, and personalized interactions are based on data. This transition has not only accelerated sales cycles but also elevated the overall effectiveness of our sales approach" G1 (OpenAI, personal conversation, 24.1.2024).

When implementing and utilizing Artificial Intelligence, the focus should go into the right place to avoid wasting resources and keeping the process streamlined. The key processes that gain the most value from AI is the data processing, specifically structured data, and lead processing. These are tasks that consume a lot of man hours but are also tasks that can be assisted by AI the most efficiently. The priority is to free time for the salesperson to more meaningful tasks, that do not greatly benefit from the utilization of AI.

“There is potential for added value in the generation of leads or in the processing of statistical data. For example, what type of service goes to which type of customer. So purely mathematical or statistical operations would see the greatest benefit from using AI. On the other hand, closing may not have as much benefit.” G1

"There is a very large amount of data available on behalf of the firm. AI could open up a lot of opportunities in handling this data. This could increase understanding of customer needs. A lot of man-hours are spent on data processing, which could be much better spent on preparing for customer meetings, for example." G2

"The most critical area that needs to be streamlined is lead generation. Freeing up salesperson time for critical areas that contribute to closing deals is a top priority." G2

5.1.4 Obstacles concerning the utilization and implementation of AI

Since all of the companies that operate in B2B sales have not implemented Artificial Intelligence into their processes, it needs to be understood why. There have been open discussions about AI operations, but the main reason for why it has not been adopted is a question of resources. Especially for a large-scale company, it takes massive amounts of resources and planning to successfully accomplish this. It is seen as an investment, which has its own risks and benefits, and no action should be taken unless it is absolutely sure that there is a payoff for the investment. Many times, the risks outweigh the rewards. Apart from discussing this at a company level, there has also been informal discussions with colleagues.

> *"Discussions have taken place at team and company level. The reason why this has not been done before is largely a question of resources. The project requires a large amount of planning. It is seen as an investment with its own risks. There is a desire to be sure that the ROI of the project is positive." G2*

> *"This has been discussed informally with colleagues. It has not been formally considered at a company level. Consideration has been given to the procurement of tools at company level that incorporate AI technology. However, the investment was seen as too large." G2*

Artificial intelligence is seen as a tool which needs to be leveraged at the correct point of the pipeline. However, there is a clear sense that the technology continues to improve, and that the role is going to be ever more prevalent, and it is hard to see it stop evolving. Companies need to adapt to the changes that are brought to the industry. Moreover, companies need to also consider the situation case-by-case, since AI can’t be leveraged in every situation.

> *"AI acts as a reinforcing tool in the work of salespeople. However, it is hard to see AI completely turning the sales industry around, or ever fully replacing the*

salesperson. However, the role of AI can be seen to be growing. Companies must strive to stay on top of evolving technologies and explore the opportunities that implementing these technologies can offer." G1

"There is definitely a revolution coming in terms of improving the efficiency of the sales side. Also on the customer side, of course, improvements are coming, e.g. in optimisation. With these you can predict sales, placement and profits in general. However, AI can never completely replace the salesperson, as interactivity plays a very big role. However, the nature of the work may change radically. You simply get more time with fewer resources." G2

“Currently, AI is just a tool. However, it has the potential to revolutionise the sales industry. However, this is dependent on the product as well as the industry. The more customisation a service or product requires, the less AI has the potential to create value. The smaller the customer, the greater the potential for automation. Big companies want more customised services than smaller ones. However, the biggest factor in the end is price.” G2

5.1.5 Future speculation on AI in sales

AI is best used in cases where it assists with the workload of the salesperson. It cannot completely replace the worker, since companies will always require a personal experience, and in the end, only humans are able to deliver this. The more customization a company’s offering needs, the less the AI can help. Currently, the technology cannot replace the interpretability and decision-making that a human has.

"Sales is based on personal expertise and AI could never completely replace the salesperson. However, AI can be useful for some processes. For example, in day-to-day tasks such as setting up contracts. The more the service requires customisation,

the less the salesperson can be replaced. However, the vendor's reasoning skills are still needed for interpretation and making final decisions." G1

The largest potential for AI is in data analysis and the forecasting of sales and customer requirements. The amount of data a salesperson has is immense and it cannot be analysed by him alone. The technology will eventually become indispensable for the industry, unlike any other industry standard programs there are. Almost every process can see the benefit from implementing Artificial Intelligence, but the change is slow and expensive, and it is important to find low-threshold solutions where the utilization can see the most benefit.

“AI has huge potential to transform the sales industry. It can significantly improve processes and sales efficiency. Indeed, more and more AI is being sold. In particular, AI offers valuable assistance in sales forecasting and data analysis, helping companies to plan their operations in areas such as inventory and sales. Vast amounts of customer data can already be collected and analysed, and it is clear that AI will become an indispensable tool in the future in many ways, just like today's industry standard software such as Excel.” G1

"Every process could be made more efficient in some way with AI. However, at the firm level change is slow. The best approach is to find and implement low-threshold solutions first. Progress also depends in part on the technology orientation of employees. In general, these changes that streamline processes are seen as welcome." G2

“AI has the potential to bring big improvements in many areas, such as improving sales texts and prescriptions. It can automate tasks listed as mass work, such as data processing. Lead generation and profiling will also benefit massively from AI. This will certainly impact a firm's ability to improve its bottom line.” G2

"Predictive analytics will become more sophisticated, empowering sales teams to anticipate customer needs. Hyper-personalization will thrive, enhancing customer experiences. Chatbots and virtual assistants will evolve, providing real-time support. Ultimately, AI will drive unprecedented efficiency, foster deeper customer relationships, and revolutionize the sales landscape" G1 (OpenAI, personal conversation, 24.1.2024).

5.1.6 Overview of the results

Believes that AI should get more attention and initiative from the company they work for	83%
Believes that AI will have a major impact in the sales industry in the near future	67%
Believes that implementation of AI definitely has a positive ROI	50%
Has already seen a tangible impact from AI in sales industry	33%

Table 2 Statistical overview of interview results

This table shows an overview of the results in numerical form. The results show that CRM has been implemented in every one of the interviewees companies. According to the answers, most of the CRM systems they use have been outsourced from another company. There were varying levels of use across the board. The majority of interviewees (83%) believe that the company they work for should take more initiative with the implementation or utilization of artificial intelligence. From some of the answers it was apparent that some of the workforce might even be frustrated from the lack of interest from the company. This was also reflected in their answers to the question whether they think that AI will have a major impact on the industry in the near future. And 67% of the participants believe this, however, only 33% have already seen a tangible impact in the industry. So, there are enough evidence to support the believe that AI will gain market share, but not enough to actually have gained a large proportion of it. Lastly, only half of

the participants think that if they were to implement artificial intelligence into their company's business processes right now, that it would return more than it would cost. This may be due to variety of reasons, but some of the interviewees expressed concern about their company's leadership and their ability to carry out such a technologically demanding effort.

6 Conclusions

The purpose of this research was to study how Artificial Intelligence can be leveraged in B2B sales scenarios, and specifically, the sales pipeline. Additionally, where the utilization of AI should be focused and what actions benefit the most from the implementation. In this final chapter the conclusions are drawn from the results and key findings. The results are presented briefly, and these are discussed with existing literature on the field. The conclusions include subjective view on the research topic which is supported by the theoretical framework. This chapter will also include recommendations for practitioners and researchers. Finally, the limitations of the research and its limitations are critically examined.

6.1 Results and key findings

As mentioned previously, the findings are analysed with the help of thematical approach. The answers try to directly focus on the results that align with certain themes identified from the interviews. The main points that arose during the interviews are as follows. Firstly, almost all the participants agreed that the best way to utilize AI technology, is to direct it at places where it can reduce the most amount of the manual work of the salesperson. This is the most efficient way to liberate the salespersons time to be utilized on more creative and impactful tasks, since among the interviewees everyone valued their time above anything else. The top-level task of the sales pipeline that corresponds this is the stage of lead generation. This is also the process which has seen the most progress in terms of Artificial Intelligence. It has become easier to utilize this technology in searching prospects and improving conversion rates. In many companies AI has been slowly adapted or integrated into their existing software, for example their CRM systems. One of the first functions to be integrated is usually lead scoring and/or tracking, which usually consumes a lot of hours from the salespersons work. This finding carries significant importance, since it is one of the established factors which affects the work of salespersons in a positive manner.

In addition to functions concerning lead scoring and prospecting, AI can be a useful tool in preparing for sales meetings. It has potential in tailoring offers due to the usually large amount of historic customer data available in sales companies, especially structed data, which AI has immense processing potential. This offers the availability to predict customer behaviour and their habits of procurement e.g. in terms of seasonality, or their overall processes. These affect the impact of sales pitches done to customers. The more accurate the prediction you can make about client needs, the more likely they are to accept the offer. However, it is important for an actual human salesperson to review the suggestions or offers, since the technology cannot be relied on making 100% accurate suggestions.

Artificial Intelligence in sales processes has largely eliminated a lot of the subjective decision making based on opinions and feeling. This may also be reflected in some of the big companies what have not adopted the technology, since they may feel threatened, especially if AI makes suggestions which contradicts their own. Consequently, the industry has shifted to a more customer centric approach. However, this has been a long process and not necessarily dependant on the evolution of Artificial Intelligence. Another reason for the rejection of AI technologies, is the perceived risk that it brings. Large portion of technology initiatives still fail to deliver the desired results, and this is no different from AI. It takes massive amounts of resources to initiate large-scale technological change to a big international company which a lot of them are not ready to do.

6.2 Discussion

Artificial Intelligence assist B2B sales professionals and may potentially take over some of the responsibilities that were previously filled by humans. The issue is that the decision makers who are keen to implement these new technologies do not fully understand the potential benefits of Artificial Intelligence for B2B sales and the part that sales representatives play in the AI-enabled sales funnel. This knowledge is especially more

important when implementing AI replaces a process previously fully done by humans, and by extension, replacing a part of the decision-making process. However, even then they cannot compete with a human concerning decision involving contradictory information (Paschen et al., 2020). This means that it is highly unlikely that AI will completely replace the salesperson or the work that they do. It is seen as more of a tool, which can be utilized effectively in sales processes if done correctly. Thus, the decision makers should adjust their goals and/or expectations accordingly and on a case-by-case basis. In addition, it should be carefully evaluated which part of the pipeline should be augmented with AI technology.

A key process in which an AI is able to assist is organizing and analysing data. This results in a greatly increased understanding of the drivers behind a customer's decision-making processes. Salespeople can accurately predict customer behaviour and habits of procurement, which makes the bidding process and tailoring offers more effective. This results in increased volume of sales and better conversion rates if an organization possesses the ability to read and transcribe this data. Haleem et al. (2022) find that due to availability of market data, AI can forecast with great accuracy the course of action and help push customers inside the pipeline. The data is rarely incorrect due to the mitigation of human error while structuring data. This is also present when the complexity of relations grows higher (Hastie et al., 2009).

On the other hand, there are many reports where AI falls short. It is important to establish the processes on where and how the AI is leveraged, and to stick to these processes (Sinha et al., 2023). Otherwise, you may introduce risk for inaccurate results, which has been known to happen especially with chatbot software. If the technology is placed incorrectly to the business process, or there are large resource discrepancies e.g. between departments, it could easily result in value co-destruction (Plé & Chumpitaz Cáceres, 2010). This is often the case when employees have not received the proper training and guidance for these systems.

6.3 Recommendations

Future research into this topic could prove useful. Efforts should be made to gather more quantitative data about the B2B processes of large international companies. The scope should be narrowed to specific parts of the B2B pipeline. Preferably the parts with the lowest conversion rates, and to the reasons of the failures to convert. This might be able to prove better insight on to which part of the process should the efforts be focused on with Artificial Intelligence. The semi-structured interviews are an excellent tool to gather data on the process. Research should also be reduced to fewer machine learning methods such as NLP, which has the most potential in the field of B2B sales aside from machine learning itself.

6.4 Research evaluation

The limitations and the evaluation of this research is based on the following principles: biases of research, validity and reliability, and the trustworthiness of the results. Biases of research in this thesis are evaluated by sample selection, data collection methods and the interpretation of the results. Most of the sample selection, or the selection of participants for the interviews, was done by references. The interviewees were contacted after referral, and it was evaluated whether they were a fit for the interview. All participants were selected with the same parameters. However, the research might have benefitted from a larger sample selection, or alternatively, a larger geographical scale. Data collection was done with semi-structured interviews, which all shared the same line of questioning. Additionally, some of the interviews include questions and conversations do not present in others due to the lack of strict structure. Interpretation of results might include personal bias since the analysis was done with thematical approach, which relies on the researcher to draw conclusions on the themes of the interviews.

The validity and reliability of the research is consistent and accurate. The research methods and approaches were selected carefully and the align with the research question,

which raises the research's validity. The results are consistent and could easily be reproduced with the same methods, which increases the reliability of the study. The data collection was well documented, and the questions were based on prior research. The results of the study are also trustworthy and credible. The data collection was systematic and transparent.

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Appendices

Appendix 1. Interview questions part 1

The interview's structured first part remained the same throughout the interviews. Questions regarding to personal information such as interviewee's name or place of work have been redacted from appendices.

1. Artificial intelligence is increasingly being used in sales. Have you noticed impact on your own work, your colleagues' work or the sales industry as a whole, and if so, what kind of impact?

2. What opportunities do you see AI bringing to the sales industry in the future? What changes or developments you speculate it will bring?

3. Do you have a CRM (customer relationship management) system in place?

4. Do you use any AI software or techniques in your sales-related work?

Appendix 2. Interview questions part 2

The interviews in the second part depended on question number 4. and branched off into two different groups depending on whether the interviewee uses AI in their daily work.

Uses AI in daily work (G1):

1. What specific AI tools or software do you use and how do they help you improve your sales?

2. Can you share your experience on how you have experienced the transition from sales market without AI to sales market with AI?
3. How has AI helped you identify potential leads or customers more effectively? Has it led to better lead quality or conversion rates?

4. How has AI impacted your ability to tailor offers to individual customers and/or personalize sales pitches/presentations/meetings? Have customers reacted in any way to this personalization?

Does not use AI in daily work (G2):

1. Have you ever considered incorporating AI tools into your sales routine? If not, which factors have prevented you from doing so?

2. Are you familiar with AI techniques used in sales processes? If yes, what is your understanding of how AI could benefit sales operations?

3. Based on your own experience, what are the most critical aspects of sales that could potentially benefit from the introduction of AI? For example, lead generation, customer profiling or sales forecasting?

4. Based on your own experience, do you believe that AI has the potential to revolutionize the sales industry? or do you see it more as an additional tool?