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THE POTENTIAL OF ARTIFICIAL INTELLIGENCE

Optimizing the B2B sales process of manufacturing companies

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Tekoäly on keskeinen osa ihmisten elämää vuonna 2021 ja liiketoiminta ei ole poikkeus. Tekoäly ja koneoppiminen muuttavat tapaa, jolla yritykset myyvät tuotteitaan. Tämä tutkimus tarkasteli tekoälyn potentiaalia tuotantoyhtiöiden yritysmyyntin optimoinnissa.

Myynnin prosessi jaettiin seitsemään askeleeseen Dubinskyn mallin mukaan. Tätä mallia pidetään arvostettuna ja tehokkaana myynnin analyysin työkaluna. Tämän jaottelun jälkeen kaikki askeleet optimoitiin tekoälyn tarjoamalla sovelluksilla. Tutkimuksen tarkoituksena oli näyttää tuotantoyrityksille kuinka he voivat parantaa myyntinsä tehokkuutta. Ennen kuin näitä sovelluksia tarkasteltiin, tutkimus rakensi fundamentaalisen viitekehysten tekoälyn toimintaperiaatteista.

Kolmea myyntipäällikköä tuotantoyrityksistä haastatettiin heidän mielipiteistään ja applikaatiostaan tekoälyn saralla. Tämä tuki teoreettista mallia käytännön esimerkeillä. Edellä mainitut haastattelut sekä tutkimus näyttivät, että tekoälyä pystytään käyttämään kaikissa seitsemässä myynnin vaiheessa ja se voi mullistaa tavan, jolla yritykset käyvät kauppaa. Oli kuitenkin selvää, että haastateltavien joukosta tekoälyä käytettiin lähinnä tiedonhankinnassa sekä analyysissä johtuen teknologian saatavuudesta sekä hinnasta.

ABSTRACT

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Artificial intelligence is an integral part of the human existence in 2021 and the world of business is no different. The development of AI and machine learning are changing the way companies sell their products. This study examined the potential of AI in optimizing the business-to-business sales funnel of manufacturing companies.

The process of a conducted sale was divided into seven steps according to the model of Dubinsky, which is regarded as the staple of sales analysis. These seven steps were then optimized with AI implementations lifted from prior research. The goal of the research is to showcase how companies can improve the efficiency of how they sell. Before said improvements are analyzed, a fundamental framework of what AI is and how it works was established.

To support the theoretical framework, three sales managers were interviewed on their implementations and general opinions about AI applications. The interviews alongside the research showcased that AI can be utilized in all the seven steps throughout the sale and it can revamp the way companies conduct sales. It was apparent that the implementations amongst the interviewees were mainly limited into prospecting and data analysis due to the availability and price of the technology.

Keywords Sales funnel, AI, Manufacturing, Qualitative

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1 INTRODUCTION

Artificial intelligence (AI) is part of all our lives, and it is revamping the way we do business, sales included. Its presence is ubiquitous, from targeted advertisements on our news feeds to personal assistants chiming away on our phones improving themselves with every command we speak to them. As AI secures footing in the business world its essential to have a strong understanding of what it can and will do for us in the future. AI already powers sales funnels in various industries, the strongest presence being in the field of IT and sales done over the internet.

The improvements of AI have sparked up a larger demand for literature on the topic. The studies assessed for this thesis heavily suggest that AI will be the lead drivers for the changes happening to business-to-business sales in the future. (Syam & Sharma, 2018) There are still a lot of questions in the air when it comes the fundamentals of AI and how it can be implemented into traditional sales models.

In this paper we looked at how AI affects the sales funnel of one of the most traditional industries there is, manufacturing. The process of a sale was divided according to the model seven steps of selling. (Dubinsky, 1981) This model of the sales funnel, even though slightly older, is still seen as the golden goose of sales analysis, making it an excellent sequence to optimize with artificial intelligence.

The goal of this research is to educate the industry on the ways AI can optimize the business-to-business sales funnel. This done by firstly defining B2B sales and AI and their key concepts, secondly analyzing how AI can play part in the sales and finally interviewing three sales personnel from the manufacturing industry about their usage and opinions of AI. Utilizing this trinity will provide the study with a fundamental understanding on how the sales funnel can and will operate with AI optimizations in the manufacturing industry.

2 MANUFACTURING INDUSTRY OVERVIEWS

1.1 Definitions and current state

In order to analyze the operability and potential of artificial intelligence as accurately as possible, it is necessary to limit the focus of the research to a specific field. The field chosen is the manufacturing industry. This is due to their straight-forward and relatively simple sales processes. Implementing artificial intelligence to these kinds of clear-cut supply and demand-oriented chains is the easiest and has the potential to yield the most profit. This is especially true in business-to-business sales, which is our focused angle.

The definition of the manufacturing industry is as follows: “The branch of manufacture and trade based on the fabrication, processing, or preparation of products from raw materials and commodities. This includes all foods, chemicals, textiles, machines, and equipment. This includes all refined metals and minerals derived from extracted ores. This includes all lumber, wood, and pulp products.” (Group, 1996)

The manufacturing industry has slowly reinforced itself as a quintessential driver of most modern economies, as of 2018 it contributed to approximately 20% of the global GDP. Still, its importance is declining as the service industry accelerates its position in western countries. Large companies’ proclivity to move factories to cheaper countries like China and Africa is trending. (Group W. B., 2021)

1.2 Industry 4.0 outlook

The term Industry 4.0 was first brought to the public’s ears in the German Hannover Fair of 2011. It is the coming fourth industrial revolution that focuses on technological automation and maximum efficiency. It is an umbrella term for a plethora of different technologies such as the Internet of Things, machine learning, big data and blockchain.

The full potential of 4.0 in manufacturing companies is extremely difficult to calculate, as its complete launch will cause an unprecedented paradigm shift. It will improve the manufacturing companies’ ability to smart manufacture and instrumentalize real-time capability and interoperability to maximize their efficiency and value-creation structures. Industry 4.0 will most likely also produce completely new business models. (Pöllänen, 2019)

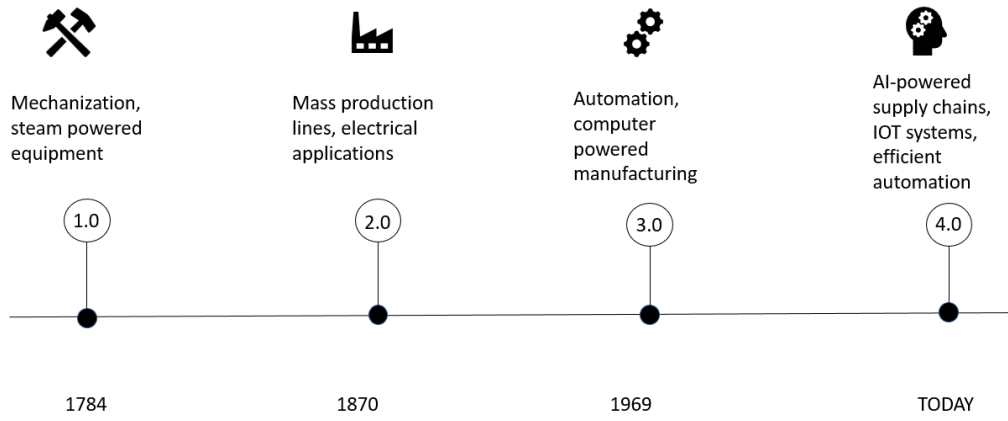


Figure 1: Industrial revolutions

2 ARTIFICIAL INTELLIGENCE

Artificial intelligence is undoubtedly a popular word in the current decade. It is part of all of our lives, and most of us are using it, sometimes even unknowingly, every day. Something as simple as telling your phone to set a reminder is a product of decades of research and development of the AI.

The coming of Industry 4.0 is inevitably close, and it stands to revamp our economical principals in way that has been unprecedented since the 17th hundreds. In this paper we are focusing on a very specific sector of 4.0, artificial intelligence. Before we can start analysing how AI can be used to optimize the B2B sales processes, we first must set parameters to its definition.

2.1 Definition of AI

Artificial intelligence most commonly refers to the ability of a computer or a computer operated robot to perform tasks that are traditionally only executable by an intelligent human mind. The modern AI applications can now effortlessly surpass the capabilities of the human cognition in certain fields. For example, AI can calculate chess games way faster than a human can, hence beating the greatest chess minds almost effortlessly. The potential for the growth of AI is infinite, this means that the possible gains or ramifications are also infinite. (Copeland, 2020)

2.2 Machine learning

Machine learning is an important concept that walks hand-in-hand with AI. In a nutshell, machine learning means the machines capability to improve itself without or with minimal human input. This is done through a myriad of different algorithms and theorems. Machine learning is the method that AI uses to improve itself.

A more scientific definition is on the book Machine learning, by Tom Mitchell and McGraw Hill (1997). It stands; "Machine learning is the study of computer algorithms that improve automatically through experience. Applications range from datamining programs that discover general rules in large data sets, to information filtering systems that automatically learn users' interests." (Mitchell & Hill, 1997)

Before we can observe the ways, machines learn further, we first must define what learning is in the first place. Most humans can rely on common sense when drawing conclusions to aid them in their learning, for AI this is not possible yet, so every conclusion needs to be calculated. To demonstrate this, we will paraphrase the examples of animal learning provided by Shai Shalev-Shwartz and Shai Ben-David in their 2014 paper: *Understanding Machine Learning: From Theory to Algorithms*;

Bait shyness – Rats learning to avoid poisonous baits: As a rat sees food available for consumption with an unknown appearance or smell, they will only eat miniscule amounts at first, and will only continue eating the food if it does not cause any negative effects on the rat. If the food causes an ill effect the rat will remember it and refrains from eating the said food in the future. This negative label is an example of learning by past experience.

This same method can be used by AI for example in spam email filtering. The machine simply memorizes all of the previously flagged spam emails by the human. As a new mail arrives, the machine cross-references it to the previous spam emails, if it matches, it will be trashed. The problem with this method is that it is very limited, a great learner must be able to move from individual examples to larger generalization. The machine can accomplish this by scanning the previous emails and looking for key-indications of spam. These could be for example, keywords, poor grammar or unusual formatting. This is a far more effective method, but it can still lead to false conclusions. To illustrate the possible false learnings, lets look at another example from the paper;

Pidgeon superstition: This was an experiment conducted by a psychologist B. Skinner, he trapped hungry pigeons in a cage. The cage had an automated food delivery system that fed the birds on a standardized interval that was not affected by the birds' behaviour. As the food kept getting delivered the birds would keep doing the same action as they were doing upon the time of the first delivery (pecking, turning head, cooing etc.). The arrival of food reinforced the action, even though the action had nothing to do with the delivery.

Therefore, it is very important for the machines to be able avoid falling to superstition while learning. Because the machine cannot rely on common sense, it needs found principles to avoid drawing useless conclusions. The importance of proper incorporation of past knowledge and effective bias in the learning progress is unequivocal when developing an effective AI. (Shalev-Shwartz & Ben-David, 2014)

2.3 How does AI work?

AI generates its results through descriptive and predictive analysis of existing data that is fed to the system. AI can be applied to large data sets in order to generate new information and insights, which in turn can be used for better decision making, predictions and forecasting. (Abhang & Sherin, 2018)

A myriad of technologies and processes are functioning under AI. For example, machine learning algorithms solving complex problems. The algorithm uses historical data to predict events that will happen in the future. Natural language processing is a tool used in decoding text and speech of humans with goal of extracting and allocating information. Artificial neural networks are the main tool behind deep learning, predictions and real-time analysis. These three instruments are the main drivers of AI applications. (Kreutzer & Sirrenberg, 2020)

The core principle of AI technology works with an input-process-output formula. The technology needs data sets from an external source like a human or equivalent, which is the input of the system. After this the system will process the data sets as it is instructed to do using the models it has learned/been programmed to use, for example machine learning, natural language processing and artificial neural networks. When the system has processed the data according to the set parameters it produces the results or the output. (Kreutzer & Sirrenberg, 2020)

Below is a block chart demonstrating this process. It is designed according to a similar chart withdrawn from a research paper by Ulrich Paschen, Christine Pitt and Jan Kietzmann.

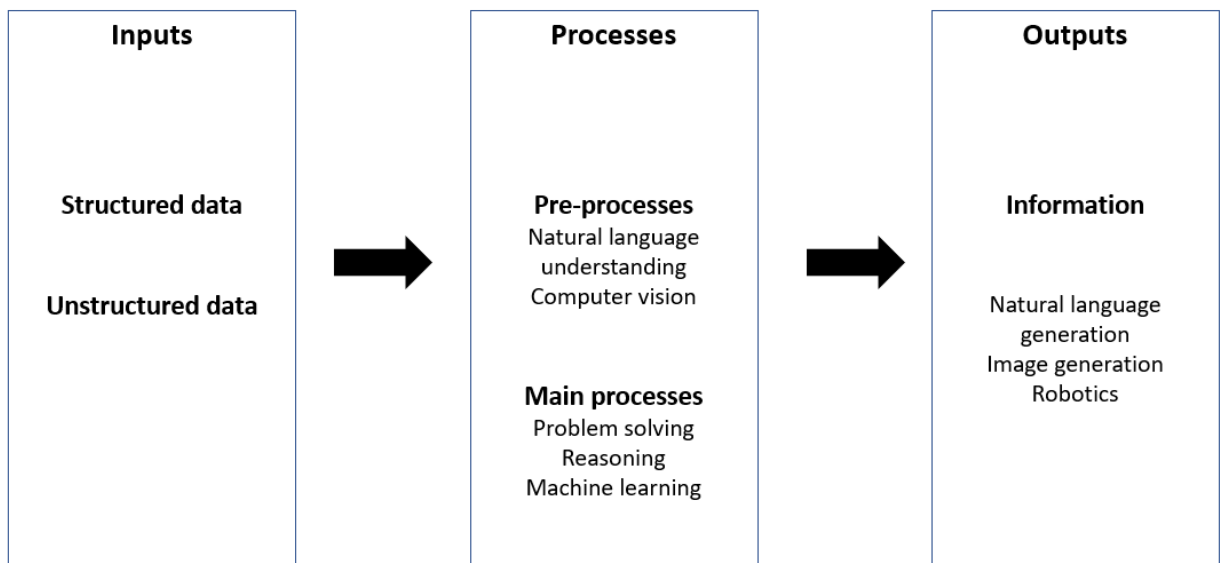


Figure 2: AI Input-output

2.4 Practical examples of AI

Artificial intelligence is a word that everyone has heard of, but when asked about a practical example of it, a lot of people might draw a blank. For demonstrative purposes, the study listed practical examples of AI in everyday life. This is done in order to make the rest of the paper easier to digest.

A common example of AI is the automatic search results of Google and other search engines. When a consumer uses the search engine it automatically fills in your search inquiry, or at least attempts to do so. This is made possible by AI. The numerous algorithms in place behind the search engine cross-reference the users personal search history and web browsing habits, the most trending searches in the geographical area of the user, and the key words and letters that are being typed into the search field.

It then makes a few estimates on what the user could be trying to search for. The results accuracy is dependent on the amount of data the system has available at the moment. For example, if the user has cleared the cookies and search history on their account, the

guesses lose accuracy. The loss is not very noticeable though, this is due to massive amounts of data that Google has at its disposal. (Google, 2020)

Another example is automated credit decisions. Whenever a customer applies for a loan or a line of credit, the financial institution must determine whether or not they can accept the application and which interest rate and loan amount are realistic for the client. Almost all the current banks have some kind of algorithm in place that searches the credit score, income, spending habits and previous and current commitments of the customer. These AI advancements are the reason that most of the loan applications can be accepted or denied in a matter of seconds.

The most ubiquitous form of AI in the everyday life of 2021 are personal assistants. Essentially every person who has a smartphone in their pocket has state of the art artificial intelligence right alongside it. The most popular voice assistants are Google Assistant, Siri and Amazon Echo. They can complete a plethora of tasks; set reminders, make phone calls, write messages, search for nearby services and answer technically any question that could be answered by doing an internet search. Thanks to machine learning they are constantly improving and tackling more and more complicated commands.

2.5 Brief history of AI

The term artificial intelligence was first intruded to the public in 1956, the first famous scientists working with early AI implications were people like Norbert Wiener and Alan Turing. There has been some theoretical speculation as early as the 17th century. The early AI researched explored topics varying from problem solving and symbolic methods. In the 1960s, US defence forces took interest in the potential of AI and started training computers to imitate rudimentary human reasoning. (Goodnight, 2020)

3 BUSINESS TO BUSINESS SELLING

Before looking into the possibilities of artificial intelligence optimization on the B2B sales process, let us overview the general way a B2B sales transaction comes into place.

The B2B sale transaction is divided into seven main stages; prospecting, pre-approach, approach, presentation, overcoming objections, closing and follow up. (Syam & Sharma, 2018) This seven-step process is called the sales funnel. It originates from the seven-steps of selling by Dubinsky.

Below is a figure showcasing the main theme of each step. All the steps naturally include a myriad of other nuances and sidesteps.

Table 1: Seven steps of selling (Dubinsky, 1981)

1.Prospecting	Searching potential customers and evaluating their buying tendencies.
2.Pre-Approach	Deepening understanding of the prospect
3.Approach	Contacting the prospect
4.Presentation	Showcasing the problem-solving characteristics of the product sold, e.g., pitching.
5.Overcoming objections	Negotiating the terms of the purchase and answering the questions and objections that follow from the presentation.
6.Closing	Presenting the prospect with an agreeable contract
7.Follow up	Fulfilling the agreed upon contract, prospecting future needs, up- and cross-selling and ultimately forming a long-term partnership.

3.1 Differences between Business to Business and Business to Consumer sales

When looking at the business-to-business sales funnel it is important to differentiate it from business to consumer sales. There are six key aspects that make B2B sales a much more complex operation.

The first difference is the number of leads. With B2C sales the number of potential buyers is larger by an order of magnitude. For example, if a company is selling phones the size of the lead pool for the market is all the people with a need for phones, essentially hundreds of millions of people.

When swapping over to B2B the size of the pool shrinks notably and is restricted by the company's specific requirements. B2B sales are more commonly revolving around tailored solutions. (Sincavage, 2020)

Retail sales often influence the consumer on an emotional level, and the purchasing decision can be made on a perceived need instead of an actual one. Impulse purchasing is also a factor that does not affect the B2B purchasing decision.

The consumer market is built with the goal of making the customer fall in love with the product, this is done with clever marketing campaigns, slogans, mascots and any other tools available that will trigger an emotional response from the consumer. This is direct juxtaposition with the B2B counterpart where the purchase decisions are based on direct demand or possibilities of bettering the business in some way.

The B2B deals are almost always much larger and more expensive than B2C purchases. Even larger B2C transactions, like for example real estate, can be insignificant compared to contracts between two large companies. This also usually leads to a different method of payment. Cash is rarely used in B2B sales.

Due to the larger nature of the purchases the sales process is considerably longer. While B2C sales are usually predicated on an instant purchase, getting through the B2B sales funnel can take months. (Boddington, 2021)

The number of stakeholders is one of the most important differences between B2B and B2C sales. In a business to consumer sale there is generally only one person as a stakeholder, the consumer. In a business environment there are multiple.

- Purchasers: A team of people who research the industry and short potential options. They have the first conversation with the sales representative. The purchasers are usually doing this as their full-time occupation.
- Users: The people who will be using the product/service in question.
- Advisors: Third-party consultants, industry analysts or just employees with expertise with the good purchased. They influence the decision by giving feedback on the shortlist and making reduction or additions to it.
- The final decision maker: This is the person or entity who gives the final green-light for the purchase. It could be a high-ranking officer in the company e.g., CEO or CPO or the board of stockholders.
- Compliance: The security department of the company that protects them for risk-heavy purchases. Usually includes personnel from procurement, legal and IT departments. (Premkumar, 2003)

4 THE KEY FOCUS-POINTS

Without sales a business cannot thrive. The methods of sales are constantly changing, and this creates gaps between the expectations of the salesmen and customers. Timo Kaski alongside his colleagues wrote a paper on these gaps. In the paper Kaski divides the expectations in to two- categories: zero disconfirmation (The sellers' and customers' expectations align) and negative disconfirmation (The customer expects more). If we look at the negative disconfirmations, we can get a good understanding on the key-drivers and the improvement points of B2B sales. The negative disconfirmations are as follows; customer insight, long-term partnership, follow-up, active listening and tailored solutions. (Kaski, Hautamaki, Pullins, & Kock, 2017)

4.1 Customer insight

“Sometimes, salespeople may try to diminish the role of customer insight arguing that customers are more or less similar to each other. However, some salespeople did bring it up, often discussing it on a “title level” only, not being able to specify the meaning to the same extent as buyers. Thus, buyers' expectation of in-depth customer insight did seem not to align with the sellers.” (Kaski, Hautamaki, Pullins, & Kock, 2017)

Customer insight is defined as an understanding about your customers, which if acted upon, has the potential to change their behavior for mutual benefit. In a B2B environment it can be improved by putting more effort in to understanding the behavior and characteristics of the customer. Understanding how the customer behaves increases the effectiveness of the sales drastically.

The three steps from the sales funnel that effect the seller's ability to reach the optimal level of customer insight are prospecting, pre-approach and approach. Let us take look at the steps and how we can improve them with AI:

4.2 Prospecting

The prospecting aspect of the sale is very time-demanding and requires a lot of expertise and intuition from the salesperson. Also known as lead generation, prospecting is the task of finding potential customers. This can happen through multiple channels. For example,

the potential lead can give out their contact information through a sales inquiry. The company might also “cold-contact” potential prospects through various channels. Cold-contacting i.e., cold-calling, refers to a method of sales where the prospect has not implied any interest in the product.

After a list of prospects is made the pool needs to be narrowed by scoring them. The leads are rated on their ability and willingness to buy the product in question. The goal of this task is to maximize profitability by not wasting time on leads that are not the most potential. The name of this venture is lead qualification which is a challenging and time-consuming task. (Järvinen & Taiminen, 2015)

AI is excellent in analyzing structured and unstructured data that is needed to segment and list the prospects. Natural language understanding is able to analyse textual data e.g. emails and social media posts by identifying keywords, interests or themes from them. The potential is not limited to only text, AI can execute the same operations to video and audio too.

These skills in addition to AI’s ability to process data, such as internet traffic, alongside offline data like roles of prospects in the client company, can be used to build an excellent pool of prospects. Machine learning will also optimize and improve the processes the more AI is utilized. (Syam & Sharma, 2018)

4.3 Pre-Approach and Approach

Next step after the lead has been prospected and scored is pre-approach and approach. These two stages are generally analyzed together, and research implies that they are merging. (Syam & Sharma, 2018) The main purpose of these steps is to compile more detailed information about the leads, like for example, demands, habits, preferences and other relevant topics. During these steps contact is also made. Doing in-depth research and providing the lead with custom and ad hoc content is called lead-nurturing.

The approach part consists of contacting the lead through a chosen medium and of building trust and reputation with the potential customer.

AI can affect these steps in multiple ways. It can automate the mundane tasks, like scheduling meetings and writing follow-up emails. It also enables the personalized and tailored communication to the leads based on the information collected. This is known to the public as targeted advertisement and can be seen utilized in the B2C market too.

AI is also able to deduce the type of content that is probable to appeal to the prospect based on the type of content previously consumed. AI tools can be used to find commonalities in the details of top-rated content. Also, AI is advanced enough to offer real-time recommendations on how to better content, what the best delivery medium could be, and on the format of the communication. (Paschen & Wilson, 2020)

A company called ServiceMax has a track record of implementing machine learning to optimize their websites customer journey with machine learning. The tools listed before were utilized and it led to a decrease in bounce rates by 70% and doubling on the time visitors spent on the site. (Fleming, 2019)

4.4 Follow-up and long-term partnerships

“Customers reported that they strongly expected the salesperson to be proactive and responsive in contacting, interacting and following up. They clearly expected to be part of a professional sales relationship. This kind of expected service attitude seems to be understood by the salespeople; so, the probability of meeting customer expectations in this environment should be relatively high. However, buyers’ narratives for failed cases often referred to underperformance in this area or at least dissatisfaction regarding salespeople’s follow-up performance.” (Kaski, Hautamaki, Pullins, & Kock, 2017)

Follow-up consists of two main parts: completing the current order and following up after the completion of the first order. The completion process consists of recording the order, order process initiation, inventory management and order fulfillment through the supply chain and procurement channels. The post-completion follow-up includes looking at the satisfaction of the client, prospecting future needs of the customer and the attempt of

building the aforementioned long-term partnership via getting the client into the sales funnel again. (Syam & Sharma, 2018)

AI's involvement in to the follow up stage optimization can present itself in a myriad of ways; It can automate parts of the process (paperwork, inventory management and supply chain management), This would free up the resources of the sales force from mundane tasks to focusing on more important aspects, e.g., starting up new negotiations. Although AI has potential to assist in this too. For example, chatbots can be a great tool in initiating communication with client and starting the discussion about the customer satisfaction rate and future prospects.

AI can also be used as an analytical tool when determining whether the formation of a long-term partnership is feasible based on the client's future needs. This can be accomplished by analyzing behavioral information and buyer data. Machine learning has great potential to teach the AI which products are easy to sell together, which components are the most likely to be purchased as upgrades later and even produce calculated data on the advantages of purchasing specific packages. This data then can be in turn turned into executable pitches for future meetings.

Consistent follow ups do not have to be a time consuming, thanks to the tools available today. The process can technically be completely automated. (Syam & Sharma, 2018)

4.5 Active listening and Presentation

“This well-known important aspect of selling was frequently not executed. In our interviews with buyers, they observed a lack of listening. There were a number of examples where customers suffered from a lack of active listening or processing, a failure to demonstrate interest or adjust the dialogue accordingly.” (Kaski, Hautamaki, Pullins, & Kock, 2017)

There is a common issue with sales in today's business environment, that is long and objective pitches. The presentation should be short and tailored to the specific customer. The same ideology transfers to the actual solution sold as well. Of course, you should

have a well-defined product to pitch, but the key word is adaptiveness. B2B sales are all about fixing a problem, you are selling a solution not a product.

At the presentation phase the sale is nearing a close. The seller demonstrates the problem-solving capabilities of the product and summarizes why the deal is lucrative for the buyer. Also, during this stage, the selling party designs and presents the offer for the client's specific needs and provides a prototype of the product being sold. (Syam & Sharma, 2018)

AI can prove to be useful tool in optimizing the presentation process. There is already precedent of a company using AI to take rough ideas and sketches from a drawing board and turning them in to an executable presentation almost instantly. (Kreutzer & Sirrenberg, 2020)

Algorithms powered by machine learning can analyze and dissect existing presentation material, pinpoint the main drivers and ideas from it and recommend optimal layouts and content. These algorithms are a strong advantage with making the sales professionals more compelling presenters. Language understanding, computer visual and vocal recognition, in combination with AI powered algorithms, can recognize verbal and non-verbal cues in communication patterns. For example, AI can execute a sentiment analysis on the pitcher's speech patterns, dynamics and tone and juxtapose the results against the desired norms thus providing instant feedback on the presentation. (Paschen & Wilson, 2020)

4.6 AI OPTIMIZED SALES FUNNEL

Artificial intelligence is quickly developing from an utopistic idea to a mandatory reality. It will inevitably penetrate all areas of business and life in the future. Businesses that want to stay ahead of the curve are already implementing AI into their processes. 53% of companies have implemented or at least researched AI applications in their operations according to research done by Forrester in 2019.

The sales funnel we looked earlier was utilizing the seven steps of selling. (Dubinsky, 1981) Now let us review the same steps with AI provided improvements.

Table 2: AI optimized sales funnel

1.Prospecting	<p>Generating leads: AI can help find potential customers by searching internet databases and building profiles or via personalized and ad hoc tailored marketing. (Syam & Sharma, 2018)</p> <p>Qualifying leads: AI can rate the potential buyers based on their demand for the product and purchase potential. (Paschen & Wilson, 2020)</p> <p>Contacting leads: AI can help automate the contacting process and optimize the contacting strategy e.g., when and how to reach out to the lead (Syam & Sharma, 2018).</p>
2.Pre-Approach	<p>Lead nurturing: AI can give the company an advantage as it can gather and analyze information about the buyer much quicker and release human resources for other tasks. (Syam & Sharma, 2018)</p>
3.Approach	<p>Lead approaching: AI can be used to automate mundane and routine tasks as; scheduling, answering common questions and even making the first contact via for example chatbots. (Paschen & Wilson, 2020)</p>
4.Presentation	<p>Presenting/pitching: In the presenting phase AI can prove useful in a plethora of ways. It can be used to create an interactive and engaging presentation with the help of tools like virtual and augmented reality. It can help with analyzing and op-</p>

	<p>timizing data to produce the best points of presentation for the client. AI can even be used to analyze the emotional reactions, which in turn can be used to optimize the presenters body language, eye contact, speech patterns and other gestures. (Paschen & Wilson, 2020)</p>
5.Overcoming objections	<p>As in the presentation phase, AI programmed to analyze emotional response proves to be an asset here too. AI can be used to create battle cards and pitches to help the business get ahead of the competition and help present the product's added value in a more effective way. AI could even automate the whole process via chatbots. (Syam & Sharma, 2018)</p>
6.Closing	<p>Closing is straight-forward process that does not have much to gain from AI, given that the overcoming objections part is completed properly. AI's main potential in closing is automating order fulfillment and processing. (Paschen & Wilson, 2020)</p>
7.Follow up	<p>The follow up process has two main parts, fulfilling the order and following up after the order has been fulfilled. The follow-up process can be entirely automated with AI. (Paschen & Wilson, 2020)</p>

5 CHALLENGES TO CONSIDER WITH IMPLEMENTATION

5.1 PEST

The use of artificial intelligence has become increasingly popular during the last decade, but it is still a very divisive topic. While it has great and inevitable potential in optimizing and utilizing business practices, AI still raises concerns. Moral and ethical questions are pressing. Therefore, conducting a pest-analysis is instrumental for the research. We must look at the political, economic, sociocultural and technological factors and requirements that a company/country needs to make for the implementation of AI to be feasible. (PESTLEAnalysis, 2020)

5.1.1 Political

Some instances demonstrate that artificial intelligence can be a threat to democratic institutions. These threats can range from data-surveillance and privacy breaches to election hacking. (PESTLEAnalysis, 2020)

While the potential and prior political controversies do not directly affect AI's business applications it is something to keep in mind as it can affect the public opinion.

5.1.2 Economical

Implementing AI into a business is unequivocally expensive and requires numerous man-hours in research and development. This limits the availability of AI to larger companies with capital to spare. Of course, as the technology develops, the price will come down alongside it, as it already substantially has.

According to a report conducted by MIT Sloan Management review, 50 billion USD was spent between corporations globally in AI development. 10% of the money led to profitable tools. The majority of the money funneled into AI applications is used in research and development. This puts into perspective the costliness of successfully developing an AI powered system. (Jeans, 2020)

5.1.3 Sociocultural

When talking to people from different cultures about AI one will be met with either doubtful cynicism or enthusiastic optimism. AI seems to have a highly polarizing effect on people and organizations who are evaluating its potential. A lot of this is due to misperceptions about the functionality of AI in society and business. Often the reluctance to embrace AI boils down to a cultural issue. (SAS, 2018)

There are countries and cultures that still highly appreciate old-fashioned and traditional values. These societies might display disinclinations with doing business with companies who are using artificial intelligence in their sales funnels, which in turn might be obstructive to globalizing the business's ventures to said country.

Most western countries are already deep into AI research, alongside a few Asian countries. Countries with high scores on the following cultural dimensions might have issues with AI implementations:

- Power distance = high power distance indicates that the culture accepts power differences and inequality, encourages bureaucracy and high respect for rank

Societies that have a respect and yearning for high power distance might be skeptical towards AI applications as they often take over manpower requiring jobs and while doing so shorten the power distance.

- Uncertainty avoidance = indicates a low tolerance for uncertainty and risk-taking

Even though major advancements have been done in the field of AI, it is still in the early stages of its full adaptation. This means that embracing the new possibilities that come with it will undoubtedly require tolerance for uncertainty.

- Short-term orientation = focus on the near future, emphasis on quick results and respect for tradition

AI is not a traditional method of doing business, nor will it be for years to come. Due to this, short-term orientation is not an optimal dimension for AI applications. Even though AI will inevitably yield quick results when fully optimized.

5.1.4 Technological

AI requires substantial amounts of computing power to develop and upkeep. Machine learning and deep learning demand multicore processors and state of the art GPU's (graphics processing unit). A CPU (central processing unit) based system can handle the elementary AI work, but deep learning requires multiple datasets and deploying scalable neural network algorithms. For this CPU computing might not be enough. GPU's can accelerate deep learning 100 times more effectively than CPU's. (Kerravala, 2018)

AI operations also require a lot of storage space. The amount of space required is dependent on the types of calculations used. For example, a trading software needs a large reserve of flash data. Also, the very nature of machine learning is very data heavy, the more information the system processes the better it will become.

AI is considered to be a "three-legged-stool", the legs being network, servers and storage. All the components of the trinity need to be equally fast for the system to operate smoothly. (Hoftsee, 2019)

No matter what the end use is, AI's and machine learning's success depend on the quality of the infrastructure behind it. It is heavily dependent on the quality of the data that is fed into the system, and the allocation of quality data requires quality systems. This means that the target businesses and countries need to be technologically advanced enough.

The dimensions are lifted from the cultural dimension theory by Geert Hofstede.

5.2 Internal considerations

As we can see from the previous sections of the paper, the potential of AI in optimizing the B2B sales process is very substantial. These optimizations do not remove the need of professional salespeople yet and there are many things to consider when implementing AI in order to extract maximum value.

The company must train their sales personnel and other staff to use AI and interpret the output data properly. AI can create enormous value, but it still requires human input and upkeep to make sure it is operating properly with the given data sets, especially in the

early phases of the adaptation. Employees will need to learn new skills in order to extract the value from the system. (Hoftsee, 2019)

AI systems are able to analyse big data in real time and transform the data into useful information. Regardless, human intelligence is essential in deducing insights and implications from the AI analysis. Deciding on the proper course of action from the generated data is where human performance, for the time being, outscores AI. AI cannot display emotional and social competencies to the same degree as humans can. Therefore, it is important to understand the necessity of human cognition when considering AI applications. (Syam & Sharma, 2018)

It is fair to expect that AI will be met with resistance from the workforce as it can threaten to make a myriad of human jobs redundant. Those in positions of leadership in the companies must make it clear that the human input is still essential in the sales funnel. It would be faulty to assume that personal human touches would be unnecessary in the AI-powered world.

With AI more information will need to be stored, collected and be easily accessible. This will also increase the requirements for information security. It would be wise for the companies to reinforce their information security systems to guarantee that their data and customer privacy is protected. One of the key drivers of AI is to build a more detailed and granular profile of customers, by identifying and analysing customer behaviour across multiple platforms and mediums. This means that there might some issues with making distinctions between identifiable and un-identifiable data. This blurs the distinction between identifiable and non-identifiable data and could prove challenging for firms to not violate the legal privacy requirements. (Paschen & Wilson, 2020)

6 RESEARCH METHODOLOGY

6.1 Design and aim of the research

The aim of this study is to showcase the potential of artificial intelligence in optimizing the B2B sales funnel of manufacturing companies. This is achieved by establishing a theoretical framework of AI and its business applications and juxtaposing this framework to interview answers of sales managers in the manufacturing field. This juxtaposition will lead into a broader understanding of the potential and state of AI in Finnish multinational manufacturing companies and of the current state of understanding and opinions of AI. This type of study type is referred to as descripto-explanatory (descriptive and explanatory) it is used to answer question like who, what, where, when and how. (Saunders, 2019)

The data that the interviews are based on are lifted from a myriad of studies on machine learning, AI and B2B selling. The key theoretical frameworks are the seven steps of selling and machine learning. Due to the scarcity of data and the need for expert insight, a qualitative research method was chosen, more specifically a qualitative interview. The prior research studied for this thesis also almost exclusively were done in a qualitative manner.

Qualitative research is a method of data collection and analysis of non-numerical data (e.g., text, video or audio) to comprehend a concept, opinion, method or an experience. It is used to gather in-depth information about a topic. It is the opposite of quantitative research which is used to collect and analyze numerical data for statistical analysis. As the name itself implies, the method prefers the quality of the data over quantity. (Bhandari, 2020)

6.2 Method of data collection

The method of data collection in this study was a semi-structured qualitative individual interview. In qualitative research there are three main types of interviews: unstructured, semi-structured and structured. Semi-structured interview is an approach relying on developing a dialogue between the interviewer and participant. This approach gives the participant more room to express their opinions, ideas and experiences on the topic than a

more survey-like structured interview. As a trade-off, it requires more skill from the interviewer to extract clarity and elaboration on the answers given. (Sachdeva & Iliev Rumen, 2009).

This approach gives the participants more room to express their thoughts about AI in the sales environment more freely. The structure of the conversation was built around the seven-steps of selling and the AI applications that can optimize it further. The entire format for the semi-structured interview is attached to this study as appendix 1.

6.3 Data reliability

In qualitative research the reliability of the answer is the responsibility of the interviewer. It is important to avoid miscommunications or misunderstandings. (Saunders, 2019) These misunderstandings were mitigated by the interviewer via summarization. After an answer was extracted from the participant the interviewer summarized the answer and asked for verbal confirmation if this is what the participant meant and if they wanted to modify the summary in anyway. This alongside a thorough explanation of the framework used (seven steps of selling) mitigates the mentioned risks.

As the majority of the interviews were conducted in Finnish and the language of the study is English, translation of the answers could also prove to be a possible weakness in the reliability of the data. As the interviewer spoke Finnish as a mother tongue and English fluently, the risk was minimized by the lingual skills of the interviewer.

6.4 Limitations of the study

This study focused on the executable optimizations that AI can provide to the B2B sales funnel in manufacturing industries. As the technological aspect of how AI and the algorithms work on the coding and technological level were merely brushed upon, the validity of the framework is limited to the results of prior research.

The study sample was limited to three companies and three representatives from the respective companies. The small sample size affected the results of the study, which did prove challenging as not all of the participants had extensive enough experience in AI to

provide feedback on all of the seven steps of selling. However, the thesis statement could be supported by the prognoses and opinions of the participants as well.

7 INTERVIEWS

The participants of the interviews were three sales managers or people with a similar position from manufacturing companies with operations in Finland. The companies were chosen as randomly as possible to accomplish an unbiased overview of the state of AI applications in the field. All the participants also were from companies of the same calibre, i.e., the companies all had over 100 M € turnovers. This distinction is necessary due to the large costs related to AI; the bias that comes from the high cost of AI was minimized via these criteria.

Full anonymity was offered to all the applicants, as some of the information given in the interviews might be bound by a non-disclosure agreement or by some other reluctance that could have hindered the results of the study. All of the participants wished to remain anonymous, hence they will be referred to with pseudonyms. The companies they represent and their positions in them will still be introduced, just in a manner that makes them unidentifiable.

Due to the current pandemic that was affecting the world during the time of this study, two of the three interviews were conducted via videocalls and one of them face-to-face. Giving the participants the possibility to take part in the interview from the comfort of their own office/home also opened a possibility of a more comfortable interview for the participants, which could have positively affected the conversations.

The interview was conducted in a semi-constructed manner and it had three main phases. In the first phase the participants introduced themselves and their duties in their respective companies. In the second phase we established the structure of interview, the seven steps of selling and the AI powered sales funnel. After this we discussed how AI is present in the company's operations as the customer moves through the sales funnel. In the final phase the participants were given an opportunity to talk about their general opinions of AI and how they think it will affect their operations in the future. The interviews spanned between 30 and 60 minutes.

All but one of the interviews were conducted in Finnish and the quotes used in the data analysis are translated and /or paraphrased.

The first participant was an area sales manager from a Finnish branch of a multinational corporation. They operate in the electrical field of manufacturing with a heavy emphasis on robotics and automation. The Finnish branch of the corporation had a turnover of over 25 B USD per 2019. (Finder, 2019) The participant will be referred to as participant A and company as company X going forward.

The second participant was a team sales manager of a Finnish company that has international operations and is globally known. They specialize in manufacturing logistics equipment and machinery. The company has a turnover of over 600 M € per 2019. (Finder, 2019). This participant will be referred to as participant B from company Y going forward.

The final participant is the only of the three that is not in a managerial position. He is a senior sales representative in motor manufacturing company. The company had a turnover of over 100 M € per 2019. (Finder, 2019). The participant will be referred to as Participant C from company Z going forward.

Table 3: Interview participants

Participant	Company	Field of manufacturing	Turnover	Duration
A Area sales manager	X	Electrical	over 25 B €	60 minutes
B Team sales manager	Y	Logistics machinery	over 600 M €	40 minutes
C Senior sales representative	Z	Motors	over 100 M €	30 minutes

8 FINDINGS

This study was set out with the goal of understanding the potential AI brings to the field of business-to-business sales. The seven steps of selling -model proved to be the best candidate when it comes to categorizing the different types of AI possibilities in the sales funnel. The model was used in multiple other studies that revolved around AI and sales. Hence, this study attempted to showcase the potential and future of B2B sales through explaining the AI optimized sales funnel and presenting the model to the interviewed participants. The degree of AI that was used in the chosen companies could this way be directly implemented into the previously used table.

Alongside talking about the practical AI applications, or there lack thereof, used in the companies, the participants were also given the opportunity to talk about their personal opinions and prognoses of AI. This prompted the possibility to extract data even if the case was that practical applications have not been made into the company.

8.1 Prospecting and pre-approach

Prospecting is the part of the sales funnel that includes finding potential customers via different information channels. These channels might be internal or external, old contacts from previous transactions can also be utilized.

Pre-approach is the part of the sales funnel where deeper understanding of the lead is established, also known as lead nurturing. Research implies that the pre-approach step is merging into the prospecting and/or approach steps and especially the AI implementations are usually executed during the prospecting part. (Syam & Sharma, 2018)

The participants were asked whether or not and how they use AI in their prospecting. The answers showcased us that the presence of AI revolves in automated information gathering. Participants A and B told that most of their prospecting is done by artificial intelligence. Participant C was not aware if AI was present in company Z's prospecting, but he thought it likely.

Both A and B agreed on AI making the prospecting phase faster and much more efficient as it allows the sales personnel to spend their time in more valuable tasks along the sales funnel. Participant A remarked that: "Salespeople should not focus on prospecting their

selves, and rather have ready to use list of leads provided to them”. This was also the protocol in participant C’s company, so it is likely that they would have at least some presence of AI in the prospecting phase.

Participant B shared to the study how company Y’s prospecting takes place. They have an AI powered program which searches internet databases, social media, newspaper articles, public tax records and companies’ websites for information according to set parameters. These parameters could be for example turnovers and sizes of past projects. When the program finds matches to the given criteria it seeks out contact information for the company and then outputs all the wanted data into a spreadsheet. It will also rate the leads according to the degree of the criteria met. According to B this gives the sales team an excellent starting point to start approaching the leads.

Participant A was reluctant to share the details of AI’s presence in their prospecting. He did admit that it was used, at least to degree, the same way as the study established in the “AI Optimized sales funnel” section.

From the theoretical section of the study and the interviews conducted, we can clearly conclude that AI is an essential tool in prospecting. Prospecting can be very time consuming and requires a lot of man hours if conducted by humans. Even though AI can do most of the heavy lifting, humans are still required finetune and check if the produced lists of leads are usable.

AI used in prospecting and pre-approach

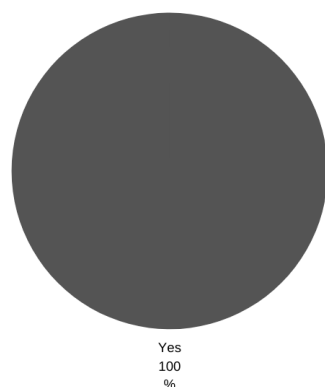


Figure 3

8.2 Approach

The approaching step is the step that is executed after the lead has been rated and nurtured. In essence this part is when the first contact is made. This contact can be made via multiple of channel options like emails or phone calls.

According to participant A the method of initial contact is decided by the “warmness of the lead”. Warmness in lead rating refers to the amount of initial interest of the lead. For example, calling a lead that has not shown any initial interest to the product sold is referred to as cold calling. Calling a lead that has been previously engaged or has been a customer before is called warm-calling and contacting a lead that has told that they are interested in buying the product as hot-calling. (Colette, 2019) Participants B and C also implied that similar methods are utilized. Participant A told that cold leads usually warrant a phone call and warmer leads could be approached via email or similar methods.

In most cases the way AI effects the approach step is via automated emails, chat bots and targeted advertisement. To the surprise of the study, very little AI applications could be found used in the prospecting phase of companies X, Y and Z. All of the participants disclosed that the majority of the contacting are still being done via manual methods. Participant A averred: “While AI could provide increased efficiency in approaching leads, we find that the actual contact still requires a human voice.”

The reluctance of the interviewed companies to automate the initial contacting process does share some merit to the points presented by prior research studied. While AI technically could automate the entire sales funnel, there still are a lot of development to be made. AI cannot mimic human emotions perfectly, and interhuman connections are still valued by a large population. A personal phone call/email has more impact than an automated message. (Kaski, Hautamaki, Pullins, & Kock, 2017)

The value of targeted advertisement has been recognized by the interviewed companies and all of them admitted to running personalized ads on target platforms. None of the participants were able/willing to share the details on the algorithms at place to reach the wanted targets, but it is clear that AI is running in the background.

The interviews showcased a lack of AI presence in approaching the leads. While AI showcases great potential in automating the process and there is plenty of technology available, (Syam & Sharma, 2018) The participants did not showcase any practical applications of them. The lack of chatbots was especially surprising. Main reasons to the lack can be pinpointed to the proclivity to value socioemotional factors. None of the participants saw automation of lead contacting being utilized in the near future of the companies. All of the participants excluding participant C did have at least an elementary understanding of the technologies available.

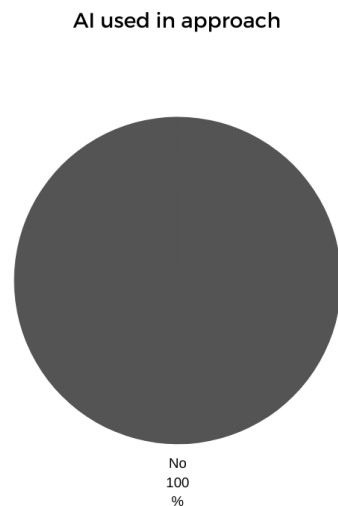


Figure 4

8.3 Presentation

In the presentation phase the product is pitched in more detail and the problem-solving capabilities of the good are showcased. These presentations can be visuals, audio, text or video. The only limitations are the sellers' creativity.

AI's presence in the presentation phase is mainly analytical and visual. For example, AI can power algorithms that analyze which parts of proposals are read the longest and most frequently. Visual improvements can be made for example with virtual (VR) and augmented reality (AR) applications. (Syam & Sharma, 2018)

Participant A disclosed that they have AI present in their presentations only in the case of text-based presentations. They have a system in place that collects data on outbound messages, e.g., emails. The system sees if and when the message is opened, how long the document has been open and which segments are read the longest. According to A this allows the sales representative to get an understanding if the prospect is interested and which parts were the most attention-demanding in the document. This in turn helps the representative in overcoming objections and closing.

Participant B told the study that they do not have any AI presence in the presentation phase. Their company has researched options for analytics on out-going communications but have not put any to practice yet.

Participant C averred that Company Z has similar data analysis in place too as Participant A, but they are used less actively. Where the sales representatives in Company X had a constant flow of data available, C would only see breakdowns of the materials effectiveness a few times a year as summarized presentations. They also had less detailed data available.

When taking the discussion in to AR and VR applications there was little to no resonance from the participants. Participant A told that they had some marketing material that utilized AR properties. This technology was mainly used only in networking events and expos and was rarely utilized in presentations to customers. “While AR provides immersive presentation capabilities, we do not yet see a demand to use it in presentations to leads. The technology is scarcely available and does not directly serve the goals of manufacturing sales”, he summarized.

The AI optimizations available in the actual presentation process like emotional response analysis, speech and body language optimization and slide generations were not utilized along the participants at all. Participants A and C from companies from X and Z did say that they are aware of these technologies and find them interesting. There are no future plans for direct implementation, as the participants companies still see them as underdeveloped and as a niche. Participant B did see it as something that the company could utilize in the coming years.

The results in this part of the interview were not surprising, the prior research also heavily implied that technologies like emotional analysis are not in the mainstream yet. They are

mainly operated by tech-heavy companies that develop AI solutions themselves. (Paschen & Wilson, 2020)

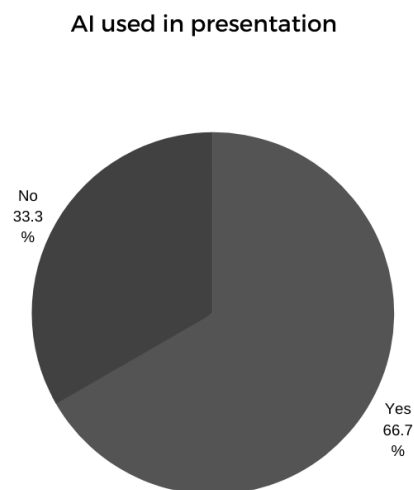


Figure 5

8.4 Overcoming objections (and closing)

The overcoming objection part in the sales funnel stands for answering questions of the potential buyer, addressing objections and pushing the deal into a successful close. Even though that the actual sale is confirmed during the closing phase, the de facto closing is done during this phase.

The most notable effect of AI in overcoming objections comes from the prospecting and pre-approach steps. The goal is to nurture the lead to such an extent that there will be minimal objections after the presentation. This sentiment was shared by all the participants.

When asked about more advanced AI optimizations like AI-enabled battlecards, the participants answered skeptically. Participant B and C were not familiar with the concepts and Participant A had heard of software like this but did not see imminent further research worthwhile.

Participant A was the only person whose company had AI implementations in this phase if the extended benefits of AI optimized prospecting are not considered.

The system in place was an automated follow-up tool to be utilized when the deal could not be closed due to timing issues. For example, if a lead was promising but could only move forward after for example 4 months, the system would remind the end user, do revisions to the offer if needed and even send the follow-up email to the lead automatically in some cases. These revisions could be for example changes in price or delivery time.

AI used in overcoming objections (non-prospecting)

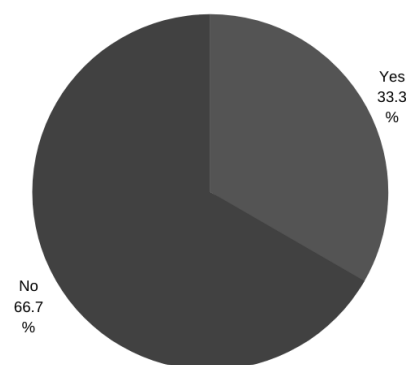


Figure 6

8.5 Follow-up

At the follow-up step the order is fulfilled and satisfaction of the customer is assessed, feedback is requested and the need/demand of after sales services is established. The most important aspect of the follow-up step is to get the customer back in to the sales funnel with a new purchase and optimally form a long-term partnership.

The main presence of AI in this step comes from automatizing the process. Participant B told the study the first contact points of the follow up process is automated. The system automatically sends a follow-up email/message within a pre-established time period. No other AI applications in follow-up could be found among the participants.

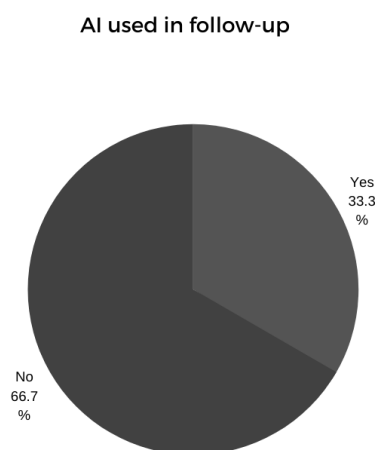


Figure 7

8.6 Discussions and prognoses of participants

The analysis of seven steps in the target companies showcased to the research paper that the presence of AI is not substantial in the target companies. Presentation and prospecting/pre-approach saw the strongest impact.

When asking the participants about their general outlooks and opinions of AI in sales the results had some diversity. It is important to note that the following statements are the personal opinions of the participants, not the companies' de facto mission statements.

Participant A from company X thinks of AI as technology that is an "useful asset that will transform into a necessity in the coming years". He/she sees their company improving and installing AI as the technology reaches their standards of easy access. Participant A sees the value of AI but does not feel like that their respective company will be pioneers in its implications.

While the improvements and optimizations of AI are evident in the participants view, factors like cost, the need of extra training and the uncertainty of capitalizable benefit keep the company from expanding AI use outside the “obvious” applications like prospecting.

Participant B shares the view of AI in the regard that AI’s influence on sales will grow rapidly in the coming years. He/she stills view the possibilities with slight doubts but cannot deny the gain that has been gained from the tools utilized in company Y. “While I do believe that artificial intelligence will secure a stronger footing in our sales processes in the future, there are still a lot of questions to be answered.”, B said. The main concerns he brought up were cost and the reactions of the customers.

The concerns raised by B are unequivocally relevant, but not necessarily to a high degree. While the costs of AI research and development are high. (Jeans, 2020) , companies do not have to develop these technologies themselves. AI developers sell ad hoc solutions that can be tailored to the specific demanded purpose of the client. Using third-party software will bring the cost of implementation down by a notable margin.

The customer reaction aspect is also something to keep in my mind, as was established in the PEST-analysis part of this study. Although, the most popular AI implementations in place currently do not necessarily require that the buyer is aware of their presence. Like established in the AI optimized sales funnel the main benefit comes from data analysis and evaluation. Whether or not the customer needs to be aware of the system in place depends on the publicity and source of the input data. (Finlex, 2018)

Participant C from Company Z had the least experience with AI implementations, but the margin was not substantial. He/she did not have any other opinions besides the structured questions to share in the interview. They did remark that they believe that the future of sales will most likely have an increased amount of artificial intelligence in background.

8.7 Analysis of results

The study interviewed three people working in sales in the manufacturing industry to provide practical examples in the Finland-based multinational business working environment of the AI optimized sales funnel. The results of the research showcased a presence of AI in the respective sales funnels. However, not to the degree established in the theory

section of the study. Strongest presence allocated was clearly in the prospecting and pre-approach section. This is not surprising as data processing and analytical tools are the most developed and easily accessible as of writing this study.

What did produce unexpected results was the lack of chatbots. Chatbots have built a strong footing in both the B2B and B2C world. This is evident by simply opening any online store or customer service site. The first point of contact is almost exclusively a chatbot. In the three target companies there was none seen, at least in their sales funnels. This can be explained by the reasoning provided by the participants: their customers respect the initial contact coming from a human. The focus group of three people is too small to draw a large-scale conclusion, but it is an interesting insight that is supported to a degree by the prior research.

The theme of data analysis continues over to the presentation phase and we can see that AI only plays a role as analytical tool determining whether messaging/advertisement is effective and rating the most important sections of it. Things like voice and body language analysis were not implemented by the companies. This is a natural finding as technology like this is still scarce and expensive. For future research it would be important to also interview companies that develop AI B2B -solutions to get a better understanding of the degree which these more advanced technologies are being utilized.

In the overcoming objections and follow-up sections, a scarcity of AI presence was quite evident. The only implementations found were automated check-in messages. This is quite far from the automated process described earlier in this paper.

The overall opinion of AI amongst the participants matches the presuppositions established in the research. All three interviewees saw AI as an important tool in sales and saw that its presence will strengthen and cover more ground as the technology develops and becomes easier to access.

9 CONCLUSION

The B2B sales processes will face significant changes in the coming years. The way humans interact with each other in a business environment is under a revamp. Sales have gone a long way from the days of a salesman knocking on the customer's door. Information is available everywhere and the success of the salesman is heavily dependent on how they can accumulate and assess information about their prospect. A good smile and social skills are simply not enough anymore in the 21st century. This study showcased how companies can stay ahead of the curve via utilizing AI technology.

The improvements of AI applications allow the companies to generate more leads, evaluate them better and make the whole sales process remarkably efficient. By implementing AI into the sales process a company can know their customer in a way that was unprecedented just a couple of decades ago. The seven steps of sales that have supported the way sales are conducted for ages can be shortened substantially via proper use of AI. The step of closing that usually requires the most skill from the salesperson can be completely skipped.

While AI helps companies to understand their companies better, the technologies also aid the seller to know themselves better. AI can give an analysis on where the company stands in terms of marketing, product portfolio, pricing and more. It allows the salesforce to relieve their resources from the time-demanding tasks and focus on the steps where human touch is still needed.

The manufacturing industry is seen as a very traditional segment of business and the interviews showcased that the AI applications in play are still very limited and a lot of uncharted potential still exists. The focus group of the research was small, but they still showcased that the need and future of AI is very clear.

For future research on the topic, it is essential to investigate companies who are developing the AI solutions themselves. The interviewees displayed that the lack of AI amongst the steps usually was explained by the fear of response from the buyer, price and the availability of technology. Therefore it is essential to assess the severity of these concerns by researching the portfolios, prices, research and development plans and prognoses also from the people in charge of pioneering AI into the industry.

What is adamantly clear is that AI is a strong driver in the future of the way we do business. It is already all around us and is developing itself constantly. Companies must research, accept and assimilate it into their practices or inevitably fall behind of the competition.

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Appendix 1

Semi-structured interview body for qualitative research

Phase 1 : Opening remarks, asking permission for recording and introduction of the participant and role and duties in their company. (All collected data anonymized to the degree of the participant's request)

Phase 2: Establishment of the theoretical framework used. (Seven steps of selling)

Phase 3: Inquiries about the presence of AI in the company's sales funnel along the seven steps of selling.

- Prospecting
- Pre-approach and approach
- Presentation
- Overcoming objections
- Closing

Phase 4: Open conversation about the reasons and added value of the presence (or the lack) of AI in the aforementioned steps. General values, opinions and prognoses about AI in sales can also be explored.

Phase 5: Closing remarks

