AALBORG
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STUDENT REPORT

Revisiting the Sales Process:
An Interplay between Human and AI-based Technology

4th Semester: Thesis

MSc. Marketing, Aalborg University Business School

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Number or of characters: 177.826

Number of pages: 74

Preface

The thesis work was written and investigated in close collaboration with Waheed Akbar Bhatti and Karina Jensen and is a part of the 4th and last semester of MSc in Marketing, at AAUBS. The basis of the thesis is based upon an increased curiosity regarding Industry 4.0 and its implication on the sales process. The researchers want to express gratitude to Waheed Akbar Bhatti, for supervision, advice, and help, regarding the thesis work. Furthermore, the researchers express gratitude towards Karina Burgdorff Jensen and the collaborative companies. Thank You.

Aalborg, Denmark - 01.06.2022

Declaration of Authorship

This thesis is written by: Emma Søgaard Sørensen and Stine Vandet Weesgaard. The references style in this thesis is referred to as APA 7th.

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By signing this thesis, the researchers confirm that both researchers have participated equally in the thesis work. Furthermore: that both researchers are responsible due to the content of the work.

Abstract

Modern day marketing is successively becoming automated and intelligent data driven. Technological advancements are starting to trigger business processes towards a more value-driven evolution. More profoundly, businesses to stay competitive have to collaborate with the fourth revolution. Research has established that, intelligent data utilization is the future of marketing and sales. Through intelligent technologies adoption the digital transformation evolves business practice with new value-creating opportunities. Industry 4.0 has changed the way of doing business across various network by autonomously sharing data in real-time.

Prior research highlights that integrating intelligent data in the business, will increase the knowledge about the customer's needs and behavior, which continuously can be associated as a standard procedure within marketing disciplines. Inline adoption of digital tools can help understand the humans' domains and personalize content for the customer to generate the most potential value through a sales process.

This is a premier study exploring the digital transformation's role within the sales process. The study contributes by empirically testing the Bhatti and Jensen (2022) Aalborg Sales Process Model which extends the works of Dubinsky (1981), Moncrief and Marschall (1999), and Töytäri et al. (2011). Through empirically analysis, the researchers are assessing validity of the MAPS conceptualization. This is being carried out through a multiple case study in collaboration with two Danish firms. The finding reveals, an adjustment occurs when applying theory into practice. Therefore, the researchers develop a new standardized conceptual framework, The Master-model, based on observations, interviews, and a case comparison.

Keywords: Digital transformation, Industry 4,0, Machine Learning, Artificial Intelligence, Neutral Language Processing, Competitive advantage, Sales process, MAPS, Decision driven analytics.

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Part 1: Introduction

> *"In non-digitalized sales-related processes, employees are frequently unable to access all knowledge required to make adequate decisions."*
>
> - Paolo Guenzi & Johannes Habel, 2020, p. 65.

Nowadays, business- and academic research highlight the importance of exploiting industry 4.0 technologies (Bhatti, Vahlne, Glowik & Larimo, 2022). Industry 4.0 (I4.0) specifies a *high technology strategy* and revolution and was proposed in 2011 by the German government (Strange & Zucchella, 2017). I4.0 refers to a new conveying of digital industrial technologies and solutions (Rüssmann et al., 2015). Conceivably, I4.0 brings modifications from isolated manufacturing activity to activities that include more optimized, automated, and heavily integrated data flows in the (global) value chains. (Strange & Zucchella, 2017).

Digitalization within I4.0 is appreciated for converting value-adding processes and business patterns. The industry 4.0 technologies offer corporations the opportunities to compete globally, using digital technologies in their daily business practice (Bhatti et al., 2022). Generally, I4.0 is a digital transformation that consists of technological trends such as Big Data, Artificial intelligence (AI), Machine Learning (ML), Internet of Things (IoT), cloud computing, mobile technologies, 3D-printing, and Robotics (Strange & Zucchella, 2017).

It is important to acknowledge that I4.0 is seen as the technology of tomorrow. The topic is heavily discussed among different researchers of being the future of doing marketing and sales, illustrated in table 1. Taking the I4.0 into consideration, it can be referred to as the digital transformation, which plays a major and responsible role in changing and adopting the fourth revolution (Chiarello, Trivelli, Bonaccorsi & Fantoni, 2018). Digital transformation is a key factor for an up-to-date business model. The key issues for many businesses are adapting the digital transformation in the right form, adjusting it according to the customers level of digitalization and the company's maturity level. Hence, it is important that the companies are ready for a new organizational structure due to digital transformation (Strange & Zucchella, 2017).

Table 1 identifies existing research to discover the research gap for this thesis. The recommendations are established upon key findings within the several related articles. Existing research findings stated that digitalization and technology have impacted sales and marketing activities recently (Davenport, Guha, Grewal & Bressgott., 2020). Future research suggests that AI, which can be seen as the umbrella technology with underlying technologies such as; ML and Neural Language Processing, algorithms, and, in general, the whole concept of I4.0, will change the way we approach customers in the future. Chintalapati & Pandey (2022) and Davenport et al. (2020) suggests investigating how corporations must change their overall marketing strategy when implementing and adopting digital solutions, such as AI, across the marketing activities. However, existing literature highlights the comprehensive effect technology and digitalization have had on the marketing activities. Therefore, researchers acknowledge that the impact of the digital transformation have on sales processes is a high priority for future research recommendations (Dwivedi et al., 2021; Paschen, Keitzmann & Keitzmann., 2019).

Another interesting research gap identified is the digital transformation and its interaction with lead generation, which is seen as an area of interest for sales research. According to Saura, Ribeiro-Soriano & Palacios-Marqués (2021), it is essential to investigate the effectiveness of intelligent technologies in B2B digital marketing, when focusing on lead generation. Moreover, within this area, Paschen, Wilson & Ferreira (2020) suggest investigating the advantages and disadvantages of lead generation and the Dubinsky (1981) seven-step sales process.

Recent works clearly highlight studying, AI and how it affects sales activities. Recommendations for future research explored are how AI impacts the role of sales professionals and how AI impacts sales professionals' role for example, the effects of using AI on a salesperson's performance (Paschen, Kietzmann & Kietzmann, 2019). Moreover, how do sales professionals react to AI applications. Secondly, which of the human tasks in sales are being performed by AI technology, and to what extent. In addition, Paschen, Paschen, Pala & Kietzmann (2021) suggests investigating how AI changes the value creation process for customers and how it can create a more efficient approach to capturing customer knowledge for the salespersons. Another recommendation for future research within this literature gap suggests investigating if AI will standardize sales performance across sectors or develop a more individualized sales role (Dwivedi et al., 2021).

Authors	Future Research Recommendations
Mariani, Perez−Vega and Wirtz (2021)	Personal data to allow customerization How the advantage of incorporating AI into business can change customer judgement.
Chintalapati & Pandey (2021)	How adopting AI can contribute to Continuous Transformation.
Kushwaha, Kumar & Kar (2021)	The functionality of chatbots within business environment (B2B). Investigate how the relationship is between the extracted elements in the chatbots.
Baabdullah et al. (2021)	Dark side of AI and their impact on the tendency of B-2-B SMEs; How.
Mikalef, Conboy & Krogstie (2021)	Investigating the impact of adopting AI solutions: before, after or during.
Davenport et al. (2020)	Marketing strategy; how AI can be best used due to price- and promotions. AI-driven algorithms; forecasting demand for new products.
Saura, Ribeiro-Soriano & Palacios-Marques (2021)	B2B digital marketing strategies: using AI-based CRM; lead generation. How to optimize AI-based CRM, due to customer experience/journey.
Paschen, Wilson & Ferreira (2020)	Lead Generation and "the seven step of sales" processes - disadvantage and advantage.
Paschen et al. (2019)	AI technologies; its performing in sales professionals. Which of the traditional human tasks in sales can be performed by AI? How can AI create, organize and transfer customer knowledge into the marketing and sales process? AI and the value creation processes for customers and users.
Dwivedi et al. (2021)	How far should AI technologies take the sales process; Will AI allow more individualized sales roles? Big data analysis and its use to allow the salesperson to develop adaptability to the need of the customers? Will AI free the salesperson to handle high level and personalized sales interactions? AI driven environment in connection to privacy and sales intelligence. Algorithms and its impact on customers' behaviour?
Guenzi & Habel (2020)	Mapping the entire sales process before applying the digital transformation into a digital sales process.

Table 1: Own Illustration, 2022. Future Research Recommendations.

Despite corporations investing heavily in digital transformation, many of these investing companies are struggling to take advantage of the applications. For example, research by Accenture (2016) illustrated in their findings that almost 75% of sales directors pronounce that their sales tools are integrated into their sales process, whereas only 15% stated that the sales tools are genuinely effective. Furthermore, 68% of corporations are underinvesting in sales analytical technology (Guenzi & Habel, 2020).

According to Guenzi & Habel (2020), one of the main priorities of digital evolution can be seen in the organization's overall sales fields. The fact that many companies are struggling with their sales tools and processes is not surprising, as access to technological guidance; in the sales

process is limited in the prior literature. Thus, many companies have engaged in a process where the digitalization of sales unforcedly becomes an incremental non-sum game process (Guenzi & Habel, 2020).

Guenzi & Habel (2020) suggest that before investigating the technology in the area of implementing a new digital sales strategy, corporations must map out the entire sales process. Based on this statement and the identified empirical gaps, the intended contribution of this thesis is to map the sales process to understand if industry 4.0 impacts the sales process (MAPS). Therefore, our study will be an empirical contribution to the "Aalborg Sales Process Model (MAPS)," by testing its operationalization in the sales process (Bhatti & Jensen, 2022). MAPS is built on existing theory and is a reconceptualization of the Dubinsky (1981), Marshall, Moncheif & Lassk (1999), and Töytäri et al. (2011) work, including the role of digital transformation in the sales process. Moreover, the intended contribution is to give an extended knowledge of how technology is affecting the conceptual framework through the sales process evolution. Hence, if it is possible to establish an aligned process design, where the digital transformation is the main driver for the sales process optimization. The researchers intend to answer the following question by studying two Danish firms. The research objective is to explore how Industry 4.0-based technology facilitates the sales process. This is a premiere sales-process based study examining:

How does the interplay between human and AI-based technologies optimize the sales process?

1. Construction of the Thesis

This thesis is a primary work and a part of a research project on Aalborg University Business School. Thus, the theory has not been tested in practice yet. The research is in close collaboration with Waheed Abkar Bhatti and Karina Burgdorff Jensen exploring the industry 4.0. The researchers aim to explore, how the future sales process can be aligned with the usage of I.40 to test and evaluate how the adoption of AI solutions will help companies in a sales process.

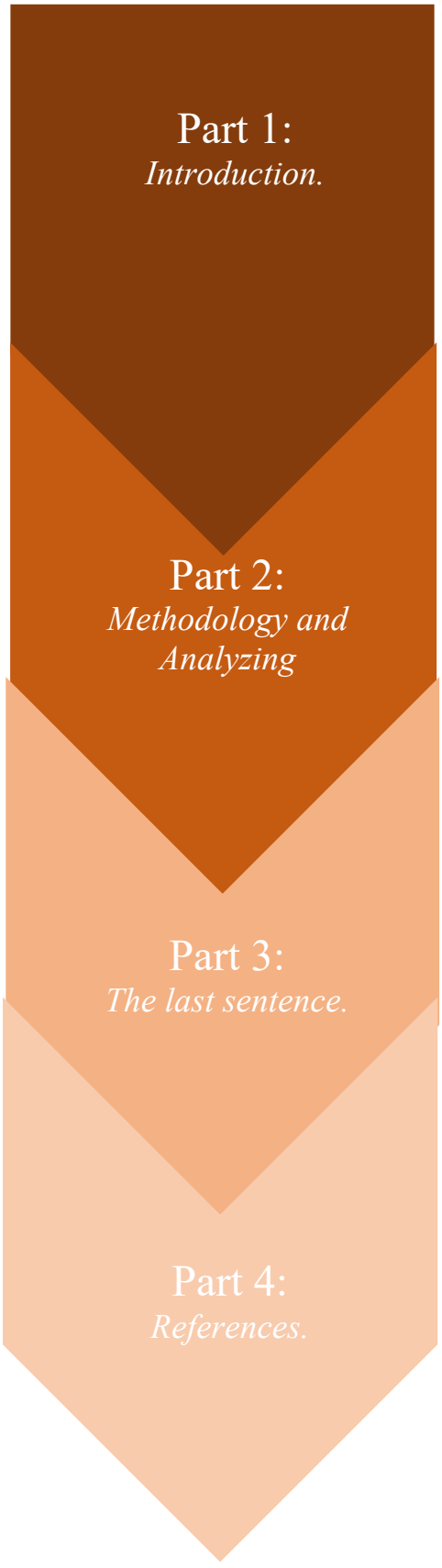
Doing the past decades overarching theories are used in sales processes which is why several academic sources by Dubinsky (1981), Marshall (1999) and Töytäri et al. (2011) will be used. The literature goes through stepwise progression in the overall sales processes.

1.1 Report structure

The report structure covers a presentation of the thesis and consists of 3 main parts: Part 1; introduction, the introductory part. Part 2; which is a Methodology and Analyzing. Part 3, which is "the last sentence" of the thesis, which constitutes a discussion/conclusion of the thesis. Finally, a 4. Part occurs, including the list of figures, references, and appendix takes place. This part will not be included as signs in the written presentation. This also applies to the front page, title page, preface, abstract, and table of contents. The last part of the thesis is an exam which consists of an oral defense after submission on June 1, 2022.

The reader is advised to read the assignment in chronological order to achieve the assignment's full understanding of each part. Below is a model illustrating the four parts of the report structure and the corresponding chapters and sections.

Enjoy Reading.



Chapter 1, Construction of the thesis:
Sections: Report structure, Abbreviations, Quotes and descriptions, Figure text and own illustration.

Chapter 2, Literature review.

Chapter 3, Methodology and Research Strategy
Sections: Philosophy of Science, Transitive and intransitive, methodology approach, reasoning, Mix-methos, Validity, and reliability.

Chapter 4, Empirical Analyzing and Testing Reconceptualization for Validity
Sections: Case company 1, Case company 2, Case comparison.

Chapter 6, Discussion & Conclusion.
Section: Discussion & Conclusion, Research Contributions, Management Implication, Limitations and Future Research.

Chapter 7, List of figures and tables.
Chapter 8, References.
Chapter 9, Appendix.

Figure 1: Own illustration, 2022. Report structure and the corresponding chapters and sections.

1.2 Abbreviations

In the thesis, the references to the appendix will be abbreviated to A1, A2, etc. This with the aim to minimize the area of Appendix. Here the abbreviations aim to increase the experience for the reader and distort the reading of the dissertation. Examples of document references are shown below:

1 (See A1) or

1.3 Quotes and descriptions

Citations in the thesis directly include other authors' opinions and are marked with quotation marks (*"..."*) and references from the original article/author. Moreover, citations from interviews or videos are marked with a time reference, which will indicate when the citations start and end. Citations is made in connection with the copy right law §22.

1.4 Figure text and own illustration

Illustrations and models will be marked with Figures (Figure 1, Figure 2, etc.) and Tables with Table 1, Table 2 etc., and will in the end be assigned with a reference and a briefly description. The figure will be made or selected with close relation to the theories and academic works of literature and will lastly be aligned in linkage with the thesis. Examples will be illustrated down below:

Figure:

(Figure X: source, page, description)

Own illustration: (Figure x: Own illustration, source, description)

Table:

(Table X: Source, page, description)

Own illustration: (Table x: Own illustration, source, description)

2. Literature Review

In this section of the thesis, the relevant literature is reviewed. The chosen literature is written during the last decade and mainly concerns Industry 4.0, Digital Transformation, Artificial Intelligence, and sales processes. The literature is received from AAU Library, Google Scholar, and Science Direct, etc. Furthermore, the thesis intends to investigate how industry 4.0 will affect the sales process; therefore, the evolution of digitalization and the sales process is reviewed.

2.1 Industry 4.0

The fourth industrial revolution, also known under the characterization of I4.0, is one of the most broadly accepted and trending topics within the era of professional and academic fields (Chiarello et al., 2018).

Industry 4.0 relies on the valid adoption of an ecosystem that consists of a broad range of digital technologies to which firms extend and analyze data in real-time. Furthermore, and according to Lee, Sambamurthy, Lim & Wei (2015), I4.0 can be used to provide helpful information to the manufacturing system. Finally, according to Fakhar Manesh, Pellegrini, Marzi & Dabic (2021), industry 4.0 is the mutuality of machines and their capability to share data autonomously in real-time. Therefore, I4.0 can be seen as the technology of tomorrow.

As previously mentioned, Industry 4.0 was first proposed in 2011 by the German government and is today used in the description of the development of *"cyber-physical systems (CPS) and dynamic data processes that use massive amounts of data to drive smart machines"* (Sirkin, Linser & Rose., 2015, p. 1) More clearly, I4.0 is reflected in the diffusion of a digital transformation/revolution where technologies are embedded in the industrial domains. These industrial technologies are embedded sensors, which help in the communication and integration between products and devices (Internet of things or IoT), real-time data evaluation (Big data and analytics), Machine learning (ML), and Artificial Intelligence (AI). In general, the idea behind Computing and machine intelligence is increasing analytical abilities, which makes it possible to analyze information that could not be proceeded 20 years ago (Strange & Zucchella, 2017).

The literature review proceeds as follows. First, the researchers want to outline some of the key features of the new digital transformation regarding the thesis topic to gather a deep understanding and its collection of different value aspects. Therefore, the areas of interest will be: I4.0 and incorporate more specific AI, Machine Learning (ML) and Neural Language Processing (NLP).

2.1.1 Artificial Intelligence

> *"AI is going to make our lives better in the future."*
>
> —Mark Zuckerberg, CEO, Facebook; Davenport et al. (2020, p. 24)

AI is today not only a buzzword of the century. AI is one of the most accepted and recognized terms in big technology-aware companies. According to Markoff (2016), AI is referred to being the dominant paradigm forcing on replacing humans with intelligent technologies. Furthermore, it's a valuable concept in public discourse over decades. AI-technology is roughly researched, where new applications in the daily business practice and organizational fields are developed quotidian (Markoff, 2016).

Nowadays, Artificial Intelligence is a regular part of our daily lives, and many of us are in constant interaction with the technological application. In extension, Dwivedi et al. (2021, p. 2) state; *"AI technology is no longer the realm of futurologists but an integral component of the business model for of many organizations and a key strategic element in the plan for many sectors of business, medicine, and governments on a global scale."*

Due to a significant valuable technology change, AI technology has changed academic interest and is today a *"key research domain"* for the new professional and academic area. (Dwivedi et al., 2021) The literature acknowledges that AI should be seen as an umbrella with a broad range of underlying technological applications, such as ML and NLP, which will be explained later. However, the foundation of AI-technology was created in the 20th century (West, 2017) and is recognized for its powerful tool, e.g., to streamline business processes, generate significant data in customer management, understand and interact with human-intelligence and behavior, and much more (see A1).

The ability to interact with new technology, across business sectors, opens new high accepted domains to conceptualize value, productivity, and performance in different organizational

fields. Firstly, the capability of AI to overpower the human intellect opens new systems and opportunities in the business model. In connection, AI business processes will extend to attain what we as people commonly see as human domains (Dwivedi et al., 2021). Davenport et al. (2020) and other recognized authors highlight and recognize the AI-technology progress and how it already has reached the level of autonomous vehicles, Chatbots for instance through Customer interaction. Davenport et al. (2020) identifies different AI types as online retailing AI, customer screening AI, Sales AI, business process AI, etc. that can be adopted in various areas of an organization. Müller and Bostrom (2016) predict that AI technology through Superintelligence will challenge humanity in 2075, when AI calculates to reach the whole human ability. (Davenport et al. 2020; Dwivedi et al. 2021)

According to Greengard (2019) nowadays, AI is considered as recognition, robotics, and an analytical tool automated in real-time, among other intelligent solutions. When investigating the concept of AI, different levels of AI occur. It consists of narrow AI, general AI, and super AI. Narrow AI is identified as face recognition, voice recognition, and search engine. For example, narrow AI is illustrated in our daily interactions with our Smartphones. Where accessing our phone's content by simply looking at the screen. Secondly, it can be seen in the new speakers, where you can play your favorite song through voice recognition. However, this form of AI is seen as weak in performance and value creation, as it cannot duplicate human intelligence only considering human behavior. General AI is seen as more profound or potent AI as it is medium in its value creation and performance. It is characterized as a mixture of both human behavior and human intelligence. It can interact, understand, and think in an unachievable way in human intelligence. Lastly, super AI is identified as outstanding in its value creation and human performance. It interacts with human behavior and intelligence simultaneously and simultaneously understands human needs, emotions, and behaviors (Escott, 2017).

AI adoption. Although AI is a deeply accepted technology for increasing performance and profitability in the daily business practice, Gray (2017) states that customers nowadays hold AI to a standard that is not appropriate. Recommending customers should only adopt the technology if it is a significant valuable factor. The hypothesis from an early study shows that customers, in general, have lower trust in AI technology. This based on the conclusion that AI does not entirely replace the human senses, such as emotions, etc., which adheres to a higher standard. (Gray, 2017; Davenport et al. 2020) In continuation of the AI technologies' lack of

empathy, many customers deselect AI based on the overarching task characteristics. More in-depth, if a task appears to be subjective, customers' will be less compatible with AI, (Castelo, 2018). For example, choosing a movie on Netflix is less consistent than driving a car consisting of pure technology. For this, the risk will thus be an essential factor when talking adoption intentions (Castelo & Ward, 2016; Davenport et al., 2020).

AI usage. With the knowledge of considering different aspects when adopting AI technology, Davenport et al. (2020) highlights the importance of communicating with the customers correctly. Davenport et al. (2020) suggests that customers' association with AI is not necessarily associated with autonomous goals. Inline, customers focus on "how" the AI performs rather than on "why." This can be reflected in the customer's doubts about whether AI can generate a deeper understanding and engage in the customer's consumption behavior (Lee, Keller & Sternthal., 2009; Motyka et al., 2014)

Following the fact that AI adoption is experiencing an increase in the corporate sectors, there is a marked increase in efficiency and productivity. This development of positive innovation has its facts in replacing and streamlining many processes and areas in organizations. (Dwivedi et al. 2021).

2.1.1.1 Machine Learning (ML)

Machine Learning (ML) is another essential technology in I4.0. Investigating the area of ML can be seen as diving deeper into the area of AI and its usage. Over the past decades, ML has progressed dramatically and is nowadays not only a laboratory curiosity but a practical technology due to commercial use. In continuing to artificial intelligence, ML has revealed a method for developing a deeper software solution, e.g., neural language processing, and a broad range of more profound technology applications (Jordan & Mitchell, 2015).

More Specifically, ML is an internationally accepted term in the daily business practice and their work within AI technology. According to recent research, ML is used through a broad definition range. According to Davenport (2018, p. 11), ML is: *"a technique for automatically fitting models to data and to" learn "by training models with data.",* while Deloitte (2017, p. 4) states ML as *"The ability of statical models to develop capabilities and improve their performance overtime without the need to follow explicitly programmed instructions."* According to prior research, ML can be considered a significant cornerstone of AI technology and is yet the most common one. This statement is supported by a Deloitte survey (2017). The

study illustrates that out of 250 organizations, which already pursue AI, 58% are characterized by ML. ML is not only a broad range of technology applications but also the core of AI applications. (Davenport, 2018)

According to the former CEO and founder of Amazon.com, Jeff Bazos, they use AI and particular ML underneath the surface as it motors their algorithms. For instance, they use it for product search ranking, merchandising placements, demand forecasting, deal and product recommendations, translations, and much more. Hence, it is an important factor that improves their core operations in a less visible way (Balakrishnan, 2017).

Investigating the technology ML, it is essential to mention ML's more complex forms: neural networks and deep learning. According to Davenport (2018), neural networks technology is applied for categorizing applications. Hence, it identifies problems based on inputs and outputs or the number of features that connects these to each other. However, the similarity for the human brain is not seen as strong. Davenport (2018, p. 12) states, *"The most complex form of machine learning involves deep learning or neural network model with many levels of features or variables that predict outcomes."* According to the Deloitte survey (2017), 34% of companies deploy deep learning neural networks as their type of AI application. Contrasting to the other forms of statical analysis, the variable in deep learning typically makes little sense to a human observer. However, it can be claimed that the outcome is impossible and difficult to interpret (Davenport, 2018).

Finally, to sum up, the relation between AI, ML, neural networks, and deep learning, different recent studies acknowledged that ML is a subfield of AI; Deep learning is a specialism of ML; and lastly, the neural networks make up the spin of deep learning algorithms (Davenport, 2018).

2.1.1.2 Natural Language Processing (NLP)

According to the perspective of AI, understanding, sensemaking, and converting the human language have been a goal during the last decades. To receive this common goal, NLP was discovered as an extended arm of the ML application and a collective definition referring to an automated technology processing of the human languages. It includes technological solutions around speech recognition, translation, text analysis, and other goals concerning the language. (Davenport, 2018).

2.1.1.2.1 How does NLP work?

NLP is a triangulation between Datalogic and artificial intelligence - AI and ML. The process enables computers to comprehend a deeper understanding of the natural human language, whether written or spoken. Mainly, NLP uses AI to generate and process data to finally sensemaking the data. The understanding extends beyond human intelligence and thus moves into a way where the computer can generate it into actual data. To clarify, as humans have a broad range of sensors and behaviors, computers are allocated with different programs to help in the collection of data. Moreover, just like the human brain, the computer can process particular inputs through various programs (Lutkevich, 2021). Davenport (2018) argues that they consist of two overall basic approaches: statistical vs. semantic NLP.

2.1.1.2.2 Statistical NLP

Firstly, statistical NLP applies to ML and can appear in a more significant improvement than semantic NLP. According to Manning & Schütze (1999), statistical NLP represents all quantitative data or approaches to automate language processing. One of the critical factors for statistical NLP is that it requires a high amount of knowledge of the language and that the meaning of different sayings, voice tones, and translations occurs to get the right outcome. According to Davenport (2018), it can be seen as a kind of *"Brute Force"*. However, it yet still seen as an effective method.

2.1.1.2.3 Semantic NLP

Semantic NLP is applied to understand the context of human communication based on context and meaning. Secondly, to understand the emotion that might appears in the sentence. This level of NLP is used to catch valuable information in the achievement of human-level accuracy regarding computers. For example, it is used in tools such as Chatbots, and text analytics (Davenport, 2018; Dutta, 2021).

The semantic approach starts by reading the words in context, with the overall goal of capturing the real meaning. Secondly, it helps identify relevant elements regarding the text and topic discussed. For example, it can identify and understand the topic of the conversation through different associated words (Expert, 2020). This part of the application can help corporations to catch potentially valuable or relevant information, to help them stay ahead of the competition. Understanding what is being said is typical the challenging task in connecting with customers,

as capturing the information is much more concrete. Thus, making an understand out of the information is a whole different approach and story. (Selig, 2022)

To create a deeper, understand of I4.0, its application and how it works, it´s essential to investigate the term: algorithm. This part will be presented as the next part of the literature review.

2.1.1.3 Algorithm: The common Definition

Operating within the fourth revolution includes many technological applications technologies, such as AI and its underlying applications, ML and NLP. These applications distinguish from each other in their way of working and applying the algorithms. To specify, AI refers to a broad range of algorithms that make it possible for a computer to perform assignments rationally. On the other hand, machine learning is an algorithm used to process data, learn from it, and lastly, use it to increase performance through well-informed decisions. (Davenport, 2018; Kellogg, Valentine & Christine, 2020)

Algorithms and in general algorithmic technologies are characterized as the fastest-growing applications in the technological world and have a significant effect on the world of work. More specifically, algorithms have become a significant part of the day-to-day integration of organizational management and control. (Kellogg et al., 2020)

During the recent years, it has become more popular for employees to use a wide range of different algorithms, with the primary goal of increasing economic value within the organizational fields. According to Barocas et al. (2014) and Gillespie (2014), algorithms are often referred to as a computer-programmed tool which in real-time converting the given input data into the wished outcomes. Let´s suppose that a company uses NLP, which as mentioned was a system which can convert the human language; here, an algorithm could monitor chats, E-mails, and phone conversations in real-time to assess, for example, the productivity and the mood of the employees. This part of the technological application will help corporations increase the internal productivity (Kellogg et al. 2020).

According to Orlikowski & Scott (2015), algorithms and, in general, the data that is used in analyzing behavior are generally confidential and proprietary. Therefore, most employees cannot manage what kind of data is collected and how to use it. Regarding the use of algorithms

in Machine learning, they can be complicated to decrypt, as they build their own classification decisions, extending far beyond human comprehension. (Kellogg et al., 2020)

2.1.1.3.1 Algorithms: Organizational control on a management level.

Regarding recent research, algorithms has shown to be a significant factor in measuring and improving organizational control. From a research perspective, it can be argued that organizational control has traditionally been recognized as being a *"competitive terrain"*, where different elements of ideologies struggle for control concerning, Direction, Evaluation, and Discipline. This to remain relevant in the market, all through control of organizational processes. (Kellogg et al. 2020)

Due the recent studies we find that algorithm on a management level, can control employees through six main mechanisms, better known as the "6 Rs" invented by Edwards (1979). According to Kellogg et al (2020, p. 372) These are used to *"direct workers by restricting and recommending, evaluate workers by recording and rating, and discipline workers by replacing and rewarding."* In connection to the 6Rs, he identifies worker experience in relation to algorithms and its usage.

	Direct	Evaluation	Discipline
Control Mechanisms	Recommending: - Decisions preferred by the choice architect. - Recommending specific cources of action.	Recording: - Recording and aggregate behavior and statistics; realtime feedback.	Replacing: - Automatically replacing or removing. - Immediately replacing or removing.
	Restricting: - Access to information. - Behavior.	Rating: - Online rating and ranking. - Predictive analytics.	Rewarding: - Interactively and dynamically rewarding; Gamifying rewards.
Worker Experience	Manipulation Disempowerment	Surveillance Discrimination	Precarity Stress

Table 2: Own illustration, 2022; Kellogg, Valentine, and Christin, 2020, p. 373, 377, 380. The 6Rs regarding algorithms.

Direct. Recent reviews recommend that managers use algorithms to direct and manage their workers. For example, these algorithms can be applied to the specification of what needs to be accomplished. As illustrated in Table 2, these can be characterized under the control of two fundamental mechanisms: recommending and restricting. Algorithms recommending refers to finding patterns in the data and afterward establishing actions. Hence, the employees can use the algorithm to prompt the worker in the direction of the architect. Secondly, restrictions are used to manage the work of workers. This entails the algorithm only to show a certain amount of information to the workers and allows a specific behavior. (Kellogg et al., 2020)

Adding this into a management perspective and potential worker experience, Kellogg et al. (2020) noted that it might create frustration among the workers. Hence, from the salespeople's experience, the recommendations and restrictions might disturb the salesperson's judgment and identification of the best potential customer.

Evaluation. Regarding the evaluation process, Edwards (1979) and Kellogg et al. (2020) mention two fundamental mechanisms: Recording and rating. In short, recording refers to using algorithms to provide workers with the proper real-time feedback. This through finely grained data - intern and extern. Furthermore, the algorithmic rating is used to measure and predict performance and productivity in the future, also referred to as predictive analytics.

In addition, Kellogg et al. (2020) mention different potential worker experiences regarding loss of privacy (e.g., data collected about work skills, homelife, and mental health) and discrimination (e.g., gender and race stereotyping).

Discipline. Lastly, Kellogg et al. (2020) mention replacing and rewarding as two essential mechanisms due to discipline. The replacing algorithm reveals if a worker is underperforming and should immediately be replaced. This process is about replacement at a workplace level. Secondly, the rewarding algorithm is used by managers to discipline the organizational worker behavior. It uses an algorithm to reward hard-working workers, for example, with higher salaries and more opportunities. In-dept, it is used to guide the worker behavior through higher performance.

The potential worker experiences within the algorithmic disciplines can lead to frustration and stress as reward algorithms can lead to underperformance, which might affect the worker, vice versa. (Kellogg et al., 2020)

In summary, the 6RS are documenting how employees such as salespersons, on a management plan can use the algorithmic technologies (e.g., in I4.0; AI, ML, and NLP) to automate the organizational control. Furthermore, it can help employees learning: how to increase the economic value? In addition, studies reveal that managers, through algorithms, can learn from individual user patterns and change the system behavior in real-time. In general, it has its intention to justify the use of algorithms in an organizational field. (Kellogg et al., 2020)

With this knowledge about algorithms and its use in an organizational field it is essential to investigate or observe which role these applications or algorithmic systems are used in specific area such as in a sales department. When going into observations and interviews, the researchers need to have a good understanding and use the knowledge from algorithms to grasp the observations in a richer way. More specific, it is giving different angles to investigate, when placing the algorithms into the conceptual framework.

2.2 Recent studies

To understand I4.0, more explicit AI and its technological applications, recent research has been reviewed. The recent studies are written within the last four years and highlights that implementing AI into the business strategy will improve activities. See table 3 for illustration.

Research within Industry 4.0 and especially within the technology of AI highlights several important and value-adding aspects of working with technological trends. Dwivedi et al. (2021) and Chatterjee, Rana, Tamilmani & Sharma (2021) mention that a company, through AI adoption, can increase their corporation's performance through full technological utilization. Significantly, the technology is thus seen by all researchers as a significant influencer if companies want to impact their business functions effectively; to obtain benefits regarding better revenue, Customer Experience (CX), productivity through the Supply Shain Management (SCM) and agility (see A1).

Technologies such as Big Data can predict and describe customer patterns based on behavior (Filieri & Mariani, 2021). Hence, it creates a significant opportunity for companies to inform during decision-making. In addition, according to Chong et al. (2017), Big Data can be used to predict future product demand, which can be seen as crucial to competitive advantage. Moreover, Big Data can attract new customers and maintain a stronger relationship with the existing customers (Järvinen & Taiminen, 2016). Concerning this, Mikalef, Conboy & Krogstie (2021) pronounce that the implementation of AI and other technological solutions allows companies to understand the customers' needs in much greater detail, hence, gain insights into market conditions, better interactions with the customer, market trends, and developing new products, services, or solutions.

Authors	Research focus	Relationship examinatio	Sample	Data collectio	Analysis metho	Key findings
Kushwaha et al., 2021	What impacts customer experience for B2B enterprises on using AI-enabled chatbots? Insights from Big data analytics	AI-based chatbots to provide human-like service interaction at different customer touchpoint in recent years.	Case studie.	Qualitative.	Social Media Analytics (SMA) framework	Corporations need to get a comptrehension and understand the CX from the perspective of the customers (Behavior, perceived use). AI-based chatbots is as digital channel-based service, which firstly needs to model throughout a digital system design. CX is inadequate to what the customers feel, hear or see through interactions.
Li et al., 2021	Value co-creation in industrial AI: The interactive role of B2B supplier, customer and technology provider.	Value co-creation and service-dominant logic.	Case studie.	Qualitative.	Semi structures interviews and interpretations.	*"Industrial AI is a key element in the development of B2B marketing and is seen as the main creator to reshape the buyer supplier relationship in the supply chain" (li et al. 2021, p. 1)* The usage of AI can help predicting the purchage decision of the customers, which can lead to increased customer experience.
Baabdullah et al., 2021	SMEs and artificial intelligence (AI): Antecedents and consequences of AI-based B2B practices	AI in its part of facilitating competetive advantage and its lack of evidence.	Case studie.	Qualtitative.	Structural equation modelling (SEM).	A corporations adaption of technological applications tool depends on the readiness of the organization, hence environment and behavior. AI and CRM: adopt to increase business performance. AI can have an affect on how organisations interact with their customers.
Mikalet et al, 2021	Artificial Intelligence as an enabler of B2B marketing: A dynamic capabilities micro-foundation approach	AI ans its way of manage B2B Marketing operations.	Multi-case studie.	Qualtitative.	Semi structures interviews and interpretations.	AI contributes to give companies faster reactions times, insights, new soruces of revenue and develop new approaches due to thier marketing. With help from AI corporations are provided with insight related to their B2B marketing, allowing them to create new strategies and business models. Adopting AI into the business, allows corporations to get an deeper understanding of the customers needs and their most important key issues.
Davenport et al., 2020	How artificial intelligence will change the future of marketing	A framework to understand how AI will impact the future of marketing, specifically to outline how AI may influence marketing strategies and customer behaviors.	Conceptual framework.	Qualtitative.	Exsisting research. Data driven.	AI will in some years change both marketing strategies, sales processes, business models, customer behavior and services options etc. Objectively AI will consultant tele conversations in real time due to the sales process. adopting AI will properly occupy customers in the before and after sales.
Paschen et al., 2020	Collaborative intelligence: How human and artificial intelligence create value along the B2B sales funnel.	Value co-creation and B2B salesfunnels.	Case studie.	Qualtitative.	Exsisting research. Data driven.	AI can modify the traditional human-centric sales process. AI systemes can be incorporated in the Dubinsky´s (1981) seven steps of selling. AI will enhance, not replace. AI adoption is able to apply predictive algorithms to encompass in lead scoring: value-adding factor.
Paschen et al., 2019.	Artificial intelligence (AI) and its implications for market knowledge in B2B marketing	A framework to explicate the phenomenon of AI and its building blocks.	Comceptual framework.	Qualtitative.	Exsisting research. Data driven.	B2B companies, can use AI to translate intelligent data into knowlede and information when developing new strategies within marketing and sales. AI can entitle customer knowledge, by its creations of a profile of potentiel or exsisting customers. AI can increase marketing effectiveness duing each stage through the sales funnel.
Dwivedi et al., 2021	Artificial Intelligence (AI): Multidisciplinary perspectives on	AI and its implication in, challenges ans oppertunities.	Analysis of recent research	Literature review.	Exsisting litterature and indentification of further	Iddentifies severel different challenges and oppertunities from many perspectives, which all of them are related to AI and the usage of AI. A key finding is that there are numerous of benefits and significant risks from adopting AI: see table. 4.

Table 3: Own illustration. 2022. Recent studies

Along with these findings, Paschen et al. (2019) mention that AI can create customer knowledge in several ways, for instance, it can create a comprehensive customer profile of current or potential customers. However, it is essential to acknowledge that challenges are associated with using Big Data and AI. According to Dwivedi et al. (2021), several data challenges encircling data integrity and the use of data. There is a need for new and more efficient technologies to handle the high amount of data, the variety, and the progression of data to secure validity. As the continuous evolution of AI technology and the maturity level is high, the challenges surrounding data implications will need to be solved to ensure confidence among stakeholders (Dwivedi et al., 2021).

In alignment with the business performance, Li et al. (2021) takes a more value-adding perspective on industrial AI implementation. Li et al. (2021 p. 1) state that; *"Industrial AI is a key element in the development of business-to-business (B2B) marketing activities, and to reshape the buyer-supplier relationship in the supply chain."* Inline, industrial AI is used to predict target customers purchase decisions, which once again increases the overall customer experience (Dimitrieska, 2018). Li et al. (2021), point out companies need to have in mind that for adopting industrial AI, B2B companies should be prepared to change organizational patterns and strategies. In general, AI - and industrial AI - will change how the organizations interact with their most vital stakeholders (e.g., customers or supply chain members) moreover, engagement and service experience will change over time (Baabdullah et al., 2021). Despite the industrial AI´s potential for business value, previous studies highlight different challenges associated with AI technology (Dwivedi et al., 2021), for instance, the collaboration between partners and value creation.

According to Davenport et al. (2020), the future, and one of the ways of increasing business performance, is adapting AI into various processes, as it will change the way of adjusting marketing strategies, service options, customer behavior, sales processes, and in the general whole business model. Davenport et al. (2020) mention that AI is a powerful tool that can help companies address some of their most critical challenges in today's business. As AI becomes more approachable, companies and agencies use AI to predict trends. Inline, digital marketing is changing dramatically. Columbus (2019) will make AI technology the most adopted technology among marketers in the upcoming years. According to Davenport et al. (2020), the regular business practice is moving away from a traditional model to a more digital one. Furthermore, Chui et al. (2018) mention that the most potential value due to AI can be seen in

marketing and sales domains. Järvinen & Taiminen (2016) and Syam & Sharma (2018) suggest that the marketing and sales departments should be seen as an integrated unit. Davenport et al. (2020) define AI as a tool to predict many data and get the proper insights of the customers. In addition, he pronounces that AI can enthrall the customers in the pre-and post-purchase stage and can be an excellent task and successful implementation accordingly to the sales process (Davenport, 2020).

Paschen et al. (2020) agreeing with Davenport et al. (2020) highlight the ability to add AI into the sales processes and, more concrete, how it will affect Dubinsky's (1980) seven steps of sales. According to Paschen et al. (2019), adding AI technology into the sales process will improve and change the B2B sales funnel, and it can alter the standard human-centric sales process. In addition to the seven steps of sales and adding the technology into that part, an interesting finding is that the first step in the sales process is "prospecting,". This phase should be seen as lead generation, and "finding potential customers," which is in alignment with the traditional task of a marketing segmentation task (Jävinen & Taiminen, 2016; Syam & Sharma, 2018). According to Paschen et al. (2020), for salespeople, these first steps should be seen as an opportunity to create new and change their value-adding offerings. In continuation of previous studies, Paschen et al. (2019, p. 1414) states that: *"No up-to-date AI system exists that does not use machine learning as a key mechanism to dynamically alter its behavior in an ever-changing environment."* In addition, they mention that the fact that technology can learn without being explicitly programmed makes it possible to make pure data-driven decisions and forecasts through pattern recognition. According to Paschen et al. (2020, p. 408) *"AI is capable of developing and applying predictive algorithms to engage in lead scoring."* Another interesting finding is that AI can maybe, in the future, get more information regarding the sales process than a regular sales professional.

It is essential to mention that AI should enhance, not replace (Paschen, 2020). In addition to this, Dwivedi et al. (2021) state that one of the emerging challenges to AI and sales is that AI-technology is a job killer, as automation and, in general, automated services replace many employees. Moreover, they mention a loss of privacy, which can be seen as an ethical problem for both customers and companies. A significant challenge is changing the way sales professionals interact with customers because technology will impact the trust among both parties (Dwivedi et al., 2021).

Finally, implementing and taking advances from the technological trends, for example AI, a high value lies within the organization's readiness, environment, and behavior (Baker, 2012). According to Alsheibani, Cheung & Messom (2020), AI readiness can be referred to as an organization's capability to support AI technology. In addition, researchers accommodate three current areas associated with the above: AI Infrastructure, Technicality, and Awareness. More specially, research reveals that the technical infrastructure is a significant prerequisite if a company wants to implement a digital transformation process successfully (Kowtha & Choon, 2001; Lin & Lee, 2005; Lin & Lin, 2008). Secondly, recent research claims that the IT infrastructure is a cornerstone in the AI readiness factors. Here researcher Johnk, Weissert & Wyrtki (2021) mentions some underlying elements: data storage and networking, which is supported by Verhoef et al. (2021), and will be explained further on.

AI challenges from the litterature.

AI challenges	Details
Data challenges	Data integrity; Validity and Confidence amoung big data and stakeholders.
Technological maturity & Digital transformation.	IT infrastructure need to be high in value and have capabilities to supporting the AI-technology if they want to implemnt succesfull digtial transformation.
Ethical challenges	The data sharing problem; lost of privacy; data policy challenges.
Sales implications	Emerging challenges; AI is a job killer; Loss of privacy;the increased use of automated systems open up privacy risk due to customers; Chganging the nature of salespeople interactions; Lack of understanding of AI algorithms.
Value co-creation in SCM.	Synergy between value and capabilities among marketing professionals, business partners and AI technology providers is crucial for B2B firms to make effective decisions and enhance supplier and customer relationships (Lin, Yip, Ho, & Sambasivan, 2020).
Organizational changes	Transition towards implementing AI technologies present organizational challenges due to patterns and strategies (lack of strategies for AI development).

AI oppertunities from the litterature.

AI oppertunities	Details
Power of AI	AI can help companies to address some of their most critical challenges regarding today's business; it can increase the business performance in different ways.
Sales performance	Increase B2B salesfunnel and optimize sales processes.
Enhanced digital marketing	Predict patterns, customer behavior and customer needs to increase customer satification and experience. Attract new customers.
Organizational effectiveness	Technology interactions and oppertunities to develope and provide stratgic awareness for companies and to take effectively action.
Competetive advantage	Predict future product demands. Create stronger relationsship with stakeholders.

Table 4: Own illustration 2022; Dwivedi et al. 2021. AI challenges & opportunities.

Finally, research conducted by Dwivedi et al. (2021) identifies several different opportunities and challenges when implementing technology and especially AI, into the overall business strategy. As observed above, the possibilities are endless when adding AI as the main part of

both the marketing strategy and the sales process. Table 4 above, illustrates the main opportunities and challenges identified in the recent studies and are illuminated in the perspective of Dwivedi et al (2021).

2.3 Digital transformation

In general, digital technology has modified the way of doing business, how business-to-business intact with customers, adjusting marketing activities and how they sell (Syam & Sharma, 2018). *"Digital transformation is the intra-organizational changes associated with the application of digital technology that leaves the organization better able to compete effectively in its competitive milieu"* (Eduardsen, 2020, p. 15). Moreover, *"digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business"* (Eduardsen, 2020, p. 7)

As this topic is of high interest for many academics, researchers, and businesses, the following sections in the literature review will dive deeper into the topic of digital transformation to investigate the underlying factors to determine the need for a digital transformation within different areas of a business.

2.3.1. The increasing need for a digital transformation

Several different factors increase the need for a digital transformation. The first factor identified is the world wide web and the everchanging technological adoptions of these. With the escalated use of the internet, smartphones, online systems for payment and voice recognition a digital transformation is required to follow the data flow and the customers perception of value. With the revolution of technologies existing within I4.0 new technologies such as big data, IoT and AI have a far-reaching impact on corporations following the digital transformation (Chen et al., 2012; Iansiti & Lakhani, 2014; NG & Wakenshaw, 2017). However, these technologies might not be as effective as expected as many businesses may need to digitally transform their firms because of new digital technologies. (Verhoef et al. 2021)

The digital transformation is also affecting the competition. The competition has become more global. As new and more digitalized companies enter the markets, such as the tech giant

Amazon, it threatens many businesses among different industries which contributes to the increasing need regarding a digital transformation (Verhoef & Bijmolt, 2019).

The third factor of the need for a digital transformation relates to the first factor, as the consumer behavior has changed. Therefore, firms must keep on track as their customers has switched their purchasing habits to online stores. Nowadays, the customer journey heavily depends on digital touchpoints (Kannan & Li, 2017). Through new search tools and social media engagement, consumers are more embedded, connected, active and informed (Verhoef et al., 2017). The entrance of the new digital technologies, as AI-based tools, is likely to affect consumer behavior (Hoffmann & Novak, 2017). The digital transformation could subsequently become the new normal and repel for businesses. Suppose companies do not follow the digital transformation and adapt the new technological applications. In that case, they from the customer's perspective becomes less attractive and may be replaced by other companies that can follow the digital transformation (Verhoef & Bijmolt, 2019). In-depth it is important for companies to take advantage of the digitalization to create a competitive advantage.

2.3.2. The phases of the digital transformation

Digitalization is rapidly evolving. When investigating the entire digitalization perspective, several different terms of the concept appear. Ross (2017) in agreement with Verhoef et al. (2021) stated that there are three different concepts; *digitization, digitalization, and digital (transformation),* which are used independently of each other and often refer to the same usage. Thus, it is vital to mention that the transformation can be seen as a process, where the phases cannot replace each other and has to concur in a continuous access (Ritter & Pedersen, 2020; Verhoef et al., 2021).

Most academic research indicate that the first two phases need to attain *digital transformation* in most of the more pervasive phases (Loebbeck & Picot, 2015). The 3 phases have by different researchers being heavily discussed through different prospects of definitions. Firstly, Ross (2017) argues that *digital* and *digitized* are two different organizational approaches. The first one concerns the digital value propositions. The second is related to a transition from analog to digital data, for example, through CRM-systems, while other researchers are using them interchangeably. In line, Ross (2017) states the importance of differentiating “becoming digital” with digitization. However, digitization can be seen as an urgent facilitator of digital. In continues, Coreynen, Matthiessen, and Van Bockhaven (2017) use the term *digitization* in a

way that does not directly distinguish between the two phases digitization and digitalization. They state that *digitalization* is a way of connecting people etc., through digital technology. (Ritter & Pedersen, 2020; Verhoef et al. 2021)

Digitization. We see a significant similarity between Ross (2017) and Dougherty and Dunne (2012), which states that digitization is the coding from analog information to a more digital solution, so the computer can stock the different processes and funnel the information. Other researchers also recognize this phase as a conceptualizing part of IT integrations, for which IT helps the tasks become more cost-effective. Furthermore, a large part of the literature argues that digitization will most often be reflected in the structure of a new organization, for which the digital artifacts are taken for measurement. (Lai et al., 2010; Ritter & Pedersen, 2020; Verhoef et al., 2021)

Digitalization. Li et al. (2016) defines *digitalization* as a tool that describes how IT and the adopting of digital implications can change the existing business practice and processes. Moreover, it is mentioned that IT in this area is a significant essential activity to embrace new valuable business opportunities. For example, how the whole technology within telecommunication allows changing traditional firm-customer interactions and how we across global value chains can communicate with suppliers and customers (Ramaswamy & Ozcan, 2016). In step with digitalization, it is formal to optimize processes by creating value for the customers through user experiences, so the focus is not only on cost efficiency as in digitization but also on process improvements and value creation. (Baraldi & Nadin, 2006; Pagani & Pardo, 2017; Verhoef et al., 2021)

The digital transformation. In short, this phrase describes a change in the entire company, and thus, according to Iansiti & Lakhani (2014), a greater focus is created on the well-known business model. As we know from the previous research literature, the business model is a significant player and a significant competitive parameter in the market, and this reference is no exception. The business model uses a foundation and a representation of the company's value activities, including how the company creates and delivers the desired value to customers (Teece, 2010). Let's, as researchers in the field take and put this whole concept in perspective for development. Digital transformation is used as a lever in the possibility of implementing new business logic with the help of capturing and creating customer value. There is a change in doing business - a logic that goes far beyond digitalization. Furthermore, if we go back to the previous example, the development can contribute to enabling interactions across global

value chains, so here we as a company go in and utilize the existing core competence through technology. (Liu et al., 2011; Verhoef et al., 2021) Table 5 illustrates the different definitions due to the three phases of concepts.

Authors	Phase	Term	Definiton
Verhoef et al. 2021, p. 4	1	Digitization	*"Automated routines and tasks; conversion og analog into digital information"*
Coreynen et al. 2017, p. 44	1	Digitization	"*The increasing use of digital technologies for connecting people, systems, companies, products and services* ."
Brennen and kriess, 2015, p. 1	2	Digitalization	*"The adoption ot increase in the use of digital or compiter technology by an organization, industry, country, etc."*
Verhoef et al. 2021, p. 4	2	Digitalization	*"Use of robots in production; Addition og digital components to product or service offering; (...) introduction of communication channelse."*
Ross, 2017, p. 2.	3	Digital	*"To become digital, leaders must articulate a visionary digital value proposition. This value proposition must reassess how digital technologies and information can enhance an organization's existing assets and capabilities to create new customer value."*
Verhoef et al. 2021, p. 4	3	Digital	*"Introduction of new business models (...), digital platforms, and pure data-driven business models."*

Table 5: Own illustration with inspiration Ritter & Pedersen, 2020; Verhoef et al., 2021. Definitions,

To sum up, as presented in figure 2 below, digitization should be seen as an adjective and refers to as a broad range of potentially powerful game-changing technologies, whereas digitalization is about taking advantage of the given technologies. Furthermore, the digital transformation is about companies rethinking and streamlining their value proposition (Ross, 2017). For corporations to become digital, it´s much more than enhancing different valuable fields, through digital technological implementations. As illustrated in above figure, being digital is about adopting applications to make different processes more automated. According to Ross (2017, p. 1): *"Digitization is an important enabler of digital, but all the digitization in the world won´t, on its own, make a business a digital company"* As we can see digitization is an important factor if companies want to scale, as it makes the data reliable and accessible.

More specifically, for a company to become digital they must define digital offerings. The digital offerings are the solutions delivering the corporation's digital value proposition. If a

company succeed with a successful digital transformation, they will expect growth in revenue and opportunities. In the best possible scenario increase customers loyalty and centricity. (Ross, 2017) For companies to offer an attractive customer value proposition, it is more about art than science. Ross (2017) represents five Guiding Principles for a corporation to start a digital transformation: 1) companies must embrace that this is a business transformation and not only a responsibility for the IT-department, 2) the companies embedded culture and structure is the most important obstacles in the transformation, 3) use professional help, 4) be patient and persistent and lastly, 5) co-create with the customers. The journey of a digital transformation will therefore be long, and companies need to ensure that they are quite digitized to support the journey (Ross, 2017).

In-dept, the *digital transformation* is an implication of changes in the core business using digital technology. (Agarwal et al., 2010) This element can be precious for well-established business judgment wanting to challenge pre-existing barriers through business model innovation. Typically, one sees here that they start with small changes characterized by the first two phases, first *digitization* and then *digitalization*, to gradually transition into a traditional *digital transformation*. (Verhoef et al. 2021) However, it is essential to mention that the various phases, have some essential strategic imperatives, as *digital resources,* and *organizational structure*. These will be elaborated on in the next section. Since our thesis revolves around the concept *Digitalization*, the next section will be explained based on this.

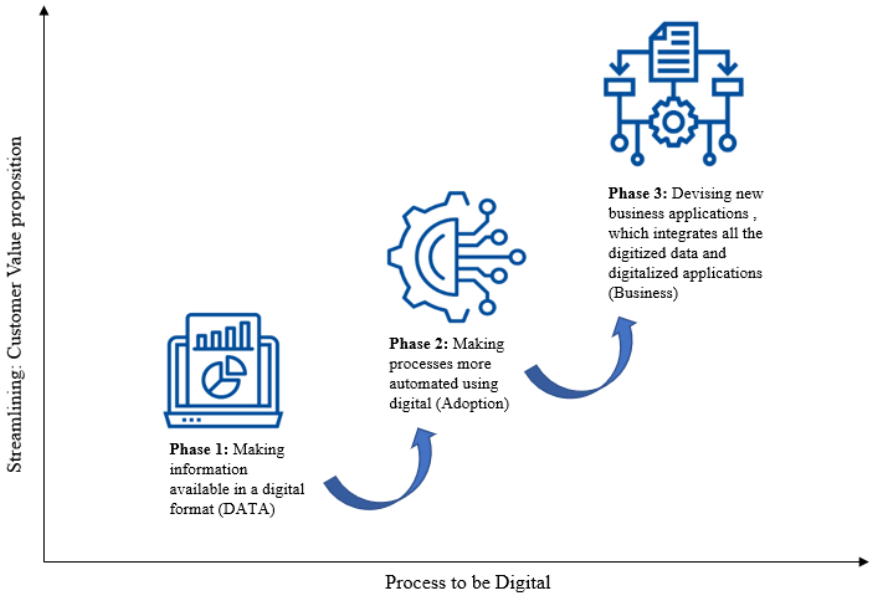


Figure 2: Own illustration, 2022; Yokogawa. (n.d.). The digital transformation.

2.3.3 Strategic, urgent imperatives of the digital transformation

2.3.3.1 Digital resources

A company's resource capacity has and will always play a significant role in any business investment. According to Barney (1991) a company's resources represent control and ownership over its capacity and assets within the corporation. These resources also contribute to enabling a successful implementation. Verhoef et al. (2021) demand the pursuit of a complete *digital transformation*, which goes against a more customer-oriented and value-creating approach, giving the company access to develop new digital activities and opportunities. In addition, some essential *digital assets* are needed in the change.

2.3.3.1.1 Capacity

Digital capacity is a broad term used to describe skills and attitudes within the individual and organizational needs. According to McKinsey & Company (2018), one of the vital challenges within AI is finding the proper employees with the right skills to manage and implement the AI technology into the organizational field. In addition, Molinillo and Japutra (2017) suggest that a limitation in technological complexity and availability can create significant barriers to AI technology's performance (Bhatti & Jensen, 2022).

2.3.3.1.2 Digital assets

For businesses, there is an excellent value aspect in having digital assets resting in the company's resource portfolio. If the company intends to be an essential operator and thus compete in the digital age; the company requires several *digital assets* such as data storage, information, and communication structure with solid support for related technologies (Verhoef et al. 2021). As mentioned in the introduction section, we generally invest heavily in digital technologies through various software solutions to enable the use of, for example, AI in the business process.

According to Verhoef et al. (2021), the movement of these technologies and data would be instrumental in increasing the customer value. A practical example could be the data's existence in compiling customer journey data which, through the company's use of digital assets, can help personalize services and products, which are said to be one of the underlying needs for digital transformation. In continues, Verhoef et al. (2021) mention some digital capabilities,

which are seen as vital elements in enhancing the value of digital assets. These are *Digital agility* and *digital networking capability.*

2.3.3.1.2.1 Digital agility

According to Lee et al. (2015), using *digital transformation* in companies is about sensing the opportunities within the digital era, which according to Verhoef et al. (2021), is the whole idea behind *digital agility*. According to different researchers, digital agility is the ability for the companies to rapidly change business practices and processes by taking advantage of the digital. This with the aim, to effectively perform their business functions.

Overall, *digital agility* in companies is a significant asset for success (Chakravarty, Grewal & Sambamurthy, 2013). Nowadays, companies operate within a highly unpredictable and dynamic market. Verhoef et al. (2021) stated that companies must be flexible through their digital agility. Furthermore, researchers believe that, for instance, companies must respond quickly to changing needs regarding their customers and the digital technologies. According to Eggers and Park (2018), for companies to respond to the upcoming challenges, companies must be digital agile to reconfigure their digital resources. These challenges and changes will impact the entire organizational structure - which will be presented later. Verhoef et al. (2021) state that if companies manage to perceive the opportunities, digital agility will help develop and increase customer value (Karimi & Walter, 2015). Finally, digital agility will play an important role when companies move between the three phases of the digital transformation, see figure 2, (Verhoef et al. 2021).

2.3.3.1.2.2 Digital networking capability

This part of the digital assets is identified as corporations' facility to match distinctive users, to address their needs through digital factors. As companies nowadays operates in dynamic markets, the digital network capability is an ability for corporations to interact with other business partners across sectors and manage their relationships efficiently. (Verhoef et al. 2021) In continues, Koch & Windsperger (2017) claims, companies due to the increasing digital allocation, are forced to build network centers and thus create value in interaction with other digital companies. This statement is further supported by further research that imposes which companies' competitive advantage is determined by managers and the ecosystem they choose to integrate with. (Accenture, 2017)

According to Verhoef et al (2021), one of the advantages of building network centers through ecosystems is companies' ability to engage with their customers and make them an asset for obtaining competitive advantage and value creation. Hence, this part of the assets is increasingly valuable in realizing digitalization and digital transformation. (Prahalad & Ramaswamy, 2000; Verhoef et al., 2021)

2.3.3.2 Structure of the Organization

One of the key issues to consider in a digital change is the organizational structure, as the transformation impacts these (Eggers & Park, 2018). Adapting a digitalization into a business culture affects different areas within a business as it can be seen as a kind of resource optimization. According to Skylar, Kowalkowski, Tronwoll & Sörhammar (2019), digital transformations have significant consequences due to the organizational structure. They suggest a flexible organizational structure existing of distinguished business units, digital functional fields and intelligent organizational forms. (Verhoef et al. 2021) However, the focus of the project lies in different areas, therefore the structure will not be reviewed in dept.

From a business and human resource perspective, the digital transformation affects the employees as they need digital and analytical skills (Lemon & Verhoef, 2016; Vomberg et al., 2015). Therefore, it can be claimed that constant training and coaching are required from the company perspective. Also, employees with analytical- and digital skills may replace existing workload. An example of this could be seen in marketing where marketers are replaced mobile and online marketing specialists, and data analytics may take over the workload of marketing researchers. Therefore, it can be predicted that companies enhancing with the digital transformation must align themselves and their business structure, engaging the employees as the structure will change during a digital transformation. (Verhoef et al. 2021)

Based upon the previous section in the literature review, the need for a digital transformation is both within the perspective of the business to follow the competition and based on the customer behavior. However, it is essential to mention that the level of maturity is an important factor to have in mind, both the maturity of the technology and the company's maturity. It is important that the companies have the right mindset and are ready for a new organizational structure and train and coach their employees for the digital change. Hence, the maturity level must be composed of the right technology solving the same job for the business and the right people to do the job.

Lastly, its essential to mention that companies' strategic, urgent imperatives are an important player in the maturity level. As higher they are on digital resources and assets, the higher they are on the maturity level due to the digital transformation and value aspects. (Verhoef et al. 2021)

Referring to the maturity level as an important factor in digital transformation, it is essential to acknowledge that many companies have more data than ever before. However, many managers states that their accessible data does not share actionable insights and the results are disappointing (de Langhe & Puntoni, 2020). Hence, companies have the initiative to find a purpose for the accessible data. Connecting this with the level of maturity, the companies are here low in the maturity level as they are looking for ways to achieve value form the data available. According to de Langhe & Puntoni (2020), companies should find data for a purpose, which they refer to as decision-driven data analytics.

2.4 From data-driven decision-making to decision-making data analytics

According to de Langhe and Puntoni (2020, p. 1), the issue can be reflected in *"data-driven decision-making anchors on available data."* Commonly, a data analyst does not produce the proper insight to generate a high success rate regarding business decisions. This can thus lead to the system focusing on the wrong questions and thus eliminating the most essential and valuable elements: if companies want to generate their ideas into reality, it is significant for the corporations to work on their key performance indicators. (de Langhe & Puntoni, 2020)

Companies are forced to deviate from data-driven decision analytics to more decision-driven data analytics. Inline, de Langhe and Puntoni (2020, p. 1) state that *"decision-driven data analytics starts from a proper definition of the decision that needs to be made and the data that is needed to make the decision."* Researchers generally acknowledge that organizations that focuses on the overall goal and decision before starting their analytical work are more liable to operationalize their analytical workflow (Akira.AI, n.d.). For companies to move into the new era of decision-driven data analytics, they must start identifying essential business key decisions and, secondly identify the people who generates them. Finally, according to de Langhe and Puntoni (2020, p. 2) *"finding data for a propose rather than finding a propose for the data at hand."*

2.5 Implementing in the organization: where to use it?

Nowadays, the area within the digital technologies generates opportunities for companies to strategically integrate them with the customers (Brennan & Kreiss, 2014). Inline, the digital transformation surpasses improving customer outcomes and enhance the value proposition throughout digital technologies (Newman, 2017). To do so, Ramaswamy and Ozcan (2016) state the importance of using digitalization and, e.g., I4.0 technology in any organizational field. In addition, if companies can find data for a purpose and lead the digital transformation with decision-driven data analytics, they can optimize their overall business performance (de Langhe & Puntoni, 2020).

Taking the digital transformation into the sales perspective is repetitively essential and a value-adding factor. Sales digitalization refers to the evolution of SFA, also known as salesforce automation. With the SFA in mind, it is essential to add the perspective of Richard Christian (1962) as he mentions, that the effect of the technology and automation will impact the way we interact in our day life. Samli, James, Wills and Herbig (1997) promotes the role and potential power of internet in marketing and sales professionals. Hence scholars reveal an integrative discussion of how organizations can use the technological evolution effectively in B2B sales forces. (Bhatti & Jensen, 2022)

2.6 The Digitalization of Sales Force

2.6.1 Moving from transactional selling to co-creation selling

Based upon prior research, it is identified that research around the digital sales process is seen limited. Therefore, as mentioned, the thesis will be premiere research accordingly to sales processes. To gather the fully understanding a briefly introduction of the sales history will be presented. Throughout modern sales history, one of the oldest and most accepted paradigms in the sales discipline is mentioned by one of the most famous professors: Alan J. Dubinsky (1981). Dubinsky advocated a more Personal Sales Process, characterized as the PSP. This process won great recognition through its “seven steps of selling” and aimed to present a sellers’ typical sales scenario through a transactional process. The selling process includes: the prospect, pre-approach, approach, presentation, overcoming objections, close and lastly, Follow-up (Dubinsky, 1981).

As sales throughout history began to be recognized as a professional discipline, Dubinsky's theory began to serve as a highly accepted basis for sales training. In addition, Dubinsky's (1981) PSP becomes one of the accepted domains in the sales field (Taawo & Myhr, 2021). According to Dubinsky (1981), proposals for future research are on how sales employees sell, and the efficiencies of sales techniques adopted by the different salesforce.

Concerning the seven-step process (Dubinsky, 1980) Marshall et al. (1999) states that the business approach in the 21st century has been under rapid development, the sales organizations, and selling process conducted continue to evolve. According to Marshall et al. (1999), technology and the rapidly increasing digital solutions have heavily influenced the general sales process. Marshall et al. (1999) states that the sales process has changed because of digitalization and develops further on the seven-step sales process framework with a new circular sales process taking the technology into the sales process. Hence, the findings of his study reveal moving on from transactional to the perspective of making relationship selling. Relationship selling combines securing, developing, and maintaining a trustful relationship with customers (Marshall et al., 1999).

Furthermore, the research of Marshall et al. (1999) is of high interest to the researchers as the recommendation for future research highlights the gab from a digitalization and sales perspective. Hence, understanding the impact of technology on selling and sales management and the actual means the technology interacts with other variables to enhance or detract from salespersons and sales organization effectiveness (Marshall 1999). One question that occurs is that when Marshall highlights the effect digitalization has had on sales from the 80s to the 00s, how much impact has it had on the sales process during the last years when adding the perspective of I4.0; AI and ML. In relation to this, it is also essential to have Richard Christian (1962) in mind.

Moving on in the sales history the term value-based selling (VBS) was introduced by Töytäri in 2011. Due to Töytäri (2011, p. 494), VBS can be defined *"as understanding and proactively improving the customer's business."* More in-depth, the salespeople are moving into co-creating value with the customers, also characterized by co-creation selling. Taking the three first steps of Dubinsky (1981), not much is changed. Here, the salespersons are still identifying suitable customers and trying to understand their business and offering position. Subsequently, the last four steps are implemented in close collaboration with the customers. The salesperson is moving into an operational customer perspective and aiming to cooperate with their

customers. (Töytäri, 2011) Finally, VBS is an essential factor to examine when adding digitalization and technology into a business strategy.

Despite the transition from value-in-exchange (transactional selling) to value-in-use (co-creation selling) there has only been a few adjustments of the sales process, as mentioned above (Marshall, 1999; Töytäri, 2011; Bhatti & Jensen., 2022). However, since the digital transformation and the increasing affect the technological changes have on many business areas, the need for a more precise sales process is more significant than ever. According to Varey & Ballantyne (2006) and Eggert, Ulaga, Frow & Payne (2018) there has been adjustments in the movement between different sales techniques. More profoundly, there has been a valuable movement through; 1) the transaction, 2) interaction, and lastly into 3) dialogical practices, described in table 6. However, one interesting finding of the exiting research is that the shift does not take the technology and the digital transformation are not columnated into the sales process. (Bhatti & Jensen, 2022)

	Transactional selling (Value in Exchange)	Interactional selling	Co-Creation selling (Value in Use)
Communication	Persuasive, Message-making. (Varey & Ballantyne 2006)	Communicational, Informing and listening. (Varey & Ballantyne 2006)	Dialogical, learning together. (Varey & Ballantyne 2006)
	Customer passive recipient, communication as transfer (Eggert et al. 2018)	Incorporates customer perspective (Eggert et al. 2018)	Reciprocal communication as a process (Eggert et al. 2018)

Table 6: Bhatti & Jensen, 2022. Change in sales communication.

2.6.2 MAPS conceptual framework

Building on the present literature and developments within the salesforce, Bhatti & Jensen (2022) have designed a theoretical framework entitled "Aalborg Sales Process Model (MAPS)" highlighting how technology-triggered processes such as I.40 determinates the sales force. The conceptual framework made by Bhatti & Jensen (2022) conceptualizes the sales process to a

new level wherein integrated human-machine interactions are incorporated fully into the process.

It is important to mention that the MAPS conceptualization is accumulative and therefore not changeover the existing sales processes yet seen as an extension. It can therefore be argued that the different selling techniques, mentioned in table 6 is still suitable to have in mind (Paesbrugghe et al., 2017). Additionally, as mentioned, the digital and sales maturity level is at high priority when adapting new domains of sales processes in an organization. It is essential to integrate data to extends the value co-creation process. Moreover, the human-machine interaction is seen as the most essential addition of this framework. Human-machine interaction is defined as new I.40; such as AI techniques that boost efficiencies, sharpen and increase predictions, and optimization and automation in real-time. Hence, the approach is seen solely digital where AI solutions interact with customers and salesperson to finally enhance the value creation. (Bhatti & Jensen, 2022)

Figure 3: Bhatti & Jensen, 2022, p. 8. MAPS Conceptual Framework

Figure 3 illustrated the new process and seven steps of MAPS, which according to Bhatti & Jensen (2022) consist of *"(1) Identify potential possibilities, (2) Identify potential stakeholders, (3) Share insights, (4) Connect stakeholders and resources, (5) Co-Create shared activities and platforms, (6) Realize, (7) Evaluate and learn."* (Bhatti & Jensen, 2022, p. 8)

Identify potential possibilities. This first step executes from the process of identifying potential possibilities emanated from algorithms, data, and other predictive and prognostic technologies and algorithms. Normally, it is crucial for a sales employee's success to use the outcome from such data to determine new opportunities. More speciously, all the information which is emanated from the data are used as vital information in identifying potential possibilities." (Bhatti & Jensen, 2022)

Identify potential stakeholders. Going further on, the next and second step is the identification of potential stakeholders. According to Prahalad & Ramaswamy (2004) generating and delivering a shared value with stakeholders is not only a difficult task but also a vital component of value co-creation. The shared value should be communicated to the several existing stakeholders (e.g., end-users, suppliers and potential customers) to successfully implement the integrated selling process. Moreover, this step during the process is a fully data-driven and yet can also be seen as a relational process. (Bhatti & Jensen, 2022)

Share insights. The third stage in the framework is to generate the stakeholder's interest, hence, it is about sharing insights simultaneously. Here it is vital to mention, that this phase can both be a physical- and digital process. The digital process can be established intercurrently though different social media channels or other online platforms. The physical process can be carried out by for instance through face-to-face interactions. All in all, this stage is an integrative and ongoing process of sharing data and information with the most vital stakeholders. (Bhatti & Jensen, 2022)

Connect stakeholders and resources. This phase has the intention to create and build a shared value between all parts to obtain a composed collaboration through dialogue and consciously benefiting from relevant resources to reach the overall end-goal. (Bhatti & Jensen, 2022)

Create shared activities and platforms. The fifth stage of the MAPS conceptualization is to create a shared activity and platforms within the network system. The factors for this process are to identify, understanding and developing platforms for the inbound collaboration. These platforms can both be digital through online engagement and though physical interactions. (Bhatti & Jensen, 2022)

Realize. The sixth step is the realizations stage, which can be seen as similar to conveying a product or service. According to Bhatti & Jensen (2022, p. 10) The stage requires; *"the production and the distribution of a product or service and the successful implementation."*

Evaluate and learn. The last stage is given to lean and evaluate on the process. Both elements are crucial as learning from experience by working with AI and data design is necessary. It is essential to learn throughout the entire process but also through measuring traditional KPIs. (Bhatti & Jensen, 2022)

The next initial step, according to Bhatti & Jensen (2022), is to operationalize and implement the MAPS conceptualization and analyze the entire process. However, as mentioned above, it is essential to have in mind the current level maturity the companies operate at, as the maturity level is of high importance regarding the conceptual framework. In continues, the researchers must test validity of the current framework, to examine a complete MAPS conceptualizing considering I4.0.

Part 2: Methodology and Analyzing

3. Methodology and Research Strategy

To outline the project and its methodology, it is worth presenting the type of paradigm; the way we as researchers believe the world is constructed, the recognition of how the world is logically ahead of the methodological and empirical tools in our understanding of the objective reality. Secondly, the empirical data collection involves some considerations around quantitative and qualitative approaches.

3.1 Philosophic of Science

3.1.1 Critical Realism

According to Arbnor and Bjerke (2009) philosophy of science can be divided into two overall paradigms: functional and interpretive. The functional has an objective perception of reality, whereas the interpretive is seen as more subjective. Further, the two main paradigms can be allocated into three sub-paradigms: positivism, critical realism, and social constructivism, which further diverge into approaches: analytical-, system- and actor approaches (Arbnor & Bjerke, 2009). The researchers will remain objective to the empirical data as much as achievable, and with the knowledge of the level of subjectivity that will occur during the process of investigating and writing, this thesis is conducted with the approach of being critical realistic. (Arbnor & Bjerke, 2009) (Weesgaard & Vimalenthiran, 2022)

Critical realism was presented in the 1970s by the English philosopher Roy Bhaskar. This was followed by a broad accepting recognition of a new metatheoretical positioning within the area of theoretical theory. The paradigm is considered a radical holistic alternative to positivism, to which we, through the use of critical realism, now have a more critical attitude toward naive empiricism and radical social constructivism. Metatheoretical positioning in the critical realism during the thesis allows the researchers to excel the subjective perspective which is critical accordingly to the problem statement aim for a holistic view when investigating I4.0 and sales processes. (Arbnor & Bjerke, 2009)

Critical realism considers reality as being deep, why reality is also considered through structure and mechanisms in the deeper layers beneath the surface: the underlying mechanisms. To gain deeper knowledge than the surface, we as researchers will expose some of the mechanisms that help generate the phenomena we study. As researchers we are truth-searching in our research role. (Arbnor & Bjerke, 2009) In addition, it is essential to have in mind the influence digital transformation and I.40 technologies can have on the sales process.

Furthermore, it is essential to mention that we, as researchers, in the process, recognize the social phenomena and their meaningful relationship to reality. We do not want to measure or count on these parameters as a complete understanding is of prerogative. In other words, there will always be a descriptive and interpretive part in the social research of the thesis, and thus we as researchers accept parts of the social construction that take its leap through constructivism. (Arbnor & Bjerke, 2009)

3.1.1.1 Transitive and intransitive

According to Arbnor & Bjerke (2009) critical realism outlines that human is in the middle which results in two dimensions, the transitive and intransitive domains. The intransitive is the ontology of the project, and the transitive is the epistemology.

The intransitive dimension refers to the knowledge of objects the researchers have to generate. Hence, according to Buch-Hansen & Nielsen, (2005), objects remain without human's understanding. Moreover, the intransitive dimension refers further to the system approach characterized by observing the reality objective, as a part of a fact-based construction.

The thesis's objective is to investigate and research the area of I.40 in relation to sales processes. Hence, creating a synergy between the chosen phenomenon and how it will affect the sales process within different industries and the given sales activities. The intransitive dimension has a holistic understanding which clarifies that it is not possible to understand or describe the totality alone by each element. To create the synergism, the researchers will investigate the interactions of the phenomenon, I4.0 and digital transformation and its influence on sales activities and processes among customers. Therefore, the actuality is constructed by given data and the researcher's social interpretations of these. Therefore, it can be argued that the likeliness for other researchers to gain the same outcome as this thesis is smaller, as the totality is seen from our perception of the reality. (Buch-Hansen & Nielsen, 2005; Arbnor and Bjerke, 2009)

The transitive dimension consists of pluralism data collection, which is seen as the researcher's acknowledgment of the world. Thus, the existence of knowledge can generate new knowledge based on data collection (Buch-Hansen & Nielsen, 2005).

Existing knowledge is the key factor and main creator of new knowledge and is seen as a social activity and a social product that society has to recreate and transform. This leads to the perception that every single essential element could potentially change how I4.0 will affect the sales processes. The thesis focuses on clarifying the perceptions of how existing literature investigates the topic to generate a new common understanding. To do this, the researchers use existing knowledge created in resent written project on the MSc Marketing program on AAUBS, theories as Dubinsky (1981) sales process framework and existing literature about I4.0 in marketing and sales (see A1). The data gathered in the thesis exist from the collaborative case companies.

3.2 Methodology Approach: System Approach

As mentioned in the thesis, being critical realistic leads to using the system approach as the method during the thesis. The system approach considers reality to be objective. Therefore, incorporating facts is an important yet difficult task to explain the objects. Interpretations is an essential part of this approach; hence, it will lead the researchers in direction of understanding facts of the reality. According to Arbnor & Bjerke (2009), the connections between each element are constantly interacting with each other, which also affects the research questions, which might modify due to the objective reality.

In the investigation of I4.0 and sales processes, the researcher tries to identify some external factors. The interaction between the phenoms will help in the comprehension of a deeper understanding of the object being investigated, which secondly will help identify and evaluate new ways of clarifying a digital sales process in the light of MAPS. The interaction will be the key elements in the thesis, as we as researchers tries to clarify the interactions doing the research. Furthermore, it is significant to mention that we as researchers recognize that there is a broad range of factors that will impact and influence the system. As researchers we start a mutation. More in-depth, it contains that we cannot have a full and causal understanding of the reality of science, why we recognize that everything is done in systems. Hence, it is the process and the outcome that is essential for the conclusion of the research. Finally, it is important to acknowledge that when working within the system approach, the researcher will contain a

subjective approach reflected in each part of the elements due to the conceptual framework MAPS. However, in the system approach we have the focus on the interactions in-between the elements, why we will make the subjective more objective. To clarify, to get the full picture of the reality, different truths will be added together to get the great whole. (Arbnor & Bjerke, 2009; Sørensen, 2021)

As this thesis is a part of an extent research, investigating if I4.0 in correlation to sales process and if digital transformation can have its own new way of doing sales, the researchers will have to make some interpretations. The researchers are conscious that some overinterpretations might occurs, which will impact the relations. Moreover, the result and conclusion of the thesis cannot be fully described or have a specific conclusion as it leans upon the subject that is being investigated. In other words, the reality is not summative, why the researcher aims to come up with their most qualified propose on the research question being investigated (Arbnor and Bjerke, 2009)

According to the choice of critical realism and working within the system approach, the critical paradigm tries to create a paradigm which is compatible with both quantitative and qualitative data methods. Finally, it requires the type of reasoning to be abductive with will be further explained in the next section, both the descriptive version and the usage during the thesis. (Arbnor & Bjerke, 2009)

3.3 Reasoning: Abductive Research and Exploratory

> *"In abduction, qualitative research uses a selective and creative process to examine how the data support existing theories or hypotheses as how the data may call for modifications in existing understandings. The go beyond the data and pre-existing theoretical knowledge by modifying elaborating upon, or rejecting theory if needed, or putting old ideas together in new ways to examine, understand and explain data."*
>
> (Kennedy & Thornberg, 2018, p. 52)

Preparing a master thesis, an important question arises within the research project's design; this is often about whether the research is preoccupied with theory building or theory testing. More elaborately, these two presents two conflicting approaches to the reasoning used: inductive (moving from data to theory) or deductive (moving from theory to data); although the reasoning, alternatively, can be abductive. (van Maanen, Sørensen & Mitchell, 2007)

Abductive reasoning is characterized as an approach that moves back and forth between theory and empirical data. In other words, an effective combination of deduction and induction (Suddaby, 2006). This reasoning starts with observations. These can be observations of "surprising" findings; afterward, it will determine a plausible theory regarding how this would happen. According to Van Maanen et al. (2007), the "surprising" findings can occur throughout the research process. (Saunders, Lewis & Thornhill, 2019)

Applying an abductive approach investigating I4.0 and the sales- disciplines and processes would mean that we as researchers would obtain rich and sufficiently detailed data, which helps us explore the phenomena and by that identifies and explain some vital patterns regarding the sales process. This would help, in the further research, to integrate a conceptual framework, which secondly will be tested through evidence of existing- and new data and lastly modified if this is seen as necessary. (Saunders et al. 2019)

3.3.1 *Abduction due to the thesis*

In the following figure, the research strategy of the thesis is constructed. Through the researchers established knowledge and prior research gaps a wonder was triggered regarding the digital transformation and its impact sales processes. New understandings will arise through different theoretical perspectives. Furthermore, shifting between theoretical perspectives and empirical observations will enrich the researchers with a deeper and more profound understanding of the existing knowledge. According to Darmer, Jordansen, Madsen & Thomasen (2010), this is what portrays the abductive approach.

As mentioned, the interest in the topic occurred from existing knowledge of the topic's digital transformation and sales processes based upon earlier written projects of the topics individually. Figure 4 illustrates the abductive process during the thesis. In the construction of the thesis among the researchers, the first thoughts were to understand how AI impacts lead generation and sales activities. After meetings with the thesis supervisor, Waheed Akbar Bhatti, it became clear that the topics of interest for the researchers leaned upon the research Karina Burgdorff Jensen and Waheed Akbar Bhatti were conducting. Therefore, this thesis became a part of their research project concerning the I4.0 and, more specifically, the digital transformation and how it can be integrated into and change a sales process. The researchers investigated recent studies written during the last four years to understand and identify a more specific research gap according to digital transformation and sales. Through semi-structured

interviews and observations with the collaborative companies, the researchers moved between empire and theory to test the conceptualization for validly.

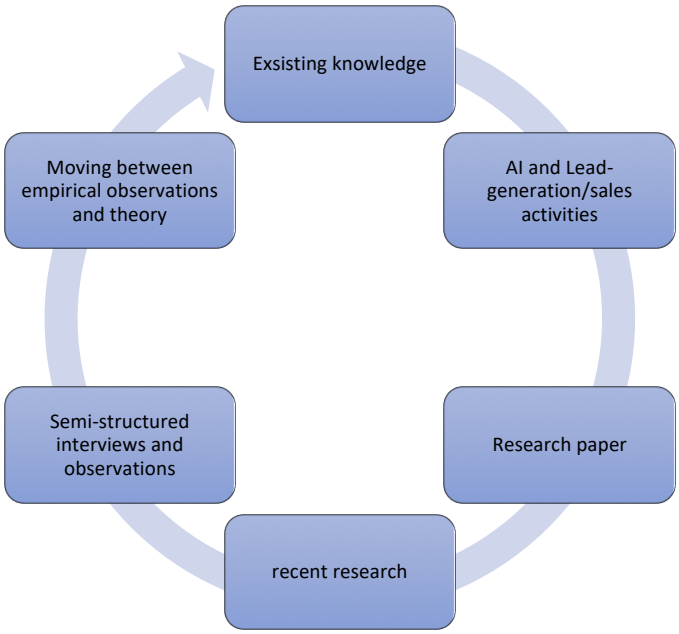


Figure 4: Own illustration, 2022. Abductive approach.

One of the advantages of abduction is illustrated in the overall flexibility. Here the adductive approach covers much research philosophies, Pragmatism, Critical realism and postmodernism. As before mentioned, critical realism is chosen as the overall philosophic of science. Going further with the abductive approach, in this manner, a word called "retroduction" will be of high relevance. In fact, this is, according to Peirce (1896) the "original" label for what we have known as being abductive. Operating in the areas of Critical realism, we as researcher's tries to emphasize a more historical aspect of the overall research, taking in the sales process of Dubinsky (1981), Monchief and Marchall (1999) and Töytäri (2011). Hence, the researcher tries to identify and understand some underlying mechanisms due to the existing theory.

Finally, the researchers are using, what we call a "Exploratory" Study. This would help the authors of the thesis develop research that attempts to approach a developmental phase of concepts and theories. Here, the components of our problem formulation, interviews, observations and literature review, have been contributing probe for the research.

3.4 Research strategy: Mixed-Methods Research

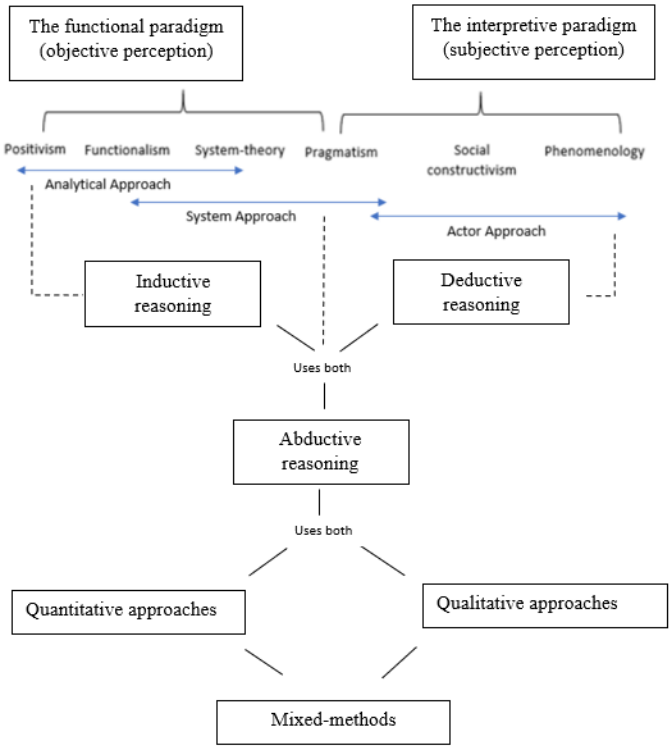


Figure 5: Own illustration, 2022. Methodology approach

The critical realism is firstly characterized by an abductive reasoning, which secondly tries to create a paradigm which is compatible with both quantitative and qualitative data methods, illustrated in figure 5. In general, Quantitative and Qualitative research differ in collecting and analyzing the data. However, many researchers have failed to consider whether these two strategies are related. In addition, Wheeldon and Åhlberg (2012, p. 1) states *"all quantitative data are based on qualitative judgments; all qualitative data can be described numerically."* In relation to Creswell & Clark (2007, p. 13) a new method is born: *"The third methodological movement"*.

This part of the chapter will explain how the researchers has used Quantitative and Qualitative data respectively in their study and presentation application. According to Wheeldon and Åhlberg (2012) the theoretical approach for the quantitative and qualitative approach has its roots in the areas of postpostvism and constructivism. First, it will be fundamental to review the underlying meanings of the two approaches.

Post-positivists argue that the difference is independent of our experience and perception of it. In addition, all research will be considered incomplete. Thus, it is believed that the approach must be discovered and prove through a scientific method. Against this background, this method is often considered to use a more deductive reasoning, to which specific conclusions are desired to be opened, through an objective top-down[1] approach. Furthermore, this approach is characterized in its use of statistics and sample size. By limiting oneself to this type of data, researchers will risk missing out on the depth and details of research, and furthermore making it difficult to access the more complex side due to human behavior. (Goertzel & Fashing, 1981)

On the other hand, it is essential to mention the approach: Constructivists. This view is characterized by the idea of how the truth sees the overall understanding as being dependent on human practice and thus values and recognizes the individual's social construction of reality. This approach results in a more inductive reasoning, to which we as researchers diligently try to understand the world, based on human experiences and perceptions. Unlike the Quantitative research method, qualitative research differentiates in the way, in which it has a high focus on developing theories, in biases of individualized and interpretive processes. (Wheeldon & Åhlberg, 2012) In addition, Guba and Lincoln (1989) mention that, because of the range of interpretation, researchers in this area refuses to only trust one interpretations of knowledge without enhancing their own social construction.

Researching in the areas of the new method; Mixed method researching, it is important to mention; how we as researchers deviates from the assumption of either quantitative or qualitative research. In addition, one question arrives related to how we as researchers weights the different methods in the thesis and its relative importance (Wheeldon & Åhlberg, 2012). This section will be discussed next.

3.4.1 Weight of Methods

Mixed methods can appear in many different forms. When assessing whether the scientific is sustainable, it is important to clarify the methods' weighting. This, in fact, refers to which of the methods is most significant to the thesis outcome. (Wheeldon & Åhlberg, 2012).

In continuation of this, Johnson, Onwuegbuzie and Turner (2007) have illustrated a model, see Figure 6, which can help with the visual part of the division. The different methods are put on

[1] Deductive top-down approach: starting with theory, going to hypotheses, observing of the hypotheses and lastly it aims to reach logical affirmation

a broad spectrum on which the study can be placed. Overall, this question clarifies where we as researchers attribute the different kinds of data collected throughout the period and whether the analyzes originate from one or the other dominant.

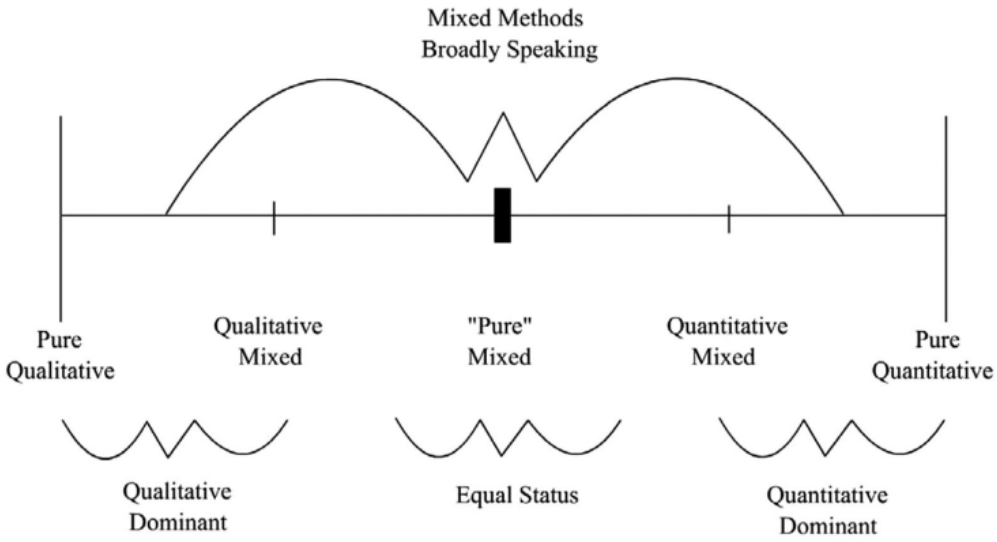


Figure 6: Johnson et al., 2007, p. 124. Weight of Methods.

According to Abnor and Bjerke (2009) the system approach acknowledges the use of interviews and observation, due to the empirical data collection. Interview is perhaps one of the most recognized and widely used method in research. However, the flexibility is what makes it so attractive for the researchers. Inline, Bryman and Bell (2007) outlines several types of interviews: structured and semi-structured. Which both is reflected differently due to the scientific research method.

Due to thesis of the phenomimes, the researcher chose to include qualitative research interviews. This approach gravitates the interview to be less structured, as there will be a vital interest in the interviewers point of the reality and what we as researchers sees as relevant and important in the construction of the reality (Bryman & Bell, 2007). However, the value-adding factor of the chosen method, leads the researchers towards the two major types of interview approaches: Structure- or semi structured interviews. The structured interviews do not allow the interviewer to ask follow-up questions, whereas the semi-structured interviews seem to cover a broader conversation (Burgess, 1984). Due to the thesis, the researchers have constructed a list of questions, where specific topics should be covered, more in-depth the interviewer has made an interview guide. Using and interview guide will help the researchers to know what to ask and in what order. Secondly it will help in formulating the right question and topics, regarding answering the research area. (Bryman & Bell, 2007).

However, one of the critics of the semi-structured interview forms is that the responses will answer the given question and new questions will occur based on the answer, resulting in a broad interview covering many different aspects. Therefore, a sorting work will arise based on the relevance of the topic. In addition, since the abductive approach is guiding the research, the researchers constantly move between existing knowledge, theory and empirical data which is reflected in the questions formed towards the company's, will then change. Hence, along with the researchers gaining new knowledge new questions occurs based on old statement. (Bryman & Bell, 2007).

As an initial part of our study concerning technology in the light of sales processes, we acquired a study from high-technological companies. In agreement with the companies, they will be anonymized and therefore referred to as case company 1 and 2. The study consists of interviews and observations of one product manager from Capturi, one CEO/Co-Founder and four salespeople from case company 1 and lastly, one CEO from case company 2. Based on the anonymization, the salespeople will be referred to as Salesperson1, Salesperson2, etc. Furthermore, as some interviews is conducted over several laps they will be referred to as Salesperson2a, Salesperson2b, etc. The interviews were followed by a semi-structured questionnaire to specify common sales and technology application practices. All interviews were recorded during the course and were then carefully processed for further analysis and interpretation. Specifically, as the focus is on areas within technology and sales, we started studies by asking about the overall technology and its use in daily work. Depending on the outcome, we as researchers searched deeper to understand how and why the technology is specifically transforming and streamlining the sales activities.

As illustrated in table 7, there is conducted overall 10 interviews within a scope of time from five minutes to one and a half hour. The interviews are both in English and in Danish and are all recorded. The interviews were elaborated towards the research area and structured as followed:

Type of research	Company	The representative	Participants	Topic	Time
Unstructured Interview	Capturi	Product Manager, Capturi (Jønsson, 2022)	One product Manager Research team of four.	Get to know Capturi and their technology	1:28:56
Unstructured Interview	Case Company 1	CEO and Co-Founder (CO-Founder, 2022)	One CEO Sales team of four. Research team of four.	Get to know the technology the company is using in the sales process.	1:03:09
Unstructured Interview	Case Company 1	Sales Employee (Salesperson2a, 2022)	One sales employee One from the research team.	Specifying the usage of technology used in the sales process.	14:28
Unstructured Interview	Case Company 1	Sales Employee (Salesperson2b, 2022)	One sales employee One from the research team.	Specifying the usage of technology used in the sales process.	03:17
Unstructured Interview	Case Company 1	Sales Employee (Salesperson3, 2022)	One sales employee Two from the research team.	How the Norwegian sales set-up is aligned	07:57
Unstructured Interview	Case Company 1	Sales Employee (Salesperson4a, 2022)	One sales employee Two from the research team.	The fully sales process described from the salesperson.	1:01:05
Unstructured Interview	Case Company 1	Sales Employee (Salesperson4b, 2022)	One sales employee Two from the research team.	The fully sales process described from the salesperson.	05:41
Unstructured Interview	Case Company 1	Sales Employee (Salesperson4c, 2022)	One sales employee Two from the research team.	The fully sales process described from the salesperson.	05:14
Unstructured Interview	Case Company 1	Sales Employee (Salesperson2c, 2022)	One sales employee Two from the research team.	The fully sales process described from the salesperson.	28:21
Unstructured Interview	Case Company 2	CEO (CEO, 2022)	One CEO Research team of four.	The fully sales process described from the CEO.	48:00

Table 7: Own illustration, 2022. Interviews.

As an added value to the empirical data collection, the researchers are making use of participant observations. Which together with the interviews is the two most prominent scientific research methods within data collection, regarding qualitative research (Bryman & Bell, 2007). As researchers, we acknowledge that some data cannot be captured through interviews, which is why observations can be necessary. Due to the observations, the researchers can observe the behavior within the organization and how they work and initiate various processes. Secondly, it will help map out the full behavior and business practice due to specific areas of the research question and MAPS reconceptualization (Bryman & Bell, 2007). Due to the observation part, the researchers used three full days at case company 1, where a highly structured observation

of selected salespeople took place. In addition, a detailed observation scheme based on MAPS was conducted and made (see A2), which helped the researchers to clarify which elements should be noticed and noted doing the observations process. This with the end goal to provide a more structured and clear idea about how their sales process and the use of technology coincide with the MAPS conceptualization. To clarify, the data will be conducted through observations of salesforce automation and business practice which is made to the visibility of companies using digital solutions throughout their sales process.

As it is too complex to observe and translate simultaneously, the group has chosen to retain statements and observations in Danish and thus transcribed the elements we use in analysis and discussion/conclusion. This is to capture the entire understanding and not make it too complex for the thesis work. During the last years both researchers has required a study in full English, which have enriched with both oral and written skills. These skills are used to ensure that the right essence surpasses in the transcription. The audio material can be requested on the demand of the censor and supervisor.

3.5 Validity and reliability

As a foundation for the philosophy of science, it is essential to address the validity as it ensures the significance of the research. Arbnor & Bjerke (2009) stated that validity is illuminated as how the measurement is valid. The validity is established by investigating arguments and allegations from primary data and to what extent they are correct. Hence, a common procedure to ensure the validity is to investigate it from as many viewpoints as possible (Arbnor & Bjerke, 2009). Therefore, the researchers will investigate the topic from as much primary and secondary data as possible, interviewing different organizations and different people from the organizations, observe workloads related to sales and sales processes and use statements from theoreticians, hence, in pursuance to gain the best and most precise and transparent results. (Arbnor & Bjerke, 2009)

To ensure a justified result, the Authors will address all significant angles of the research field throughout the thesis. This will ensure that a transferable intersubjective apprehension of truth will take form. Here, the author's attempts to intensify the validity which will reduce the uncertainty. (Arbnor & Bjerke, 2009) The reliability is defined as the quality of the collected empirical data (Arbnor & Bjerke, 2009). To reassure the reliability gets the right connection and outcome, transparency must be ensured. This is done through the appendix, interviews and

observations with the companies, literature review, and references. This will gain an overview of the procedure of the thesis. (Arbnor & Bjerke, 2009)

4. Empirical Analyzing and Testing Reconceptualization for Validity

Previous research illustrates that digital transformation is a highly convenient and complex phenomenon encompassing various technological applications, that potentially impact different sales processes. For practitioners, creating value through data discipline can be a cross-organizational challenge, so they need to take advantage of the complexity of sales.
Previously, the word "lead generation" was generally an elementary size and briefly referred to roughly segmenting customers based on revenue and industries, to eventually call the customers and get a series of meetings in the book. This via either own sales department or telemarketing partner. However, executing on this fact is no longer a streamlining application in the sales culture, as it requires many internal resources in the form of a (wo)manpower and time. However, it is important to acknowledge that the phone is by no means obsolete in 2022, but the process has evolved. (Lund, 2021) This process has further been observed and investigated as a part of the thesis work.

To clarify all the technological terms used in this thesis, an elaborative description of the technologies can be found in A3.

4.1 Case Study 1:

The observation process made it clear that the participants' daily business work increased due to existing customers, as most of their workload concerns customer service. Thus, the researchers were involved in an observation where pre- and after-sale was of high priority. Another factor of high relevance is that the observations are conducted separately and only consist of parts of the sales processes due to complexity, which is why the researchers had to fully understand the sales process through sense-making.

Within the following analyzes, the researchers want to test the MAPS model for validity, which is why MAPS is reviewed step by step in consolidation of the observations. Thus, each step in

the MAPS is analyzed based on the gathered data and divided into task and technology with the aim to understand the sales process within the case company.

4.1.1 Identify possibilities and stakeholders

4.1.1.1 Task

A first and overarching finding was that the participants mentioned that the first phase of the sales process, is extremely technology-driven and requires high data discipline. However, with limitations as to whether it is coming from inbound or outbound marketing. The difference between inbound and outbound sales, lies in how companies get the human interaction in play and where in the customer journey the salespeople meet the customer. Thus, the recipient of the inbound sales is more structured, while outbound sales is cold canvas. To clarify, through inbound the company automatically ensures a more accurate qualification of their leads, which requires less technology. The needs are thus already met, as opposed to outbound. Thus, it can be questioned whether the customer's position in the purchase decision, when the first integration takes place, affects the sales process. *"(...) in the beginning, if it is outbound sales, then that is probably where technology is most important*" (Salesperson 2a, 2022, 07:17-07:25)

However, as a supporting element salesperson 2c states; *"I actually only use the technology in my own preparation, so I seem competent when I have a dialogue with the customer. One thing is that I want to impress the customer, but I actually also want to know if I bother to spend time on them here."* (Salesperson 2c, 2022, 24:57-25:11)

Against this backdrop, technological application or an intelligent force can be a valuable factor when transferring the customer from a marketing qualified lead to a warm sales qualified lead. Hence using the technological application will give the company a higher time to value as the lead time of pushing a customer through the process is streamlined through increased data discipline. This statement is also supported by Davenport (2020) mentioning that adapting technology into the salesforce can help increasing the business performance and give the company an extended knowledge about the customers earlier in the process. Identifying the potential customer using the right technology creates a high value for the process; The better identification the salesperson makes, the stronger foundation they have further in the chain. Our interviewees frequently state: *"The reason for making a strong identity is that we can play them well in what is called connect."* (Salesperson 4a, 2022, 11:54-12:00)

Another essential statement to mention is the that the digital technologies can be a valuable factor in the pre-purchase stage (Davenport, 2020). As identified in the conceptual framework, MAPS, the first phases are acknowledged as being the phase of identifying possibilities and stakeholders (e.g., customers). Due to the observations and interviews from one of the participants, it became clear that these two parts of the process, for the company, is generally more about qualifying the customers; *"(...) I would say that technology is extremely important to us in the first stages, to qualify who we would like to talk to."* (Salesperson 2a, 2022, 06:34-06:40) Qualifying a customer involves investigating if the potential customer meets the predetermined criteria or is a good candidate for the business. Hence, the marketing funnel focuses on qualified leads and helps take an active and differentiated approach to the sales process.

4.1.1.2 Technology

4.1.1.2.1 BuiltWith

It is essential to use the right technology during the identification or qualification phase. An interesting finding from the observations occurred when salesperson 2c (2022) mentioned that they use a chrome extension called "BuiltWith," which is an application they use to identify if their Application Programming Interfaces (API) solution can integrate with the customer's technology (Builtwith, n.d.; RapidAPI, n.d.). They need to qualify the customers; for instance, if the customer uses outdated software to manage their web page, the company's API cannot integrate with them, and the customers are then not worth spending time on. Hence, it is not a potential customer if they cannot help each other with a more intelligent technological solution. Therefore, the "BuiltWith" application can both prepare the salesperson's sales pitch and shorten the time on sharing insights as they already know if they can solve a problem for the customer. (Salesperson2c, 2022) Secondly, by ensuring the integration possibility by the pluck-in solution, the customer does not have to invest in human resources and development. Lastly, the sales force does not have to invest, so the time to value becomes more extended, resulting in a faster lead time. "BuiltWith" creates a more significant volume through their pipeline, increasing customer experience. Thus, using the "BuiltWith" system, a greater complexity occurs, which they must exploit in the further sales process.

4.1.1.2.2 Semrush

According to salesperson 2c (2022), the "BuiltWith" technology cannot stand alone as it only reveals information about the API. However, the sales employees need more information about the customer, such as how many products they sell and how many countries they sell to, among other factors. To gain these types of information, they use another technology called Semrush. Semrush is a platform that can identify different datasets based on how much traffic a webpage has, if it is a paid advertisement, how much organic traffic (Search Engine Optimization, SEO), page ranking, and how strong the customer's domain is. This technology sends a list of cold leads that accomplishes the searched keywords directly to the sales employees. (Semrush, n.d.) Therefore, adding these two types of technologies together, salesperson 2c (2022, 17:02-17:27) stated that; *"I have all this data here about the markets, traffic, etc., and together with the integration option, the BuiltWith technology (..) then I have a list of possible customers"*. It can therefore be argued that they are using technology to create knowledge and possibilities about the customers and use this to *"get closer to the customers and (...) use this knowledge to get success in the sales process"* (Salesperson 2c, 2022, 18:20-18:24).

4.1.1.2.3 Investigation Applications

Further investigation of the identification phase shows that the salespeople spend much time tracking data from potential customers. It is observed that salesperson 1 (A4) spends much time on the potential customer's webpage, hence investigating what type of payment a customer can use on their webpage and where they are located. Moreover, spending time on Trustpilot to comprehend the company's ratings, if many end-customers have rated them to finally make consumptions about how many products they sell. Further, salesperson 1 (A4) uses Google Maps and Google Street View to check out the logistic handling and placement of the company. Lastly, he spends time connecting with the potential customers on LinkedIn. (A4)

Furthermore, it is important to mention that the salespeople, during the investigation phase also check their HubSpot CRM system, to identify if the lead is already an existing customer. If so, the process will change due to qualification.

Based on the findings above, technology plays a significant role in identifying possibilities and potential stakeholders. However, based on the findings, it can be argued that the sales employees during this phase are more qualifying than identifying the possibilities and stakeholders. Moreover, the MAPS conceptualization divides the identification process into

two separate phases. However, the observations and interviews reveal that these stages are seen more as one collaborated unit gathering all information, through technology, about the customers and the underlying possibilities into one overall process. Therefore, it can be argued that these two steps should be seen as one qualifying phase instead, through the adaption of technology.

Qualification: possibilities & stakeholders	
Technology	In line with a relation-based sale: checking/using linked-In for common network identification. Google possible customers Trustpilot check. Placement on Google Maps; Does it fits? Using BuiltWith to check the integration software/possibility. Address "validation" - google street view. Reading about the companies on the webpage. Proff.DK Semrush: Traffic, organic, or paid advertisements (CEO) CRM-system.
Task	Data searching: It looks at what type of item they have; is it the whole brand? Are there some who have their own stores, so they have a retail link on what we call the omnichannel? How is it that the customer's business is knitted together? the better identify we make, the stronger foundation we stand on longer in the chain, who is the customer?

Table 8: Own illustration, 2022. Summary of Qualification: possibilities & stakeholders.

4.1.2 Share insights

4.1.2.1 Task

Making a valuable sales process is vital for the company to acknowledge the customers' pain. According to Töytäri (2011) sales should be solving the customers pain and act as a valuable factor for the customer´s business. In addition, the participants mentioned: *"Connect phase, that is when you have the first dialogue with the customer (...) In connect, you use the information you have mapped here, to talk into the customer's pain. It can be both on existing*

customers we have, existing trends in the market, it can be based on everything possible. Then we connect with them (...) This is where it's about creating a relationship of trust." (Salesperson 4a, 2022, 12:00-13:04)

Ensuring a valuable first interaction with the customer, the seller's task is to create a solid and trustful relationship. In sales, trust is usually referred to as the salesperson's credibility and to what degree the customer trusts the acting of the salesperson. This part of the phase is carried out as a two-way street – the company and its customers.
The observation shows that this step is an integrative process where the customer and salespeople continue sharing information and data to see if there is a profitable fit and by that establishing a date for the first meeting (Bhatti & Jensen, 2022). An essential task for the participant here is to map out as much as possible. As more they map down in this part of phases, as better sales arguments, and objection handling, they have later in the chain.

4.1.2.2. Technology

4.1.2.2.1 Phone conversation

This part of the sales process is typically carried out through conversations with the customers. It is the first integration, thus a call to action. In this phase, the sales employees usually use the phone to call the customer. (Salesperson4a, 2022) Not much has changed in this part. It can be claimed that the potential customer is now a sales qualified lead in this part of the process. It is essential to mention that using the phone during the phrase also refers to technology. Furthermore, it important to mention that the salesperson call the potential customer based on the data they have gathered through the technological application carried out in the qualification phase.

Regarding the MAPS conceptualization, MAPS: sharing insight, is in harmony. Even though, the salespeople call it a "connection phase" the company use this to create interest in the customers. The goal is to "need covering" the customer and clarify if there is a fit. The interest here relies on all the necessary information they have found in the previous phase. This is also supported by Mikalef, Conboy & Krogstie (2021), who in their further work, support AI and its applications as a helping factor to understand customers' needs more closely and thus have a better opportunity to integrate with the customer and create the right solution further in the process.

To sum up, it can be predicted that sharing insight is still a valuable part of the sales process in practice. Yet it is still seeing as one phase, but with a two-way street. Furthermore, due to the identify and sharing insights, it is all about need covering the customers, through technological applications.

Share insight: Human interaction	
Technology	Telephone or email - mainly telephone. Data from previous phase.
Task	Connect phase is when you have the first dialogue with the customer. Use the pre-qualification to talk into the customer's pain—the pre-qualification. Building a relationship of trust. Questions: what is it about? what is it we can help with? Where does it hurt (pain)?

Table 9: Own illustration, 2022. Summary of Share insight: Human interaction.

4.1.3 Opportunities

Based on the prior finding it can be questioned if there is a missing element in the MAPS framework when adding the theory into practice. After qualifying needs and fits, the customers become an opportunity for the corporation. In this phase, the company uses its CRM system to facilitate inbound information regarding the customer. Specifically, they create a "deal" in the system.

Despite the salespeople creating a coherent digital platform, they facilitate some phases that will bridge the entire process, digitally. Through their CRM system, marketing data and customer data are integrated across platforms. The salespeople can go into the CRM system, search for all available data about the customer, and among others get a direct link to their website. In this way, it comprehends the salespeople with all the necessary information to be data-driven further in the process. However, it can also help the team see if a possible new customer is already inside the system and, in that case, how far they are with the customer. The advantage of this application lies in a more transparent environment, increased internal

communication, and the seller takes responsibility for the customer, thus increasing their value and assessment.

Technologically, the company can among themselves track the potential customers and gather multiple information about them, both collected from the qualification phase, the first interaction and through the CRM system. It is important to acknowledge that the CRM system they use can gather accessible data regarding the customer. It is observed that the CRM system they use is HubSpot CRM. HubSpot CRM is known for its many AI applications and collects different data through several algorithms to keep more track of the customers, resulting in a more customer-centric business strategy (Buttle, 2004; HubSpot, n.d.). Therefore, it can be argued that the CRM system is seen as the fundamental technology from the phase and throughout the entire process.

Furthermore, as sharing of insight is a two-way street, the customers are asked to create a profile on the customer's panel, which is integrated with the company's webpage. This with the aim to share prices and other important information which need further in the process. Based on the above findings, it can be argued that after sharing insights, a connection phase starts where the aim is to get closer solely through the technology. It can be questioned if this step should be applied to the MAPS framework.

Opportunities	
Technology	Customer: Customer panel. → webpage login. Firm: HubSpot CRM System. → Automatic data capture and "deal" pipeline.
Task	They are getting closer through technology and its applications. Goal: get the customer to create a customer panel on their webpage and create a "deal" in the CRM system.

Table 10: Own illustration, 2022. Summary of opportunities.

4.1.4 Connecting stakeholders and resources

4.1.4.1 Task

After transferring the customer into an opportunity, the sales employees start the next phase. According to MAPS, this phase is all about building and creating shared value. It is here the

collaboration begins to reach a common goal (Bhatti & Jensen, 2022). In this phase of the process, it is essential to state that the researchers have not been able to observe the complete process doing this state. As mentioned earlier, there can be many reasons for it, but one of the main points is the complexity of the sales process. Because of this, the only observed factor is the use of technology. However, to create an understanding of the area, the researchers have held a series of semi-structured interviews where some of the tasks are identified. In continuation, Salesperson 4a (2022) mentions that this phase is where they explore; where and how they can help the potential customers: "*(...) this is where we need to step in, based on the needs and create a solution for them."* (Salesperson 4a, 2022, 17:28-17:34)

Moreover, the reason for mentioning these limitations is that the researchers cannot thoroughly analyze these elements as it will concur on many assumptions, which would not give an exact picture of the validity of the reconceptualization.

4.1.4.2 Technology

4.1.4.2.1 HubSpot CRM: Pipeline & Pixel

During the observations of the company and their sales processes, technologically, it became clear that they use their CRM system and the customer panel systematically during the whole sales process.

According to Salesperson 4a (2022), they only use the CRM system internally to gather information about the customers and move them around in the pipeline. He further mentions that he uses the CRM-system to investigate the interactions between the customers and the company (Salesperson4a, 2022). HubSpot deal pipeline is a software and management system to help the company manage its appointments and track its leads. Agreement stages are constructed as steps in the deal pipeline to relieve the sales team in tracking the possibilities of an agreement during its progress. (Hubspot, n.d.) Looking at the observations conducted, it is essential to mention that the work with the pipeline begins when the customer becomes an opportunity. At this point in the explore phase, the sellers have, as described, performed the first two phases of the pipeline, introduction, and needs and fit. (Salesperson2a, 2022)

As mentioned, the CRM system from HubSpot has many AI applications, and with its many algorithms, it can generate significant and valuable knowledge about the customers and the current stage they are in (HubSpot, n.d.). However, according to salesperson 2c (2022, 14:12-

14:30), they use the CRM for more than just pipeline interactions, *"you can put a pixel on your mail where you can see if the customer has opened the email, you can see how many times they have opened it, where in the world they are if it is an IOS or Android device*." It can here be argued that if the salespeople use the feedback from the pixel correctly, it can help them during the sales process to track the customers and make it a key factor for influencing the sale. According to salesperson 2c (2022, 14:32-15:10) "*The reason this can be good is that if I am missing an answer and can see they have opened the email (...) then I call them, I know they have seen it (...) I use the tool to reinforce my message."*

Another interesting factor when investigating this phase of the process is that the salesperson can insert the Pixel through their CRM system using a sales email address that permits a collection of engagement statistics, such as views and clicks (Waida, n.d.). Here, the salespeople are within the exploring phase, which generally consists of a broad range of digital and physical meetings. In this part of the process, they are, in some cases, using the pixel on their emails to provide them with knowledge about their leads, and lastly, it can help them track their customer's movements. More explicit, the pixel helps them provide more knowledge and critical feedback around how many times the customer has opened the email, have they read it, or skimmed it? Based on this factor, is it a hot or warm lead? According to salesperson 2c (2022, 15:15-15:28): *"I also use it to see how hot a lead is (...) if they have opened the mail many times it is classified as hot lead, then I will interact more with them. If they have opened it a few times, I spend less time on them"*.

Furthermore, based on the clicks, the salespeople can measure how interesting their e-mail is. Secondly, pixel helps them increase transparency in the flow and ads another layer of knowledge when contacting the customers again. Sales are about contacting the customer at the right time; when does the need arise? Using this system, the salespeople, through a "pop-up" can see when the customer has opened the email and is currently a hot lead (Salesperson 2a; Waida, n.d.). At this point, the salespeople typically contact the customer and start a conversation based on previous evaluation. Therefore, the pixel helps increasing the complexity and shorten the time by contacting the customer when they are most warm and ready to act. In continuation of this, salesperson 2a (2022, 08:27-08:29) states through an interview: *"it is a really effective tool"*.

Based on the findings above, regarding the CRM system and the usage of pixel, it can be argued that technology plays a significant role in the exploring phase. The technology provides the

sales employees with pieces of information about the customers that are valuable to them, as it can be argued that it can help them save time and reduce time to value. However, it is hard to analyze if this stage needs transformation or following the MAPS framework as the entire sales process is not observed due to the complexity of the sale and the limitations regarding time. One essential parameter is that this phase in both the MAPS conceptualization and in the case, company is about creating shared value to reach a common goal. More profoundly, this stage is for the company about create solutions through exploring the possibilities regarding the customers. It is crucial during the exploring phase of the sales process that the usage of technology and the data discipline is at a high level. It can be claimed that to make a successful sale, the sales employees need the right amount of technology to track the customer. The more data-driven the seller becomes in the sales process, the easier it is for a salesperson to use objection handling in the customer's decision phase. Due to the MAPS conceptualization, it can be questioned if this part of the process, is more exploring than connecting stakeholders and resources.

Explore	
Technology	Digital and physical meetings: teams etc. Emails. Phone calls. CRM-system: Pipeline & Pixel. Customer Panel
Task	Understand and investigate how, why, and what. Goal: create a solution for the customers through shared value.

Table 11: Own illustration, 2022. Summary of Explore.

4.1.5 Create shared activities and platforms

4.1.5.1 Task

Moving to the next stage in the MAPS sales process, creating shared activities and platforms. During observations, it becomes clear that this part of the process is carried out operationally. When "exploring" and having a meeting with potential customers, this part is where the sellers and operation advice their customers. According to salesperson 4a (2022, 24:50-24:54)*"In counseling, this is where you get the final details in place.*"

Through semi-structured interviews, it became clear that it is an important task to advise the customer and create an offer that gives them a complete peace of mind when moving towards last phase, the buying phase. Evaluating and presenting part-acceptance during this phase is essential for the salespeople, as it makes the customer comfortable with the offer they provide. Moreover, the priority is to put the agreement in systems in this phase, hence what have we agreed on logistically.

4.1.5.2 Technology

4.1.5.2.1 Digital or physical meetings

This part of the process can be seen carried out both digitally and physically through meetings with the operation- or IT-department. Inline, salesperson 4 interview 4a (2022, 23:29-23:54) states: *"The last thing we do, is that we go in and advice (...) based on identify, connect, (...) and explore."*

During this stage, an essential parameter to incorporate is that the data discipline that has been carried out so far creates the shared activity and platform. It is observed that through the gathered data from the entire process, the salespeople have the fundament to advice the customers on the best solution. It is also clear that the salespeople add the operations and IT departments to create the exact product the customers aim for during this stage. According to salesperson 2c (2022, 11:30-11:33), "*In this phase, the operation takes over, where they put things in systems.*"

4.1.5.2.2 Slack

The only technology observed is the usage the technology Slack. They use this technology to connect with their customers and essential colleges to bring people together through conversations, innovative technology, and add essential data, all in a virtual workplace. This technology is used to increase the communication flow within the network. (Slack, n.d.) It can be questioned if this part of the technology further increases the inbound and outbound value through automation to finally connect relevant people through a shared platform.

Advice	
Technology	Digital and physical meetings: teams etc. Slack
Task	Advice the customer based on the process. Present part-accept and incorporate the operation to get a contract with the customers.

Table 12: Own illustration, 2022. Summary of advice.

To sum up, based on observations and the MAPS conceptualization it can be claimed that this part of creating shared activities and platforms is already done, when the customer becomes and opportunity. Due to the observation this phase is more about advising the customer based on the exploring phase than creating a shared platform. Thus, it is important that the collaborating platform, slack, is used to interact inbound and outbound to create the best solution for all parties.

4.1.6 Realize

4.1.6.1 Task

Next on in the last phase, MAPS characterize it as the realization phase, where the task can be seen as similar to delivering a service or product. According to salesperson 2c (2022), this is where they get the customer to sign the final contract.

4.1.6.2 Technology

4.1.6.2.1 Get Accept

As observed within the company they use one high technological solution for this phase, which is the digital platform: Get Accept. The platform is used as an e-signature program where customers can read the agreement and sign the final contract online (GetAccept, n.d.). It is a helpful tool to avoid having important material lying around for the customer that may disappear in the process or forgotten to be sent back. Furthermore, it is essential to mention that the contract can be adjusted based on the part-acceptance, which makes it easier to create the final deal (Salesperson2c, 2022). Secondly, as mentioned by salesperson 2c, the program can help the company track their customers in this phase. For instance, it can through

algorithms reveal if the customer has received the contract. Moreover, it can further send a new reminder towards the customer if necessary. (Salesperson2c, 2022) It can therefore be argued that using this technology during the realization phase the salespeople might have greater transparency and can control the flow of the process.

Realize	
Technology	Get Accept.
Task	Goal: Make the customer sign.

Table 13: Own illustration, 2022. Summary of realize.

4.1.7 Evaluate and learn

4.1.7.1 Task

To sum up the sellers have been through two overall points: they have first covered the customer's needs and then immersed themselves in the escalating phase However, we need to go through the last step. When we talk about sales training and coaching, evaluation and learning are always important, both external and internal.

4.1.7.2 Technology

4.1.7.2.1 HubSpot CRM

The CRM system is not only used to share customer data across the platform. Within the deal pipeline systems, the last "phase" is where the customers move into closed-won or closed loss. This factor is used in the evaluation part. If the customer is in closed-lost, the participant sellers can see: why did we not win the customer? Is it because we did not release their pains? Were there any technological challenges? (Salesperson2c, 2022). An important task here is for the sellers to map out why they lost or won the customers. The seller must find the cause. The cause can further help the sellers to estimate what they need to change, internally and externally. It is a learning tool where the opportunity cost can be higher than the value. The salespeople only know this as they are data-driven throughout the process.

Moreover, it is clear from the observations and the interviews that the sales employees do not often evaluate and learn from their previous sales processes. However, during the interview with salesperson 2c (2022), it became clear that they have some evaluation processes. It is specifically essential to mention that this phase is mainly carried out through their CRM

system. Firstly, there is an economic aspect to the evaluation process, how much is the value of the yearly contract. This is also based on the different times of the year and how the current world situation appears. Secondly, there is a more strategic aspect where they evaluate the different industries. They have either won or lost.

All in all, they learn where to add more focus to gain more customers or in what types of industries do, we have enough customers. Lastly, according to salesperson 2c (2022, 27:33-28:05), they can "*Set up workflow - if "customer" hits closed-won, then this must happen, (...) triggers an email or a follow-up to the employee to follow up, etc. Only the imagination sets limits.*". Therefore, it can be argued that they have a data-driven evaluation process based on the tasks in their CRM system.

Evaluate and learn	
Technology	CRM-system.
Task	Create and set-up workflows

Table 14: Own illustration, 2022. Summary of evaluate and learn.

To summarize the findings above, it is crucial to mention that this is implicit in their sales process but that there may be deviations and differentiation due to external elements. The findings reveal that case company 1 uses several different technologies to qualify potential customers. Hence, understanding through technology if a customer is worth spending time on. Another essential finding is that the identification phases during the MAPS framework decrease through the use of technology to one overall qualification phase. Moving further in the sales process, it is vital to mention that the sharing insights is about human interaction and is mainly done through the phone. It can be argued that there is a crossing element where the customer becomes an opportunity.

The findings reveal that the CRM system here plays an essential role throughout the rest of the process as it helps the salespeople create visibility in their pipeline. A significant finding concerning case company 1's sales process is created in a deal pipeline in their CRM system as soon as the potential customer becomes an opportunity for the company. Overall, the pipeline shows the stages that indicate to the fellow salespeople that a potential customer is on the verge of closing. As a potential deal progresses, the customer moves across the various deals. In this way, companies can follow wherein the process the customer is. Therefore, a pure technology

phase is added to the framework. However, this is where their CRM system helps ensure that they get the correct data to be data-driven and disciplined in their salesforce.

Through the analysis, it further became clear that they advise the customer through the already created shared platforms for the best solution. Another essential finding is the heavy usage of technology during the connection phase; for instance, using pixel on their email can track the customer's activity. With these technologies, it can be argued that it is seen more as an exploring phase than connecting stakeholders and resources.

During the realization phase, findings reveal that technology plays a significant role in agreeing on the final agreement. Hence, technology that further tracks the customers give the salespeople intelligent outcome to force the customer to buy. Based on these findings, it can be argued that the substance fits well with the whole MAPS conceptualization. However, some adjudgments occur. The above observations and "mapping" are merely an attempt to make the subjective findings more objective and, thus, the sum of the process more valuable to the thesis. Figure X illustrates the technological application in the sales process compared to the MAPS conceptualization.

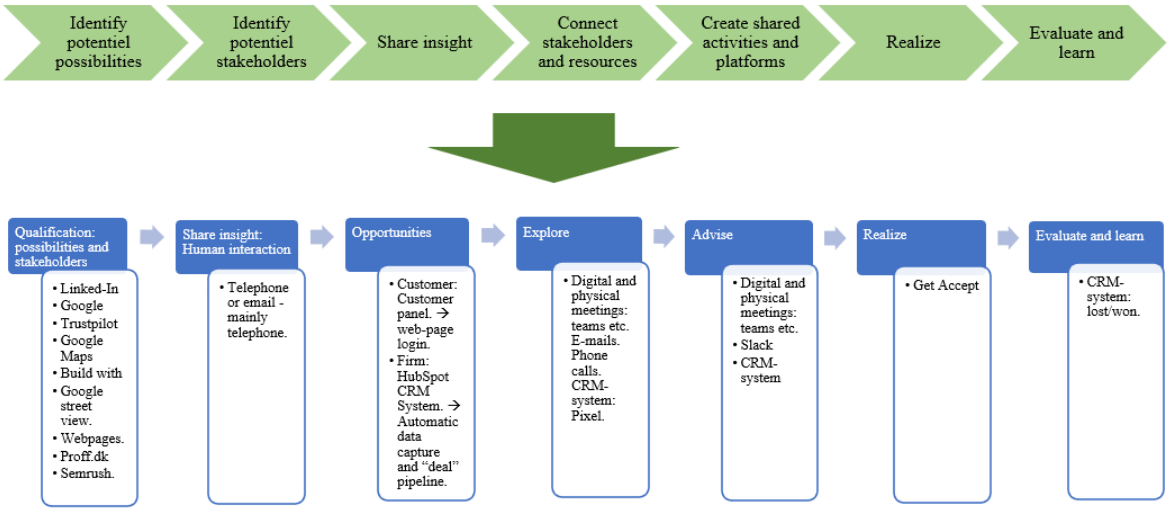


Figure 7: Own Illustration, 2022; Bhatti & Jensen, 2022. Case Company 1 sales process.

4.2 Case Study 2:

As previously mentioned in case study 1, the case company 2 is also following the MAPS conceptualization step by step to test the validity. To support the use of technology in practice when identifying sales processes, the researchers, as a sample of this process and investigation, have convenience an interview with the case company 2's CEO. The interview was followed

to construct the practices in the era of the digital transformation of the sales process. One of the questions is how the technological applications and benefits transform their working activities within the sales force. Furthermore, how is the technology used in the process? Inline, it is essential to mention that this part of the thesis work is only conducted through interviews, which is why the task identification will be deficient throughout the analysis. One clarity was that the company was open to most of the technology and how it could support its sales team. A considerable part of it is already technology driven.

4.2.1 Identify possibilities and stakeholder

"If I have to make a sale from the beginning (...) and a company wants to enter into a partnership with us, then I start with a digital tool called lasso X."

- (CEO, 2022, 08:19-08:39)

Supported by Paschen et al. (2019) adding technology to sales will help improve the sales funnel and create a people-centered sales process. Inline, she mentions that the first part of the sales process must be performed by finding potential customers through lead generation. According to the CEO (2022), they collect potential leads through technology. To gain the most relevant insights of the customers, they use the technology Lasso X. According to the CEO (2022, 08:40-08:44), *"Lasso X, is a CVR-register, where you can take out leads"*

This technological solution is a sales tool that through intelligent usage of data, can generate a list of potential leads based on more than 60 search criteria (Lasso X, n.d.). Here the company is segmenting on, for instance, geography. Furthermore, depending on the product they want to sell, they use the technology to a segment on industry codes (CEO, 2022). The company can, through filters, add the relevant criteria for their optimal customers. Applying Lasso X, the company will get access to the most profitable customers.

The technology can also help optimize the entire sales flow and increase the company's time to value. Lasso X helps the sellers be at the leading position. This means that the company, through the technology, can follow their customers and thus create a unique customer relationship through real-time data. (Lasso X, n.d.) In addition, salespeople will be informed about significant and value-creating changes that help them act at the correct times. Secondly, it gives companies a whole new range of sales opportunities through technology, which can be used to minimize the complexity and transparency of the entire sales process.

Identifying potential possibilities are carried out through complete technological applications. This central point is to create a detailed filtered list of potential leads. One essential parameter in integrating this technology, within the process, is carried out through the question of validity. The company only accesses the information or data that the customers have published on the CVR register. Inline, the CEO (2022, 11:33-11:56) states: "*It is just as valid as the customer has given information about (...). I would say there are many people where there is incorrect information, but it has nothing to do with Lasso X. It has something to do with what people have registered their company as."*

However, it can further be argued that with those many search criteria and the question of validity, many leads occur that may not be that relevant for the company to explore further. Thus, a further segmentation process starts to concur the final list of potential leads. It is here that the technology of Adversus has its essence.

"Then I take out an Excel file, that also is digital, then I add the topics into the dialer-program, called Adversus."

- (CEO, 2022, 10:05-10:13)

Adversus is the provider of the CRM system they use and is an intelligent dialer program incorporated with a CRM system where conversations are recorded. It is a software solution that helps specific companies optimize their workflows and get the best possible outcome for all the outbound activities (Adversus, n.d.). An interesting finding is that Lasso X is integrable with Adversus, which can make the sales complexity less complicated and increasing transparency. Lasso x's integration with Adversus helps companies use intelligent data more efficiently in their sales efforts. Not only is the company limited to automatically importing the filtered list directly into their dialer via the integration. Through their dialer, the company can further segment the customers. Secondly, it can create new leads in its dialer more automated. (Adversus, n.d.; Lasso X, n.d.) Firstly, let us start with further segmentation.

Further segmentation. The case company uses Adversus as its connecting element with the customer (CEO, 2022). As mentioned above, a segmentation process divides the right potential customer into the right place. Thus, Adversus helps to match the stakeholders together. For instance, the company can segment the customers on post-codes. If they want to call a specific area, they can use Adversus technology filtering in their list and gain an overview of the customers with the most relevant to call. Inline the CEO states (2022, 43:32-43:55): *"I can*

segment the customer further. I have segmented them earlier (...), but I can do it again. However, sometimes the sales employees say: "we are in crisis, and we need a shot of EPO," so we only want to call companies in a specific postal code."

Automated lead creator. As mentioned earlier, Lasso X is heavily used in the first phase. Through the more than 60 search criteria, the company has set up several criteria which, via automated tools, help to send more leads into the company's dialer. This applies both in the case of newly created companies and if the companies in question change or move to fit under the company's search criteria automatically. In this way, the sales flow increases automatically and tell if new potential customers or opportunities are added. (Lasso X, n.d.)

Another significant application to mention is that the company can get master data via clicks on the various customers, such as CVR, telephone, name, and E-mail. In continues, the program can be used to send direct e-mails to the customer, and it can set up a reminder for when the seller needs to call a potential or existing customer. Hence, they got the technology to work for them. This part of the technology is driven through only the CRM system in Adversus. Using a data-driven CRM system creates a more customer-centric business as the company has complete control (Buttle, 2004).

Due to the MAPS conceptualization, it can be claimed that through the usage of technology and intelligent data, the two first stages of identifying can be seen as one integrated unit of qualifying possibilities and stakeholders. As mentioned, using the technology for identifying potential leads, the segmentation process, and identifying stakeholders is seen as an automated process in this case study. More specifically, in the first stage of the sales process, the company segmented its filtered list of leads through Lasso X, which is integrable with Adversus. The technology is used to catch the potential leads with the most value for the company.

Qualifying possibilities and stakeholders	
Technology	Excel file - Lasso X & Adversus.
Task	Integrate the list into the dialer-program

Table 15: Own illustration, 2022. Summary of qualification possibilities and stakeholders.

4.2.2 Share Insights

Technology has started to play a significant role and is used as an effective tool to increase the achieved value for both the customer and corporations. Due to practice, technology is seen to be high acknowledged applications in the sales field. Moving on in MAPS conceptual framework, the next stage is about sharing insights. Sharing insights is about sharing data between the identified stakeholders. However, based on the findings above, the Adversus dialer places a significant role during this stage. The dialer is a tool for creating human interaction. More specifically, it is the phone of the company. An essential factor to mention is that the technology saves the conversations. According to the CEO (2022, 45:53-45:57; 46:02-46:07), *"That's what is so good about using this technology and not the iPhone (…), so you can always re-listen to the call."*

It can be argued that this application helps the company to reinforce earlier conversations and convince the customer in the decision phase. Furthermore, Adversus creates an overview of the activities during the entire sales process, also referred to as their CRM system. Thus, technology plays a significant role in selling the customer's product or service. Before going further to the next step of the process, one thing is of high interest. In general, the human interaction, within sharing insight with the customer, is a short process, as 57 % of the sales time is under 1 min. As stated by the CEO (2022, 27:43-27:51): *"57 % of the sales are done in the first call, and our average time is 1 minute."* Even though, many of the sales processes only last one minute, the essentials are saved for further analysis. This is where the technology of Capturi is essential.

4.2.2.1 Capturi: Analyzing the conversation through AI and ML

Due to the participant company, Capturi is an acknowledged company, which with their technological application creates value for company's sales process. Calling the customer is one thing and is carried out only by Adversus dialer. Nevertheless, analyzing a conversation is a whole new valuable factor. More profoundly, when the company calls the customer through Adversus, Adversus flips the conversation into good sound, and then the company grates an API key inside their setup. The storage is converted into Capturi, where a profoundly analysis of the conversation will occur.

According to the CEO, it is a tool to increase the performance of the sale to generate higher hit rates. To support this, the CEO (2022, 01:22-01:30) states: *"I am open to most things that can facilitate our work. That is also why we have made an agreement with Capturi."*

To make it clear, Capturi through its dashboard applications, can generate unique information for the company, which is subsequently converted into measurable values. For companies, it is valuable to make the sales department competitive (Capturi, n.d.). According to an interview with the product manager at Capturi, the technology is for more efficient coaching and for companies to become more data-driven (Jønsson, 2022). Using this technology, the company differentiates itself from the CRM application in this part of the process, as the product is not CRM-driven. It is purely analyzing to create trackers for the optimal sales pitch, for instance, to create different unique selling propositions.

4.2.2.1.1 Dashboards

Dashboards have today begun to reach entirely new heights in terms of business. A dashboard is a next innovation to optimize the company's entire business approach. Among a myriad of benefits, a dashboard offers businesses a data visualization tool that is knowledgeable in centralizing all data in one place. It is essential to mention that a dashboard is the interface where all relevant and accessible data is collected and storage. It is used to a range of valuable purposes.

In-dept, Capturi analyzes the conversations through an AI and ML application called Neutral Language Processing, see chapter 2 and store these into the dashboards. In addition, the product manager from Capturi (Jønsson, 2022), states that NLP is used in its terms to convert speech to sound. It is a tool to help companies understand the human language. The dashboards can then generate multiple data which is visible for the sales employee's company. Secondly these data are used for the sales company to improve different aspect of the sales process and is carried out through different dashboard criterions. These are described further in this sub-section. (Jønsson, 2022)

Trackers. Trackers are the core of the product. Here the seller defines what the system should be looking for and the area of interest. More profoundly, trackers can help the seller navigate the conversation from start to end by understanding the customer's needs. In this way, the seller got a kind of a "playbook" to create the optimal pitch and increase the speaking time. In general,

trackers consist of familiar words and sentences, with a limitation of four words. (Jønsson, 2022)

Hit rates. This part of the technology is more of an analytical tool to measure the outcome and value. Here, companies can measure which words make the most value and conversation time. More concrete: Is the sale a success? (Jønsson, 2022)

Conversation rates. An essential application is seen in the opportunity to measure if the customer is positive or negative in their language. Here, the technology uses speech recognition, which we in chapter 2 state as a weak part of AI. Secondly, it can measure the speech rate and if the seller can conduct a dialogue rather than a monologue. (Jønsson, 2022)

Scoring. Here we see the optimal pitch score. This part is used for the companies to see: what are we good at? Moreover, what are we not that strong in? Where to be better? Capturi is a kind of facilitator in this process. A facilitator in the conversation between the sales leader and the employees. (Jønsson, 2022)

However, it is essential to mention that according to the CEO of case company 2, they do not use the Capturi technology for as many things as it can improve. The CEO stated (2022, 14:43-15:04) *"Is that when you are a company like us, you work a lot with objections because people always say no. Inside Capturi, you can make sentences of 3 consecutive words and say if the customer says this, then we will know all the places where it happens, or if the seller says these three things, we will know what happens next."* It can be claimed that case company 2 use this technology specifically to create trackers for the optimal pitch strategies and evaluate the employees. This evaluation part will play a significant role in the identification phase before calling the customers. It is now seen as a continuous process. However, it is essential to add the perspective of decision-driven data analytics in this essence. According to the literature review and the MAPS conceptual framework, decision-driven data is a keyword when working with data. Thus, finding data for a purpose and not a purpose for the data (de Langhe & Puntoni, 2020). As the case company does not know what to use the data for and mentions that they use it for optimal sales pitch strategy and evaluation of the employees, it can be questioned if they try to find a purpose for their data.

Based on the knowledge created about Capturi during the interview, it can be argued that it is a helpful tool specifically for this kind of company. Furthermore, the CEO mentions that Capturi's technological applications are too "difficult" to handle, so they do not use the benefits

of the technology on the same level as in the beginning. They do not know how to use and analyze it, despite having the right amount of data available.

Share insight: Human interaction	
Technology	Adversus: CRM system *Capturi*
Task	Calling the customer through the dialer and record it. Converting the recording into Capturi.

Table 16: Own illustration, 2022. Summary of Share insight.

According to the MAPS conceptual framework the next initial step after sharing insights is the connect resources and stakeholders. However, based on the limitations of the missing observations of the company and the short sales cycles, it can be difficult to identify if this step is incorporated or seen as a part of the sharing insights based on the missing information's.

4.2.3 Creating Shared platforms: Inbound collaboration

After using the dialer to create human interaction and share value with potential customers, it is time to operate on the customers' answers. According to the CEO (2022), when the customer, at the end of the dialog, says either *"yes," "no,"* or *"send an e-mail with information,"* the details are directly transferred into the technology Podio.

Podio is used to capture the relevant information and is similar to Slack's technology (Podio, n.d.). According to the CEO (2022), Podio gathers all relevant data in the sales process. When a sales employee has conducted a sale, the CEO gets a notification, through GlobiFlow, regarding the information on the Podio platform. GlobiFlow in Podio is helping to automatize the business process and makes the data intelligent. It automatically generates workflows when activity changes (Citrix Podio, n.d.). Based on the previous sentence, it can therefore be seen as an algorithm tool to increase the complexity of the whole process.

One thing that's vital to highlight is that a proper fit between the MAPS theory and practice here can be seen. With the help of Podio and GlobiFlow, the company creates an inbound collaboration platform within the networking system to gather the necessary information to take the next step in the process: realize.

Creating Shared platforms: Inbound Collaboration	
Technology	Podio: Globi Flow.
Task	Notification system to finalize the sale.

Table 17: Own illustration, 2022. Summary of creating shared platform: inbound collaboration.

2.3.4 Realize:

"I got the necessary information and added them into E-conomic (..), and then I send the customer the bill - and that's pretty much it."

- (CEO, 2022, 10:44-10:52).

Next, the realization phase occurs. The CEO uses the technology e-conomic, an accounting program for this stage. The platform sends the bill to the customer, which is engageable online, to avoid sending papers between the two parties (Visma e-conomic, n.d.). To sum up, the sales process ends, when the customer pays the bill.

Realize	
Technology	E-conomic
Task	Send the customer the bill.

Table 18: Own illustration., 2022. Summary of realize.

2.3.5 Evaluation and learn

After ending a sales process, one of the most valuable tasks rests in the company's ability to evaluate and train the process and salesforce. A surprising statement from the case study was that the company does not use its time to evaluate the entire sale process. Inline he states: *"We evaluate on the sellers' efforts and competencies and such, but that is also it"* (CEO, 2022, 22:13-22:17)

Using technology can streamline the effectiveness and make it easier to work in the areas of progress more concretely. Previous findings reveal that they use the technology of Capturi to evaluate the sales employees and during the creation of the optimal sales pitch. Behind every technology, there is a wide range of algorithms, especially when mentioning AI applications such as Capturi. According to Kellogg et al. (2020), algorithms can be valuable during

evaluation. Through recordings, it is possible to track various behaviors and performances in real-time.

Furthermore, algorithms can measure the workload and productivity of sales employees and create predictive analytics on future worker performance. However, it can be predicted that the case company does not have a complete overview of what the technology can solve for them. Therefore, it can be difficult for them to use this for a complete and valuable evaluation process. If the company feels convenient by using Capturi to coach and train the employees through evaluation, they can increase the sales force on a management level.

Evaluation and learn	
Technology	Capturi.
Task	Coaching and Training: optimal pitch strategy.

Table 19: Own illustration, 2022. Summary of evaluation and learn.

To sum up, a significant finding in case company 2, was that a slight deviation can be identified throughout the sales process when analyzing the MAPS conceptualization. Based on the key findings of the previous case study, the process is shortened into fewer steps. The MAPS conceptualization starts by mapping two identification phases: opportunities and potential stakeholders. However, Lasso X is used to segment and accelerate potential leads in practice. This filtering is converted into Adversus, an overlapping element for both the pre-sale and sale processes. After the filtered list is integrated into the Adversus program, a dialer is automatically created, which the company uses to call the customer. Here, the seller only goes through one step before starting the human interaction in sharing insight.

As the sellers create the human interaction in sharing insight, they, through the conversation, create shared value for both parties. Meanwhile, Adversus is recording these, both for usage regarding reinforcing messages and as a further training process. Next initial step in the sales process for case company two they convert the recordings done by Adversus into the high-technological company Capturi for further analysis and evaluation.

After having the conversation with the customers, the essential information goes into Podio, which sends a notification to the CEO through GlobiFlow. All this is to create an inbound collaboration platform. Due to MAPS, we are now creating a shared platform and are slowly

moving forward to the realization phase, where the technology E-conomic is used. Lastly, this whole process is evaluated based on the salespeople's competencies.

Based on the previous findings, it can be claimed that this case company uses technology throughout the whole sales process. Especially noticing is that the technological solutions are all integrable with each other. Even though the findings reveal that the company is using digital solutions throughout the entire sales process, it can be stated that there are many missing elements during the process. For instance, the CEO mentioned that they use the technology of Capturi. However, they have too much accessible data, so they do not know how to analyze and use these data. According to Guenzi & Habel (2020), this is a common procedure and crash for many companies following digital transformation. However, Figure X shows the vision to visually sum up previous analysis findings, in perspectivation to MAPS, and the technological application within the sales process of case company 2.

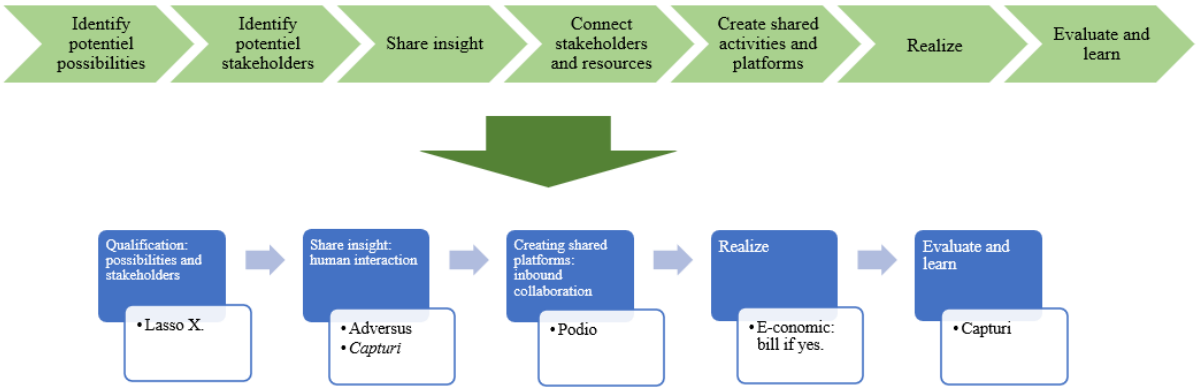


Figure 8: Own illustration, 2022; Bhatti & Jensen, 2022. Case company 2 sales process.

4.3 Case Comparison

In this section of the thesis, we will compare the two case studies. The researchers present two conceptual frameworks that promote how industry 4.0 affects the sales strengths of the two case companies. This part of the thesis aims to highlight significant results and comparison, which should help researchers adapt the MAPS conceptualization into the MASTER-model (Rekonseptualisering Af En Master Teknologisk Salgs Model).

It is important to state that no sales processes are equivalent to each other, hence the sales process depends on the industry, product, and the customer. The two case studies carried out can therefore only be compared through a standardized sales process.

Both companies have taken the last ten years' technology development into play during the analysis. Today, when a salesperson is considering an option, it happens on a wide range of levels; there is a paradigm shift in how companies integrate with customers. In addition, companies need to reconsider several steps in their sales process. Furthermore, they need to differentiate the sales process to have the most significant relevance and value creation for their customers. The first reflection in the continuation of key results is how the two sales processes are presented. To the reader, the two sales processes differ markedly from each other. Despite being strongly influenced by technology, the analyses show a significant differentiation in using the technology and how these culminate in the sales process.

Equally important was that a customer qualification process took place, before contacting the customers due to the research. We can see a precise alignment in the two case companies that put these statements into practice. For both companies, the first step is to qualify the best possible leads for the company, but through different technology applications. In case company 1, it was observed that technology use during qualification is more widespread among different platforms and applications. This may be due to the complexity of the sale. It can also be argued that the more data you need on the customers, the more technology is used. Both parties believe that technology and intelligent data play a significant role in the first phase. Moreover, they can more easily access the next step of sharing insights through human interaction. This is due to the high amount of data discipline and customer knowledge.

As described, we have the two sales processes, and what can generally be identified is that the two case companies differ in terms after sharing insight. This can generally be due to two parameters; Firstly, it may be because the case company has a more complex sales process, why the exploration phase is needed. Secondly, compared to case company 2, the researchers do not get the same insight in this phase, which may be due to a lack of observation. However, what we do know, is that a relatively standardized sales process will always include a phase in which they come in with some offerings and solutions to the customer. Therefore, it can be discussed that it is a relevant phrase to keep in mind, despite the lack of insights of case company 2.

Another important finding from case study 1 is the crossing element between sharing insights and the connecting phase where pure technology handles the data of the customer. Yet, seen as an opportunity. This element is differentiating from the case study 2, as they use technology

throughout their entire process and as argued their process is seen shorter, which disenables them in a pure technology phase.

In the era of both case companies, they both have an interface for internal communication. However, what differentiates them from each other is that for case company 1, this is merged with an advice phase, based on explore. It is basically about creating the last flow within sales and getting the customer comfortable in sales. Due to case company 2 it is more about communication and making the process more accessible through technology.

When we hit the next phase, the researchers can see a relatively standardized sales process consisting of realization, evaluation, and learning. As getting further down the sales funnel, technology plays an increasingly essential role. This can especially be seen in how they evaluate processes and employees. Using the technology and know-how creates several opportunities for both companies. This follows CRM-systems and Capturi's algorithms. Another equality is seen in the limited usage of technology in the evaluation process.

Part 3: The last Sentence

6. Discussion & Conclusion

To summarize the development of the pre-internet era, Dubinsky (1981), Marshall et al. (1999), and Töytäri (2011) require favorable revision in perspective for Industry 4.0. This revision is put into perspective for MAPS conceptualization. The researchers built upon the seminal work a reconceptualized a sales process.

As evidenced in the above case companies' comparison, the whole digital transformation regarding sales processes initiates structural changes regarding the sales value creation function. Davenport et al. (2020) agreeing with Paschen et al. (2020) claims that intelligent data and technological applications are beginning to influence various business areas, especially marketing and sales. In relation adopting AI can help companies predict a broad range of data, which provides them with the proper insight regarding the volumes of the customer (Davenport et al., 2020). Industry 4.0 has changed how companies operate and integrate between different sectors and share data automatically in real-time. Research shows that companies that use technological solutions and real-time data through customer perspectives create competitive advantages in the global digital markets, allowing digitalization to sharpen the right value proposition.

According to Paschen et al. (2020), AI-based technology creates value-creating opportunities in the B2B sales process. Inline, she mentions that AI can help generate data into knowledge required information when developing beneficial marketing and sales tactics and strategies. According to Paschen et al. (2019), AI is about gaining knowledge-based information about the customer's needs. It is related to short-term performance, which can be valuable in improving offerings and relations.

Furthermore, technology can help to enhance human interaction according to sales processes. The researchers have established a proposal for a new theoretical sales process based on existing literature and practice observations. The framework explains how the theory is affected by the practice, in which Industry 4.0 plays a significant role. This confirms or denies whether the new sales process is valid concerning how the technology triggers the sales process. The

MASTER-model conceptualization changes into a fully integrated human-machines process, consisting of:

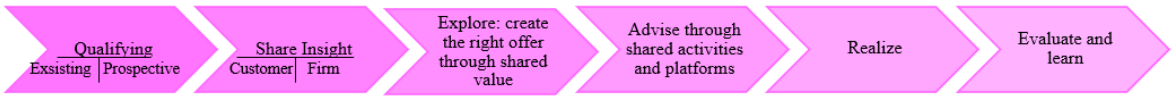


Figure 9: Own illustration, 2022. The MASTER-model conceptualization.

The MASTER-model reconceptualization consists of 6 phases: (1) Qualifying, (2) Share insight, (3) Explore: create the right offer through shared value, (4) Advice through shared activities and platforms, (5) Realize, and (6) Evaluate and learn.

The first part of the sales process is to qualify the right customers based on technological solutions and real-time data. This is supported by Jävinen and Taiminen (2016), who mentions that the traditional marketing segmentation task should find a place through technology in the first phase of the process. Therefore, using data to predict the right customer helps create the right relationship and value further in the chain. In this part, the corporations must be clear about whether it is an existing customer or a prospective customer. If it is a prospective customer, they might need to segment the customer through future technological applications. To clarify, using AI technology throughout the qualification phase collects detailed information on potential leads, their needs, habits, and relevant background data. This, according to Paschen et al. (2020), is seen as a necessary task to be capable of taking the next step: We are making the first contact through human interaction (see A1).

Technology. The technology used in the phase is different AI algorithms that qualify the best fit for customers based on different criteria, searching among various databases, thus enhancing AI-based lead generation.

The second phase is around sharing insight with the customers. This phase is about creating an interest in the eye of the customers through the first human interaction. This part can be carried out through digital solutions, such as telephone or other digital platforms. It is about sharing information and data in a two-way street, which can also be carried out through face-to-face interactions. Not much has changed due to MAPS conceptual framework. It is essential to highlight that when establishing the first interaction, it is essential that the sellers put themselves in the customers' shoes. Here they need to understand the customer's pain to ensure

that they can create the right value proposition in the next phase, which, according to Töytäri (2011), is a vital factor during sales.

Technology. The technology used in this phase is mainly the telephone. However, the introduction to the CRM system can plays a significant role during this stage.

The third phase is where exploring the customer. The seller needs to use all the information and data gathered throughout the two first steps. It is about creating value for both parties. This phase is where the collaboration begins, through digital or physical platforms or meetings. We now operate shifting from marketing to a sales qualified lead or opportunity; why is it essential to use a structured digital platform that can build the bridge between marketing and sales. In alignment with this, Paschen et al. (2020) argue that AI systems are ideal for this phase (see A1). One opportunity here lies in the CRM system. For instance, the salespeople can create a deal pipeline in the CRM system, which will help make the sales process more transparent. This part is carried out solely through pure technology and aims to indicate to the fellow salespeople that a potential customer is on the verge of becoming a customer.

Technology. The technology used in the phase is seen as the CRM system and its many AI applications. Hence, when a customer becomes an opportunity, thus adding the perspective of a long or short sales process, it is essential to track the customer through an intelligent solution to affect the customers in the sales process. These intelligent technologies enable the company to be one step ahead of the customers through AI algorithms and data.

If the potential customers find the selling solutions exciting and valuable, the fourth phase: advice, will occur. As a seller, you aim to advise the potential customer on the right solution. Furthermore, it is here that the final legal details are reconciled so that there is a clear idea of the deal sale. More profoundly, this is about creating and co-creative understanding through physical or digital collaboration platforms. Hence, it is about understanding the customers to perfection, which is why technology plays a significant role during the stage, as technology can be seen as a value-driver for understanding the customers. In alignment with this, Paschen et al. (2020) mention that using AI algorithms affects the tasks and enables the salespeople to reply faster to customers with more current and optimized data.

Technology. The technology used in the phase is yet profound to be AI-based CRM systems, inbound shared platform to gain a complete overview and involvement of the right people and generate the right dataflow within the sales.

The next and fifth phase is realization. This phase is to entail the sale. It is comparable to delivering a service or product. It is an essential part of the process. If the sellers have been data-driven throughout the entire process, this phase will be easier to manage.

Technology. The technology used in the phase is recommended to be online platforms to minimize the paperwork. Nevertheless, using technology in this phase can help the company track the customer, if they have seen the contract, to make the final sales step more manageable for the company.

The sixth step is to evaluate and learn about the process. This is carried out through different technological platforms. It is about using the right technology and algorithms to ensure predictivity on a management level and reinforce and improve the sales process. (Kellogg et al., 2020). Secondly, this phase should gather data to help managers train and coach the sales employees in the best possible outcome throughout the MASTER-model. In addition, Kellogg et al. (2020) mention two fundamental mechanisms when evaluating algorithms. These evaluation techniques can help to predict performance and productivity in the future. Moreover, they mention that it is an essential tool to enrich the managers with real-time feedback (Kellogg et al., 2020).

Technology. The technology used in the phase is yet seen as intelligent CRM systems or the Capturi technology to enable companies to understand through AI, specifically NLP and ML, to recreate the process based on algorithmic suggestions for more technological sales.

An intention part to remember is that the further we integrate into the sales funnel, the more valuable the technology and its applications becomes. Incorporating a data discipline throughout the whole process is seen as an essential parameter, as it will help increase the customer experience and satisfaction along the chain. Furthermore, when making a sale, the salespeople need to incorporate part acceptance and evaluations for their customers. It is like American football; you cannot make a "Hail Mary." In that case, a successful implementation will be unlikely. It is essential to take the process in steps and ensure partial acceptance from the customer.

Sales are about retelling what the customer has partially accepted and following up and thus get meetings in the book - the more meetings you get, the more information you as a seller get on the customer, and the easier the process becomes. Thus, it is essential to mention that AI-based technology plays a significant role during the partial acceptance as it will gather all data together. Moreover, intelligent data will help companies keep track of their customers, for

instance, through Pixel, to be one step ahead of the customers to simplify the part acceptance of the sales process.

Furthermore, when establishing the digital transformation into the sales process, the organization must be informed about potential changes (Verhoef et al., 2021). As mentioned in the literature review, it is crucial to adopt the technology to generate the right value proposition. Hence, the salespeople need to know how to use the technology to make the process more automated and streamline against a digital transformation. In-dept, the salespeople are forced to be placed high in maturity level. Adding all these technological applications: Industry 4.0, such as AI, ML, NLP, and generally the digital transformation, can be an essential value creator in the sales process that is not near possible during the transactional or interactional sales processes.

Therefore, it can be concluded that companies, to create value, must streamline and let the AI-based technologies run a major part of sales process as it will optimize the entire process. However, it is essential to mention the human judgement as sales are all about trust and create relationship, remembering AI should enhance and not replace (Paschen et al. 2020).

Enjoy the transformation.

Research Contributions:

This study contributes to the current sales literature and the ongoing debate regarding Industry 4.0: the digital transformation: intelligent data and its impact on the sales processes. The researchers empirically test the MAPS conceptualization for validity. The conceptual framework is built on Dubinsky (1981) seven steps of sales, Marchall et al. (1999) and Töytäri et al. (2011). However, through the evolution of sales processes and in general the digitalization, this thesis contributes to an extended knowledge of how technology is affecting the entire sales process, as we see that the process will decrease through wise use of technology.

Therefore, this research contributes with a reconceptualization of the MAPS framework which we see is affected by the usage of technology throughout the sales process in practice. Furthermore, the aim is to contribute companies with a more accurate recipe for how they should adjust their sales process though a digital transformation. This study also contributes to marketing and sales literature by extending the existing debate on understanding how industry 4.0-based technologies use facilitates the sales process.

Managerial Implication:

Based on the findings of the case company 1, it can be argued that the different sales employees have several different sales processes. Therefore, a management implication is to train and coach all salespeople in the same digital process, following one guideline as presented in the analysis. See figure 8, to see if that changes the workflow within the sales process. Another implication for the management of case company 2 is to use the evaluation process more sufficient to train and coach the employees through their CRM system. Hence, creating workflows for always being one step ahead of the customers.

Due to the findings in the analysis, it became clear that case company 2 does not use the available data from Capturi. Hence, they are trying to find a purpose for the data. As stated, decision-driving data analytics is about finding data for a purpose. Therefore, a management implication for case company 2 as well as others in the business is to find a purpose for the available data. For example, it can be done by creating trackers for successful words into one complete sentence to create the optimal sales pitch for the sales employees. This aligns with Kellogg et al. (2021) statements that recordings should be used in the evaluation process to train and coach the employees with real-time feedback.

Limitations and Future Research

In the following section, the limitation and future research will be presented. This thesis work is a premier case study based on secondary- and primary data and a literature review. Thus, the research is not predicated on a specific business situation within a chosen company. A critical limitation due to the thesis work can be due to the lack of validity tested in practice. Which suddenly can lead to further research recommendations. Adding the MASTER-model into practice will give a comprehension of the validity of the model.

Another critical limitation occurred as the researcher had limited resources. Because of this, the researchers had to limit their work to what technology they used and to what task. Based on these limitations, further research could be on how the technology is communicating into the sales process and how these are connected.

Another limitation occurs in the problem around observation. As the researchers have not observed both case companies' sale processes, further research relies on observing multiple

case studies to find the proper reconceptualization. Furthermore, this will increase the validity of the new conceptual framework. Which also leads up to further research.

A suggestion for further research is to find a proper technological application that fits into the new and reconceptualized framework and add that to multiple companies to see how that will be carried out. Will this create a more successful sales process?

Part 4: References

7. List of figures and Tables

Tables

Figures

8. References

Accenture. (2016). *Empowering Your Sales Force: It's Not Just Automation. It's Personal*. Received from: https://www.accenture.com/t00010101T000000Z__w__/gb-en/_acnmedia/PDF-8/%0AAccenture-Digital-Sales-Empowering-Your-Sales-Force-POV.PDF

Accenture. (2017). *Accenture Technology Vision 2017*.

Adversus. (n.d.). *Smart campaigns for outbound calling*. Retrieved May 18, 2022, from https://www.adversus.io/campaigns?hsLang=en

Agarwal, R., Gai, G. G., DesRoches, C. , & Jha, A. L. (2010). The digital transformation of healthcare: Current status and the road ahead. *Information Systems Research.*, *21*(4), 796–809.

Akira.AI. (n.d.). *Complete Guide to Decision-Driven Data Analytics and it's Benefits*. Retrieved April 12, 2022, from https://www.akira.ai/glossary/decision-driven-data-analytics

Alsheibani, S., Cheung, Y., & Messom, C. (2020). Re-thinking the competitive landscape of artificial intelligence. *Proceedings of the Annual Hawaii International Conference on System Sciences*, *2020-Janua*, 5861–5870. Received from: https://doi.org/10.24251/hicss.2020.718

Arbnor, I., & Bjerke, B. (2009). *Methodology for creating business knowledge* (3rd edition).

Baabdullah, A. M., Alalwan, A. Abdallah., Slade, E. Louise., Raman, Ramakrishnan., & Khatatneh, K. Fakhri. (2021). SMEs and artificial intelligence (AI): Antecedents and consequences of AI-based B2B practices. *Industrial Marketing Management*, *98*(September), 255–270. Received from: https://doi.org/10.1016/j.indmarman.2021.09.003

Baker, J. (2012). The Technology-Organization-Environment Framework. In *Information System Theory: Explaining and Predicting our Digital Society* (pp. 231–245). Springer.

Balakrishnan, A. (2017, April 12). Bezos shareholder letter: Don't let the world push you into becoming a 'Day 2' company. *CNBC*.

Baraldi, E., & Nadin, G. (2006). The challenges in digitalising business relationships: The construction of and IT infrastructure for a textile-related business network. *Technovation*, *26*(10), 1111–1126.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99–120.

Barocas, S., Rosenblat, A., Gangadharan, S. P., & Yu, C. (2014, October 30). Data & civil rights: Technology primer. *Data & Civil Rights Conference*.

Bhatti, Waheed., & Jensen, Karina. (2022). Aalborg Sales Process Model (MAPS), A Reconceptualization in Light of Industry 4.0. *Presentation in The Global Sales Science Institue (GSSI)*.

Bhatti, Waheed., Vahlne, J.-Erik., Glowik, Mario., & Larimo, J. Antero. (2022). The impact of industry 4.0 on the 2017 version of the Uppsala model. *International Business Review*, *December 2020*, 101996. Received from: https://doi.org/10.1016/j.ibusrev.2022.101996

Brennan, S., & Kreiss, D. (2014). Digitalization and Digitization. *Culture Digitally*. Received from: https://culturedigitally.org/2014/09/digitalization-and-digitization/

Bryman, A., & Bell, E. (2007). *business research methods* (Second edi). OXFORD.

Buch-Hansen, H., & Nielsen, P. (2005). *Kritisk Realisme*. Samfundslitteratur.

Builtwith. (n.d.). *Find out what websites are Built With*. Retrieved May 17, 2022, from https://builtwith.com/

Burgess, R. G. (1984). *In the Field*. Allan & Unwin.

Buttle, F. (2004). *Customer Relationship Management*. Elsevier Butterworth-Heinemann.

Capturi. (n.d.). *Værdifulde samtaler starter her*. Retrieved May 17, 2022, from https://www.capturi.com/

Castelo, N. (2018). *Consumer adoption of algorithms that blur the line between human and machine.* Received from: file:///C:/Users/bruger/Desktop/Kandidat/4. semester/Castelo_columbia_0054D_15214.pdf

Castelo, N., & Ward, A. (2016). No TitlePolitical Affiliation Moderates Attitudes Towards Artificial Intelligence. *NA - Advances in Consumer Research*, *Volume 44*, 723–723.

CEO. (10. 5 2022). (E. S. Sørensen, S. V. Weesgaard, K. B. Jensen, & W. A. Bhatti, Interviewere)

Chakravarty, A., Grewal, R., & Sambamurthy, V. (2013). Information technology competencies, organizational agility, and firm performance: Enabling and facilitating roles. *Information Systems Research.*, *24*(4), 976–997.

Chatterjee, S., Rana, N. P., Tamilmani, K., & Sharma, A. (2021). The effect of AI-based CRM on organization performance and competitive advantage: An empirical analysis in the B2B context. *Industrial Marketing Management*, *97*, 205–219.

Chen, H., Chiang, R. H., & Storey, V. C. (2012). Business Intelligence and Analytics: From Big Data to Big Impact. *MIS Quarterly*, *36*(4), 1165–1188.

Chiarello, F., Trivelli, L., Bonaccorsi, A., & Fantoni, G. (2018). Extracting and mapping industry 4.0 technologies using wikipedia. *Computers in Industry*, *100*(May), 244–257. Received from: https://doi.org/10.1016/j.compind.2018.04.006

Chintalapati, S., & Pandey, S. K. (2022). Artificial intelligence in marketing: A systematic literature review. *International Journal of Market Research*, *64*(1), 38–68. Received from: https://doi.org/10.1177/14707853211018428

Chong, A. Y. L., Cheng, E., Liu, M. J., & Li, B. (2017). Predicting consumer product demands via Big Data: The roles of online promotional marketing and online reviews. *International Journal of Production Research*, *55*(17), 5142–5156.

Christian, R. (1962). The Computer and the Marketing Man. *Journal of Marketing*.

Chui, M., Manyika, J., Miremadi, M., Henke, N., Chung, R., Nel, P., & Malhotra, S. (2018). Notes from the AI frontier: Applications andvalue of deep learning. *McKinsey Global Institute Discussion Paper,*

Citrix Podio. (n.d.). *Boost productivity and save man hours by automating pretty much anything you can think of in your Podio account.* Retrieved May 17, 2022, from https://workflow-automation.podio.com/

CO-Founder, C. &. (28. 4 2022). (E. S. Sørensen, S. V. Weesgaard, K. B. Jensen, & W. A. Bhatti, Interviewere)

Columbus, L. (2019). *10 charts that will change your perspective of AI in marketing title*. Received from: https://www.forbes.com/sites/louiscolumbus/2019/07/07/10-charts-that-will-change-your-perspective-of-ai-in-marketing/amp/J.

Coreynen, W., Matthyssens, P., & van Bockhaven, W. (2017). Boosting servitization through digitization: Pathways and dynamic resource configurations for manufacturers. *Industrial Marketing Management*, *60*, 42–53. Received from: https://doi.org/10.1016/j.indmarman.2016.04.012

Creswell, J., & Plano Clark, V. (2007). Designing and conducting mixed methods research. In *Sage*.

Darmer, P., Jordansen, B., Madsen, J. A., & Thomasen, J. (2010). *Paradigmer i Praksis.* Handelshøjskolens Forlag.

Davenport, T. (2018). *The AI Advantage How to Put the Artificial Intelligence Revolution to Work*. The MIT Press.

Davenport, Thomas., Guha, Abhijit., Grewal, Dhruv., & Bressgott, Timna. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*, *48*(1), 24–42. Received from: https://doi.org/10.1007/s11747-019-00696-0

de Langhe, B., & Puntoni, S. (2020). *Leading With Decision-Driven Data Analytics*.

Deloitte. (2017). *Bullish on the business value of cognitive Leaders in cognitive and AI weigh in on what's working and what's next*.

Dimitrieska, A., Stankovska, A., & Efremove, T. (2018). Artificial intelligence and marketing. *Entrepreneurship*, *6*(2), 298–304.

Dougherty, D., & Dunne, D. (2012). Digital science and knowledge boundaries in complex innovation. *Organization Science*, 23(5), 1467-1484

Dubinsky, A. (1981). *The Effects of Sales Training*.

Dubinsky, A. J. (1980). *Source: The Journal of Personal Selling and Sales Management, Fall* (Vol. 1, Issue 1).

Dutta, B. (2021). *Semantic Analysis: Working and Techniques | Analytics Steps*. Received from: https://www.analyticssteps.com/blogs/semantic-analysis-working-and-techniques

Dwivedi, Y. K., Hughes, Laurie., Ismagilova, Elvira., Aarts, Gert., Coombs, Crispin., Crick, Tom., Duan, Yanqing., Dwivedi, Rohita., Edwards, John., Eirug, Aled., Galanos, Vassilis., Ilavarasan, P. Vigneswara., Janssen, Marijn., Jones, Paul., Kar, A. Kumar., Kizgin, Hatice., Kronemann, Bianca., Lal, Banita., Lucini, Biagio., … Williams, M. D. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, *57*(August 2019), 101994. Received from: https://doi.org/10.1016/j.ijinfomgt.2019.08.002

Eduardsen, J. S. (2020). Digitalization and Customer Value Creation. In *AAUBS* (pp. 1–41)

Edwards, R. (1979). *Contested terrain: The transformation of the workplace in the twentieth century*. Basic Books.

Eggers, J. P., & Park, K. F. (2018). Incumbent adaptation to technological change: The past, present, and future of research on heterogeneous incumbent response. *Academy of Management Annals*, *12*(1), 357–389.

Eggert, A., Ulaga, W., Frow, P., & Payne, A. (2018). Conceptualizing and communicating value in business markets: From value in exchange to value in use. *Industrial Marketing Management*, *69*, 80–90. Received from: https://doi.org/10.1016/j.indmarman.2018.01.018

Escott, E. (24. October 2017). *What are the 3 types of AI? A guide to narrow, general, and super artificial intelligence*. Recieved from: Codebots https://codebots.com/artificial-intelligence/the-3-types-of-ai-is-the-third-even-possible

Expert. (2020). *Natural Language Processing Semantic Analysis Defined | Expert.ai*. Received from: https://www.expert.ai/blog/natural-language-process-semantic-analysis-definition/

Fakhar Manesh, M., Pellegrini, M. M., Marzi, G., & Dabic, M. (2021). Knowledge Management in the Fourth Industrial Revolution: Mapping the Literature and Scoping Future Avenues. In *IEEE Transactions on Engineering Management* (Vol. 68, Issue 1, pp. 289–300). Institute of Electrical and Electronics Engineers Inc. Received from: https://doi.org/10.1109/TEM.2019.2963489

Filieri, R., & Mariani, M. (2021). The role of cultural values in consumers' evaluation of online review helpfulness: a big data approach. *International Marketing Review*, *38*(6), 1267–1288. Received from: https://doi.org/10.1108/IMR-07-2020-0172

GetAccept. (n.d.). *Your complete sales tool*.

Gillespie, T. (2014). The relevance of algorithms. In *Media technologies: Essays on communication, materiality and society*. MIT Press.

Goertzel, T., & Fashing, J. (1981). The myth of the normal curve: A theoretical critique and examination of its role in teaching and research. *Humanity and Society*, *5*, 14–31.

Gray, K. (2017). *AI Can Be a Troublesome Teammate*. Harvard Business Review. Received from: https://hbr.org/2017/07/ai-can-be-a-troublesome-teammate

Greengard, S. (2019). *What is Artificial Intelligence & How Does It Work? | Datamation*. Received from: https://www.datamation.com/artificial-intelligence/what-is artificialintelligence/?fbclid=IwAR3HLJRhKdJ8bgeN_OZUMTcP49jZx23rgG6WFnGBFr8DKjOQfwJkegRwmQo

Guba, E., & Lincoln, Y. (1989). *Fourth generation evaluation.* SAGE Publications.

Guenzi, P., & Habel, J. (2020). Mastering the Digital Transformation of Sales. *California Management Review*, *62*(4), 57–85. Received from: https://doi.org/10.1177/0008125620931857

Hoffmann, D. L., & Novak, T. P. (2017). Consumer and object experience in the internet of things: An assemblage theory approach. *Journal of Consumer Research*, *44*(6), 1178–1204.

HubSpot. (n.d.). *Artificial Intelligence*. Retrieved May 9, 2022, from https://www.hubspot.com/artificial-intelligence

Hubspot. (n.d.). *Sales Pipeline Management Software*. Retrieved May 17, 2022, from https://www.hubspot.com/products/crm/pipeline-management

Iansiti, M., & Lakhani, K. R. (2014). *SPOTLIGHT ON MANAGING THE INTERNET OF THINGS Digital Ubiquity: How Connections, Sensors, and Data Are Revolutionizing Business*.

Järvinen, J., & Taiminen, H. (2016). Harnessing marketing automation for B2B content marketing. *Industrial Marketing Management*, *54*(4), 164–175.

Jöhnk, J., Weißert, M., & Wyrtki, K. (2021). Ready or Not, AI Comes— An Interview Study of Organizational AI Readiness Factors. *Business and Information Systems Engineering*, *63*(1), 5–20. Received from: https://doi.org/10.1007/s12599-020-00676-7

Johnson, R., Onwuegbuzie, A., & Turner, L. (2007). Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research*, *1*(2), 112–133.

Jordan, M., & Mitchell, T. (2015). *Machine learning: Trends, perspectives, and prospects*. *349*(6245).

Jønsson, J. (6. 4 2022). (E. S. Sørensen, S. V. Weesgaard, K. B. Jensen, & W. A. Bhatti, Interviewere)

Kannan, P., & Li, H. A. (2017). Digital marketing: A framework, review and research agenda. *International Journal of Research in Marketing*, *34*(1), 22–45.

Karimi, J., & Walter, Z. (2015). The role of dynamic capabilities in responding to digital disruption: A factor-based study of the newspaper industry. *Journal of Management Information Systems*, *32*(1), 39–81.

Kellogg, Katherine., Valentine, Melissa., & Christin, A. (2020). ALGORITHMS AT WORK: THE NEW CONTESTED TERRAIN OF CONTROL. *Academy of Management Annals*, *14*(1), 366–410.

Kennedy, B. L., & Thornberg, R. (2018). *Deduction, Induction and Abduction*. Uwe Flick: The SAGE Handbook of Qualitative Data Collection.

Koch, T., & Windsperger, J. (2017). Seeing through the network: Competitive advantage in the digital economy. *Journal of Organization Design*, *6*(1), 6.

Kowtha, N. R., & Choon, T. (2001). Determinants of website development: A study of electronic commerce in Singapore. *Information and Management*, *39*(3), 227–242. Received from: https://doi.org/10.1016/S0378-7206(01)00092-1

Lai, K. H., Wong. C. W. Y., & Cheng, T. C. E. (2010). bundling digitized logistics activities and its performance implications. *Industrial Marketing Management*, *39*(2), 273–286.

Lasso X. (n.d.). *Løsninger - Salg - Lasso X*. Retrieved May 10, 2022, from https://lassox.com/loesninger/salg

Lee, A. Y., Keller, P. A., & Sternthal, B. (2009). Value from regulatory construal fit: The persuasive impact of fit between consumer goals and message concreteness. *Journal of Consumer Research*, *36*(5), 735–747.

Lee, O. D., Sambamurthy, V., Lim, K. H., & Wei, K. K. (2015). How Does IT Ambidexterity Impact Organizational Agility? *Information System Research*, *26*(2), 398–417.

Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing*, *80*(6), 69–96.

Li, F., Nucciarelli, A., Roden, S., & Graham, G. (2016). How smart cities transform operations models: A new research agenda for operations management in the digital economy. *Production Planning & Control*, *27*(6), 514–528.

Li, S., Peng, G., Xing, F., Zhang, J., & Zhang, B. (2021). Value co-creation in industrial AI: The interactive role of B2B supplier, customer and technology provider. *Industrial Marketing Management*, *98*, 105–114. Received from: https://doi.org/10.1016/j.indmarman.2021.07.015

Lin, H. F., & Lee, G. G. (2005). Impact of organizational learning and knowledge management factors on e-business adoption. *Management Decision*, *43*(2), 171–188. Received from: https://doi.org/10.1108/00251740510581902

Lin, H. F., & Lin, S. M. (2008). Determinants of e-business diffusion: A test of the technology diffusion perspective. *Technovation*, *28*(3), 135–145. Received from: https://doi.org/10.1016/j.technovation.2007.10.003

Liu, D. Y., Chen, S. W., & Chou, T. C. (2011). Resource fit in digital transformation - Lessons learned from the CBC bank global e-banking project. *Management Decision*, *49*(10), 1728–1742.

Loebbeck, C., & Picot, A. (2015). Reflections on societal and business model transformation arising from digitization and big data analytics: A research agenda. *Journal of Strategic Information Systems*, *34*(3), 149–157.

Lund, S. (2021). *Sådan håndterer du B2B kunder, leads og salg digitalt | KYNETIC*. Received from: https://www.kynetic.dk/blog/forretningsudviklende-digitale-b2b-strategier-i-pandemiens-tid-del-2/

Lutkevich, B. (2021). *What is Natural Language Processing? An Introduction to NLP*. Received from: https://www.techtarget.com/searchenterpriseai/definition/natural-language-processing-NLP

Manning, C., & Schütze, H. (1999). *Foundations of statistical natural language processing.* The MIT Press.

Markoff, J. (2016). *Machines of Loving Grace: The quest for common ground between humans and robots*. HarperCollins Publishers.

Marshall, G. W., Moncrief, W. C., & Lassk, F. G. (1999). The Current State of Sales Force Activities. In *Industrial Marketing Management* (Vol. 28).

McKinsey, & Company. (2018). AI adoption advances, but foundation- al barriers remain.

Mikalef, P., Conboy, K., & Krogstie, J. (2021). Artificial intelligence as an enabler of B2B marketing: A dynamic capabilities micro-foundations approach. *Industrial Marketing Management*, *98*, 80–92. Received from: https://doi.org/10.1016/j.indmarman.2021.08.003

Molinillo, S., & Japutra, A. (2017). Organizational adoption of digital information and technology: a theoretical review. *The Bottom Line*.

Motyka, S., Grewal, D., Puccinelli, N. M., Roggeveen, A. L., Avnet, T., Daryanto, A., de Ruyter, K., & Wetzels, M. (2014). Regulatory fit: A meta-analytic synthesis. *Journal of Consumer Psychology*, *24*(3), 394–410. Received from: https://doi.org/10.1016/j.jcps.2013.11.004

Müller, V. C., & Bostrom, N. (2016). *Future Progress in Artificial Intelligence: A Survey of Expert Opinion*. Received from: http://www.sophia.dehttp://orcid.org/0000-0002-4144-4957

Newman, D. (2017). *Innovation vs. Transformation: The Difference in a Digital World*. Received from: https://www.forbes.com/sites/danielnewman/2017/02/16/innovation-vs-transformation-the- difference-in-a-digital-world/#78e90c2265e8

NG, I. C. L., & Wakenshaw, S. Y. L. (2017). The internet-of-things: Review and research directions. *Internal Journal of Research in Marketing*, *34*(1), 3–21.

Orlikowski, Wanda., & Scott, S. (2015). The Algorithm and the Crowd: Considering the Materiality of Service Innovation. *MIS Quarterly*, *39*(1), 201–216.

Paesbrugghe, B., Rangarajan, D., Sharma, A., Syam, N., & Jha, S. (2017). Purchasing-driven sales: matching sales strategies to the evolution of the purchasing function. *Industrial Marketing Management*, *62*, 171–184.

Pagani, M., & Pardo, C. (2017). The impact of digital technology on relationships in a business network. Industrial Marketing Management, 67, 185-192.

Paschen, J., Paschen, U., Pala, E., & Kietzmann, J. (2021). Artificial intelligence (AI) and value co-creation in B2B sales: Activities, actors and resources. *Australasian Marketing Journal*, *29*(3), 243–251. Received from: https://doi.org/10.1016/j.ausmj.2020.06.004

Paschen, J., Kietzmann, J., & Kietzmann, T. C. (2019). Artificial intelligence (AI) and its implications for market knowledge in B2B marketing. *Journal of Business and Industrial Marketing*, *34*(7), 1410–1419. Received from: https://doi.org/10.1108/JBIM-10-2018-0295

Paschen, J., Wilson, M., & Ferreira, J. J. (2020). Collaborative intelligence: How human and artificial intelligence create value along the B2B sales funnel. *Business Horizons*, *63*(3), 403–414. Received from: https://doi.org/10.1016/j.bushor.2020.01.003

Peirce, C. S. (1896). *Lessons of the History of Science. MS [R] 1288.* Commens: Digital Companion to C.S.

Podio. (n.d.). *Get your team working in sync*. Retrieved May 17, 2022, from https://www.podio.com/

Prahalad, C. K., & Ramaswamy, V. (2000). Co-opting customer competence. *Harvard Business Review*, *78*(1), 79–90.

Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: the next practice in value creation. *Journal of Interactive Marketing*, *18*(3), 5–14.

Ramaswamy, V., & Ozcan, K. (2016). Brand value co-creation in a digitalized world: An integrative framework and research implications. *International Journal of Research in Marketing*, *33*(1), 93–106.

RapidAPI. (n.d.). *API Integration - What is API Integration? | API Glossary*. Retrieved May 9, 2022, from https://rapidapi.com/blog/api-glossary/api-integration/

Ritter, T., & Pedersen, C. L. (2020). Digitization capability and the digitalization of business models in business-to-business firms: Past, present, and future. In *Industrial Marketing Management* (Vol. 86, pp. 180–190). Elsevier Inc. Received from: https://doi.org/10.1016/j.indmarman.2019.11.019

Ross, J. (2017). Don't confuse digital with digitization. *MIT Sloan Management Review*.

Rüssmann, M., Lorenz, M., Gerbert, P., Waldner, M., Justus, J., Engel, P., & Harnisch, M. (2015). *Industry 4.0: the Future of Productivity and Growth in Manufacturing Industries*.

Salesperson2a. (28. 4 2022). (E. S. Sørensen, & S. V. Weesgaard, Interviewere)

Salesperson2b. (28. 4 2022). (E. S. Sørensen, & S. V. Weesgaard, Interviewere)

Salesperson2c. (2. 5 2022). (E. S. Sørensen, & S. V. Weesgaard, Interviewere)

Salesperson3. (29. 4 2022). (E. S. Sørensen, & S. V. Weesgaard, Interviewere)

Salesperson4a. (29. 4 2022). (E. S. Sørensen, & S. V. Weesgaard, Interviewere)

Salesperson4b. (29. 4 2022). (E. S. Sørensen, & S. V. Weesgaard, Interviewere)

Salesperson4c. (29. 4 2022). (E. S. Sørensen, & S. V. Weesgaard, Interviewere)

Samli, A., James, R., Wills, J., & Herbig, P. (1997). The Information Superhighway Goes International: Implications for Industrial Sales Transactions. *Industrial Marketing Management*, *26*, 51–58.

Saunders, M. N. K., Lewis, P., & Thornhill, A. (2019). "Research Methods for Business Students" Chapter 4: Understanding research philosophy and approaches to theory development. In *Researchgate.Net* (Issue January). Received from: www.pearson.com/uk

Saura, J. R., Ribeiro-Soriano, D., & Palacios-Marqués, D. (2021). Setting B2B digital marketing in artificial intelligence-based CRMs: A review and directions for future research. *Industrial Marketing Management*, *98*, 161–178. Received from: https://doi.org/10.1016/j.indmarman.2021.08.006

Selig, J. (2022). *How Semantic Analysis Impacts Natural Language Processing | Expert.ai | Expert.ai*. Received from: https://www.expert.ai/blog/natural-language-process-semantic-analysis-definition/

Semrush. (n.d.). *Get measurable results from online marketing*. Retrieved May 17, 2022, from https://www.semrush.com/

Sirkin, Harold., Linser, Michael., & Rose, Justin. (2015). *Why Advanced Manufacturing Will Boost Productivity*. Received from: https://www.bcg.com/en-gb/publications/2015/lean- and-manufacturing-production-why-advanced-manufacturing-boost-productivity

Skylar, A., Kowalkowski, C., Tronwoll, B., & Sörhammar, D. (2019). Organizing for digital servitization: A service ecosystem perspective. *Journal of Business Research*, *104*, 450–460.

Slack. (n.d.). *Slack is your digital HQ*. Retrieved May 17, 2022, from https://slack.com/

Strange, R., & Zucchella, A. (2017). Industry 4.0, global value chains and international business. *Multinational Business Review*, *25*(3), 174–184. Received from: https://doi.org/10.1108/MBR-05-2017-0028

Suddaby, R. (2006). From the editors: What grounded theory is not. *Academy of Management Journal*, *49*(4), 633–643.

Syam, N., & Sharma, A. (2018). Waiting for a sales renaissance in the fourth industrial revolution: Machine learning and artificial intelligence in sales research and practice. *Industrial Marketing Management*, *69*, 135–146.

Sørensen, E. (2021). *Geia Food A/S: Corporate Social Responsibility "A gap between Practice and Theory."*

Taawo, S., & Myhr, O. (2021). *Digitalization of the sales process: Leveraging digital sales and marketing tools to increase time effectiveness of multinational SMEs*.

Teece, D. J. (2010). Business models, business strategy and innovation. *Long Range Planning*, *43*(2–3), 172–194.

Töytäri, P., Alejandro, T. B., Parvinen, P., Ollila, I., & Rosendahl, N. (2011). Bridging the theory to application gap in value-based selling. *Journal of Business and Industrial Marketing*, *26*(7), 493–502. Received from: https://doi.org/10.1108/08858621111162299

Van Maanen, J., Sørensen, J. B., & Mitchell, T. R. (2007). The interplay between theory and method. *Academy of Management Review*, *32*(4), 1145–1154.

Varey, R. J., & Ballentyne, D. (2006). Creating Value-in-use Through Marketing Interaction: The Exchange Logic of Relating, Communicating and Knowing. *Marketing Theory*, *6*(3).

Verhoef, P. C., & Bijmolt, T. H. A. (2019). Marketing perspectives on digital business models: A framework and overview of the special issue. *International Journal of Research in Marketing*, *36*(3), 341–349. Received from: https://doi.org/10.1016/j.ijresmar.2019.08.001

Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Qi Dong, J., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and

research agenda. *Journal of Business Research*, *122*(July 2018), 889–901. Received from: https://doi.org/10.1016/j.jbusres.2019.09.022

Verhoef, P. C., Stephen, A. T., Kannan, P. K., Luo, X., Abhishek, V., Andrews, M., Bart, Y., Datta, H., Fong, N., Hoffman, D. L., Hu, M. M., Novak, T., Rand, W., & Zhang, Y. (2017). Consumer Connectivity in a Complex, Technology-enabled, and Mobile-oriented World with Smart Products. *Journal of Interactive Marketing*, *40*, 1–8. Received from: https://doi.org/10.1016/j.intmar.2017.06.001

Visma e-conomic. (n.d.). *Fuld funktionsliste*. Retrieved May 17, 2022, from https://www.e-conomic.dk/funktioner/fuld-funktionsliste

Vomberg, A., Homburg, C., & Bornemann, T. (2015). Talented people and strong brands: The contribution of human capital and brand equity to firm value. *Strategic Management Journal*, *36*(13), 2122–2131.

Waida, M. (n.d.). *Email Tracking Pixel: What Is a Pixel & How Does it Work?* Retrieved May 17, 2022, from https://www.nutshell.com/blog/email-tracking-pixels-101-how-do-tracking-pixels-work

Weesgaard, S., & Vimalenthiran, M. (2022). *The Importance of Digitalising Business Strategy, Investigating the Role of Artificial Intelligence in Creating Brand Awereness*.

West, R. (2017). *What is AI, really?. A cultural and practical introduction… | by Rebecca West | AI-First Design | Medium*. Received from: https://medium.com/ai-first-design/what-is-ai-really-5a4a7ceb5008

Wheeldon, J., & Åhlberg, M. (2012). *Mapping Mixed-Methods Research: Theories, Models, and Measures.*

Yokogawa. (n.d.). The Differences Between Digitization, Digitalization, and Digital Transformation in Manufacturing | Yokogawa Electric Corporation. Received

from: https://www.yokogawa.com/library/resources/white-papers/the-differences-between-digitization-digitalization-and-digital-transformation-in-manufacturing/

9. Appendix

Appendix 1: Recent studies, full version.

Sources:

Mariani, M. M., Perez-Vega, R., & Wirtz, J. (2021). AI in marketing, consumer research and psychology: A systematic literature review and research agenda. *Psychology and Marketing*, (July). https://doi.org/10.1002/mar.21619

Chintalapati, S., & Pandey, S. K. (2022). Artificial intelligence in marketing: A systematic literature review. *International Journal of Market Research*, *64*(1), 38–68. https://doi.org/10.1177/14707853211018428

Haefner, N., Wincent, J., Parida, V., & Gassmann, O. (2021). Artificial intelligence and innovation management: A review, framework, and research agenda☆. *Technological Forecasting and Social Change*, *162*(October 2020), 120392. https://doi.org/10.1016/j.techfore.2020.120392

Kushwaha, A. K., Kumar, P., & Kar, A. K. (2021). What impacts customer experience for B2B enterprises on using AI-enabled chatbots? Insights from Big data analytics. *Industrial Marketing Management*, *98*(December 2020), 207–221. https://doi.org/10.1016/j.indmarman.2021.08.011

Toorajipour, R., Sohrabpour, V., Nazarpour, A., Oghazi, P., & Fischl, M. (2021). Artificial intelligence in supply chain management: A systematic literature review. *Journal of Business Research*, *122*(May 2020), 502–517. https://doi.org/10.1016/j.jbusres.2020.09.009

Li, S., Peng, G., Xing, F., Zhang, J., & Zhang, B. (2021). Value co-creation in industrial AI: The interactive role of B2B supplier, customer and technology provider. *Industrial Marketing Management*, *98*, 105–114. https://doi.org/10.1016/j.indmarman.2021.07.015

Baabdullah, A. M., Alalwan, A. A., Slade, E. L., Raman, R., & Khatatneh, K. F. (2021). SMEs and artificial intelligence (AI): Antecedents and consequences of AI-based B2B practices. *Industrial Marketing Management*, *98*(September), 255–270. https://doi.org/10.1016/j.indmarman.2021.09.003

Davenport, T., Guha, A., Grewal, D., & Bressgott, T. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*, *48*(1), 24–42. https://doi.org/10.1007/s11747-019-00696-0

Saura, J. R., Ribeiro-Soriano, D., & Palacios-Marqués, D. (2021). Setting B2B digital marketing in artificial intelligence-based CRMs: A review and directions for future research. *Industrial Marketing Management*, *98*, 161–178. https://doi.org/10.1016/j.indmarman.2021.08.006

Mikalef, P., Conboy, K., & Krogstie, J. (2021). Artificial intelligence as an enabler of B2B marketing: A dynamic capabilities micro-foundations approach. *Industrial Marketing Management*, *98*, 80–92. https://doi.org/10.1016/j.indmarman.2021.08.003

Paschen, J., Wilson, M., & Ferreira, J. J. (2020). Collaborative intelligence: How human and artificial intelligence create value along the B2B sales funnel. *Business Horizons*, *63*(3), 403–414. https://doi.org/10.1016/j.bushor.2020.01.003

Paschen, J., Kietzmann, J., & Kietzmann, T. C. (2019). Artificial intelligence (AI) and its implications for market knowledge in B2B marketing. *Journal of Business and Industrial Marketing*, *34*(7), 1410–1419. https://doi.org/10.1108/JBIM-10-2018-0295

Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., … Williams, M. D. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, *57*(August 2019), 101994. https://doi.org/10.1016/j.ijinfomgt.2019.08.002

Marshall, G. W., Moncrief, W. C., & Lassk, F. G. (1999). *The Current State of Sales Force Activities*. *Industrial Marketing Management* (Bd. 28).

Dubinsky, A. J. (1980). *Source: The Journal of Personal Selling and Sales Management , Fall* (Bd. 1).

Dubinsky, A. (1981). *The Effects of Sales Training*. New York .

Töytäri, P., Alejandro, T. B., Parvinen, P., Ollila, I., & Rosendahl, N. (2011). Bridging the theory to application gap in value-based selling. *Journal of Business and Industrial Marketing*, *26*(7), 493–502. https://doi.org/10.1108/08858621111162299

Authors	Titel	Keywords	Themes	Methodology	Findings	Future research recommendations
Mariani, M. M., Perez-Vega, R, & Wirtz, J. (2021)	AI in marketing, consumer research and psychology: A systematic literature review and research agenda	Artificial Intelligence, AI, Big data and robots,	Consumer behaviour, marketing channels, marketing strategy, performance, segmentation, targeting, positioning.	Data-driven approach, quantitative methodology, systematic literature review, SLR.	According to Tan & Lim (2018), the field of Artificial intelligence (AI) has since the computer appeared in the 1950s experienced a second renaissance. Big data is a term which can be used in the description of an important opportunity to inform decision making. Furthermore, it can develop some algorithmic models which can identify patterns of e.g., consumers/customers. AI and big data is crucial to getting a better understanding of consumer behavior (Filleri & Mariana, 2021), Predicting future product demand (e.g., Chong et al., 2017), and attracting consumers and maintaining strong relationships (Järvinen & Taiminen, 2016). This study makes several key contributions to research in AI. First, the research focuses on AI in the interrelated fields of marketing, consumer research, and psychology. Moreover it contributes to show that there is a missing link between artificial Intelligence and the scientific areas. Purposes a structural bibliographic linkage analysis with the aim of clarifying a more accurate picture of the development and focus topic of AI, in connection with the scientific areas. *Cluster 1-3 is like the right hemisphere of the human brain which has its main focus on memory and reasoning – in general cognitive processes.* *Cluster 4-8 are focusing on the aspect of "how cognitive processes are translated into machine settings", and finally* *Cluster 5-7 which shows the interaction between technology and humans and consumer psychology.* Lastely, a research prospectus of theoretical lenses and models was identified in the research in an attempt to gain a broader knowledge of the AI-concept. Here there were found 16 theories according to different Authors, which show some prominent theoretical lenses in AI research related to marketing, consumer behavior, and psychology.	**Reconfigure the clusters** - AI technology acceptance and adoption as AI technologies evolve further. **Cross-fertilisation of theories used across fields** - Game-theoretical decision making combined with a data-driven model of consumer behavior to outperform marketing activities by automated systems. - the reasons for and against adopting AI technology - Personal data to allow customisation - Understanding how the use of AI technologies and social media platforms influence cultural production. **Neglected research topics** - corporate digital responsibility in relation to the usage of AI in businesses. - Downsides of AI – why some consumers might feel neglected to the use of AI. - Advantages of using AI – change the consumer judgment. - Service operation management – Automation of customer service processes and customer journeys. - Adding the subject of this paper in a marketing context.
Chintalapati, S & Pandey, S. K. (2022)	Artificial Intelligence in marketing: A systematic literature review	Artificial Intelligence, consumer behavior, content marketing, experiential marketing, integrated digital marketing, market research, marketing operations.	Integrated Integrated digital marketing Content marketing Experimental marketing Marketing operations	Qualitative and quantitative research Systematic literature review (SLR).	AI as the key factor and main creator of marketing, hence in delivering superior quality outcomes and experiences. Artificial Intelligence can be divided into the sub-themes; integrated digital marketing, content marketing, market research, experiential marketing and marketing operations which each has impact on the usage and outcome of implementing AI. The most emergent stream of AI in marketing is experiential marketing. While content marketing is the last explored active traction. Many of the businesses spend money on the customer experience. Changed perspective from rule-based to now more data- and insight-driven deep learning-based approach. AI is generating new forms of competition, value chains and new ways for creating economies around the world. With the implementation of AI the companies have the ability to tailor their personalized digital campaigns in real time.	Continuous transformation fostered by accelerated adoption of AI across the marketing landscape.
Haefnera, N., Wincenta, J., Paridac, V., & Gassmann, O. (2021)	Artificial intelligence and innovation management: A review, framework, and research agenda	Artificial intelligence AI Innovation Review Literature review Innovation management Machine learning Information processing.	Innovation process, Behavior, Digitalization.	Review, Research, SRL.	Innovation management and its support for artificial intelligence: By involving AI and machine learning in the innovation process, it is essential that innovation leaders and AI systems work together (Bughin et. Al., 2017): The inovationprocess and AI: develope and generate ideas – (informationsprocessing). AI has a constructive role to play where the tried-and-true benefits of innovation management resources are overwhelmed, are impossible because of digitization, or when AI emerges irrefutably as the preferred option. The clear potential of AI resides in creating a more systematic approach by integrating AI into organizations that are pursuing innovation. Suggests that a large part of the process within information processing can be supported or taken over in AI systems = optimizes the opinion about the organizational changes. Ransbotham et al., 2017; Yun et. al., 2019 prononce that the judgment of leaders can be difficult to replace, which is why a full transformation into a digitized organization can be problematic. According to Brynjolfsson and McAfee, (2017); Prahalad and Bettis, (1986) Implementing full AI in the organization will require the acquisition of new knowledge of resources. Furthermore, it will require new business logics and new models to merge the innovation with the current portfolio. AI is more relevant when new products are launched in areas where top management (TMT) is less well known (Gary, 2005).	Investigate how new developments in AI technology open up further opportunities and expand some of the areas where AI can be used to advantage in innovation management.
Kushwaha, A. K., Kumar, P., & Kar, A. K. (2021)	What impacts customer experience for B2B enterprises on using AI-enabled chatbots? Insights from Big data analytics	Artificial intelligence Chatbots Big data analytics Customer experience Social media analytics Service quality	Customer Experience (CX), trust, informationflow, touchpoints due to the customer journey.	The methodology used for this study is the social media analytics-based content analysis method (sentiment analysis, hierarchical clustering, topic modeling) for data preparation, followed by lasso and ridge regression for model verification.	Purpose that the firms need´ to understand the Customer Experience (CX) from the customers perspective (Behavior, perceived use). Despite that AI helps in increasing the customer satification through channels as judgement etc. Nanji (2019) states that many customers prefer employee-based services over chatbots. Purpose that AI-based chatbots can be seen as digital channel-based service that need to model through a digital system design perspective, and that CX is limits to what you as a customer see, feel or hear through the interaction. – Chatbots is a black box for customers. Purpose different factors that can impact how chatbots shape the CX during their services. For example, direct contact will help customers feel more comfortable perceiving less risk and is maybe hesitant to provide less information. Hence, a chatbots as communication, customers are less susceptible to provide private information. AI-chatbot-based services are optimal in providing customers ample service information and personalized information. Hence, they need to give the customers the right end relevant information, as it otherwise can contribute to a lower trust and organizational performance. Secondly it needs to be focused on the customers´ queries. Purpose that trust plays an important role due to the technology solution. Here the proposition lies in the fact that consumers are unwilling to share data if the feel security using chatbots.	In the article, chatbots are considered only from the interaction point of view, for which the other operational functionality of chatbots in the business environment (B2B) has not been considered. Furthermore, one has simply in the article focused on extracting the factors that affect CX while not considering the relationship between extracted elements. Which could also be an element to investigate.

Toorajipour, R., Sohrabpour, V., Nazarpour, A., Oghazi, P., & Fischl, M. (2021)	Artificial intelligence in supply chain management: A systematic literature review	Artificial intelligence Supply chain management Systematic literature review	Logistics, marketing, supply chain and production.	Systematic review of existing literature	Purpose that AI can contribute to SCM studies, and that some technologies have been employed in a wider rand that others. Aleksendric and Carlone (2015) Purpose that the most prevalent AI techniques in SCM studies is ANNs, which is an information-processing technique which can be used to find patterns, knowledge, or models for an amount of data. Purpose that FL theory has become a prominent technique for developing system and models. – a form og multiple-valued logic. ABSs and MASs is techniques there is frequently used in the areas of SCM studies – perceiving the environment. The GAS technology has increased the decision-making process and improved the supply chain efficiency (Min, 2015). Networked-based nature of SCM and logistics provides a natural framework with which to implement AI. Neutral language processing (NPL) is an AI technology that can be employed in the SCM research. – this is the use of a computer, to understand the process, the human language in the form of text or speech (e.g., chatbots). – NPL has great potential in marketing campaigns, online advertisement, brand management, CRM and data collection. In marketing, ANN have a strong impact on customer segmentation and pricing (marketing mix).	More research in reverse auction involving supply chain partners using AI techniques. Applying AI techniques on logistic and supply chain optimization.
Li, S., Peng, G., Xing, F., Zhang, J., & Zhang, B. (2021)	Value co-creation in industrial AI: The interactive role of B2B supplier, customer and technology provider.	Industrial AI, B2B marketing, value co-creation, value type, capability	value co-creation, information system, B2B marketing.	Inductive and qualitative approach Case study methodology Semi-structured interviews Thematic analysis approach.	Industrial AI is a key element in the development of B2B marketing and is seen as the main creator to reshape the buyer supplier relationship in the supply chain. The aim of using industrial AI is to predict and follow the next purchasing decision of the targeted customers which could impact the customer experience. There is a need for investigating how B2B stakeholders engage in their value co-creation practices when applying AI related capabilities. There are four types of value co-creation in relation with the usage of AI; 1) Value of strategic co-planning 2) Functional value 3) Value of intra- and inter-organisational learning 4) Customer experience value Capability is needed for creating value and facilitating value co-creation practices when using industrial AI. There are three categories identified based on customers, suppliers, and AI providers that contribute to value co-creation practices. 1) System management capabilities. 2) Commercialisation based capabilities. 3) Interpersonal capabilities. There is a dynamic and inter-related nature of value types and capabilities within the industrial AI usage and development. B2B companies need to change their relevant patterns and strategies for industrial AI adoption and usage.	Investigation between the identified value types and capabilities given their dynamic nature. The dynamic intersections between different types of value and capabilities are crucial in implementing and using industrial AI in the B2B context. Value co-creation in industrial AI is a collective and inter-related process that value and capabilities are accumulative with the AI project evolvement and continuous usage.
Baabdullah, A. M., Alalwan, A. A., Slade, E. L., Raman, R., & Khatatneh, K. F. (2021)	SMEs and artificial intelligence (AI): Antecedents and consequences of AI-based B2B practices	AI SMEs B2B AI enablers AI readiness Customer AI-based interaction	AI Adoption, B2B, technology, business functions.	Survey methode to structure questionnaire. Structural equation modelling (SEM) was used to analyse the proposed conceptual model.	Adaptation of emerging technologies has contributed considerably to SMEs ability to effectively overcome challenges, collaborate, and interact with their business customers, and improve business performance. AI can be used across business functions to enable organisations to obtain benefits in term of a better revenue, agility, productivity, CX etc. Management or leadership support had been found to be an important facilitator of AI adoption in organisations. AI-assisted social media marketing has a positive effect on business management and SME performance. AI adoption enhance the relationship between firms´ marketing analytics capability and holistic marketing decision-making. In B2B: Chatterjee et. al., (2021) AI-based CRM could help to enhance business performance. Ayyagari et. al., (2014) states than significant orientation among SMEs would be required to enhance their existing AI framework. Baker (2012): a company's adaption og technology tool depends on the organisations readiness, behavior and environment. AI: adopt to enhance business performance (Dwivedi, Hughes, et. la., (2021). Three types of AI enabler can influence business operations: Technology, road mapping, professional expertise (High technical skills = successful AI implementation which will impact customer interactions and performance), and attitude (e.g., Positive attitude towards AI = positive influence on B2B SMEs AI practices). Three aspects are associated with AI readiness: Infrastructure (IT infrastructure is a key factor), awareness (AI awareness among organisational stakeholder is a significant determinant) and technicality (e.g., user friendliness). AI changes how organisations serve and interact with their customers, moreover the service experience and the amount of engagement. AI have a positive influence on joint planning and problem solving and financial- and non-financial performance.	This study is related to issues from the supplier's perspective within the B2B sector, maybe further research would be more "trustful" with a perspective from both sides (both suppliers and customers). Macro-environmental factor and their positive or negatively impact on successful AI implementation. Investigate some of the dark side of AI, for example Privacy, Security, and ethics and how these can affect the tendency of B2B SMEs toward AI practices.

Mikalef, P., Conboy, K., & Krogstie, J. (2021)	Artificial Intelligence as an enabler of B2B marketing: A dynamic capabilities micro-foundation approach	Artificial Intelligence, Dynamic capabilities, Business value, B2B marketing, Micro-foundations	B2B marketing activities, Business value	Case study method Multi-case study, Semi-structured interviews method, Thematic analysis Systematic and iterative approach	The use of AI led to improvements in insights, faster reaction times, the development of new marketing approaches, and the generation of new sources of revenue. With the usage of AI it provided the companies with additional insights related to B2B marketing and allowed them to develop better strategies and a new business model. The adoption of AI has allowed companies to understand the customers needs and key issues in much greater detail. The ability to gain insights of market conditions or trends, better interactions with customers, and developing new services or solutions. Insights from AI were utilized to change the specific processes within where key areas of marketing were performed. The utilization of AI enabled firms to develop radically new products based on the insights, which also led to a transformation in the ways capabilities are operated. There are multiple factors identified which have an impact on the value that is created which may differ from the type of processes it occurs in.	Investigating and analyzing how the before and after or during such adopting the AI solution. Examine different industries to generalize the study. To what extent dynamic capabilities take priority over routines and to what extent AI plays a role in each. Examine different countries, comparing and contrasting the similarities and differences between countries to generalize the study.
Davenport, T., Guha, A., Grewal, D., & Bressgott, T. (2020)	How artificial intelligence will change the future of marketing	Artificial intelligence, Marketing strategy, Robots, Privacy, Bias and Ethics	AI, Marketing strageies, Price strategies, Customer behavior, AI and the furture impact.		In the future AI will change both marketing strategies, business models, sales processes, services options, and customer behavior. AI will be more effective if it augments (rather than replaces) human managers. Purpose AI will monitor tele conversation in real time, regarding the sales process (e.g., through the customers tone etc.). Agrawal et. al. (2018): Gans et. al., (2017) Purpose that online retailers with AI will be able to predict what customers wants - going from "The shopping the shipping model" to "shipping then shopping business model". Columbus (2019) states that AI will be the technology most adopted by marketers in the coming years. Chui et al. (2018) mention that the most potential value of AI can be seen in domains related to marketing and sales. AI can predict a lot of data and get insight into volumes of customer and transaction data. AI can engage customer in the pre og post purchase. AI increase revenue (e.g., through marketing decisions) and reduce cost (e.g., through simple marketing task, customer service and market transaction). Purpose two level of intelligence (task automation vs. context awareness). Customer characteristics and identity impact AI adoption (Castelo, 2019). AI application is more persuasive when the message is about "how" rather than "why" to use a product etc. AI is mostly virtual inform but can also be embedded in a robot form (have some physical embodiment). Mende et. al. (2019) states that interactions with AI-embedded robots trigger discomfort and trigger (negative) compensatory behaviors. Ai has an important role in predicting not only what customers want to buy, but also what price to change (price strategies) , and whether price promotions should be offered (Shankar, 2018): price and price promotions are important drivers for sales (Biswas et al. 2013; Guha et al. 2018). AI disadvantages: Privacy policy, bias and ethics. AI can be a successful implementation due to the sales process.	How firms may need to change their marketing strategy. How consumers behavior will be impacted and issues relevant to policymakers. How well prediction AI-driven algorithms may extend to forecasting demand for really new products. How AI can be best used to predict what prices are optimal and whether or not price promotions should be offered.
Saura, J. R., Ribeiro-Soriano, D., & Palacios-Marques, D. (2021)	Setting B2B digital marketing in artificial intelligence-based CRMs: A review and directions for future research	B2B digital marketing, Artificial intelligence-based CRMs, Multiple correspondence analysis	B2B digital marketing, Business ecosystem, Customer Relationship Management (CRM)	Systematic Literature Review (SLR) Multiple correspondence analysis	Existing literature is not covering the gap according to implementing AI systems into existing CRM systems and how the outcome is accurate. Hence, there is a gap in the literature regarding the identification of the uses that AI based CRMs can specially bring to the B2B digital marketing ecosystem. Digital communication is not done through CRM. Decision making is outside the use of AI-based CRMs in B2B digital marketing. The analytical CRM is the one that works mainly with AI. There is identified the existence of actions related to relationship management when companies use AI-based CRMs in B2B digital marketing. It is possible to build long lasting relationships with customers in digital ecosystems that are managed with AI-based CRMs. CRMs that are working on sales-based strategies can help perform sales forecasting, extract insights from business activities or customer insights. Here AI-based CRMs can add value to business development, making digital B2B marketing a lasting strategy that can predict the steps companies must take to succeed in their marketing strategies. There is a need for application and new use of AI-based CRMs for companies in the B2B environment.	Well-defined B2B digital marketing strategies using AI-based CRMs would determine success and growth in marketing. Efficiency of AI-based CRMs in B2B digital marketing when corporates are focused on lead generation should be explored. Clearly defined uses of AI-based CRMs in B2B digital marketing would benefit online brand building. Well-defined key guidelines and actions to optimize the use of AI-based CRMs would determine success on the use of customer experience/journeys on B2B digital marketing. Innovation development protocols in B2B digital marketing when using AI-based CRMs should be developed, tested, and proposed as business innovation models.

Paschen, J., Wilson, M., & Ferreira, J. J. (2020)	Collaborative intelligence: How human and artificial intelligence create value along the B2B sales funnel	Artificial intelligence; Natural language processing; Machine learning; B2B sales; Predictive analytics	Salesprocess, Sales funnel, B2B. AI, Value adding.		• The premise of AI is to turn vast amount of data into information for superior knowledge creation and knowledge management in B2B sales + sales strategies and tactics. • AI can alter the traditional human-centric sales process. • AI improving and changes the B2B sales funnel. • B2B shows a growing interest in AI. • AI is expected to bring advanced information quality and quantity by which B2B firms can improve personalization, customization, and data management (EverString, 2018). • Data inputs in two forms: Structures and standardized data. • AI systems – it is their ability to process under structured data I value creating ways that distinguishes them from traditional information systems. • AI applications lead to different opportunities for Value creation during the B2B sales process. • Purpose seven stage of the sales process: Prospecting, pre-approach, approach, presentation, overcoming objections, close and follow-up (Sheth & Sharma, 2008; Syam & Sharma, 2018). • Studie suggest that the marketing and sales functions of B2B firms are highly integrated, thus calling for a conceptualization that includes both marketing and sales task (Jarvinen & Taiminen, 2016; Syam & Sharma, 2018). • The first Task in the sales process: Prospecting is lead generation – finding potential customers, in alignment which the traditional segmentation task in marketing. – can create new opportunities for sales professionals to change their value-add contributions. • AI promises to benefit the prospecting task by undertaking activities that previously relied heavily on sales professionals and their support teams. • AI: implemented to take charge of identifying and evaluating leads. – human judgement is important. • Pre-approach and approach: acquiring more detailed information about leads, their needs, habits, preferences, and other relevant background information + making contact. • AI influences the pre-approach and approach through e.g., routine task in making contact, as scheduling meetings etc. • Presentation: AI algorithm takes ideas from the drawing board and returns them into actual products almost instantaneously (Mix, 2017). • AI systems can argument the presentation task. • Objections and closing: AI changes the tasks involved in overcoming objections and enables sales professional to respond to the concerns faster, with more up-to-date data through AI-enabled battiecards. • Close: AI systems takes over chatbots answering. • Follow-up: AI can automate the workflows required for order processing and the follow-up + AI can be used to automate some elements of the post-order service. • Finding patterns in past purchase behaviors using ML, firms can identify which products often are bought together and display the complementary product to a customer, increasing the overall size of purchase and improving the customer experience. • AI can maybe get more information to the sales process than a sales professional. • AI will enhance, not replace.	Investigating more deeply in Lead Generation and the seven sales processes – advantage and disadvantage (OWN)
Paschen, J., Kietzmann, J., & Kietzmann, T. C. (2019)	B2B marketing, Customer knowledge, Artificial intelligence, Market knowledge, Machine learning, Natural language processing, Knowledge-based marketing, User knowledge	Digital marketing, market knowledge, customer knowledge, user knowledge, AI.	The paper is conceptual and proposes a framework to explicate the phenomenon AI and its building blocks. It further provides a structured discussion of how AI can contribute to different types of market knowledge critical for B2B marketing: customer knowledge, user knowledge and external market knowledge	• The purpose of this paper is to explain the technological phenomenon artificial intelligence (AI) and how it can contribute to knowledgebased marketing in B2B. • Market knowledge is critical for creating offerings that cater to the needs and preferences of customers and for ultimately building and maintaining effective long-term customer relationship. • A systematic knowledge management effort can channel market knowledge into effective B2B marketing strategies and tactics (Shaw et al., 2001). • Increasing digitalization and the advent of emerging information and communication technology has transformed value creation in B2B in general (Paschen et al., 2019), and more specifically, how B2B firms manage data and knowledge (Gupta et al., 2017). • Big data: has becoming an increasingly valuable source for market knowledge for B2B companies. • Information technologies can help companies uncover, organize and share the knowledge contained in big data (Codini et al., 2019): AI. • For B2B companies, artificial intelligence can help translate (big) data into information and into knowledge required for developing effective marketing and sales strategies and tactics. • For B2B managers and executives to be able to assess AI properly, a first critical step is to understand what artificial intelligence is, what the different related terms and concepts mean and how they all come together to offer different value propositions to B2B marketing. • If we accept that (a) artificial intelligence is the theory and practice of developing systems (i.e. machines or computer programs that receive or perceive inputs, process these inputs, and return the results of the processing as outputs) and (b) that these systems act to achieve the best expected outcome, we can unpack AI systems into six building blocks: structured data, unstructured data, pre-processes (natural language understanding (NLU) and computer vision), main processes (i.e. problem solving, reasoning and machine learning), knowledge base and information. • Customer knowledge is important for B2B firms as it relates to short-term performance needs of a product or service and can be a valuable resource for improving an offering. • AI can enable customer knowledge in a number of ways, for example, by creating a comprehensive profile of current or potential customers. • AI can enable marketing efficiencies and greater effectiveness at each stage of the B2B sales funnel (Syam and Sharma, 2018). • AI systems can be used in a combination of any or all of the building blocks to help B2B marketers transform data into information and ultimately different types of knowledge: customer knowledge, user knowledge and other external market knowledge.	If AI is supporting or independently performing previously human-performed tasks in the B2B sales process, a fruitful area for future research is to investigate if and how this impacts the role of sales professionals. For instance, what are the effects of AI on a salesperson's knowledge and performance? How will sales professionals react to the codification of their tacit knowledge enabled by AI? Which of the traditional human tasks in sales are conducive to being performed by AI and to what degree? How can AI support customer knowledge transfer among sales professionals? In addition, investigating how AI changes the value creation process for customers in B2B may be a fertile ground for future studies. For example, how can AI facilitate creating, organizing and applying customer knowledge at each stage of the marketing and sales process? How can AI enable a more effective approach to capturing tacit and explicit customer knowledge? Future studies could explore how AI can be leveraged to develop market sensing capabilities, how AI will change the value creation processes for users and customers resulting from other external market knowledge or how AI can facilitate external market knowledge, when the external environment undergoes rapid and unforeseen change?

Dwivedi, Y, K. et al. (2021)	Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy	Artificial intelligence, AI, Cognitive computing, Expert systems, Machine learning, Research agenda	AI and decision making, Application domains, Data and information	Literature review Appproach by Dwivedi et at. (2015) multiple perspectives on various AI aspects	In the paper, there is identified several different challenges and opportunities from many perspectives, all of them related to AI and the usage of AI in different areas. Some of the challenges and opportunities that are identified is, that there is significant challenges in the explainability of systems and algorithms that underpin AI technology and debates within the literature on transparency vs black box perspectives. Limitations in exiting information processing and the importance of adaptiveness for successful transition. The abilities of organisations in the context of people and process maturity are not yet mature enough to exploit the full potential of AI. Studies have highlighted that organisations face significant issues where the lack of an effective strategy for human vs AI interaction could affect critical business areas and fail to address concerns from the human workforce. AI can help organisations to develop operational and strategic awareness but information quality is a critical component (Westerman et al., 2014) for effective change. The change within society from humans to intelligent machines making key decisions on medical diagnosis, resource allocation and analytics based prediction amongst many others, is problematic. The requirement to develop a more detailed and informed perspective on the implications and criticality of AI decision making on humans and to be cognisant on the cultural aspect One of the frequently debates on greater levels of AI within industry and society, is the replacement of workers due to the increasing levels of automation (Frey and Osbourne 2017). The future of AI requires humans in the loop and that AI should be seen as augmenting the potential of humans not replacing them. However, is the concept of workers moving up the value chain to higher skilled jobs a universal one, especially within emerging economies. Governance of AI technology is a key prerequisite prior to widespread adoption within industry and government. The speed of AI technology adoption is staggering and the ethical elements have yet to be fully contemplated and formalised. The trajectory towards increasing applications using AI has the potential to change many aspects of human lives and impacting society as a whole. There are numerous benefits that could accrue from AI but there are also significant risks that swathes of society may be disenfranchised form the implementation of the technology. Decisions made within the next few years on the forward path for AI are likely to have an impact on all our lives and the lives of future generations.	How should organisations structure their business and technology architectures to support data engineering (and its links with IoT, digital twins and other technology trends) and data governance to support multiple AI components with different ecosystem conventions? How can they ensure that the quality of the data is sufficient to support the required analysis? Under what circumstances and to what extent can organisations rely sufficiently on the discrimination provided by sets of integrated AI components based on different data and ecosystem conventions? What capabilities, controls and mechanisms do organisations require to implement to understand and assure sufficiently the risks (for each level of fitness) associated with implementing single, multiple and integrated AI components? Under what circumstances do organisations require transparency of reasoning and how can this be delivered when AI components are integrated? How can AI contribute to improving the adaptiveness of organisations and how can organisations derive the appropriate balance between the different levels of fitness using AI components? How can AI be designed so that complex information can be exchanged reliably between AI and humans—how can they work together effectively? How can AI support the development of internal selection pressures that can support the right balance between the different levels of fitness? For which business use cases will ML be sufficient (assuming availability of the right data) and for which will it need to be supported by different forms of causal reasoning or simulation? Measuring and justifying the impact of AI on decision making performance: How can you measure the impact of AI on human decisionmaking performance in a new human-machine symbiosis. Measuring the benefit of AI and its impact can be very difficult, but possible. There is a need to develop and test theoretically sound and practically feasible AI impact indicators to measure its benefits. Developing and testing System design criteria for supporting decision making: What are the principal design criteria where AI is used within decision making in difference roles? As the impact of AI in decision making will be realised via the human users, the ergonomic design of AI systems is important for their success. However, the ergonomic issues may be different between supporting, augmenting, replacing, or automating systems. Refining and improving AI system performance while in use by decision makers: Can AI systems' performance for decision-making be refined and improved while the systems are in use by decision makers? Will AI free the salesperson to develop higher level, soft evaluative skills and emotional intelligence that are required to handle high level, personalised sales interactions, or consign salespeople to mundane, data driven interactions? Will AI standardise sales performance across industries or allow for the development of more individualised sales roles? How can privacy and sales intelligence be safe-guarded in an AI driven environment? What are the effects of algorithms on customers' behaviour? What are the cultural and societal implications of this change? What are the risks for the change in interaction and how will this impact the future of human decision making? Will the onset of AI impact how we approach education, training and skills acquisition?

Sales articels:

Dubinsky, A. J. (1980)	A Factor Analytic Study of the Personal Selling Process	Sale techniques, PS	Sale techniques, F	Sample of 181 salespeople from 42 companies in 15 industries. Primary data were collected using a structured, fixed-alternative, non-disguised questionnaire.	• Practitioner's perspective: being cognizant of the salient techniques should be informative when designing and implementing sales training program. • A useful structure for understanding the sales process and the various selling techniques salespeople might use in the sales process is captured in the personal selling process (PSP). • PSP: consist of a set of steps a salesperson may pass through when making a sale. • For each step in the PSP a salesperson might use several selling techniques. - depend on the offering being sold and the customer. • There are seven basic steps in the PSP: Dubinsky (1980). • Step 1: Locating and prospecting for customers: searching and identify potential buyers who have the need etc. to buy: Four factors underlying the techniques: External- and internal sources, personal contact and miscellaneous. • Step 2: Pre-approach: collect more specific information (needs and interest) about the prospect in step 1. - help in reaching the customer on the right way and make the right interview: factors underlying the techniques: interview approach (other intermediaries, personal letter to prospect, customer letter ad phone for appointment), information source (the prospect, prospects business, current customer. Other company salespeople), • Step 3: The approach: involves the few minutes of a sale when the salesperson personally contacts the prospect for the first time; the aim is to whole the customers attention and interest in the salesperson offering: factors underlying the techniques: Non-product related approaches, peaking interest approach, customer- and product directed approach. • Step 4: Sales presentation: the core of selling activity. Here the salesperson presents the products-offering, demonstrates its strengths and explains what it will do for customer (Maybe connect to crafting the Value proposition in VBS): factors underlying the techniques: Visual display techniques, sales presentation types, non-visual clarification. • Step 5: Handling objections/sales resistance: the salesperson attempts to overcome a prospects unwillingness to buy; help make the decision: factors underlying the techniques: Create strife technique, offset objection- and clarify objection techniques, miscellaneous techniques. • Step 6: Close: Negotiation with the customer: factors underlying the techniques: Clarification closes, psychologically oriented • Step 7: Post-sale follow-up: the salesperson undertakes actives to reduce the customers negative post-purchase concerns, thereby developing satisfied customer and increasing the changes of future sales from that customer: factors underlying the techniques: customer service activities, customer satisfaction oriented activities, customer referral activities.	How salespeople sell? Determine the effectiveness of selling techniques used by salespeople. Do more successfull salespeople use a different set of techniques than less successful salespeople use?
Dubinsky, A. (1981)	The Effects of Sales	Sales Training, behvaioresl and psycological impact.	Sales Training, behvaioresl and psycological impact.		• Corporations spend considerable time and money annually training their sales personal. • Sales managers tend t almost totally ignore (1) the effects of training on psychological variables and mental processes which ultimately influence behavior, and (2) aspects of behavior other than dales performance. • Salespeople behavior can determine the performance. • Walker, Churchill, and Ford: The model hypothesizes that salespeople´s job performance is a function of three basic factors - their level of motivation, their sales aptitude or ability, and their perceptions about how their role should be performed: If salespeople are deficient on any one factor, performance is likely to be low. • Salespeople's aptitude will moderate the link between the effort they expend on a task and the resulting level of performance achieved on a performance dimension. • The role attached to salespeople's positions in any firm represents the set of activities or behaviors to be performed by any person occupying those positions. • Salespeople's perceptions of these role partners' expectations and demands strongly influence how they define their role in the company and how they behave in performing their job. • Perceived role ambiguity occurs when salespeople feel they lack the necessary information to perform their job adequately. • In the motivation component of the Walker et al. model, motivation is considered the amount of effort salespeople wish to expend on each of the activities associated with their jobs (e.g., calling on new accounts, planning sales presentations, etc.). • Salespeople's motivation to expend effort on any given task will depend upon three variables: Expectancy (Salespeople´s estimate of the probability that expending a given amount of effort on a task will lead to improvement on some performance dimension. For example, "if I increase my calls on potential), Instrumentality (Salespeople's estimates of the probability that improving performance will result in a particular reward), and Rewards desirability (Salespeople 's perceptions of the desirability of increased amounts of each of the variety of rewards they might attain by improved performance, such as pay, promotion, recognition. feelings of accomplishment, etc.). • If the three elements can impact motivation. and ultimately salespeople's performance, sales training programs should be designed to impact the motivation component. • Sales managers should not assume that a sales training program will have the same effect on all trainees. • Fleishman: suggest that the ability that correlate highly with task performance at various training stages should dictate the content to be emphasized in the training program at each stage. • Hulin and Alvarez: concur with Fleishman by positing that an individual´s ability level may not be constant and might also change with training. Thus, as training progresses, one's ability may well increase. • Learning principles can be applied in a sales training situation. For example, sales managers assume that the more sales calls trainees make, the more proficient they will become at making effective sales calls. • A recent study concluded that sales training was necessary to reduce the differing perceptions held by salespeople and sales managers. • Training may well afford salespeople the opportunity to learn approaches that will provide them with a clearer role perception. • Walker et al. sales training can be oriented towards and measured in terms of its impact on individual differences, learning, and attitude change of the trainees. • The effects of sales training are mediated by trainee aptitude and other person characteristics, such as intelligence, personality traits, and attitudes.	Determine what job information should be provided to trainees so that their motivation level increase. Determine what effect of training on traniee attitiudes. Does it improve the morale, job satisfaction, and happiness? or does it hamper the morale? Emprical research: determine if sales training does make a difference?

Töytäri et al. (2011)	Bridging the theory to application gap in value-based selling	Value-based selling, Business-to-business marketing, Sales Process, Value quantification, Value added.	Value-based selling, B2B Marketing	Inductive case study Multiple case study Semi-structured Interviews Observations	A key finding identified was to establish a suitable customer for the value-based approach. Here a high level of relationship value and the willingness to commit from the customer perspective. Further suggestions is that the attractiveness to value-based sales depends on the characteristics of the offerings. The offering is the most attractive for value-based sales when the real value of the offering is either underestimated or unknown. The importance of the salesman to be highly knowledgeable about the customer and his business in a value-based approach. The company needs to understand intricately the key drivers and challenges in both the customers' and the customers' customers' businesses. Value- based selling requires also consultative and calculative capabilities, skills seldom found among traditional product salespeople. Value-based sales force is more difficult to train and maintain. An organization shifting to value-based management, customer orientation and a solution-focused offering need to actively reshape the salespeople to answer the new demands. To show the commitment to the relationship, the supplier needs to verify and document the realized post-purchase value and map the customer's satisfaction. A completely or partly realized value-based pricing scheme holds several benefits for both parties The study identifies eight key elements and activities of a successful value-based sales effort: 1 identifying suitable customers; 2 understanding the customer's business and the positioning of the firm's own offering to deliver business impact; 3 involving the customer in the value assessment process and setting mutual targets; 4 quantifying business impact in cooperation with the customer; 5 tying price to realized value; 6 verifying and documenting realized value post-purchase; 7 the importance of reference cases; and 8 the expertise-based skill-set required from "value-based sales forces".	Test this concept by empirical research in different industrial sectors. Making customer value frameworks more detailed, generalizable and above all, operational, in order to really add value to the inter-firm processes. Interesting topics for further research include key elements of value-based selling found in this study: the HR considerations concerning the requirements and tasks of value-based salesmen, value-based pricing (integrating with Hinterhuber, 2004), and the organization-wide requirements and changes need for an organization to become a value creator.
Marshall, G. W., Moncrief, W. C., & Lassk, F. G. (1999)	The Current State of Sales Force Activities		Sales process, Sa	Literature review Industri and company participation	The presumption, which led to the conduct of this study, is that the daily sales activities will be quite different today due to the myriad of changes in selling over the past 15 years. The change comes so rapidly in selling today that the premier challenge of a salesperson is simply to keep up with the pace of change. A large number of new sales activities emerged. These new activities fell into five major categories—communication, sales, relationships, team-building/team-selling, and da- tabase management. The researchers observed an especially large number of new technological sales tools that were being used and accompanying sales activities that were created in support of or because of the new technology. Technological change as a driver of sales activity change. A number of new communication oriented sales tools have become preeminent since 1981, including salespersons' use of e-mail, voice-mail, cellular phones, the internet, laptop computer, fax, pager, over- night delivery service, audio-video conference, and web home page. One of the very apparent trends of the 1990s has been the improvement in communication between salespeople and customers. The web page is seen not only as a communication device, but also as an important relationship-building and maintenance tool. On a broad level, general agreement exists that the bundle of characteristics that earmarked a successful salesperson a decade ago likely is not the same profile that will maximize success in the new selling environment of the 21st century. With such knowledge, sales managers can begin the process of redesigning various organizational systems to ensure they are aligned with the important new selling activities. An organization's overall sales and marketing strategy must be developed within a context of accurate knowledge of what is truly	Understanding the impact of technology in selling and sales management. The actual means by which the technology interacts with other variables to enhance or detract from salespersons and sales organization effectiveness.

Appendix 2: Observation Scheme.

Conversation Information	Identify potential Possibilities	Identify potential Stakeholders	Share Insights Clients ------ Within Firm		Connect stakeholders and Resources	Create shared activities and Platforms	Realize	Evaluate and Learn	Other Information

Appendix 3: An elaborative description of the technologies.

Terms	Clarification of concepts	Source
Out bound: Cold canvas	This part is when a seller calls the customer, wihtout the customer knows anything about you and youre company: Its where the company investigate the customer, before calling them.	
Inbound	This is where the customer calls the company, as they are interested int heir solutions.	
BuiltWith	Its an Google Chrome Extension, which can identify if their API solutions are integrable; tis solution is also refered to as a "pluck-in".	BuiltWith n.d.
Application Programming Interfaces (API)	Application Programming Interfaces, better known as API integration, started to play a significant role within the digital area. API integration is a platform of software to helps companies, to ensure the performance and operations of web systems. API is a process for two or more APIs to interact and share critical data through pure automatic interaction. It deeply involves integrating to enable communication between web tools or applications. This type of technology gives organizations a unique opportunity to automate large parts of their systems and thus streamline data flows.	RapidAPI, n.d.
Semrush	A platform to identify traffic on a webpage, paid advertisments, organic traffic (SEO), page ranking and the strenghten of customer domains etc. to finally create a list of leads.	Semrush, n.d.
Search Engine Optimization (SEO)	A methods of maing sure that the adress of a website is shown near the top of the list of results of an inernet search: used to improve the webpage.	Cambridge Dictonary, n.d.
Trustpilot	A place to see what the customer thinks on a specific company: ranking of the service and products etc.	
Google Maps	This is an map service, to see locations of potentiel customers.	
Goodle Street View	This a feature on Google Maps and Google Earth, which give the possibility to see the street picture 360 degrees.	
LinkedIn	A social media platform for business.	
Customer Relationship Management (CRM-system)	Concerning AI, its adoption and usage, it is essential to mention and describe CRM systems and how they are relevant to the overall theme, I4.0 and sales processes. Firstly, a CRM system, according to Buttle (2004), is used to create a business culture that is more customer centric. For companies, it generates a more substantial relationship between the company and the customers by automating marketing disciplines, sales activities, and services (Buttle, 2004). Hence, it is essential to investigate how AI is used to create that automation and relationship. CRM system is one of the systems that use AI to create a better relationship with the customers by automating email data by segmenting and importing the most important details about the customers like contact information, telephone number, job titles, and addresses imported from several different dataflows. Furthermore, it can inform the company when the customers have opened an email with a pop-up, noticing that the email is read, how much time the customers have spent reading it, and how many times it is opened afterward, among other interesting key factors to track the customers. Moreover, it can also be used to create forecasts and demands based on algorithms. Therefore, a company use an AI driven CRM system it can generate a more generic view of the customers and the entire process. Thus, it can track all the important information about the customer helping the company to understand them better. Hence, the companies know what the customers want before they know themselves.	Buttle, 2004.
CRM-system (HubSpot)	A CRM-system that use different AI algorithms to create a better relationsship with the customers.	HubSpot, n.d.
CRM-system (Adversus)	A intelligent outbound software to help callcenters optimize workflows. It creates control across leads and use data to optimize task and decisions: optimize the performance of the salesforce: integrable with other software solutions.	Adversus, n.d.
(Deal) Pipeline	A place where companies can move the customer around due to the workflow in their CRM system: Deal pipeline is a software and management system to help the company manage its appointments and track its leads.	HubSpot, n.d.
Pixel	The Pixel using a sales email address that permits a collection of engagement statistics, such as views and clicks: increases the complexity and shorten the time by contacting the customer when they are most warm and ready to act. Are help to track the customer and their interaction with their E-mails.	Waida,. n.d
Digital meetings	Metting online through Teams or Zoom.	
Slack	Slack is a bit like Podio, it´s a place where you can interact with customers and collegues. Its a place to bring people, conversation, sata and all APPS in one virtual platform.	Slack, n.d.
Get Accept	It´a an E-signature programe.hence it can track the customers, like Pixel.	GetAccept, n.d.
Lasso X	Its a sale solution that through intelligent usage of data, helps generate a filtered list of potentiel leads through more than 60 criteria among CVR-registred compnaies.	LassoX, n.d.
Podio	A place for indbound collaboration.	Podio, n.d.
GlobiFlow on Podio	Automated work flows: Notification system.	Citrix Podio, n.d.
E-conomic	An online platform to send bills to the customers.	Visma e-conomic n.d.
Capturi	It is a software solution to analyze conversations to createfor example unique trackers and increase the hit rate on the sale.	Capturi n.d.: Interview 1, 2022

Appendix 4: DATA collected (observations); Case Company 1.

Identify customer and possibilities	Call to action	Share insight		Waiting	Connect	Realized	Evaluate and learn	Other information
		Customer	Firm					
Task: Using much technology but in line with relation-based sale: checking/uses linked-In for common network identification. Google possible customers Trustpilot check. Placement on google Maps; Does it fits? Using Build with to check the integration software/possibility. - important for him. Address "validation" - google street view. Reading about the company on the webpages. Proff.dk Semrush: Traffic, organic or paid advertisements (CEO?) - important for him.	Calls or sending an e-mail to the customers, after collecting the right data about them: - Are they busy? - Are they very solution oriented? - Are they having a huge focus on price? Smalltalk a bit in his sales pitch.	Customers create a profile on the company's webpages: Customer panel. Task: Digital or physical meeting.	CRM-system: Making a "deal" on the customer (add information) - online. Talking with each other intern. Excel: adds information about the customer in his own Excel.	Are correspondence with the customer on Mail, Phone and (teams) meetings.	Explore: Call back the customer with possibilities, with data from before steps - CRM, build with, Customer panel. Goal: Find some opportunities to connect - meetings, digital and physical.	Onboardings process: Meeting about the possibilities and shared values. Yes or no: alignment of expectations.	Hubspot CRM Task: Won/Lost HubSpot will help in the evaluation process. Do they need to call the customer again? The CRM will remind you based on search criteria, AI and other dataflows	**Aftersales:** He has some task in the aftersales process: - Helping with information related to Price, countries and carriers. - Calculating return formal- and flow in excel and word + calculating sizes and dimensions; information from Customer panel and their webpages. - Close collaboration with operation department. - Mailing with the customers: "Customer service" - Finding new interesting customers.

Salesperson 2: Interview and observation.

Identify customer and possibilities	Call to action	Share insight		"Waiting process"	Explore; connect and s	Realize	Evaluate and learn	Other information
		Customer	Firm					
Task: Using much technology but in line with relation-based sale: checking/uses linked-In for common network identification. Google possible customers Trustpilot check. Placement on google Maps; Does it fits? Using Build with to check the integration software/possibility. - important for him. Address "validation" - google street view. Reading about the company on the webpages. Proff.dk Semrush: Traffic, organic or paid advertisements (CEO?) - important for	Sending mails or calling the customers. It's important for him to have the right data, to use the right information in the contacting process and **selling "pitch"**; very customer oriented - Qualify needs and fits. Important for him the customer is tech ready. - data discipline.	Customers create a profile on the company's webpages: Customer panel. Task: Digital or physical meeting.	CRM-system: Making a "deal" on the customer (add information) - online. Pipeline: is general used in the most of the sales process.	Tracking the customer through CRM-system and its AI applications; - pixel on e-mail telling the employee when the email is open, how much time they spent reading it and how many times they have seen it. - Calling again while the lead is warm; reading the e-mail; revealed by pixel.	Possibilities and advising the customer, with data from before steps - CRM, build with, Customer panel: common goal setup. Meetings: Digital or physical.	Get Accept can tell if the customers have opened the agreement, how many times etc. Sign via NemID on phone. Task: Close the deal	Hubspot CRM Task: Won/Lost HubSpot will help in the evaluation process. Do they need to call the customer again? The CRM will remind you based on search criteria, AI and other	Are doing a small amount of after sale, through meeting about the "implementation" of the technologies. One of his sales arguments is the pallet scan. He uses technology as a huge part of the process, as he mentions that data discipline is the most important part of the process and will give the right information to win a sale. He is not using small talk in his sale pitch. Are selling and taking a customer in on volume; as higher volume, as better it is. *The salesperson thinks that their firm is what connecting stakeholders and

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Identify	Connect: share insight		Explore	Advise	Evaluate and learn
	Customer	Firm	Connecting stakeholder and ressources	(Realize and create shared activities and platforms)	
Using much technology but inline with relation-based sale: checking/uses linked-In for common network identification. Google possible customers Trustpilot check. Placement on google Maps; Does it fits? Using Build with to check the integration software/possibility. Address "validation" - google street view. Reading about the company on the webpages. Proff.dk Semrush: Traffic, organic or paid advertisements (CEO?) Task: The more homework we do, the better position we put ourselves in when we take the dialogue with the customer. It's also looking at what type of item they have, is it whole brand? are there some who have their own stores so they have a retail link on what we call the omni-channel? how is it that the customer's business is knitted together? the better	Meetings, digital or physical Task: Connect phase, that is when you have the first dialogue with the customer. In connect, he use the information he have mapped (identify) to talk into the customer's pain. This is where it's about creating a relationship of trust - sales is trust. Questions; what it's about? what is it we can help with? where does it hurt (pain)? Goal; The more they map out in this, the better sales arguments and objection handling do they have. Goal; get the customer to create a customer panel on their webpage.	CRM-system: information around the customer.	Meetings, digital or physical. CRM system; hubspot; "deal" if there is a match. Task: Possibilities, with data from before steps. Explore; now we have identified and connected, so now we must explore; where, how and why. Investigate and ask. Objection-handling is important here.	Get Accept technology. Task: Give them the comfort of being in control, the confidence of being with them all the way. In counseling, this is where you get the final details in place.	Hubspot CRM Task: Evaluation is on both win and loss in CRM: Why did the customer not join us? Could we not solve the pain? Was the pain not big enough? Etc.

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Summary of Appendix 4:

Conversation Information	Identify potential Possibilities	Identify potential Stakeholders	Share Insights Clients ------ Within Firm		Connect stakeholders and Resources	Create shared activities and Platforms	Realize	Evaluate and Learn	Other Information
	Technology: Chrome Extention – Build with. Sem Rush. Homepage Trustpilot. Google. Maps. LinkedIn **Task:** Pre-qualify. Relationship. Research.	**Technology:** Build With. Tech readiness Is there an integration possibility? Phone **Task:** Call the customers Use the data during the dialog → → → → →	**Technology:** Telephone Email Teams meetings **Task:** Online and offline (F2F) meetings. Share insight about the prices, countries, etc. FIND THE CUSTOMER'S NEED AND HOW IT FIT (connect)	**Technology:** HubSpot CRM system Deal board/ Pipeline **Task:** Online and offline meetings. Add all information about the customer in the CRM **Task:** Get the customer to create a profile on Customer Panel.	**Technology:** Connect possibilities. Connect agreements → which is what the customer panel are doing. HubSpot CRM Use AI applications from HubSpot to track the customer. **Task:** Find some opportunities to connect → meetings,	**Technology:** Customer Panel (updated from Back-end office) HubSpot CRM **Task:** Get the customer to be active on the Customer Panel.	**Technology:** Get Accept Sign via NemID on phone. Get Accept can tell if the customers has opened the agreement, how many times etc. HubSpot **Task:** Close the deal	**Technology:** HubSpot CRM **Task:** Won/Lost HubSpot will help in the evaluation process. Do they need to call the customer again? The CRM will remind you based on search criteria, AI and other dataflows.	

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