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THE ROLE OF ARTIFICIAL
INTELLIGENCE IN B2B SALES

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INTRODUCTION

In the dynamic realm of business-to-business (B2B) sales, characterized by complexity and intense competition, technology and innovation have assumed paramount importance. The traditional landscape of B2B sales, characterized by intricate processes, diverse stakeholders, and an unrelenting pursuit of growth, is undergoing a profound transformation with the integration of Artificial Intelligence (AI). This thesis undertakes a comprehensive exploration of the symbiotic relationship between AI and B2B sales, shedding light on the transformative potential and the challenges that intersect these two domains.

Chapter 1 serves as the foundational backdrop, providing an in-depth understanding of B2B sales in a general context. Commencing from the initial stages of prospecting and pre-approaching to the pivotal moments of presentation, overcoming objections, closing, and follow-up, an exploration of the intricacies that define the B2B sales process is undertaken. Furthermore, the significance of technology in this context is examined, thereby setting the stage for the subsequent exploration of AI's role.

Chapter 2 embarks on a journey into the realm of Artificial Intelligence. The chapter commences with an introduction to the evolution of AI, tracing its historical roots and the seismic shifts it has engendered. Subsequently, a dissection of the inner workings of AI is conducted, elucidating its core mechanisms. The chapter then delves into an exploration of diverse AI technologies, encompassing Machine Learning, Natural Language Processing, and Deep Learning, along with their applications across diverse

sectors. The focus gradually narrows down to the application of AI in sales, unveiling its potential to optimize conversions, streamline sales pipelines, reduce churn, provide actionable insights, fine-tune pricing strategies, and prioritize sales support messages. Additionally, within this chapter, opportunities presented by AI in the realm of B2B sales are elucidated, accompanied by a consideration of the attendant challenges that merit meticulous attention.

Chapter 3 is dedicated to the pragmatic implementation of AI in B2B sales processes, introducing a spectrum of AI-powered tools and technologies. These tools are strategically deployed across the various stages of the sales process, from prospecting to closing and follow-up. An exploration of the impact of these AI-powered tools on each stage underscores their capacity to augment efficiency, precision, and ultimately, the bottom line.

Throughout the course of this academic exploration, the aim is to provide a comprehensive comprehension of how AI is reshaping the landscape of B2B sales. This endeavor seeks to unveil not only the opportunities awaiting those who embrace AI but also the challenges that must be adroitly navigated. It is the belief that this thesis will serve as a resource for businesses aspiring to harness the full potential of AI in B2B sales.

CHAPTER 1

B2B SALES IN GENERAL

In this introductory chapter, we'll delve into the world of business-to-business (B2B) sales and examine its core elements, distinctive traits, and the role technology plays in determining its environment. B2B sales are the cornerstone of economic interchange between companies and are a major factor behind company connections across industries globally. Both companies looking to optimize their sales processes and scholars wishing to investigate the changing landscape of contemporary commerce must have a thorough understanding of the dynamics of B2B sales.

1.1 Introduction to B2B Sales

“Sales work is a process when a seller adds value to the consumer, the customer is satisfied, the connection is maintained, and the firm achieves its objectives.”

A form of transaction that happens between a manufacturer and a wholesaler or between a wholesaler and a retailer is referred to as "business to business" (B2B), sometimes known as B-to-B. Business-to-business refers to the business that companies conduct with each other, not the business between the company and the individual consumer. Sales have not been as profitable as in earlier eras due to the fact that most B2B sectors are more demanding and difficult to work in. Productivity drops could be seen if businesses concentrate on more intricate sales strategies to set

themselves apart from possible rivals in the market¹. Customer relations in B2B sales are often known as boring. The vendor must add value for the consumer in order to preserve customer connections. Building strong client relationships has a good impact on generating more revenue². Business-to-business different from, business-to-consumer (B2C) and business-to-government (B2G).³

Although there are some notable variances, both B2B (business and non-profit organizations) and B2C (individuals) sales are subject to the same fundamental selling principles. In business-to-consumer transactions, consumers purchase items for their own or their households in three different categories: fast-moving consumer goods, which are habitual purchases and can be referred to as low-involvement products; semi-durable consumer goods, which are less frequently purchased but require more thought; and durable consumer goods, which are high-involvement purchases that require the customer to request extensive information and assistance. The primary markets in B2B sales are capital equipment, business services, and supplies & consumables.⁴

The quantity of leads is the other distinction. With B2C sales, there are orders of magnitude more prospective customers. For instance, if a business sells phones, the market's lead pool would consist of all potential customers, or hundreds of millions of people.

¹ Trkman, P., Mertens, W., Viaene, S. & Gemmel, P. (2015), "From business process management to customer process management.", Business Process Management Journal, pp. 4-6

² Rodriguez, R., Svensson, G. & Mehl, E, J. (2020), "Digitalization process of complex B2B sales processes – Enablers and obstacles.", Technology in Society 62, 101324, pp. 2-3

³ <https://www.investopedia.com/terms/b/btob.asp>

⁴ Jobber, D. & Lancaster, G. (2012). *Selling and sales management. (The ninth edition)*. England: Pearson education Limited. pp. 11-12

When switching to B2B, the pool's size significantly decreases and is constrained by the particular needs of the organization. Customized solutions are a prominent theme in business-to-business sales.⁵

Retail sales typically have an emotional impact on customers, and purchases could be made based more on fictitious wants than actual ones. Another factor that has minimal impact on B2B purchase choices is impulsive buying.

The goal is to make the customer fall in love with the product by employing smart marketing techniques, memorable slogans, appealing mascots, and any other tools at hand that might elicit an emotional reaction from the consumer. This contrasts sharply with its B2B equivalent, when purchases are made in response to immediate demand or chances to improve the business' operations.

B2B transactions are typically both significantly larger and more costly than B2C transactions. Even more significant B2C transactions, such those involving real estate, could be dwarfed by negotiations between two major firms. A different payment method is typically the outcome of this. Cash is rarely ever used in B2B sales.

Because the purchases are larger, the sales process takes longer. B2C sales are frequently dependent on an immediate transaction, but B2B transactions might take months to complete.⁶

Also there are significant differences between Business-to-Government (B2G) and Business-to-Business (B2B):

⁵<https://www.industryarchive.org/b2b-solutions/6-major-differences-between-br-b2c-vs-b2b-sales-strategies>

⁶ <https://www.zandax.com/business-blog/differences-between-b2b-and-b2c-sales>

- **Financial Scale:** In B2G, government agencies have access to substantial budgets, and contracts can range from hundreds of millions to billions of dollars. This contrasts with B2B deals, which typically involve lower transaction values.
- **Contract Renewal:** B2G contracts often have a higher likelihood of renewal compared to B2B contracts due to the complexities of regulations and legal requirements. Government agencies prefer to work with brands familiar with the intricacies of the process, assuming the services remain valuable.
- **Buying Cycle Length:** B2G involves longer buying cycles, sometimes spanning several years, due to the extensive consideration stage associated with significant contracts. In contrast, B2B buying cycles usually last months, and B2C cycles are even shorter, typically taking just weeks or days.

In essence, B2G relationships present unique challenges and opportunities for businesses due to the substantial financial scale, the need for contract renewal, and the extended buying cycles. Understanding these distinctions is crucial for businesses seeking to engage in government procurement and navigate the complexities of working with government agencies.⁷

In the modern economy, business-to-business (B2B) relationships are crucial because they provide the basis of inter-enterprise interactions. B2B interactions are essential to the operation, growth, and success of organizations in all sectors. It is significant because it offers businesses the goods and services they need to run their daily operations. B2B connections give businesses access to trustworthy vendors for office

⁷ <https://iterable.com/blog/what-is-business-to-government-b2g-marketing/>

supplies, furniture, technology, raw materials, and other essential items, assuring efficient corporate operations. B2B interactions also enhance scalability by providing access to greater quantities of products and cutting-edge technologies, which further promote corporate growth. As suppliers and consumers collaborate to improve products and services, adjust to market demands, and create cutting-edge solutions, collaborations within the B2B environment foster innovation. B2B transactions also contribute to economic expansion by creating jobs and boosting income across regions and nations.

In conclusion, the importance of B2B cannot be understated because it streamlines supply chains, fosters healthy competition, and boosts corporate success across industries. B2B creates a strong and vibrant business environment because of its interconnectedness, which supports ongoing innovation and fosters economic growth.⁸

The Covid-19 pandemic has really changed the way B2B buyers and sellers do business. With the need for social distancing and safety, everyone has had to go digital. It's not just a temporary fix either, as the trend towards digitization looks like it's here to stay. The crisis has really accelerated the move towards the next normal, and it's going to be interesting to see how this affects the way business is done in the future.⁹ According to surveys conducted by credible sources like McKinsey and Trendicators, significant changes have been observed in the B2B industry.

⁸ <https://www.techtarget.com/searchcio/definition/B2B>

⁹ Bages-Amat, A., Harrison, L., Spillecke, D., Stanley L. (2020), “*These eight charts show how COVID-19 has changed B2B sales forever*”, McKinsey & Company, pp. 2

- Currently, around 40% of employees in the US are working remotely.
- The number of in-person sales calls has decreased by more than 50%.
- According to recent statistics, 70% of B2B buyers are open to spending up to \$50,000 through ecommerce or by only communicating with salespeople remotely. In addition, it has been found that 27% of purchasers are open to spending \$500,000 or above.
- It has been found that a significant percentage, ranging from 70% to 80%, of B2B buyers favor remote human interactions or digital services.¹⁰

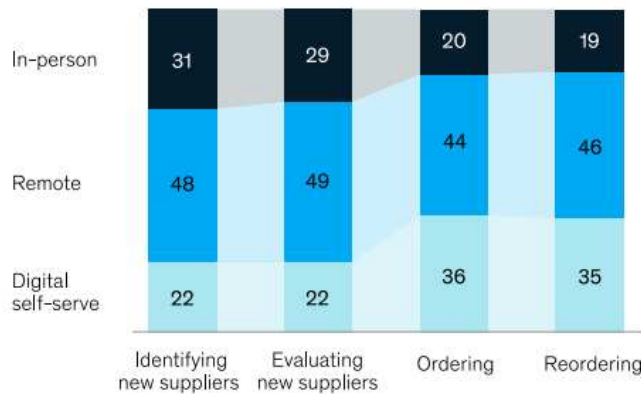
These preferences have continued to grow even after lockdowns have ended. Safety is one of the reasons for this shift, but the ease and convenience of self-service and remote interactions have also contributed. With these methods, buyers can quickly obtain information, place orders, and arrange for services without leaving their homes. In fields like healthcare and pharmaceuticals where field sales have traditionally been the norm, just a tiny minority of B2B customers are interested in switching back to in-person sales, according to recent studies.

¹⁰ <https://thewisemarketer.com/the-post-pandemic-evolution-of-b2b-sales/>

Fig. I.1: Most B2B seller interactions have moved to remote or digital

Most B2B seller interactions have moved to remote or digital ...

Current way of interacting with suppliers' sales reps during different stages^{1,3}
 % of respondents



... and that's exactly what customers want.



of B2B decision makers prefer remote human interactions or digital self-service^{2,3}

Why?

- Ease of scheduling
- Savings on travel expenses
- Safety

Source: Bages-Amat, A., Harrison, L., Spillecke, D., Stanley L. (2020), “These eight charts show how COVID-19 has changed B2B sales forever”, McKinsey & Company

Decision-makers throughout the world have embraced the shift to digital and remote involvement, making it more than simply a local trend. B2B sales leaders have transitioned from being compelled to use digital means due to the pandemic-induced shutdowns, to now believing that digital is the way forward.

The rise of digital technology provides a crucial chance for B2B companies. By moving towards virtual sales, sales teams can reduce costs per visit, expand their reach, and enhance sales performance. Additionally, customers who prefer these new modes of interaction are more likely to continue doing business with suppliers who excel in

this area. However, there is also a great deal of pressure to take advantage of this opportunity. B2B executives who invest in digitalizing their go-to-market strategies can gain a competitive edge in the form of increased customer loyalty and a larger customer base compared to their slower counterparts.

In the world of business-to-business sales, the stakes are usually higher, the procedures more intricate, and it takes multiple interactions across various platforms to close a deal. To ensure success, B2B enterprises must rely on a team of skilled sales experts who can generate revenue effectively. The main characteristics of B2B selling are:

- **Establishing Repeated, Ongoing Relationships:** The seller and members of the buying center engage in a series of dyadic interactions, fostering one-to-one meetings and interactions between stakeholders from the buying center and individuals within the selling organization's value chain.
- **Emphasizing Solution-Oriented, Total System Effort:** Customers seek solutions rather than mere technologies or core products. Therefore, it is imperative for the seller and the selling organization to thoroughly comprehend the customer's needs. Additionally, understanding the varying motivating factors among members of the customer buying center is crucial for a successful sales approach.
- **Navigating a Long Time Period Before Achieving Sales Success:** In B2B selling, the outcomes of sales efforts may not materialize for months or even years. During this development period, it is essential to reinforce the value offering relative to competing solutions and reduce buyer perceptions of risk by highlighting the overall value of the offering.

- **Adapting to Continuous Adjustment of Needs:** Remaining flexible and responsive to the ever-changing needs of customers is vital. As customers gain more insights into the seller's offerings and how they can cater to their needs, their requirements evolve, necessitating adaptability from the seller.
- **Demonstrating Creativity in Problem Solving:** Buyers often expect customization of offerings to align with their specific needs, especially in the case of larger customers. Approaching each customer's problem uniquely, thus allowing them to perceive the offering as distinctive, can be advantageous for sales success.

To sum up, successful B2B selling requires certain key traits such as developing strong and long-lasting relationships with customers, comprehending their specific needs, being adaptable to changing demands, and finding innovative solutions to problems. Possessing these attributes allows B2B sales experts to effectively navigate the intricate world of B2B transactions and boost revenue by utilizing strategic and customer-oriented approaches.¹¹

1.2 Sales Process in B2B Settings

1.2.1 *Different Sales Process*

As a seller, it is important to be able to handle uncertainty in a confident manner, and this is where the sales process comes into play. The primary goal of the sales process

¹¹ S., S., Ali, (2021), *Business-to-business marketing*, Publications of the Syrian Virtual University (SVU), pp. 188-189

is to automate and simplify the routine operations involved in selling. By doing so, one can reflect on their own performance and identify areas for improvement.

Different sales processes have been used throughout history depending on the particular product and manner of sale. AIDA is one extensively used strategy that is applied to both marketing and sales. The acronym means for Attention, Interest, Desire, and Action. Another commonly used sales process is the ANSVA model, employed in face-to-face sales and marketing. This strategy combines Attention, Need, Satisfaction, Visualization, and Action. In the 1980s, a sales process called SPIN was created. It involves Situational, Problem, Implicational, and Need-Payoff questions. In order to prevent objections, the goal of this procedure is to guide the dialogue using questions. These inquiries encourage the buyer to talk about their requirements, which helps the seller comprehend them. The SPIN process is particularly effective for solution sales.

1.2.2 B2B Sales Processes

Selling has a long history and is one of the oldest occupations. Selling has been occurring since the beginning of trading. Over time, the selling process has evolved from a simple trade operation to a complicated, multidimensional, and complex operation, as seen in the case of B2B sales. There are no set rules for how the selling function should be carried out. The sale is the culmination of a sequence of linked processes that start with discovering a potential client and are generally referred to as the sales process. The salesperson calls the prospective client, schedules a meeting to

discuss the company's goods, services, or solutions, has a conversation with the client, closes the deal, and does post-sale follow-up actions to get client feedback.¹²

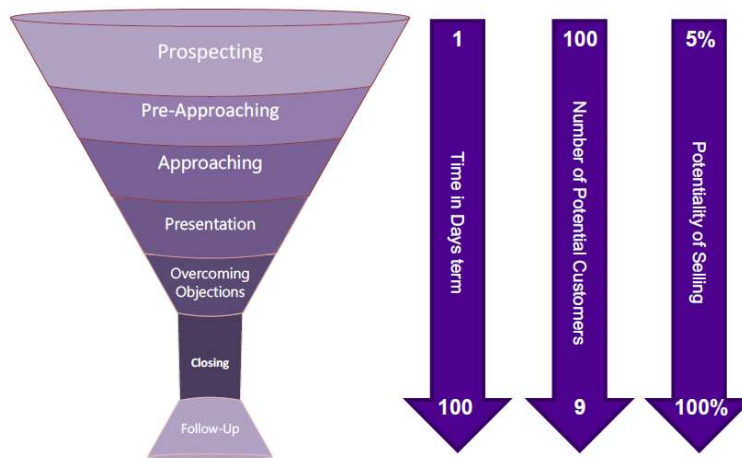
The National Cash Register Company (NCR), owned by William Patterson, created what are now known as the "steps of selling" in the early 1900s¹³. The "seven steps of selling" were later defined by Dubinsky (1981), and businesses, professionals, and scholars all around the world have utilized them extensively. The seven steps of selling outline typical sales scenarios and include prospecting, preapproaching, approaching, presentation, overcoming objections, closing, and follow-up¹⁴. These steps are considered to be essential and traditional in the sales process and are often used to define the B2B sales process. A common method for explaining how the processes work is to utilize the funneling notion. At the beginning of the funnel, the seller starts with a large pool of potential customers, and as the customers travel through the funnel, their number decreases until the process concludes with a small number of customers who make the purchase. Figure I.2 below displays the connection between the sales process, number of customers, and the potential for selling, as applied to the sales funnel concept.

¹² Davies, S., & Gibson, S. (2010)., *Building a Business-to-Business Sales Process*, Open Source Business Resource (October), pp. 14-19

¹³ Hawkins, N. A. (1920), *The Selling Process: A Handbook of Salesmanship Principles*, 17
N. A. Hawkins

¹⁴ Dubinsky, A. J. (2013), "A factor analytic study of the personal selling process.", *Journal of Personal Selling and Sales Management*, Vol. 1, pp. 26-33

Fig I.2: Visualisation of the selling process in funnelling concept



Source: Davies, S., & Gibson, S. (2010). *Building a Business-to-Business Sales Process.*, Open Source Business Resource, pp. 14-19

1.2.2.1 Prospecting

Prospect clients are individuals or companies with whom a salesperson has made initial contact. The first step in the sales process is prospecting, which involves searching for potential customers. A key reason for prospecting is to expand the customer base, as some customers may depart or switch to new sales organizations, necessitating the acquisition of new clients¹⁵. The difficulties faced during this stage vary greatly depending on the industry and market. Some businesses have a tiny market size and obvious prospects, while others have a vast consumer base but limited data¹⁶. As prospecting is the initial step in selling, many salespersons may find it to be the most "challenging and tedious aspect of the job," resulting in it being a daunting task for

¹⁵ Jolson, M. A. & Wotruba, T. R. (1992), *Prospecting: A new look at this old challenge*, Journal of Personal Selling & Sales Management 12, pp. 59-66

¹⁶ Long, M.M., Tellefsen, T. and Lichtenthal, J.D. (2007), "Internet integration into the industrial selling process: A step-by-step approach.", Industrial Marketing Management, 36(5), pp. 676-689

many potential salespeople¹⁷. Research by Trailer and Dickie (2006) shows that about 20% of salespeople's time is spent doing research. According to Vuorio (2016), prospecting is the most time-consuming aspect of sales work. There are various ways to approach prospecting, but the most prevalent method is to network with potential clients, while certain businesses may establish an ideal customer profile (ICP) to save salespeople time and enable them to contact the most promising prospects. An ideal customer profile is a fictitious company that delivers considerable value for the selling company's services and is a productive customer for the selling company¹⁸. Lead generation, lead qualifying, and sales forecasting are the main duties related to this stage.¹⁹

1.2.2.2 Pre-Approaching

Once a salesperson has identified a potential customer during the prospecting phase, the pre-approach stage becomes crucial. This stage is significant because the salesperson conducts research on the potential customer to determine the best approach for their interaction. It is vital for the salesperson to understand the customer's needs, company, and value base.

Prior to the COVID-19 pandemic, businesses used traditional strategies to acquire sales leads, including trade events, exhibitions, and marketing. A sales lead refers to an individual or organization that displays an interest in a company's products or

¹⁷ Moncrief, W. & Marshall, G. (2005), "*The evolution of seven steps of selling*", Industrial Marketing Management. Volume 34, pp. 13-22

¹⁸ <https://www.vainu.com/fi/blogi/ihtanneasiakasprofili/>

¹⁹ Syam, N. and 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, pp. 135-146

services²⁰. However, during the pandemic, many companies diverted the budgets allocated for traditional methods towards search engine optimization (SEO), inbound and outbound marketing.²¹

In addition, the pre-approach could include determining the prospect's position in the purchasing process (such as influencer or decision-maker) and the most effective time to engage them.²²

1.2.2.3 Approaching

After the salesperson has finished prospecting and pre-approaching, they move on to the third step, which is the actual approach. Since the sales meeting can be lengthy, the first few minutes are dedicated to the approach. The approach involves making small talk, shaking hands, and, most importantly, creating a good first impression. While there are a number of techniques and tactics that may be employed during the approach phase, building rapport with the consumer is the main objective. Top-notch salespeople and negotiators spend 80% of their time creating trust and 20% of their time completing deals, according to Vuorio, who believes that trust building is a fundamental component of sales. Therefore, building trust from the start is essential. Sales teams have had to modify their approaches to clients as a result of the COVID-19 outbreak as it has been unable to see them in person. The strategy has changed as a consequence, favoring the use of technological tools including video connections and

²⁰ <https://www.techtarget.com/searchchannel/definition/lead>

²¹ Rangarajan, D., Sharma, A., Lyngdoh, T. & Paesbrugge, B. (2021), "*Business-to-business selling in the post-COVID-19 era: Developing an adaptive sales force.*" Business Horizons, Volume 64, pp. 647-658

²² Meghişan, G. (2008), *Personal selling process*. Annals of the University of Craiova, Economic Sciences Series, 7(36).

social media platforms like Microsoft Teams, Chatter, and Slack. To be effective, businesses must teach its salespeople how to use a variety of tools and operating procedures.

1.2.2.4 Presentation

The presentation, which is the main component of the sale, is step four in the seven-step selling process. It happens after the salesman has finished the pre-approach process and has become familiar with the customer's demands since the presentation must meet them. The consumer must be adequately informed about the product or service during the presentation phase, which may comprise a single presentation or many presentations. The presentation phase may be the most challenging aspect of the sales process because it is the step where the salesperson must persuade the customer about the product or service and why they should purchase it. As a result, the salesperson must prepare thoroughly, and it may be the most time-consuming phase of the entire selling process.

When giving a presentation, it's important to consider adapting and personalizing your message for each individual customer, rather than delivering a standardized, scripted pitch. Studies have shown that sellers who are more adaptive are more successful in closing sales ²³. However, with the increase in decision-makers involved in B2B

²³ Giacobbe, R.W., Jackson Jr, D.W., Crosby, L.A. and Bridges, C.M. (2006), *A contingency approach to adaptive selling behavior and sales performance: Selling situations and salesperson characteristics*.
Journal of personal selling & sales management, 26(2), pp.115-142.

buying processes in recent years²⁴, it can be quite challenging to understand and meet the needs of each individual involved.

1.2.2.5 Overcoming Objections

After the presentation, the next step in the selling process is to overcome objections. During this step, consumers may question whether the product or service is worth buying and may have concerns about whether it suits their needs. Overcoming objections can sometimes prolong the sales process, but it can also provide valuable insights into the consumer's needs.

According to Moncrief and Marshall, overcoming objections can reveal the genuine needs of consumers. Salespeople must be able to assess the situation and determine whether to proceed or not after overcoming objections.

As Vuorio explains, objections are a natural part of the customer's response process, often driven by ignorance, past experiences, or emotional states. Salespeople should not be afraid of objections because they are a valuable component of their work. When a customer raises an objection, it shows that they are at least interested to some degree. Objections can arise at any point in the sales process, and the seller's objective is to persuade the customer and win them over. However, Vuorio stresses that it is not the seller's job to argue with the customer.

Sales professionals often use sales battle cards to prepare for this stage of the sales funnel. These documents contain important information about the company's product or service, along with details about major competitors. The goal of these battle cards

²⁴ Toman, N., Adamson, B. and Gomez, C. (2017), "*The new sales imperative.*" Harvard Business Review, 95(2), pp.118-125.

is to give sales professionals the tools they need to address objections and successfully win deals against competitors. Creating and maintaining comprehensive battle cards is a significant effort, but it can pay off in the long run.

1.2.2.6 Closing

The final step in presentation is known as the closing stage, where the seller proposes to seal the deal, and the customer decides whether or not to buy. For many salespeople, this can be a difficult step since they must first get over any objections before proceeding to the actual closing stage of the sale. Although there are several techniques to close a sale, the fundamental objective is always to win the customer's confidence and convince them to buy the good or service.

Deals with several decision-makers might be harder to close since everyone involved must agree for one to take effect. Even though many deals may be completed online, physical meetings are still required for more complicated sales procedures. This is because interpersonal relationship skills are crucial to winning deals, and AI applications are not as effective in this stage compared to other stages of the sales funnel. Therefore, salespeople must have excellent communication and negotiation skills to convince potential customers to make a purchase.

It is also important to note that the closing stage is not just about making the sale; it is also about building a long-term relationship with the customer. Therefore, salespeople must ensure that the customer is happy with the product or service and that they feel valued. This can help to build customer loyalty, which is essential for the long-term success of any business. In conclusion, the closing stage is a crucial part of the sales

process, and salespeople must be prepared to overcome objections, build relationships, and persuade potential customers to make a purchase.

1.2.2.7 Follow-up

This particular stage of the sales funnel involves two crucial activities that are essential for any business. Order filling, which includes the activities of logging and processing orders, controlling inventories, and completing orders, is the first activity. The second activity is following up once the order has been completed. Following up involves ensuring that the product or service has been successfully delivered, providing training or maintenance, managing complaints, answering questions, measuring customer satisfaction, and identifying any new needs that may have emerged.

In order to achieve these objectives, there are various methods that can be employed. However, calling consumers or sending thank-you letters are the most typical approaches to doing the follow-up stage. This step of the sales funnel's main objective is to find chances for more sales while also keeping current clients. According to studies, it is more economical to keep current clients than to get new ones, with the latter costing five to twenty-five times more than the former.²⁵

Additionally, there are chances to boost earnings from current clients through cross-selling and up-selling. Offering clients an upgrade, add-on, or premium product is known as up-selling, while cross-selling stimulates the purchase of other goods or services.²⁶

²⁵ <https://hbr.org/2014/10/the-value-of-keeping-the-right-customers>

²⁶ Kubiak, B.F. (1970), "*Cross and up-selling techniques in e-commerce activities*". The Journal of Internet Banking and Commerce, 15(3), pp.1-7.

In the current context of the ongoing COVID-19 pandemic, technological adaptation has played a significant role in helping B2B sales personnel to communicate with clients more effectively. It is now simpler thanks to the use of various technology tools to identify new client demands, develop chances to sell more and better, and concentrate on tasks that benefit customers.

1.3 Other Sorts of B2B Sales Processes

Studies have shown that there are various factors to consider in the selling process, particularly in how to convince customers. These methods have been developed by experts over time and analyzed by researchers. While some of these techniques, such as scripted selling, are no longer commonly used, others are still widely utilized by businesses and professionals. Originally created for B2C sales, many of these approaches have also been adapted for B2B sales. The following list provides an overview of some of these approaches that are commonly used in B2B sales.

- **Solving Issues Selling:** When salespeople interact with consumers to comprehend their requirements and problems, they are using the problem-solving technique. The salesmen then put forward a solution based on the data they've gathered²⁷. This strategy does not, however, stop at getting the seller to submit an offer. However, it is also possible to create a different solution to meet the needs of the client, which could incorporate options offered by rivals.²⁸

²⁷ Inks, S. A., Avila, R. A., & Talbert, G. (2019), "*The evolution of the sales process: Relationship selling versus "the Challenger Sale."* Journal of Global Scholars of Marketing Science, 29(1), pp. 90 25

²⁸ Avila, Ramon A.; Inks, S. A. (2017), *The Evolution of the Sales Process: Relationship Selling Versus the Challenger Sales*, Atlantic Marketing Association Proceedings, pp. 318

- **Solution Selling:** Koponen developed solution-selling as a strategy used by salespeople to develop suitable solutions in long-term relationships with important clients and generate lucrative sales through effective team-based sales processes. The researchers countered that as relationship selling is the more prevalent way and may include many additional sub-approaches, this approach has shifted in that direction.²⁹
- **Consultative Selling:** Consultative selling is a multi-step selling process that is centered around a long-term relationship between the seller and the buyer. Consultative selling encompasses working with the customer to reach their strategic goals as well as understanding the customer's problems or wants. In this strategy, the salesperson assumes the job of project manager for the client. They offer the answers in the form of a product, service, or solution, and ultimately close the deal. Agility is a key component in consultative selling. The established relationship between the two parties made this form of approach speedier.³⁰
- **Social Selling:** When salespeople use online social media platforms to discover and interact with potential customers or buyers, they are using a social media (SM) selling method. Because this method frequently occurs amongst people who are involved in the selling and buying decisions, a personal bond developed during the selling process³¹. The social media platforms were

²⁹ Koponen, J., Julkunen, S., & Asai, A. (2019), *Sales communication competence in international B2B solution selling*. Industrial Marketing Management, pp.238

³⁰ Hanan, M. (2011), *Consultative Selling: The Hanan Formula for High-Margin Sales at High Levels*, Amacom, pp. 13

³¹ Belew, S. (2014). *The art of social selling : finding and engaging customers on Twitter, Facebook, LinkedIn, and other social networks*. New York, American Management Association.

defined by Itani, who was cited by Dewnarain, Kaplan, and Haenlein, as "a group of Internet-based applications that build on the theoretical and technological foundations of Web 2.0 and that allow the creation and exchange of User Generated Content." SM are platforms that were used mostly for exchange within the Internet environment.

The use of social media (SM) in B2B sales settings is a relatively new approach, and it is unclear when salespeople began implementing it. However, numerous research papers have explored the effects and dimensions of using SM in this context, with a focus on popular platforms like Facebook, LinkedIn, and Twitter. Both practitioners and academics have recognized social selling as a promising contemporary approach with significant potential in the B2B sales domain.³²

- **Adaptive Selling:** According to this strategy, salespeople adapt to the needs of the customers not only through the means of communication but also by dealing with a variety of customer behaviors, personalities, emotions, and motivations that come from a range of industries and organizational structures. Because sellers and buyers are increasingly working together to cut costs while maintaining quality, as well as because more people are using different online platforms for selling and buying, adaptive selling has become the preferred strategy for many businesses in recent years.

³² Agnihotri, R., Kothandaraman, P., Kashyap, R., & Singh, R. (2012), "Bringing "social" into sales: The impact of salespeople's social media use on service behaviors and value creation". *Journal of Personal Selling and Sales Management*, pp. 341

- **Challenger Selling:** The challenger selling strategy, according to Inks, is "an approach that requires salespeople to take on the role of strategic teachers, providing the prospective customer with new insights into business improvement/development." According to the researchers, Dixon and Adamson created the challenger selling model as a result of the relationship selling approach's decline. According to the researchers, relationship sellers are too frightened to ask for orders, too soft, and unable to confront customers when they make poor choices. Many researches have criticized the challenger selling. The main focus of the researcher's criticisms of B2B selling was how pushy it was. Other unfavorable aspects include underestimating the value of the relationship between the supplier and the customer.
- **Relationship Selling:** The term "relationship selling" covers a wide range of sales strategies. It is centered mostly on the long-term relationship that the seller and buyer build in order to benefit both parties. According to Inks et al., relationship selling is an orientation rather than a model that focuses on creating lasting relationships with clients in order to benefit both parties. Relationship selling, however, encompasses four viewpoints: the buying center, adaptive selling, customer orientation, individual selling, and solution selling. Relationship selling also encompasses problem-solving and consultative selling.

1.4 Challenges And Opportunities in B2B Sales

Sales managers and salespeople representing business-to-business (B2B) organizations are well aware of the fact that change is the only constant in life, as

famously stated by the Greek philosopher Heraclitus. B2B marketplaces have seen considerable and continuous development during the past few decades³³, with an increasing number of stakeholder expectations, knowledge, and access to information, globalization, technological advancements, and competitive offerings, among other changes. These changes have led to greater complexity in the buying and selling processes, making it more challenging for organizations and their sales forces to keep up with the pace of change.³⁴

While anticipated change can bring about new opportunities and challenges for B2B organizations and their sales forces, unanticipated changes can leave them vulnerable and partially paralyzed. A perfect example of an unforeseen shift that has an immediate and significant influence on B2B sales forces is the sudden appearance and quick dissemination of COVID-19 in the early months of 2020. The pandemic has brought about a wide range of interrelated social, technological, and structural challenges for many B2B sales forces, including more remote work and physical unavailability, cancellation and postponement of important meetings and events, travel restrictions and closure of borders by different countries, an overwhelming number of COVID-19-related communications, and greater stakeholder mental and physical health issues. Inventory shortages, supply chain issues, product delivery issues, general difficulties in maintaining daily operations, new work arrangements, modifications to information flows, job expansion and contraction, and the threat of temporary or permanent

³³ Lussier, B., & Hartmann, N. N. (2017), "*How psychological resourcefulness increases salesperson's sales performance and the satisfaction of their customers: Exploring the mediating role of customer-oriented behaviors.*", *Industrial Marketing Management*, 62, pp. 160–170.

³⁴ Arli, D., Bauer, C., & Palmatier, R. W. (2018), "*Relational selling: Past, present and future.*", *Industrial Marketing Management*, 69, pp. 169–184

dismissal are all factors that are affecting and being affected by these challenges. As a result, B2B sales forces are having to adapt quickly to these changes, finding new ways to work remotely, communicate with stakeholders, and maintain their operational efficiency, all while navigating a highly uncertain and rapidly changing business environment.

After talking about the effects of Covid 19 on B2B sales, let's talk about the challenges of B2B sales in general;

- **Long Sales Cycle:** When it comes to B2B sales, the buying cycle typically takes longer than it does for B2C sales. This is often due to the fact that there are numerous decision makers involved in the process, which can make deals more complex and buyers hesitate before signing the dotted line because of the high cost of B2B products and their possible impact. As a result, before moving on to the next step, a potential customer may spend many months in the upper portion of the sales funnel. Finding a careful balance between moving prospects through the sales cycle without coming across as unduly pushy or aggressive is necessary for successfully navigating this process.
- **Data Overload:** In today's fast-paced business world, sales reps have access to an abundance of data. However, having an excessive amount of sales data may be daunting and is one of the biggest problems in B2B sales.. For instance, you can track how leads interact with your brand across multiple channels, such as the website pages they view, how long they spend on those pages, the social media posts they engage with, and much more. With an excessive amount of information available, it's easy to experience analysis paralysis, making it difficult to utilize data to make informed decisions. In many B2B sales

scenarios, businesses can become bogged down with too many options and complex solutions, leading to a halt in the sales cycle. Additionally, there is also data to consider when it comes to analyzing your results and identifying which metrics are important for sales. Given the vast amount of data available, it's crucial to streamline and focus on only the metrics or lead behavior that matters most to make the most informed decisions and drive sales.³⁵

- **Lack Of Customer Confidence:** One of the major challenges in B2B sales is to overcome the lack of customer confidence. Unlike B2C sales, the investment required is often relatively higher, and potential buyers may need more time to consider the impact of the purchase on their business. Moreover, transitioning from their current provider to a new solution can be a complex and daunting process, with significant monetary investments and changes involved, which can create a sense of hesitation.

Providing prospects with pertinent and useful information that speaks to them in a way that is simple to read and digest is crucial to resolving this. Most companies want to see concrete evidence that the solution you are providing has been successful for others in their same circumstances. Therefore, it is crucial to provide case studies, testimonials, and other relevant information that can help build trust and instill confidence in the customers. By doing so, you can overcome the lack of customer confidence and establish a strong relationship with your prospects, paving the way for successful B2B sales.

³⁵ <https://www.janek.com/blog/top-challenges-in-b2b-sales/>

- **Technological Deficiency:** The current digital age has revolutionized the way business is conducted, and it is imperative to take advantage of technology to avoid inefficiencies and delays. B2B sales teams encounter a variety of obstacles, but there are technologies available to assist ease their workload and streamline procedures. These tools range from CRM systems and cloud technology to data analytics tools, content management, and sales automation software. The key to maintaining a successful sales operation is to find the right programs that best suit your organization's needs.

It is essential to adopt new software and tools for sales enablement and become familiar with virtual communication platforms and other technology-driven solutions. Since remote work is becoming more and more prevalent, sales teams must follow best practices in technology adoption if they want to connect with new prospects and leave a lasting impression. By utilizing these tools, organizations can achieve greater efficiency, productivity, and success in their sales operations.

- **Customer Retention:** Any sales team's first objective should unquestionably be to build a robust pipeline of quality prospects. Equal effort must be made to attract new clients as well as to keep your present ones, though. Since you've already gone through the essential procedures to complete the sale, it takes far longer, more money, and more work to gain a new client than it does to keep one you currently have.

In most cases, B2B products are utilized by companies for years. For example, software products are often on a monthly or annual subscription basis. If you manage to convert a prospect into a customer, but they churn shortly after, it

will have a negative impact on your customer lifetime value (CLV or LTV). Therefore, it's crucial to follow up with customers to ensure that they're getting all the benefits that were promised to them.

Retaining customers and turning them into loyal advocates is an essential way to grow your business. However, it's easier said than done. Given the amount of work that goes into converting a prospect into a customer, you may find it challenging to reach out to them after the conversion. But retaining that customer for the long-term can significantly increase your ROI and prove to be a more financially viable option in the long run.

B2B sales have opportunities as well as challenges, some of which are;

- Business-to-business (B2B) companies can be broad in their offerings or specialize in a specific area. A B2B firm could, for instance, offer IT services, business consultancy, payroll, insurance, or commercial cleaning. Alternatively, a B2B company might focus on developing products such as bespoke sign and graphic items, office supplies, or even bottled water and workplace snacks, that support other businesses.
- One of the advantages of starting a B2B business is that many of them can be run from home. Unlike traditional brick-and-mortar businesses, B2B companies do not require prime retail space or commercial office space. This means that business owners can run their services from the comfort of their own homes, on the go, or anywhere in the world. This type of flexibility can be a critical factor for investors trying to decide what type of business they want to start.

- B2B companies are generally very people-oriented businesses. Owners who enjoy networking and forging connections within their communities are the best prospects for these kinds of company possibilities. Having a background in sales positions or a history of connecting with clients can be a significant advantage when looking to start a B2B business. By building strong relationships with clients, B2B business owners can establish long-term partnerships that are mutually beneficial and can help grow their business over time.³⁶

1.5 Importance of Technology in B2B Sales

The sales industry has been undergoing constant evolution due to the development of digitalization and enabling technologies. These advancements have transformed the way salespeople engage with prospects and customers, as well as how sales are managed³⁷. This thesis looks at how various B2B sales activities could benefit from AI. Sales technology, which is defined as information technology that helps and enables salespeople to perform sales tasks, includes both more established technologies, such as modern CRM systems and other sophisticated digital sales tools, including AI-enabled sales technology, as well as more recent technologies, such as mobile phones, e-mails, and databases.

Enterprises are investing millions of dollars in technology solutions to boost productivity, competitiveness, and customer satisfaction. B2B companies believe that

³⁶ <https://www.franchisedirect.com/businessopportunities/businesstobusiness/29>

³⁷ Rodriguez, M. & Honeycutt, E. D. (2011), “*Customer Relationship Management (CRM)’s Impact on B to B Sales Professionals’ Collaboration and Sales Performance.*” *Journal of business-to-business marketing*, 18(4), pp. 335-356

technology can greatly enhance performance, which is why they are willing to make such investments.³⁸ Information technology is playing a crucial role in improving efficiency and productivity within sales forces. Companies are now able to communicate better both within their sales force and with their customers³⁹. This facilitates the transfer of administrative and commercial information, making it more efficient. Technology also makes it easier to access, analyze, and communicate information, which allows for the proposal of integrated solutions and information sharing. In the end, technology allows businesses to satisfy client demands by turning data into useful knowledge.⁴⁰

In B2B settings, customers often are unaware of the use of technology and are frequently the only ones to recognize and use it⁴¹. By reaching out to the appropriate consumers and giving them the most pertinent information, technology aims to increase the effectiveness of the sales team. By utilizing technology, it is possible to evaluate the profitability of customers and optimize the investment in the sales force⁴². Technology may be used to discover the most profitable long-term consumers because it has been demonstrated that not all of them are profitable. Customers can get more customized product information with the use of sales automation solutions.

³⁸ Hunter, G. K., Perreault, W. D., Morgan, N., Clopton, S., Zeithaml, V., Brown, S., Bollen, K. (2007), "*Making Sales Technology Effective*", Journal of Marketing, 71, pp. 16–34.

³⁹ Cardinali, S. (2014), "*Issues in sales management*", Lap Lambert Academic Publishing. 35

⁴⁰ Clark, P., Rocco, R., & Bush, A. (2007), "*Sales force automation systems and sales force productivity*", Journal of Relationship Management, 6(2), pp. 67–87.

⁴¹ Ahearne, M., & Rapp, A. (2010), "*The Role of Technology at the Interface Between Salespeople and Consumers*", Journal of Personal Selling & Sales Management, 30(2), pp. 111–120.

⁴² Sharma, A. (2006), "*Strategies for maximizing customer equity of low lifetime value customers*", Journal of Relationship Marketing, 5(1) 59–83.

Nevertheless, despite the fact that clients may obtain product information prior to the sales meeting, salespeople see their duty as one of problem solution.

Sales operations are made possible or made easier by sales technologies. Customers and salespeople alike have access to new technology as the internet develops. Technology use has increased substantially, and sales automation is now a useful tool for the sales team. Customer profitability may also be assessed on an individual basis using customer relationship management (CRM) systems, which can help guide future sales initiatives.

A set of technologies and solutions known as customer relationship management (CRM) software aims to strengthen the bond between a company and its clients. This includes sales automation and data storage, all built on a philosophy of relationship marketing⁴³. The ultimate goal of CRM is to encourage customer loyalty and establish long-term relationships. However, it is also a strategic process that seeks to create stronger relationships with customers who are perceived as highly profitable and valuable.

Sales Force Automation (SFA) refers to information technologies that are applied to sales situations. Their aim is to support sales representatives during repetitive activities and improve the efficiency of these tasks. SFA is not just about automation, though; it also has an effectiveness dimension that can be used as a tool to build long-term relationships. It is important to note that sales technologies are not limited to automation. They can also increase productivity and help with organizing skills for salespersons.

⁴³ Kumar, V., & Reinartz, W. (2012), *Customer Relationship Management: Concept, Strategy, and Tools*, Berlin Heidelberg: Springer

Alongside CRM tools, businesses can also use marketing automation to strengthen relationships with customers. A software-based strategy called marketing automation automates marketing tasks including client segmentation and campaign management⁴⁴. The concept involves observing and analyzing the digital footprints of leads collected from digital channels. By doing so, companies can better understand customer behavior and personalize the content accordingly. This personalized approach to digital communication strengthens the relationship with customers and increases customer satisfaction.

To learn about potential buyers, companies can take an active or passive approach. Active approaches involve directly asking questions, while passive approaches include information related to past transactions and online behaviors. Marketing automation and CRM systems are closely related, but marketing automation exploits data from both unknown users and current customers to design customized communication.

⁴⁴ Heimbach, I., Kostyra, D. S., & Hinz, O. (2015), "Marketing Automation.", *Business and Information Systems Engineering*, 57(2), pp. 129–13.

CHAPTER 2

ARTIFICIAL INTELLIGENCE AND AI USE IN SALES

2.1 Introduction to Artificial Intelligence

The phrase "artificial intelligence" was first used by John McCarthy, who defined it as "the science and engineering of creating intelligent machines." The foundation of artificial intelligence is the idea that human intelligence may be so precisely characterized that it can be replicated by a machine. A variety of interdisciplinary subjects, including computer science, mathematics, psychology, linguistics, and philosophy, have contributed to the field's rich body of knowledge. While it is unclear which computational techniques are intelligent, intelligence is defined as the capacity to attain goals and may vary in degree⁴⁵. For instance, intelligence may also refer to a computer's capacity to use advanced computing to better solve a problem than a simulation of human intellect.

Strong and weak AI are distinguished by Wirth. "Weak AI" or "narrow AI" is defined as a machine that performs a particular task exceptionally well. Tasks like selecting the ideal email subject line or dividing a sizable audience into target groups fall under this category⁴⁶. Strong AI is based on general knowledge, replicates common sense, and poses the risk of developing an increasingly self-aware nature. "AI Super Intelligence" is the third level of artificial intelligence that Garwood mentions. When

⁴⁵ <http://www-formal.stanford.edu/jmc/whatisai/>

⁴⁶ Sterne, J. (2017), Artificial Intelligence for Marketing: Practical Applications, Rising Media

AI reaches this level, it can fully control its own existence and exhibit intelligence levels that are superior to those of humans. Let's go into a little more detail:

- Narrow AI, also referred to as weak AI, is a category of AI that is restricted to particular domains or fields. Examples of this kind of AI include language translators, virtual assistants like Siri, Cortana, or Google Assistant, recommendation engines, and self-driving vehicles. They can carry out particular tasks but cannot pick up new ones. Instead of trying to duplicate human intelligence, Weak AI simulates it.

- On the other hand, general or strong AI refers to AI that has the ability to acquire new strategies to deal with unique problems and is capable of performing a number of independent and unconnected tasks. Building intelligent devices that can imitate or copy the human mind is the aim of strong AI. Strong AI only exists as a theoretical notion; it has no practical applications⁴⁷.

- Super AI, also known as conscious AI, is a type of AI that is more intelligent than humans and has consciousness on par with humans. Because we still don't have a clear definition of what consciousness and awareness are, super AI encircling us in the near future is highly improbable.

⁴⁷ <https://www.ibm.com/topics/strong-ai>

Over the past few decades, there has been an increase in interest in AI in both academia and business. The recent growth of the technology has been fueled by improvements in machine learning and cognitive mechanisms⁴⁸. AI will have more and more practical applications in the business context as computing power rises and AI software algorithms continue to advance. Brynjolfsson has even described AI to electricity and steam engines, which were once-transformative technologies, as a general-purpose similar technology. AI is the most significant strategic technology that has the capacity to support decision-making, rethink business models and ecosystems, as well as improve consumer experience, which will drive digital initiatives in the future, according to a technology trend poll by Gartner. According to estimates from PwC, AI may perhaps make up 15.7 trillion dollars of the global economy by 2030.

According to Daugherty and Wilson, the advantages of AI lie in enhancing human abilities and boosting productivity through human-machine collaboration, not in doing away with the need for people in the workplace. Because the technology is artificial, rational decision-making is assumed. Human judgment may be influenced by emotions, but machines are not subject to this kind of restraint.

Despite the fact that the disruptive potential of AI has been widely acknowledged, there is still no agreement on the precise definition because opinions have changed over time. According to Syam and Sharma, AI is "the ability of machines to mimic intelligent human behavior" and carry out cognitive tasks like learning and problem-solving that we typically associate with the human mind. According to Syam and

⁴⁸ Jarek, K. & Mazurek, G. (2019), "Marketing and Artificial Intelligence", Central European Business Review, 8(2), pp. 46-55.

Sharma, new technologies like AI will disrupt selling functions in the near future, necessitating the coexistence of salespeople and AI.

The definition of AI used in this study is that offered by Simon: Machine learning, deep learning, computer vision, and natural language processing are all included under the broad term of artificial intelligence (AI). This perspective is relevant for considering AI in the context of B2B sales since AI-powered sales technologies leverage the aforementioned technologies, either separately or together, to enhance or automate specific operations that happen throughout B2B sales processes. As a result, in this research, the term "AI" is used synonymously with the cognitive technologies mentioned above.

2.1.1 Evolution Of AI

Philosophers, physicists, and mathematicians have been debating humanoid robots and intelligent machines for decades.. The concept of intelligent robots that can imitate human behavior has been a recurrent motif in science fiction from at least Samuel Butler's "Erewhon" from 1872. But it wasn't until the 1950s that artificial intelligence started to take off.

Some of the most important events that helped artificial intelligence (AI) go from a specialized field to a worldwide one include the following:

The American engineer and mathematician Claude Shannon, often referred to as "the father of information theory," wrote a paper titled "Programming a Computer for Playing Chess" in 1950. This essay focused on the challenge of creating a chess-

playing computer program or computing routine for a contemporary general-purpose machine⁴⁹.

The same year, a paper titled "Computer Machinery and Intelligence" was published by British polymath Alan Turing, who is also referred to as "the father of modern computer science"⁵⁰. The article suggests a method for determining if a machine can mimic human behavior to the extent that it would be difficult for a court to tell if it is a machine or a person, starting with the question "Can machines think?". This test, known as the Turing Test, is regarded as the bar for artificial intelligence.

Six years later, in the summer of 1956, the artificial intelligence research area was formally founded. The first academic seminar on artificial intelligence was the Dartmouth Summer Research Project on Artificial Intelligence (DSRPAI), which was founded by John McCarthy and Marvin Minsky.⁵¹

The perception algorithm, a forerunner of contemporary artificial neural networks, was created in 1957 by American psychologist Frank Rosenblatt.

The most well-known and popular programming language for artificial intelligence research, Lisp, was developed by McCarthy in 1958.

In 1959, computer scientist Arthur Samuel published a paper titled "Some studies in machine learning using the game of checkers" that is credited with popularizing the term "machine learning".⁵²

⁴⁹ Shannon, C.E. (1950), XXII. Programming a computer for playing chess, The London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science, 41(314).

⁵⁰ Bowen, J.P. (2016), Alan Turing: founder of computer science, Engineering Trustworthy Software Systems (pp.1-15)

⁵¹ Moor, J. (2006), "The Dartmouth College artificial intelligence conference: The next fifty years", AI Magazine, 27(4).

⁵² Ergen, M., (2019). "What is artificial intelligence? Technical considerations and future perception." Anatolian J. Cardiol, 22(2).

The US government is especially interested in machine comprehension and translation skills, especially between Russian and English, largely for political and military reasons. Throughout the 1960s, several accomplishments were made, and formal linguistics and NLP both saw considerable breakthroughs. For instance, Daniel Bobrow developed the algebra word problem-solving program STUDENT in 1964. It is regarded as a significant turning point in the field of natural language processing.⁵³ Joseph Weizenbaum created ELIZA, an interactive program that can have discussions in English about any subject, a year later.⁵⁴

Early NLP applications were exciting and showed promise. However, a dismal report issued by the Automatic Language Processing Advisory Committee (ALPAC) in 1966 put a halt to ML and NLP research for more than ten years⁵⁵. The British government then significantly reduced funding and support for artificial intelligence after in a study to the British Science Council (BSC) on the state of AI, James Lighthill came to the conclusion that "in no part of the field have discoveries made so far produced the major impact that was then promised."

From the middle of the 1970s until the beginning of 1980, a period of decreased public and academic funding in AI research was caused by these events, which is known as the "first AI winter." A second winter that lasted from 1988 to 1994 then came during a period of increasing corporate interest in "expert systems".

⁵³ Bobrow, D.G. (1964), Natural language input for a computer problem solving System, Massachusetts Institute Of Technology

⁵⁴ Shah, H., Warwick, K., Vallverdú, J. and Wu, D. (2016), "Can machines talk? Comparison of Eliza with modern dialogue systems", *Computers in Human Behavior*, 58:278

⁵⁵ Hutchins, W.J. (2001), "Machine translation over fifty years", *Histoire épistémologie langage*, 23(1).

With the rise in computer processing power and storage beginning in the mid-1990s, AI saw a rebirth and major milestones were accomplished. In 1997, IBM's Deep Blue, a chess program, became the first to defeat Garry Kasparov, the current world champion. Brad Rutter and Ken Jennings, the previous Jeopardy champions, were beaten by IBM Watson in 2011 using a combination of information retrieval (IR) and NLP approaches. And on the iPhone 4S the same year, Siri, the first contemporary virtual assistant, was released.

The emergence of large data, unrestricted access to computing power (cloud computing), and advances in machine learning techniques over the past ten years, all aided by a sharp rise in funding and investment, have allowed AI to go from the lab to the real world.

2.1.2 How Does AI Work?

Results from AI are produced by descriptive and predictive analysis of data that is fed into the system. Large data sets can be subjected to AI in order to produce fresh data and insights that can then be used to improve forecasting, predictions, and decision-making.⁵⁶

AI enables a wide range of technologies and procedures. Using machine learning algorithms to solve complex issues is one example. The algorithm makes predictions about future events based on historical data. A tool called natural language processing is used to decode human speech and text with the intention of extracting and distributing information. The primary technology behind deep learning, predictions,

⁵⁶ Abhang, M., & Sherin, N. (2018). "Application of Artificial Intelligence (AI) For Effective and Adaptive Sales Forecasting", *Journal of Contemporary Management Research*; Tiruchirappalli Vol. 12, Iss. 2, (Sep 2018): 17-35.

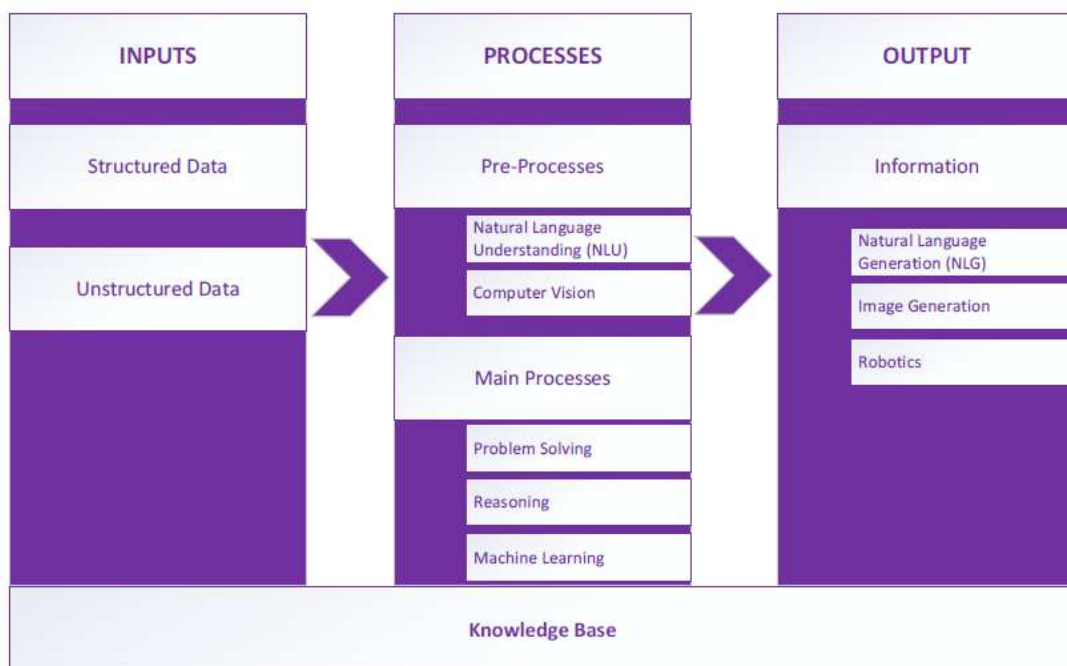
and real-time analysis is artificial neural networks. The main engines behind AI applications are these three tools.⁵⁷

The fundamental building block of AI technology is the input-process-output model. The input of the system is data sets that must come from an external source, such as a human or an equivalent. The system will then process the given data sets in accordance with the instructions using the learned or programmed models, such as machine learning, natural language processing, and artificial neural networks.

The system generates the outcomes or output after processing the data in accordance with the predetermined parameters.

A figure illustrating this procedure is shown below. It was created using a chart that was taken from a study by Ulrich Paschen, Christine Pitt, and Jan Kietzmann.

Fig II.1: AI system in building block concept



⁵⁷ Kreutzer, R., & Sirrenberg, M. (2020), Understanding Artificial Intelligence: Fundamentals, Use Cases and Methods for a Corporate AI Journey, Springer

Source: 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), pp. 1412

2.2 Artificial Intelligence Technologies and Application of Artificial Intelligence Technologies

2.2.1 Artificial Intelligence Technologies

Artificial intelligence (AI) is a feature of science and computing that allows a machine to do human-like cognitive and creative activities, find solutions to problems on its own, and form opinions. Artificial intelligence (AI) systems' major goal is to be able to learn, which helps humans become more effective and productive over time. Based on the study's empirical findings, deep learning, machine learning, and natural language processing were determined to be the three most crucial AI-related technologies, and they are briefly outlined below.

2.2.1.1 Machine Learning

A subset of artificial intelligence known as "machine learning" enables computers to gain knowledge and make progress over time from data without having to be explicitly programmed⁵⁸. Machine learning algorithms are useful when creating explicit algorithms is challenging for a particular use case because they may make predictions and judgments based on data without adhering to static program instructions. Practically, a machine learning algorithm is tasked with optimizing a specified performance criterion based on data, and as it performs the task more effectively over

⁵⁸ Samuel, A. (1959). "Some studies in machine learning using the game of checkers", *IBM Journal of Research and Development*, 4(2), pp. 211-226.

time, it is handed this responsibility⁵⁹. Unsupervised learning algorithms and supervised learning algorithms are the two basic categories into which machine learning algorithms are frequently divided⁶⁰.

Supervised learning methods require human-provided input and desired output data and are trained on labelled training data sets. After analyzing a training data set, a supervised learning algorithm develops a derived model to forecast desired outputs when exposed to fresh input data. The supervised learning method continuously improves the model by comparing its output to the actual output values. The two types of supervised learning's use cases, classification and regression, are frequently utilized in applications where it is likely that previous occurrences would predict present ones⁶¹.

On the other hand, when working with data sets that lack previous labels, unsupervised learning techniques are used. In contrast to supervised learning, unsupervised learning algorithms build a function to uncover hidden structures in a given unlabelled data set. These sorts of algorithms are frequently utilized to solve more difficult issues. Unsupervised learning often works best when there is a lack of available labelled historical data to uncover hidden patterns and insights in a data collection. Clustering and association issues might be separated out as possible unsupervised learning tasks.

⁵⁹ Alpaydin, E. (2011). Machine learning. Wiley Interdisciplinary Reviews: Computational Statistics, 3(3), pp. 195-203.

⁶⁰ Kanetkar, S. & Chanchlani, N. (2014), "Artificial Intelligence and Cognitive Analytics approaches towards Efficient Predictions for Business Intelligence", International Journal of Computer Applications, 103(14), pp. 35–39.

⁶¹ Preeti, P. (2017), "A review on Machine Learning Techniques", International Journal of Advanced Research in Computer Science, 8(3), pp. 778-882.

2.2.1.2 Natural Language Processing

Natural language processing (NLP) is the umbrella term for a group of computing techniques targeted at learning, understanding, and producing human language content. On the internet, there is an ever-growing amount of unstructured data in natural language that is found in online communities, company websites or blogs, and social media. This useful data could be applied to real-world business tasks like determining brand perception⁶². The goal of modern NLP research, according to Simon, is to create information systems that can converse with users rather than only responding to styled demands. Large-scale unstructured data interpretation in human language format is one of the goals of NLP technology, which also aims to promote effective human-computer interaction.

Big data that is unstructured may be arranged and interpreted using NLP techniques, which also have several applications in the commercial world. Information extraction, machine translation, summarization, and text classification are among the most frequently used NLP applications⁶³. By searching the internet for details on recent developments in the business and the products offered by rivals, NLP software might be used, for instance, to conduct a competitive analysis. Chatbots, which are increasingly popular in B2C and B2B online business, are also made possible by NLP technology. While more sophisticated queries are routed to skilled support personnel, many businesses use chatbots, or automated social presence, to address regular

⁶² Ittoo, A., Nguyen, L. & Van Den Bosch, A. (2016), "Editorial: Special issue on natural language processing and text analytics in industry" *Computers in Industry*, 78(C), pp. 1-2.

⁶³ Taskin, Z. & Al, U. (2019), "Natural language processing applications in library and information science", *Online Information Review*, 43(4), pp. 676-690.

customer care questions⁶⁴. This is a fantastic illustration of how people and computers may work together to tackle easy jobs while humans handle more difficult ones.

The primary barrier to the development of NLP tools for lesser-spoken languages like Finnish or Indonesian is that they are now only accessible for high-resource languages like English, French, Spanish, and German⁶⁵. This is the major present constraint of NLP. As regional sales teams frequently converse in their native language and sales data is frequently recorded into CRM systems in their native language, this appears to be the main present limiting issue for using NLP in the sales environment. However, if NLP technology advances, it may be possible to leverage these massive volumes of unstructured sales data even in lesser-spoken languages, which would open up a variety of B2B sales use cases.

2.2.1.3 Deep Learning

Deep learning is a branch of machine learning (ML) that combines inputs, outputs, weights, and thresholds to create layered artificial neural networks (ANNs) that mimic the structure and operation of the brain.

Each layer of an artificial neural network—input, hidden, and output—contains numerous nodes, which are processing units. Each layer receives input to be processed, processes it, and then delivers the results to the following layer. The output of a node is activated and permits data to travel to the network's next layer when it exceeds a

⁶⁴ Bolton, R. N., Mccoll-Kennedy, J. R., Cheung, L., Gallan, A., Orsingher, C., Witell, L. & Zaki, M. (2018), “Customer experience challenges: Bringing together digital, physical and social realms”, *Journal of Service Management*, 29(5), pp. 776-808.

⁶⁵ Hirschberg, J. & Manning, C. (2015), “Advances in natural language processing”, *Science*, 349(6245), pp. 261-266.

predetermined threshold value. The majority of deep learning networks operate in a single direction, from input to output.

Artificial neural networks with four or more layers are referred to as deep learning neural networks. Due to the deep layered design, deep learning algorithms are increasingly efficient as the size of the dataset grows, in contrast to conventional ML methods that reach a plateau.

Deep learning techniques are used to solve issues involving unstructured data, such as text and photos, where it is difficult to identify patterns and trends.

Deep learning has been used to a variety of industries, including speech recognition, computer vision, imaging in the medical area, autonomous automobiles, and natural language processing.

Different ANN types are employed to handle various problems and data kinds. Convolutional neural networks (CNNs) are more frequently employed for computer vision and classification applications, whereas recurrent neural networks (RNNs) are frequently utilized for voice recognition and natural language processing.

2.2.2 Applications of Artificial Intelligence Technologies

Artificial intelligence has been applied in many different markets. Seven examples are given below.

2.2.2.1 AI in healthcare

Enhancing patient outcomes and reducing costs are the two largest bets. Businesses are using machine learning to make medical diagnoses that are quicker and more precise than those made by people. One of the most well-known medical technology products is IBM Watson. It understands normal language and can respond to queries.

Through the use of patient data and other accessible data sources, the system develops a hypothesis and then displays it with a confidence rating schema. Using chatbots and virtual health assistants to help patients and healthcare consumers access medical information, schedule appointments, understand the billing process, and do other administrative duties are examples of additional AI uses. The prevention, treatment, and understanding of pandemics like COVID-19 are all being accomplished with the help of various AI technologies..

2.2.2.2 AI in business

Machine learning algorithms are being implemented into analytics and customer relationship management (CRM) platforms to understand how to better service clients. Chatbots have been implemented into websites to provide consumers with rapid support. The fast advancement of generative AI technologies, such as ChatGPT, is expected to have far-reaching implications, such as the elimination of employment, a revolution in product design, and a disruption of business models.

2.2.2.3 AI in education

AI grading automation can free up time for other duties in the classroom. In order to allow students to work at their own speed, the system may be analyzed and modified to match their needs. AI tutors could provide extra support to students to keep them on track. Technology use may change the places and methods of instruction for children, and it may even replace certain instructors. According to ChatGPT, Bard, and other large language models, generative AI may help teachers create lesson plans and other teaching materials as well as engage students in fresh ways. Teachers are being compelled to reevaluate plagiarism policies and standards as a result of the advent of new tools.

2.2.2.4 AI in finance

Financial institutions are at risk from artificial intelligence (AI), which is used in personal finance software like Intuit Mint or TurboTax. The process of buying a house has been aided by IBM Watson and other technology. A sizable amount of Wall Street trade is now managed by artificial intelligence algorithms.

2.2.2.5 AI in law

People usually find it too much to go through papers during the discovery stage of a court dispute. By assisting in the automation of labor-intensive legal sector tasks, AI is quickening and enhancing customer service. To describe data and forecast outcomes, law firms employ machine learning. To identify and extract information from documents, they use computer vision. To interpret information requests, they use NLP.

2.2.2.6 AI in manufacturing

Manufacturing has mostly been the industry driving the integration of robots into workflow. For instance, industrial robots that were once created to complete solitary tasks while being kept apart from human workers are now used more and more as cobots, which are smaller, multitasking robots that work alongside people in warehouses, factories, and other workplaces to take on more responsibilities.

2.2.2.7 AI in banking

Chatbots are being used by banks to tell their customers about services and possibilities as well as to carry out transactions that don't require human involvement. AI virtual assistants are used to ease banking standards compliance and reduce associated costs.

The use of AI by financial organizations enables them to better determine credit limits, make lending decisions, and identify investment possibilities.⁶⁶

2.3 Application of Artificial Intelligence in Sales

AI performs in-depth analyses of large data sets to discover patterns and connections that people would not be able to uncover. The purpose of this paper is to investigate the benefits of applying AI in sales organizations.

Salespeople constantly seek out new prospects, qualify them, and close deals. If companies want to remain competitive, they must use technology that improve the efficiency of their sales teams. According to Semrush, 40% of marketing and sales departments prioritize AI technology and machine learning for their success, therefore Gartner, for instance, urges sales managers to utilize AI technologies.

Let's look at some of the most important uses of AI in areas like sales forecasting and enablement.

2.3.1 Optimize your conversions

By looking at data on past customer behavior, sales managers may create models that predict which prospects will have the best conversion rates. This data may then be used to rate leads, increasing the possibility that they will become customers. To put it another way, efficient lead scoring may qualify leads to shorten your sales cycle and ensure that your sales actions are focused on lucrative possibilities, which is especially common in B2B sales.

⁶⁶ <https://www.techtarget.com/searchenterpriseai/definition/AI-Artificial-Intelligence>

It's getting impossible for sales teams to sort through all the data to find the prospects with the highest conversion potential. Determining which clients are most likely to convert is still a difficult endeavor, even with the aid of predictive analytics. However, this process can be automated and improved with artificial intelligence.

This procedure is essential for ensuring that sales and marketing teams are working together, since marketing teams must provide sales representatives with top-notch leads in order to guarantee that they are dealing with the most qualified customers. A well-aligned sales and marketing team, after all, can increase marketing-related revenue by more than 200%, according to study.

AI may be used to improve website design and content in addition to predictive analytics. Businesses may pinpoint areas that require development by looking at data about how users interact with websites. For instance, a company may modify its website to make it more user-friendly if it notices that many visitors leave it without purchasing anything.

2.3.2 Improve your sales pipelines

By anticipating and improving all funnel stages, from lead ranking through post-purchase interaction, the usage of artificial intelligence may maximize conversions. Businesses may increase their odds of turning leads into customers and maintaining them over the long run by adopting AI.

Utilizing predictive analytics is one method that AI may be utilized to optimize conversion rates. Predictive analytics uses data mining and machine learning algorithms to evaluate past data in order to uncover patterns and trends that may be

used to forecast future results. The business processes may then be enhanced utilizing this data, resulting in increased conversion rates.

Predictive analytics, for instance, may be used by a business to determine the best moment to contact a prospect based on their earlier activities, which are frequently documented in a CRM platform. A company may utilize predictive analytics to determine the most favorable time to get in touch with a customer who has viewed its website but hasn't completed a purchase.

Another application of predictive analytics is to determine which products a certain customer is most likely to buy from a firm. Using this data, personalized product offers that have a higher chance of being purchased may subsequently be made.

In addition to these applications, AI may be used to improve customer service. Businesses may modify their customers' experiences with AI based on their prior behavior. This can involve offering specialized product recommendations (also known as upselling), suggestions for complementary products (also known as cross-selling), and even specialized customer service.

Businesses may use AI to recognize and resolve any problems that might occur inside the sales funnel. If there is an increase in the number of refunds being granted, for example, AI may be used to find the cause of the issue and fix it.

In general, businesses may use AI to enhance their sales funnels and increase the likelihood that a deal will be closed.

2.3.3 Reduce churn

Sales teams all over the world are suffering as a result of churn, which is the silent killer of SaaS. Let's go through how utilizing artificial intelligence may make sales

teams less susceptible to attrition. Churn refers to the number of consumers that stop utilizing a product or service. With the help of AI, it is possible to identify and reach out to customers who are likely to abandon a product or service soon with personalized offers or messages. According to McKinsey, "analytics-driven approach to base management can help telecom companies reduce churn by as much as 15%," thus, using AI for churn reduction can make the difference between financial success and failure..

To put it more precisely, sales teams can simply select the churn column from a historical dataset of customers (including both those who have and have not churned) and connect it to Akkio in order to create a predictive model. This model may then be used in real-time on new clients to identify individuals who are most likely to leave and stop the problem before it gets out of hand.

2.3.4 Suggest next actions

Sales people may become overwhelmed by the sheer volume of leads they have to follow up on. This is made worse by the fact that a sizable component of the selling process still relies on interpersonal communication and discretion. Sales representatives' decision fatigue can be reduced by artificial intelligence, which can recommend the best next actions to take for each lead.

According on a prospect's prior behavior and preferences, AI could advise the greatest time to call them as well as the ideal time to email or make an offer to them. It can also suggest how and where to contact a client, such as via social media sites like LinkedIn, email, or phone call. In addition to handling leads, AI may provide sales personnel with rapid information about their clients and prospects. This can help them uncover

possibilities and understand customer demands so they can customize their contacts and close more sales.

Even complex processes like identifying a target account and lead prioritization may be automated by AI. Sales people would have more time to focus on pursuing the most promising prospects as the majority of the follow-up work would be performed by machines. By reducing decision fatigue, artificial intelligence (AI) can increase sales productivity.

2.3.5 Pricing optimization

A price that is too high might discourage customers from purchasing the goods or services, while a price that is too low could hurt the company's bottom line. Sales teams must navigate this Goldilocks zone, but doing so can be difficult when it comes to right price. Happily, artificial intelligence may assist sales teams in pricing optimization through predictive analytics and data-based decision-making.

By looking at customer behaviors, prior prices, and competitor activity, AI may be able to predict the best price point for any item or service. Additionally, AI may help sales teams keep ahead of market developments that can affect how much to charge customers.

Consider the scenario when you are marketing expensive software. With the use of AI, you can set the product's price so that it maximizes your earnings while still enabling sales. If product demand begins to fall, AI can help you adjust your prices to match the current state of the market. Similar to this, AI can help you find the sweet spot where you make enough money to continue to be successful while still undercutting your competitors if you're offering lower-priced items.

AI can help sales teams avoid price mistakes that can have adverse long-term repercussions in either situation. With the help of AI, sales teams can confidently establish rates, knowing that they've made the right decision for their business.

2.3.6 Sales support message prioritization

If you've ever responded to a customer service request, you are aware that some questions are more involved and time-consuming than others. Moving support staff away from low-priority tickets and toward more urgent issues may make sense in some situations. Sales AI tools like chatbots can handle these recurrent tickets with basic natural language comprehension, freeing up sales professionals to focus on other important activities. Bots are also used by other departments, such as in automatic credit approval and artificial intelligence assistants that foresee cancellations of appointments.

Thanks to AI, sales teams can now find and rate the most critical communications using predictive analytics. By reviewing prior customer interactions and comments, AI can help in identifying the most common or significant issues that need to be solved. With this strategy, sales teams may concentrate on the problems that are most likely to affect customer success and satisfaction. Not only does this increase customer happiness and save time, but it also frees up support employees to focus on more difficult duties.

Customer happiness and productivity can both be improved for sales teams who utilize AI to prioritize messages. Sales teams can enhance customer service and their bottom line by focusing on the most urgent problems first.⁶⁷

⁶⁷ <https://www.akkio.com/post/artificial-intelligence-in-sales-revolutionizing-sales-for-2022>

2.4 Overview Of Artificial Intelligence in B2B Sales

The areas where artificial intelligence (AI) will have the biggest impact on business are predicted to include supply chain management, manufacturing, and marketing and sales operations across a number of sectors⁶⁸. Currently contrary to using AI in customer-facing commercial operations like B2B sales, there are a lot more scholarly literature on using AI in industrial contexts. Although using AI in B2B is still a relatively new area of academic study, there are a few peer-reviewed studies on the subject. The existing research that examines AI utilization from the standpoint of a sales funnel or adopts another, more all-encompassing strategy rather than concentrating on specific use cases is reviewed in this part.

Syam and Sharma investigated how machine learning and artificial intelligence (AI) could affect for the various sales activities taking place throughout the 7-step selling process from the perspective of personal selling and sales management. Their study makes a long list of significant research questions that should be the subject of future additional study. It was emphasized that all routine and repeatable sales activities have experienced the greatest impact from automation and technology, and continue to do so.

They also addressed how all actions aimed at studying customer behavior in order to create highly tailored solutions will be where digitization has the largest impact on sales in the future. In a B2B setting, this entails being aware of each step in the purchasing process, the order in which they are carried out, as well as the roles and

⁶⁸ Kumar, V., Rajan, B., Venkatesan, R. & Lecinski, J. (2019), " *Understanding the Role of Artificial Intelligence in Personalized Engagement Marketing*", California Management Review, 61(4), pp. 135-155.

key players involved. This is strongly related to the value-based selling perspective, which seeks to coordinate the processes of selling and buying to co-create value⁶⁹. According to Syam and Sharma, AI may be used to model the complexity of buying centers, allowing salespeople to anticipate probable obstacles when engaging with the buying center. Their research indicates that the roles of sales management and personal selling will be significantly affected by machine learning and AI.

Furthermore, Paschen investigated the potential impact of AI on sales performance throughout a sales funnel during the B2B selling process's sequential steps. They also stated that AI would fundamentally alter B2B sales procedures and that it would not take the place of people but rather support their efforts by automating some of the jobs that were previously done by them. Despite the fact that Syam & Sharma's prior research on how AI may effect a sales funnel's various stages did not advance their conclusions, their research did highlight managerial tactics for fostering human-machine collaboration in B2B sales. According to their research, managers who are eager to adopt AI may not fully understand the potential contribution AI could make to sales processes, and when AI is implemented in B2B sales, factors like internal training and business process alignment should be taken into account.

Finally, Singh's article on the subject of AI's effects on the sales profession and professionals discussed key ideas, research priorities, and issues. Their article was created using team-based workshopping and brainstorming sessions held at the AMA New Horizon Faculty Consortium, where sales researchers worked together to determine potential future research topics for the application of AI in sales. The impact

⁶⁹ Töytäri, P. (2018), *Selling Solutions by Selling Value*. In *Practices and Tools for Servitization*, Springer International Publishing, pp. 269-289

of AI on sales can be examined at three different levels, in Singh's opinion: (1) how AI will affect the creation of value for customers, (2) how AI will impact sales organizations, and (3) how AI will affect the role of the individual salesperson. In addition, they suggest dozens of research priorities and questions related to these concepts.

These articles suggest more research questions than they do solutions, even though their goal is to provide the groundwork for future research. They outline the future potential benefits of sales funnels with AI integration, but they don't provide concrete examples of how sales organizations may use AI in the real world. They do not thoroughly evaluate B2B sales processes to determine whether specific tasks might be improved or automated using AI capabilities, and they do not touch on the potential of AI for sales management. Furthermore, the context of sophisticated B2B solution sales is not specifically covered by the current research. These factors make more thorough investigation and empirical proof necessary to validate the possible influence of AI on the sales of B2B solutions.

2.5 Opportunities And Challenges Of Artificial Intelligence In B2B Sales

2.5.1 Opportunities of utilizing AI in B2B sales

This section aims to present a more thorough understanding of how AI may affect or perhaps transform B2B sales. When asked about the finest applications of AI in B2B sales and their forecasts for the future, the interviewees gave a diversity of answers. While there is promise for automation in online commerce and the sale of simple commodities, it was generally agreed upon that AI is not expected to swiftly replace people in the context of complex B2B solution sales. The possible uses of AI include

process improvement and even the automation of some of the tedious and repetitive tasks. In the end, all AI use cases should be created in a way that enables B2B sales personnel to focus on the crucial facets of selling that machines can't perform, including improving customer relationships between sellers and buyers.

The mentoring and guiding functions that AI may play were stressed by several respondents. It could raise issues that should be taken into consideration when making decisions and suggest the best course of action for sales reps to advance sales cases. Although AI can train salespeople to make more data-driven judgments, it won't actually make decisions on their behalf. Whether the sales representative chooses to take the advised action or not will ultimately be up to them. Few interviewees, however, believed that over time, as technology advanced quickly, more and more sales operations may become fully automated. In essence, predictions and insights offered by AI might direct sales personnel to choose what and when to sell to which consumers at what price and prescribe the correct actions to take to achieve their goals. One of the respondents noted that the sales industry can be an excellent place to use AI because there is always a clear objective or success criterion that the AI models can optimize using the available data.

According to another viewpoint on the use of AI in B2B sales, AI's main function is not to inform salespeople about information they already know, such as lead recommendations, but rather to assist them in performing repetitive and menial tasks more effectively. As opposed to manually entering data, one of the biggest advantages of using AI is the ability to more effectively capture all pertinent sales data. So that sales leaders can receive their sales analytics and reports for managerial purposes, historically, sales force has invested a lot of time entering data into CRM systems. The

ability to automatically extract data from emails and phone calls, which serve as the source of truth, is a result of advances in NLP. For instance, providing high-quality data can significantly boost salespeople's productivity when calls are recorded, transcribed, and summarized using AI. As a result, as the problem with data quality is resolved by using AI for data entry, more AI applications can be implemented.

Additionally, it was discussed how AI could be used to improve both the buyer's experience and sales representatives' ability to perform their jobs more effectively. The purchasing experience is improved when customers are contacted with personalized messages and salespeople have a better grasp of the customer's current circumstance. It was also claimed that AI may be utilized in the future to assess consumer interactions and intonation so that sales personnel might modify their conduct to fit different selling circumstances. On the other hand, chatbots can be prepared at any time to respond to questions from customers, so they are no longer restricted to using salespeople as their sole source of information. The seller's job is to get a potential buyer as close to their end goal as quickly as possible, and AI can assist in this effort. In essence, AI could be used to reduce friction throughout the process and help sellers understand the entire buyer journey.

In reality, obtaining a Customer 360 perspective becomes one of the major potential for AI within CRM systems when enormous volumes of data are gathered from various sources and then the data silos are integrated. Every sales conversation may start with giving value when salespeople are familiar with their clients' demands rather than having to start from scratch every time. It was mentioned that while CRM systems have mostly remained unchanged throughout the years, the major ongoing change is the rate at which data is expanding. What could be done with the data is now a question,

and artificial intelligence (AI) and machine learning can help. The biggest ongoing change in CRM systems is the ability to extract useful and useful insights from data. In actuality, utilizing the abundance of unstructured data that is already accessible and gaining access to it through NLP is the key to maximizing all of AI's potential. Furthermore, because of how dynamic the business environment is evolving, it would be very difficult to effectively simulate B2B sales by just implementing a set of rules. To assess if a plan is working, sales teams must continually learn from customer encounters. In a manner similar to this, AI algorithms that are always learning may offer fresh suggestions for action in light of recent data changes or unanticipated findings. Combining data from internal sources with external data made accessible on the public web can open a new generation of AI-enabled sales technology products since AI is capable of processing massive volumes of data to produce insights or automate operations.

Due to all of these developments and prospects, AI will fundamentally change what it means to be a sales professional. One of the respondents claimed that in the past traditionally, a sales person has been effective if they can finish a lot of simple jobs rapidly. The role of a sales representative changes to one that requires more strategic thinking if AI eventually develops the ability to automate an increasing number of these repetitive tasks, such as sending cold emails. A good sales representative in this situation will have soft skills like effective communication, an understanding of customers' needs, and the ability to overcome objections. In other words, sales representatives would handle strategy and orchestration while AI would handle a lot of the execution of simple tasks. Sales managers will have better analytics at their disposal, allowing them to coach and lead their teams more effectively. In the end,

humans must fill the value gap left by computers, and AI will free salespeople's minds to concentrate on what they do best: interact with people and add value to their customers.

2.5.2 Challenges of Utilizing AI In B2B Sales

According to both the sales organizations and the sales technology providers interviewed, although AI has a significant potential to contribute to B2B sales, there are still numerous obstacles to overcome before AI can be strongly applied in B2B sales. The difficulties mentioned in the interviews might be divided into technical difficulties as well as difficulties related to culture and organizations. Organizational and cultural problems revolve around issues like the ignorance of AI among sales professionals, inaccurate beliefs about AI, and the need for change management to sway the resistance to new tools and methods of operation. On the other side, technological difficulties relate to problems with data and technical advancements in AI-enabled sales technology. Although the perspectives of sales technology providers and organizations were somewhat similar, particularly from a technological standpoint, technology providers did have slightly more in-depth insights.

2.5.2.1 Organizational and Cultural Issues

All of the interviewees acknowledged that there is a significant barrier to the technology's adoption in that there is still a lack of broad awareness and comprehension of AI among sales professionals. It was observed that the early adopters typically consist of larger software firms with adequate sales processes and high-quality data who are also naturally more tech-savvy and innovative. While most

salespeople find AI to be fascinating, they are now unsure of how to apply it to their daily jobs. It is the duty of sales technology suppliers to inform sales organizations about the possible advantages of adopting AI and to assist them in achieving those advantages. One of the interviewees suggested that as a provider of sales technology, they should invest more in raising sales organizations' awareness of the potential of AI so that many of the adoption challenges could be resolved.

Additionally, it was noted by numerous interviewees that salespeople's perceptions of AI are frequently untrue and out of step with reality. People may have unrealistic expectations as a result of examples of AI in consumer markets, whereas B2B sales is a highly complex and sophisticated environment that is more challenging to automate or improve with AI capabilities. Implementing AI is frequently seen as a matter of the future that can be ignored in the present and put off for consideration in the future, which is not entirely consistent with the capabilities and state of AI today. Additionally, salespeople frequently mistakenly perceive AI as being overly technical when in reality, business cases should drive AI implementation, and end users don't even need to be aware of the AI models underlying the tools they use.

The business case and procedures should always come first and must be in harmony for the AI-based sales technology to be effective, it was really noted several times in the interviews. Essentially, AI needs to be added value to the sales process that sales professionals are currently employing. One of the interviewees made the observation that while it is simple to describe what artificial intelligence (AI) could do in a PowerPoint presentation, it must be connected to the customer's business in order to determine whether it can actually add any value. In addition, one of the responders brought up the idea that it doesn't matter what exact technology is used, whether it be

deep learning or NLP, as long as the end user benefits. As soon as the use case is determined, the suitable technologies are accessible to choose from to meet that particular business difficulty. Since technological projects are more closely to fail if they are not driven by business needs, mentality ultimately matters more than technology. It was also mentioned that basic rule-based solutions are frequently adequate for specific use cases and that AI should not be created merely for the sake of implementing AI. Whether or whether a product employs AI is unimportant to the end user; all that matters to them is whether it makes their work simpler. The use of a new systematic process and a sales technology can be difficult when an organization's sales processes are so primitive, according to another sales technology provider who was interviewed.

It was noted that cultural obstacles are frequently encountered when deploying AI to support B2B sales, and this may necessitate even more change management than deploying any prior sales technologies. Many salespeople have strong beliefs in their traditional working methods and are self-assured in their assessments of the most effective course of action to take in their line of work. As a result, they might not be receptive to recommendations or suggestions made by AI since some of the decisions they make at work are emotional ones for them. The problem is that salespeople may not have enough faith in AI's recommendations to actually use them as a guide to help them make wiser decisions. One of the interviewees, for instance, brought up the fact that salespeople find it difficult to trust pricing recommendations made by AI and that they frequently place more trust in their own instincts than those of a machine. When making crucial decisions, acting on information or advice provided by AI carries

inherent risks, and doing so may prevent salespeople from feeling a sense of ownership over their own work.

Building trust in the machines will therefore be a common challenge for many B2B sales organizations. To convince salespeople that data and AI can actually aid them in their work and that AI does not aim to usurp their authority but rather to assist them in making better decisions, change management is necessary. It was mentioned that sometimes implementing new technology necessitates redefining the existing sales process, and AI necessitates that the redefined process be adhered to more strictly. Another vendor of sales technology who was interviewed added that it can be difficult to implement a new systematic process and use a sales technology when some organizations sales processes are so archaic.

The necessity of gaining the support of both sales leaders and representatives in order to implement such sales technology was repeatedly emphasized. A sales technology powered by AI will probably not succeed if sales leaders decide to implement it while the sales force does not see its value or is not prepared to adopt it. However, if sales leaders are not prepared to support the implementation and go through the necessary change management, the implementation is also more likely to fail.

The importance of ease of use for successful adoption was emphasized, as salespeople will find a workaround if they are uncomfortable using their tools. One of the interviewees effectively explained that implementation doesn't actually result in very many benefits if sales teams are not in favor of the idea because the product is difficult to use. However, manufacturers of sales technology have worked to make their products as simple to use as possible so that, technically, they typically work right out of the box and don't need any special AI knowledge from sales organizations to

implement. Cross-integration of sales tools was also mentioned as a crucial strategy for streamlining workflows and improving tool usability.

It was also mentioned that a problem with internal training may be the cause of the slow adoption of AI-based sales technologies. Salespeople must be adequately onboarded and taught about how the machine is trained and how its recommendations improve over time. Salespeople must be aware that, for the foreseeable future, improving AI will still depend on human intuition, and they must tell the machine whether its suggestions are good or bad. If salespeople are tenacious in their use of the technology, AI can improve over time when they buy into the long-term vision.

Last but not least, it was suggested that many sales organizations would benefit from having a better experimentation culture because the adoption of AI could happen most easily through small experiments and testing whether various AI applications could be helpful to them. Additionally, one of the interviewees mentioned that many companies' sales organizations are hesitant to invest in AI because it is a new field for them. Slow adoption of AI will result from businesses choosing not to experiment with it due to financial restrictions. When B2B sales organizations can demonstrate a profitable return on investment from deploying AI-based sales technology, which necessitates agile experimentation, it is likely that AI adoption will increase.

2.5.2.2 Technical Difficulties

In the majority of the interviews, it was stressed the significance of having enough high-quality data to use AI in B2B sales. This will be a major barrier for many sales companies before they can use AI in their sales processes. For instance, using a predictive lead scoring AI-powered application requires a specific amount of leads

from a specific time period before a machine learning can be trained to estimate the relevance of incoming sales leads. AI algorithms cannot develop into sufficiently dependable systems without a substantial amount of data. It was mentioned that most B2B sales organizations don't have access to enough data to make any sort of projections, and as a sales technology provider, it could be challenging to explain why different clients' models might perform differently based on their level of data maturity. The fact that AI is frequently more useful in consumer markets because there is a greater amount of customer data available regarding their purchasing behavior was also cited numerous times.

Furthermore, even when there appears to be a lot of data, it might not be accurate enough to be put to good use. This is particularly true when data has been manually entered into a CRM system by sales representatives, which is error-prone and some data points may not be filled out sufficiently. One of the technology providers who was interviewed brought up the fact that many businesses struggle with data quality because they need to transform their unstructured and disorganized data lake into standardized, canonical data sets in order for AI applications to make use of the information.

But sales technology providers have also begun to offer tools that let their clients easily check whether their data is good enough to be used with a specific AI application. Additionally, one of the sales technology providers we spoke with offered to process and normalize raw data for analytical purposes so that their client's sales organization wouldn't have to worry about improving the quality of their data and that the product could be implemented more quickly. In fact, instead of spending a lot of time rigorously fixing their data quality, sales organizations could begin experimenting with

even smaller amounts of data, which would speed up the adoption of AI in B2B sales. The use case, however, determines the quantity and quality of data needed.

Utilizing data and AI involves privacy and ethical concerns even when sales companies have the data in place. Several respondents brought up the fact that many B2B companies pay close attention to how their data is used and have specific information security needs that providers of sales technology must meet. Since a large percentage of the data in sales organizations is sensitive, it is advisable to access for example the email client of the customer sales organization without collecting the usernames or passwords of the individual employees. Dealing with data relevant to a firm poses no difficulty in terms of privacy, but data pertaining to specific contacts comprises personally identifiable information, which is more delicate and subject to laws like the GDPR. The challenge is how to strike a balance between security and privacy and effectiveness when AI is used on a more personal level and when people must have the option to reject automatic decision-making.

Due to its current technical limitations, AI can only currently be used for relatively straightforward rule-based tasks, whereas salespeople must have a thorough understanding of the specific sales context in order to perform many of the tasks that require tacit knowledge. One of the sales technology vendors who was contacted noted that while some of the AI models they created performed admirably on training data, they fell short in real-world scenarios because of the complex dynamics of B2B sales, which essentially depend on human comprehension. One of the biggest challenges for one of the sales technology providers interviewed was that enterprise customers have slightly different sales cycles and processes, which might necessitate more precise product configuration to meet each customer's specific requirements. It can be inferred

that AI is most helpful when data is aggregated because it can analyze an entire sales funnel more precisely than it can an individual sales process.

The interviews highlighted the potential of NLP for B2B sales, but it was specifically noted by some sales organizations that the technology is still not widely accessible for less-spoken languages. While other languages will eventually be supported, it is likely that international organizations where English is the official working language will advance with AI more quickly. Recent developments in deep learning and transfer learning, along with pre-trained language models made available by major technology providers, have been suggested as being able to help sales technology providers create multilingual NLP models of higher caliber. The use of NLP in B2B sales may increase soon, even though this opportunity has not yet been fully realized in the sector.

It was also mentioned that because people frequently mean different things than what they say, NLP may find it challenging to process subtleties in human language. For instance, if a potential customer responds, "I'll get back to you," that response may simply be a polite way of saying "no" in the sales world which a machine is not able to interpret as well as people. One of the challenges for implementing AI in a human-centric business context, such as B2B sales, is that there will always be aspects of human nature that AI cannot quite absorb. This was mentioned by one of the interviewees.

It will be difficult to implement AI in B2B sales because this type of corner case occurs outside of NLP use cases as well. In the end, a human must still assess the situation because there may be factors that the data does not yet reflect, and AI cannot account for these factors when making recommendations. Due to the complexity of B2B sales processes, it is necessary to properly handle a number of corner cases before

automating sales activities. Errors would be relatively unimportant in use cases like automatic information extraction, but in more complicated sales activities, incorrect recommendations or automated actions could seriously damage one's finances or reputation.

Last but not least, interviewees frequently emphasized the need for explainable AI, and this needs to be taken into consideration when AI-enabled sales technology products are developed. Sales professionals want to know why certain AI recommendations have been made, so AI-based sales tools need to be able to communicate and justify their decisions. If salespeople do not comprehend how AI generates its recommendations, as was mentioned in the interviews, they will revert to their old methods of conducting business. Although it is technically more challenging, creating explainable AI models is crucial for addressing the black box issue that makes it difficult to adapt AI for use in B2B sales.

CHAPTER 3

ARTIFICIAL INTELLIGENCE TOOLS FOR B2B SALES PROCESSES

3.1 Introduction to AI Powered Tools In B2B Sales Process

Time is equivalent to money for salespeople. Deals can be closed more often the more time you can save. And it's much better if you have expert analysts to interpret the data and really accurate data.

It used to take the effort of an assistant, a data scientist, a professional analyst, and decades of experience. However, these days all you actually need is a few excellent AI sales tools. With the help of these applications, you can automate time-consuming tasks, save a ton of money, and gather a ton of data.

In this section, we will focus on how AI tools are already changing the sales process and will continue to do so. You can see the Figure III.1 below, which I classified the artificial intelligence tools I found as a result of my research, specifically for each step of the 7 steps of the sales cycle, which was defined by Dubinsky in 1981 and is still up to date. As a result of my research, I would like to emphasize that artificial intelligence tools show high diversity in prospecting and pre-approach, which are the first two steps of sales, and that most large companies have adapted to these artificial intelligence tools.

Fig. III.1: Classification of AI Tools In 7 Steps Of Selling

AI Tools	7 Steps Of Selling						
	Prospecting	Pre-Approach	Approach	Presentation	Overcoming objections	Closing	Follow-up
Lusha	X	X					
Uplead	X	X					
SeamlessAI	X	X					
Crystal		X	X				
Exceed.AI			X				
Pitch				X			
Prezi				X			
Klue					X		
Crayon					X		
Super.ai						X	X
Peak							X
Smart Action							X

Now let's explain the AI tools.

3.1.1 AI Powered Tools In Prospecting&Pre-Approach&Approach Steps

Segmentation, targeting and positioning: The most significant advancements during the past ten years have been accomplished in this area. Artificial neural networks enable computers to categorize markets or clients using patterns that are invisible to humans. By using segmentation criteria, such as client lifetime value, sales representatives will be able to identify clusters that they can then target with the right messages, goods, and pricing.

Prospects qualification: The most time-consuming activity for a sales representative is qualifying a cluster's demands after determining the cluster's propensity to purchase . But today's tools can accurately identify the wants of the consumer owing to mathematical models and data stored in the CRM. After that, the tool will be able to provide a score to each prospect based on his actions to gauge his quality when the client is exposed to papers, newsletters, or webinars, for example.

Business-to-business organizations (B2B) frequently use the well-known Chatbot or Virtual Agent to interact with their clients. The prospect may be questioned by this software, who can also learn more about his requirements. Additionally, it enables

highly accurate data structuring into the systems without errors or omissions. A sales representative can step in if the conversation veers into hostile territory. To persuade the buyer, businesses also employ emailing campaigns and "nurturing" procedures. Then, AI may determine when it would be best to get in touch with the client (immediately following the customer reading a document, for example), and it will either alert the sales representative or suggest that the customer schedule a meeting with him.

3.1.1.1 Lusha

In 2016, Assaf Eisenstein and Yoni Tserruya founded Lusha with the vision of establishing the preeminent crowdsourced data community tailored for B2B sales professionals, often referred to as a "Waze for salespeople." Through its user-friendly and self-service solutions, Lusha endeavors to offer precise and easily accessible data to B2B salespersons across organizations of varying sizes. Sales experts can effectively identify, engage with, and secure potential prospects by utilizing Lusha's prospecting platform, browser extension, and API.⁷⁰

Fig III.2: Lusha Logo



Source: <https://www.lusha.com/>

⁷⁰ <https://www.lusha.com/>

Organizations can quickly find phone numbers, emails, and other contact information using Lusha's contact management system. The program may be used by sales and marketing professionals to enhance marketing efforts, boost income, and promote business expansion.

More importantly, Lusha may be used to identify the best candidates for hiring in a company for particular roles. Additionally, firms may contact potential candidates more quickly thanks to the program.

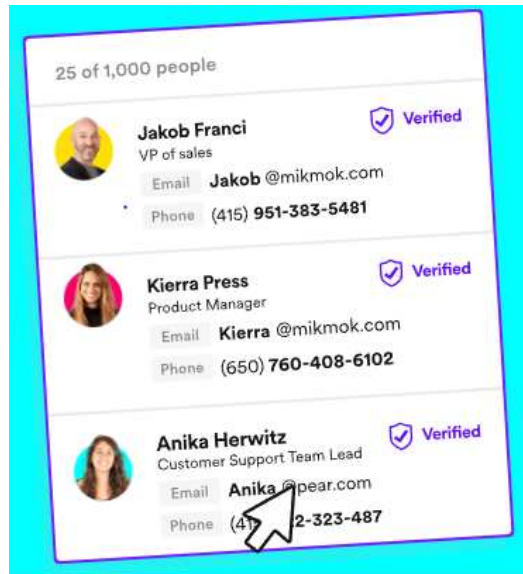
The program also provides customers with tools for enhancing and validating business profiles. Furthermore, users may discover and authenticate B2B contact information on social media sites like Salesforce and LinkedIn. The software's Chrome extension analyzes a profile page and provides users with the most recent information while adhering to essential data standards.

Users of the Lusha lead creation software may keep and modify contact information right in their CRM. Users may work more productively by simply syncing their current tech stack with recently obtained data. Furthermore, the program offers comprehensive data-enriched forms that businesses can leverage to convert leads into successful sales..

Sales professionals may also utilize Lusha to complete blanks in leads' business profiles and validate their legitimacy. Users may also validate email addresses, which provides them with information on the deliverability and caliber of contacts. Additionally, the program provides a thorough perspective of fraud threats while also providing exclusive data from multiple sources to assist organizations in identifying and minimizing possible consumer fraud.

Users may find reliable contact information with Lusha's help. Users may get contact information, eliminating the need to manually gather and validate phone numbers and email addresses. The precise searches offered by Lusha also make it simple for marketing and sales professionals to locate contacts.

Fig III.3: Validate Phone Numbers And Email Adresses Service Of Lusha



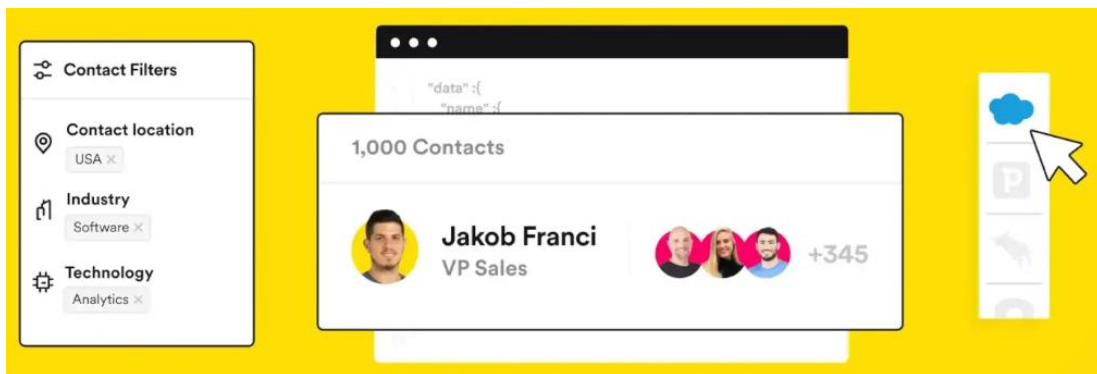
Lusha assists salespeople in enhancing marketing initiatives. Users of the program may create and implement efficient, specialized, and personalized marketing campaigns to increase conversion rates. Businesses may increase the number of leads they turn into sales and, as a result, increase their income with stronger marketing strategies.

Users may automatically update their salesforce leads with the Lusha software. To connect to users' Salesforce accounts, the app makes advantage of the Salesforce AppExchange. Users may also establish the automated updating of records and the update criteria, which will save hours of manual effort.

Users get access to correct account and contact information thanks to Lusha's Salesforce data integrity, enabling them to engage pertinent discussions at the right

moment. Users get access to comprehensive contact information such as business names, phone numbers, emails, and more when they qualify and identify inbound leads from inside Salesforce.

Fig III.4: Lusha's Salesforce Data Integrity

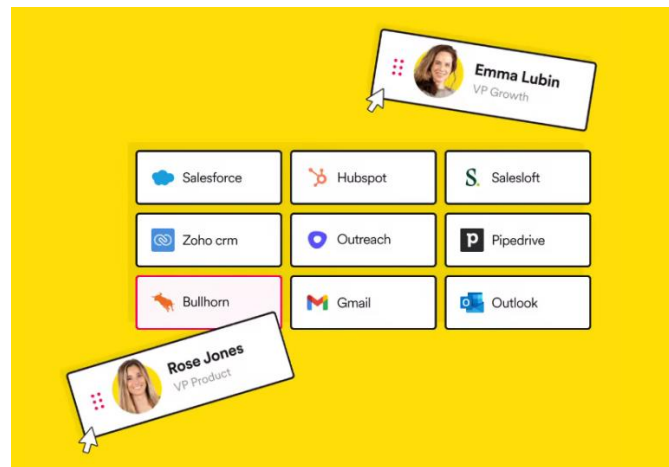


Source: <https://www.lusha.com/>

Through the identification of suitable prospects for its users, Lusha additionally aids them in optimizing the utility of their contact data. Additionally, the program enables users to develop lead scoring techniques for lead routing. This ensures that sales representatives can promptly establish connections with qualified leads.

Lusha provides users with data-enriched forms to assist accelerate the lead to sale process. For their prospects, users may use streamlined and enhanced lead collecting forms. Additionally, the forms automatically fill in fundamental qualifying questions like firm size and position, which aids users in reducing sales cycles. Additionally, the forms integrate with users' Hubspot CRMs, assisting users in collecting data from these forms. Additionally, the forms work with a variety of web builders and marketing tech stacks.

Fig III.5: Integration of Lusha with Hubspot



Source: <https://www.lusha.com/>

By utilizing a Contact API, Lusha's lead generating platform enables users to verify and enhance business profiles. The program collects missing information to complete users' corporate profiles. Users may also change domain names into full business profiles. Additionally, the platform provides customers with current business data to enhance their prospect lists.

Users get access to social media data and phone numbers and emails thanks to Lusha's contact API. Users also get access to entire company profiles via the API, including information on the number of workers, traffic ranking, social network accounts, and corporate summary.

The program automatically verifies users' identities using verification scores by comparing the data they provide with a risk repository. Users now get real-time access to identification data that is market-leading, which makes it easier for them to spot and fix data inconsistencies. When customers join up, the program also pre-populates identification data components and corrects and verifies missing or incorrect data.

With a variety of CRMs, Lusha's lead generating software may be integrated. Users now have the capability to automatically update data in their Customer Relationship Management (CRM) systems, thanks to this feature. Users may export data to Google Sheets and have the CRM automatically update contact information. The software also helps businesses with their sales operations by making it simple to update their database with new company and contact information.⁷¹

3.1.1.2 Uplead

The founder of UpLead, Will Cannon, previously operated a B2B prospecting business and found significant dissatisfaction with the prevailing approach. This approach often involved grappling with inefficient data, dedicating excessive time to list cleaning rather than core business activities, resulting in growth impediments for both the business and its clients, leading to frustration. Even with the advent of technological advancements, existing tools failed to provide a genuine resolution. Many sales intelligence companies resorted to merely extracting web records and labeling it as prospecting.

This discontentment served as the impetus for the creation of UpLead. The founder and their team set out to address the very problem they personally encountered. Their emphasis doesn't lie in faster scraping or accumulating an excess of contacts; instead, they meticulously test, validate, and curate leads, sparing users from this cumbersome task.⁷²

⁷¹ <https://thinkbiganalytics.com/lusha>

⁷² <https://www.uplead.com/>

Fig III.6: Uplead Logo



Source: <https://www.uplead.com/>

Uplead stands as a B2B contact database solution designed to aid companies in crafting bespoke contact lists and generating pre-qualified leads, incorporating an email verification feature. It has a data enrichment feature that enables sales teams to look for prospects based on their geography, industry, revenue, and size as well as transfer critical lead data to pre-existing sales CRM solutions for simplifying real-time opportunity interaction.

Uplead's email finding, account-based marketing, bulk downloads, search, contact list building, and technographic segmentation are among its key features. It offers a Google Chrome plugin that companies can use to automatically collect lead information from LinkedIn or company websites, including locations, sizes, names, contact information, and technology. Also available on the site is a lookup feature that administrators may use to find businesses utilizing a specific technology.

Numerous third-party programs, like Zapier, Salesforce, Copper, HubSpot, Reply, and others, are easily integrated with Uplead.⁷³

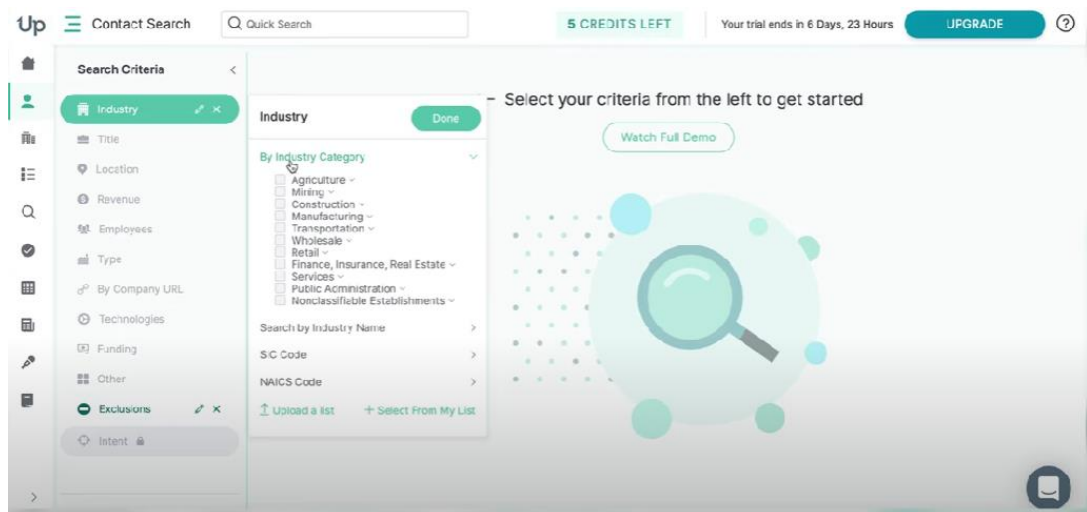
Uplead's operational methodology significantly deviates from conventional practices, encompassing the meticulous collection, analysis, and curation of extensive public documents to construct a comprehensive dataset comprising both primary and

⁷³ <https://www.softwareadvice.com/marketing/uplead-profile/>

secondary data.. Data is categorized and evaluated using machine learning algorithms, and then old or erroneous information is weeded out using human qualification. In order to ensure the highest data quality for clients, UpLead employs rigorous real-time email verification and conclusive testing procedures.

Following the acquisition of enriched data, UpLead offers a suite of tools aimed at enhancing prospecting efforts. The central tool, the Prospector Tool, empowers users to access a substantial reservoir of verified leads and apply advanced filters such as business type, size, and revenue to refine their list of prospective targets.

Fig III.7: Uplead Prospector Tool



Source: <https://www.uplead.com/>

Profile Enrichment, which offers extensive profiles, and the Intent Data tool, which analyzes consumption trends for improved company growth potential, are additional capabilities.

Fig III.8: Intent Data Tool

CONTACT	COMPANY	TITLE	EMAIL
<input type="checkbox"/> Matt Canon	Microsoft	Business Develop...	matt@microsoft.com
<input type="checkbox"/> Mike Warren	Tesla	Director of Recru...	mike@tesla.com
<input type="checkbox"/> John Carter	Salesforce	Manager of Sales...	john@salesforce.com
<input type="checkbox"/> Sophie Moore	Walmart		
<input type="checkbox"/> Jeremy Matthews	Slack		
<input type="checkbox"/> Katie Corl	Zendesk		
<input type="checkbox"/> Sam Owen	Microsoft		
<input type="checkbox"/> Nathan Harper	Salesforce		
<input type="checkbox"/> Lily Woods	Slack		
<input type="checkbox"/> Larry Norris	Workday		
<input type="checkbox"/> Patrick Larson	SendGrid		
<input type="checkbox"/> Jeremy Powell	Intercom		
<input type="checkbox"/> Andy Smith	Slack		

Source: <https://www.uplead.com/>

Of notable importance is the Intent Data feature, which identifies leads actively seeking solutions congruent with a user's offerings, thereby enhancing the likelihood of successful closures. Furthermore, the Technographics tool identifies entities utilizing competing or complementary technologies, presenting opportunities for strategic sales engagement. UpLead's approach seeks to provide a comprehensive and innovative solution to the challenges faced in B2B prospecting, leveraging advanced technology and curated data to optimize lead generation efforts.

UpLead places a higher priority on data accuracy than providing the biggest database. The part of prospecting that takes the most time is frequently cleaning lists.

Real-time verification underscores UpLead's unwavering commitment to maintaining data cleanliness. Prior to integration into users' CRMs, the platform rigorously validates data accuracy. This strategic approach yields cleaner lists, fewer bounces, and a higher volume of substantial contacts with genuine leads. UpLead acts as

a safeguard against salespeople pursuing unproductive leads, ensuring that only precise and qualified leads make their way into the CRM system.

3.1.1.3 Seamless AI

Seamless.AI is a platform designed to assist professionals worldwide in expediting the cultivation of new connections, uncovering opportunities, and broadening revenue streams. The overarching objective of the enterprise, encompassing not only its workforce but also its clientele, collaborators, and advocates, is to enhance the overall quality of life for individuals.

Under the leadership of Brandon Bornancin and a cadre of entrepreneurs, the central mission revolved around aggregating global connections and enhancing their utility and accessibility.

Fig III.9: Seamless AI Logo



Source: <https://seamless.ai/>

The founders understood the need of developing beneficial relationships with a variety of people for professional achievement based on their own outbound selling experiences. But the prospecting and relationship-building environment as it is now is defined by labor-intensive, expensive, and fragmented operations tainted by outdated technology and data input techniques.

Seamless.AI envisions a world where effortlessly reaching target audiences, fostering meaningful connections, and acquiring customers become attainable endeavors. The

development of software solutions, geared towards simplifying these processes for professionals across diverse sectors, serves as the pathway to realizing this vision.

The organization's overarching objective, centered on enhancing the well-being of various stakeholders, serves as the compass guiding their decision-making processes. This philosophy attracts a talented and diverse pool of individuals who consistently uphold these principles in their interactions.

Seamless.AI, in essence, operates as a management system, offering comprehensive support to organizations seeking to streamline a spectrum of operations encompassing contact searches, market research, lead conversion, data importation, and more, all within a unified platform. The pitch research tools allow team members to do account research using a range of filters, such as email, domain, company, location, contact information, and phone.

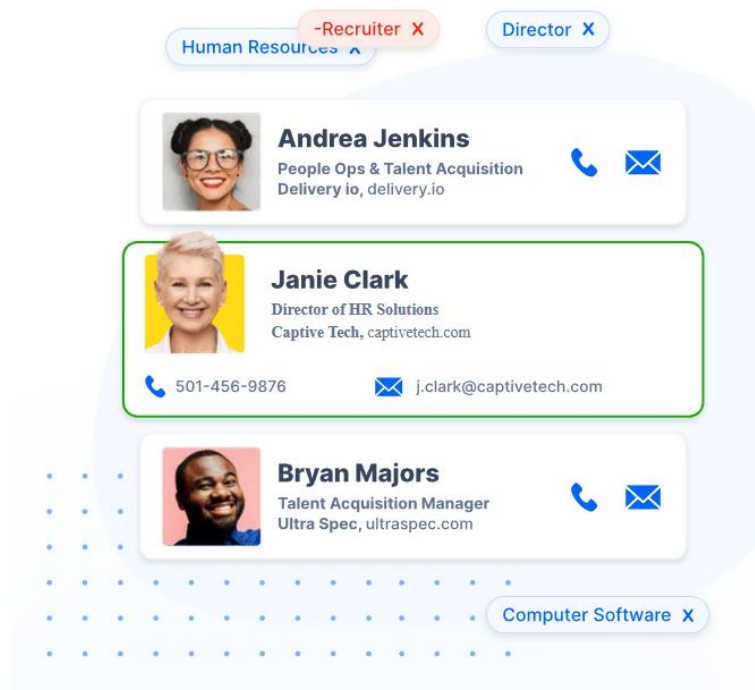
Seamless AI Staff members may utilize AI to have contacts' name, firm, designation, email address, and phone number automatically entered and updated in the system's built-in address book. Staff employees may follow prospects' marketing campaigns across a variety of channels, including PPC, content, social media, mobile, and SEO. Additionally, users may leverage common connections to generate B2B referrals based on relevant contacts, accounts, industries, income, technologies, and staff sizes.

Seamless.AI makes it easier to integrate several third-party products, like Microsoft Dynamics, HubSpot, Google Sheets, Infusionsoft, LinkedIn.

The platform facilitates the creation of sales pipelines, accelerates sales cycles, and enhances deal closures on a large scale by facilitating direct engagement with target clients. The company's aim is to simplify the achievement of sales targets by providing comprehensive sales prospecting software.

The platform provides features including automated list-building, creating sales pipelines, finding target accounts using firmographic criteria and business insights, and locating target accounts. The platform's AI-driven recommendations help proactively engage with potential customers.

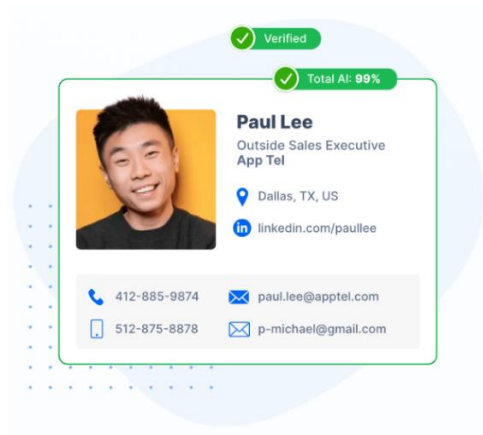
Fig III.10: Potential Customer Provided by Seamless AI



Source: <https://seamless.ai/>

Through data verification procedures leveraging AI and machine learning, Seamless AI's emphasis on accuracy is demonstrated, assuring the availability of trustworthy B2B mobile phone numbers, email addresses, and direct dialing. By providing direct access to contact and company profiles with verified contact information, the platform facilitates direct connection with buyers.

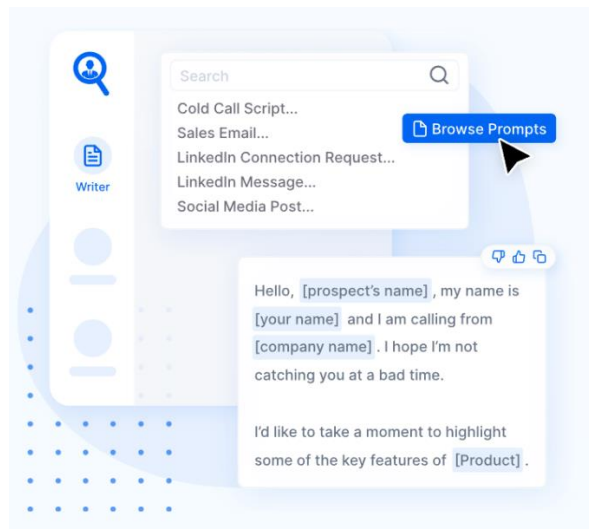
Fig III.11: Validate Phone Numbers And Email Addresses Service Of Seamless AI



Source: <https://seamless.ai/>

Real-time data validation, covert sales intelligence for creating customized message, and buyer intent data detection of prospects who are ready to buy are examples of advanced features. Furthermore, the software offers lead generation automation, tracks job changes to identify new sales opportunities, and incorporates AI-powered content creation capabilities.

Fig III.12: AI Powered Content Creation by Seamless AI



Source: <https://seamless.ai/>

In addition, Seamless.AI facilitates data enrichment to prevent data degradation, resulting in more accurate and up-to-date contact and company information. Accurate data supply across current systems is ensured by the platform's connectivity with a variety of tech stacks, including CRMs, ATSS, and CSV systems.

Essentially, Seamless.AI's comprehensive suite of tools optimizes and enhances sales prospecting efforts, thereby contributing to superior outcomes, heightened productivity, and the nurturing of lucrative relationships.⁷⁴

3.1.1.4 Crystal

Crystal (also known as Crystal Knows) was founded in 2015 and has its headquarters in Nashville. Notable investors such as Salesforce, HubSpot, and Birchmere Ventures support the company. Its main objectives are to improve people's self-awareness and encourage more effective interpersonal communication.

Crystal's software platform distinguishes itself by its capacity to analyze a substantial volume of web data points. Through this analytical approach, the platform accurately discerns an individual's objectives, communication preferences, and various behavioral attributes.

The platform's array of features encompasses enhanced content creation, accelerated trust-building in novel social interactions, and more efficient communication. Notably, widely-used sales and marketing systems such as Salesforce and HubSpot seamlessly integrate with Crystal.

Crystal's goal is to provide personality information to B2B sales professionals so they may better understand their clients and meet their individual demands.

⁷⁴ <https://seamless.ai/>

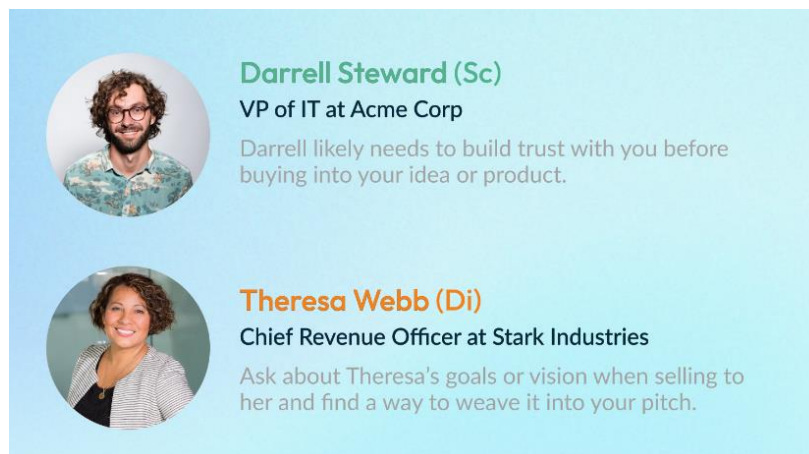
Fig III.13: Crystal Logo



Source: <https://www.crystalknows.com/>

Effective prospect research must include the process of getting to know a person beyond their name. From the very first conversation, Crystal simplifies the process of identifying a prospect's core personality traits and motivations.

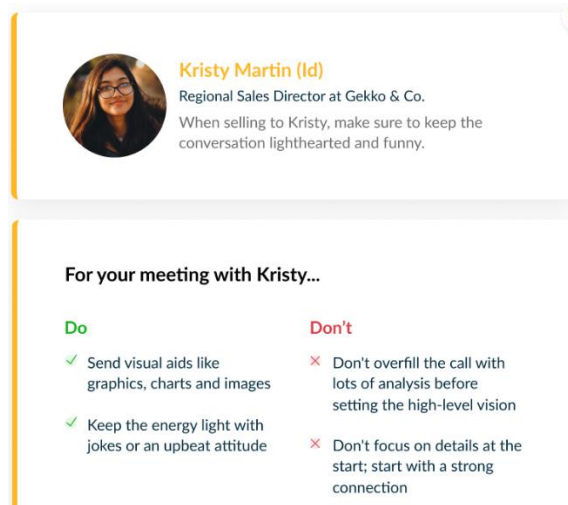
Fig III.14: Prospect's Personality Features by Crystal



Source: <https://www.crystalknows.com/>

Empathy becomes a crucial quality in securing business in a competitive climate, particularly in a remote-first one. By helping to understand how consumers naturally prefer to interact and make choices, crystal facilitates the customization of sales strategies to suit consumers' preferences.

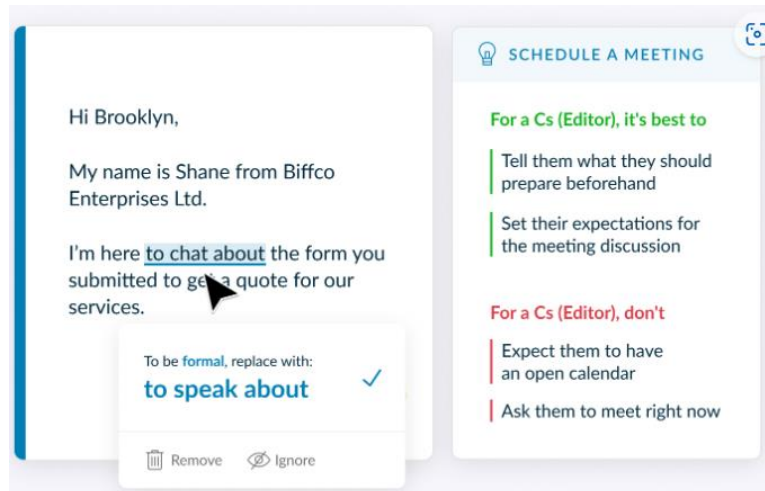
Fig III.15: Customer Personality Analysis by Crystal



Source: <https://www.crystalknows.com/>

This calls for the capacity to increase meeting reservations by customizing pitches in accordance with the distinctive words, phrases, style, and tone that resonate with a range of people. Additionally, Crystal provides tailored playbooks suitable for diverse circumstances, giving sales professionals the assurance they need to skillfully handle objections.

Fig III.16: Customize Phrases Based On Personality By Crystal



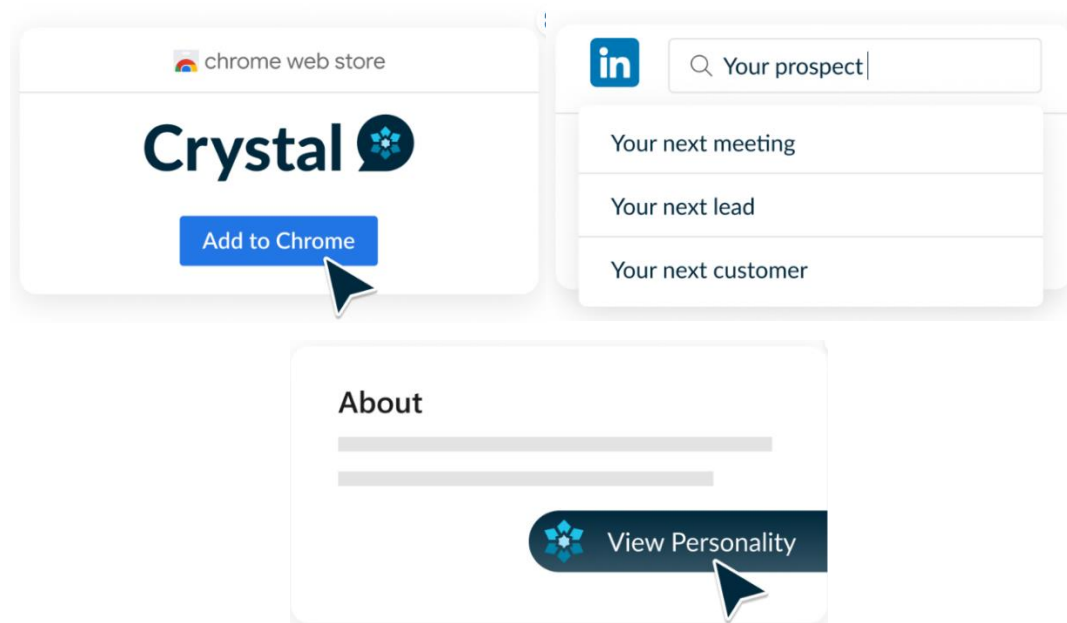
Source: <https://www.crystalknows.com/>

Additionally, the platform improves the caliber of data obtained through discovery calls. Leads can be approved or dismissed quickly and correctly by knowing a prospect's preferred questioning style based on their personality.

In order to start this process, Crystal equips sales teams with specialized training in speaking, writing, and selling tactics catered to various buyer personality types.

Additionally, Crystal provides a Chrome plugin for smooth Chrome interaction. Users may receive DISC personality insights by going to a LinkedIn profile and utilizing the addon, allowing conversation to be tailored to different personality types. Further assisting in real-time tailoring of email content to match a buyer's natural style is the Crystal Writing Assistant.

Fig III.17: Personality Insights By LinkedIn Profile



Source: : <https://www.crystalknows.com/>

In summary, Crystal's prospect research tools empower you to gain a comprehensive understanding of your prospects' personalities, thereby enhancing your

communication strategies and ultimately leading to more fruitful and productive sales interactions..⁷⁵

3.1.1.5 Exceed AI by Genesis

Consider the prospect of pursuing leads with unwavering determination, where timely follow-ups occur automatically, day or night, alleviating the burden of repetitive tasks and extensive email exchanges. This concept comes to fruition through the implementation of a Virtual Sales Assistant.

Exceed.ai, a Conversational Marketing platform driven by artificial intelligence, provides in which sales and marketing teams assess, rate, and cultivate leads. This technology liberates valuable time, enabling teams to focus on fostering connections with prospects, engaging in meaningful conversations, fostering innovation, and reinforcing strategic corporate initiatives.

Exceed.ai's origins may be traced to a relevant problem that first gained attention a few years ago, as noted by the founders Ilan and Yaron. Unmet demand that businesses were struggling with was the capacity to continuously follow up with all leads. Even when attempts were made, follow-up frequency frequently fell short. This resulted in the lead generating industry suffering enormous financial losses, missed sales opportunities, and lead chilling. Businesses that hired sales development agents to conduct follow-ups were successful, but growing this strategy proved to be prohibitively expensive.

Yaron and Ilan used one of today's most cutting-edge technologies, modern artificial intelligence, to combat the threat. The end result was the development of an

⁷⁵ <https://www.crystalknows.com/>

Augmented Workforce for Marketing & Sales, a comprehensive approach that includes engagement, conversation, consistent follow-up, qualification, and the scalable scheduling of meetings with prospects.

In the realm of lead management, Exceed.ai emerges by harnessing AI to construct an augmented workforce that, sustains dialogues, and elevates lead engagement.

Fig III.18: Exceed AI by Genesis Logo

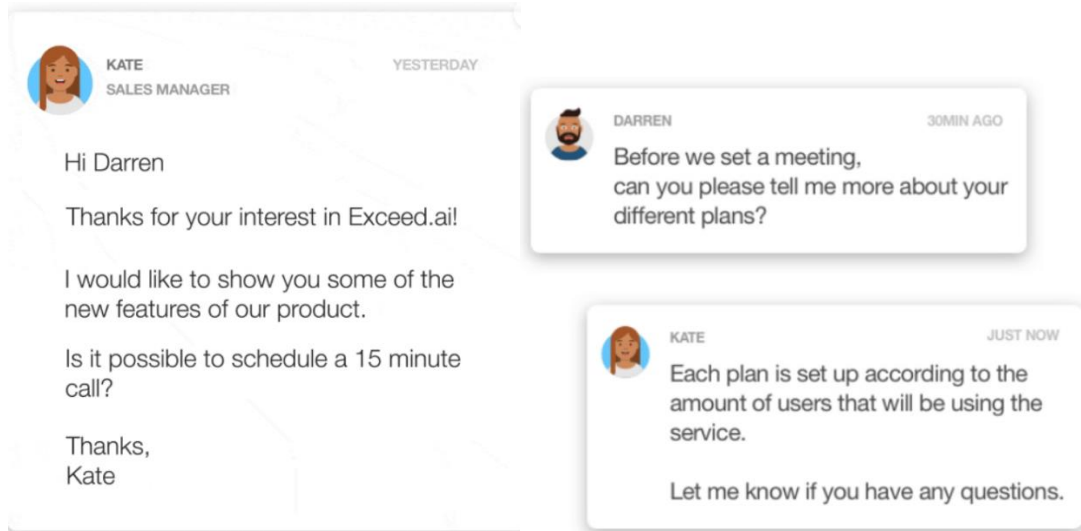


Source: <https://exceed.ai/>

Utilizing conversational AI's capabilities, the Virtual Sales Assistants program effortlessly integrates your sales and marketing teams. Its main goal is to improve lead conversion rates and raise the efficacy of lead qualifying, which will ultimately lead to more meetings being arranged. This is accomplished by using automated, tailored, and contextually appropriate replies and follow-ups.

Through the use of channels like emails or forms that resemble chat rooms on your website, Exceed's AI-driven sales assistant engages prospects in a customized and friendly way. Its responsibilities include handling requests, handling objections, and managing interactions and responses, such as enquiries and objections. Furthermore, it effectively compiles and saves essential information for incorporation into your customer relationship management (CRM) system.

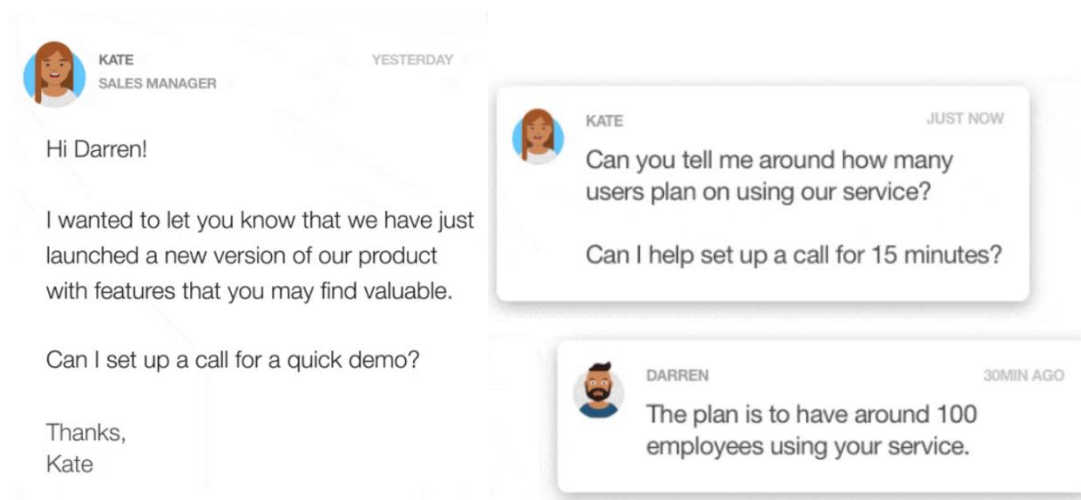
Fig III.19: Exceed AI-driven Sales Assistant



Source: <https://exceed.ai/>

The program is also in charge of organizing intelligent follow-ups, automating lead nurturing procedures, and directing prospects through the sales funnel. These AI sales assistants may qualify leads in accordance with your predetermined playbook by adopting the persona of a virtual Sales Development Representative (SDR), permitting discussions that resemble human-to-human interactions.

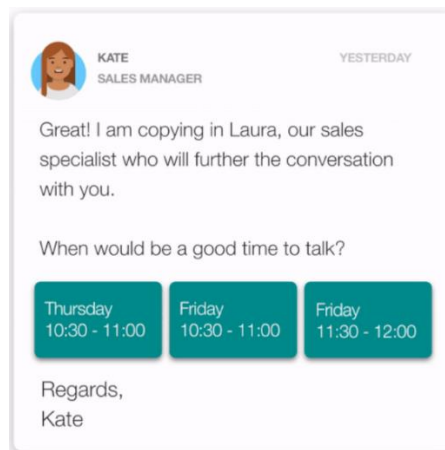
Fig III.20: Qualifying Leads by AI Sales Assistants



Source: <https://exceed.ai/>

The virtual sales assistant passes the leads to your sales personnel when they have been successfully qualified, setting them up for close. By integrating the calendar, it even makes it easier to schedule meetings. This thorough procedure highlights the Virtual Sales Assistants software's effectiveness and adaptability in maximizing lead engagement and conversion.

Fig III.21: Schedule Meetings by Virtual Sales Assistants⁷⁶



Source: <https://exceed.ai/>

3.1.2 AI Powered Tools In Presentation Step

Through a variety of technologies, artificial intelligence may assist sales representatives with their presentations of products or solutions.

AI can recognize the key concepts or themes in a presentation and suggest a modified format to increase its effect. The technologies can provide insights to a sales representative giving a presentation thanks to NLP and facial recognition. He will receive a signal, allowing him to adjust his posture and rhythm to grab the customers' attention if he speaks too quickly, reads his slides too often, doesn't let the customer speak for long enough, or isn't smiling. The most effective actions that result in

⁷⁶ <https://exceed.ai/>

conversions can also be determined by AI. The AI can also determine which actions have the greatest influence and result in conversion.

3.1.2.1 Pitch

Pitch is dedicated to leveraging impactful presentations to transform intricate concepts into readily comprehensible language. The inception of Pitch was driven by the aspiration to deliver a comprehensive presentation platform, with the overarching objective of fostering optimal ideation within every team.

This endeavor has the potential to empower creators in securing support for ideas, amplifying compelling narratives to advance the growth of distinguished enterprises, and fostering global team cohesion across diverse groups.

Pitch provides a transition from idea to the finished presentation by providing an integrated platform embracing the complete presentation production. With the help of this integration, teams can easily move from a draft to a presentation while allowing presenters and audiences to interact from any location at any time.

It was founded in 2018 as a result of the eight co-founders' common enthusiasm for creating beautiful and enjoyable products.

Fig III.22: Pitch Logo



Source: <https://pitch.com/>

Pitch is a thorough platform made to improve group communication and presentation development. It includes features designed to keep branding and messaging consistent while promoting simple sharing and content creation. The following functionalities are built into the platform:

Professional Templates: Users have access to a carefully chosen collection of presentation templates that may be easily customized.

Slide Styles: By adding materials to Pitch, ensuring presentations are aesthetically coordinated, and avoiding problems like missing typefaces or conflicting colors, you can maintain brand consistency.

Versatile Templates: Create reusable templates to speed up the development process for a variety of documents, including pitch decks, sales presentations, and team meetings.

Effortless Collaboration: Live video collaboration streamlines teamwork by providing smooth conversations, meetings, and interactions—even from a distance.

Real-time Editing: Teams may modify and evaluate presentations together in real time without exchanging files, increasing efficiency.

Project Management: Manage presentations similarly to projects by establishing statuses, distributing duties, and recognizing accomplishments.

User-friendly Editing: The user-friendly editor in Pitch puts the message first and allows for effective production with choices for both designers and non-designers.

Smart Formatting: Users are empowered with quick formatting choices to make accurate adjustments effectively without the need for design help.

Keyboard Efficiency: Users are given the ability to use keyboard shortcuts to interact with workspace objects, manage information, and collaborate.

Interactive Presentations: Pitch provides dynamic presentations with engaging interactive features including rich media, data integration, and embedded content.

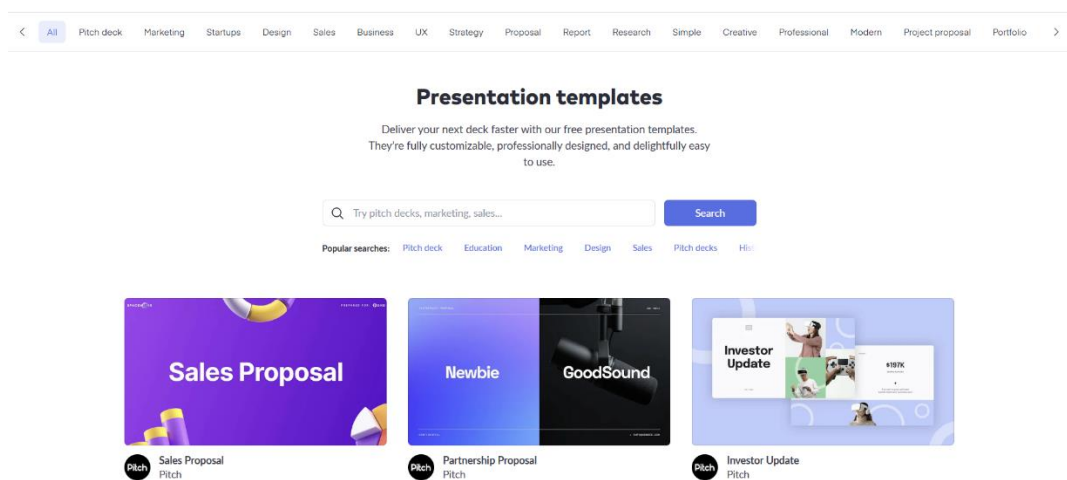
Data-driven Stories: The sharing of insights is made simpler by the live updating of charts and tables made possible by integration with data sources.

Flexible Delivery: Presentations can be published on websites, blogs, and corporate knowledge bases or given online using systems like Zoom.

Real-time Sharing: Pitch employs links, which update instantly across all instances when modifications are made, as opposed to conventional file sharing.

Upcoming Analytics: The ability to assess audience participation will be a forthcoming feature, enabling presentations to be continually improved.⁷⁷

Fig III.23: Presentation Templates By Pitch



Source: <https://pitch.com/>

⁷⁷ <https://pitch.com/>

3.1.2.2 Prezi

The business has been committed to developing virtual presenting solutions since 2009 that enable effective interaction and teamwork between presenters and their audiences. Prezi Video is an application that empowers users to create professional video presentations featuring their visuals displayed alongside them during live video conferences or recorded videos.

A crucial element of the contemporary hybrid workplace, Prezi Video interacts easily with well-known video conferencing and collaboration systems like Zoom, Microsoft Teams, Google Meet, Slack, and Cisco Webex.

Since its 2009 founding in Budapest, the business has evolved into a multinational, virtual-first organization with employees scattered in countries including Hungary, the USA, Latvia, Germany, and Mexico.

Fig III.24: Prezi Logo



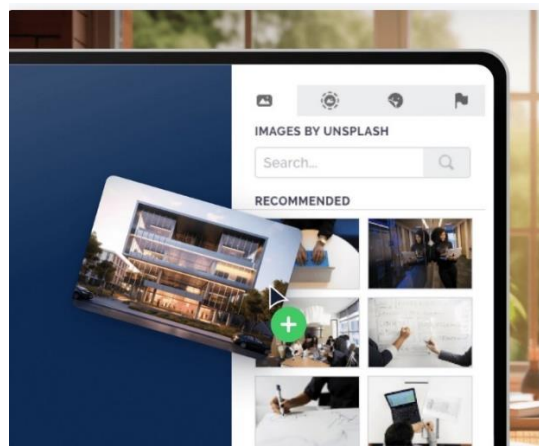
Source: <https://prezi.com/>

Presenters can effectively distinguish themselves and deliver presentations that captivate and maintain the audience's attention by harnessing the features offered by

Prezi. Prezi's non-linear presentation capabilities provide speakers the ability to stay relevant and actively engage their audience.

The platform offers users the tools and knowledge they need to create presentations that seem professional, including the option to employ brand-consistent typefaces, colors, and logos. By using pre-designed components, Prezi makes the process of creating presentations more convenient. Users can commence their presentations with professionally designed templates, offering a refined and well-crafted starting point.

Fig III.25: Templates Of Prezi



Source: <https://prezi.com/>

Prezi offers a Presenter View during presentations that shows notes, a timer, and cues to help speakers deliver their material smoothly. Analytics can provide insightful information about viewer engagement and time spent on particular frames. Users of Prezi may share their presentations through revocable links that can be disabled at any moment, giving them flexible sharing choices.

Prezi helps presenters to provide compelling information during virtual meetings by showing both themselves and their visual materials on screen at once. Prezi enables virtual presentations, whether using video conferencing capabilities for live

presentations or recording talks for later distribution.⁷⁸

Fig III.26: Presenter View During Presentations



Source: <https://prezi.com/>

3.1.3 AI Powered Tools In Overcoming Objections Step

Any stage within the sales funnel presents a "opportunity" to address objections. Sales Representatives may now, however, rely on systems that can provide them battlecards in real time. For instance, Klue or Crayon make this feasible. This is especially helpful nowadays because clients have easy access to a wealth of information online and can compare products quickly.

The AI will be able to deliver a dynamic pricing and establish the appropriate tariffication for each customer by examining the data from previous collections, competitors, and client behavior.

⁷⁸ <https://prezi.com/>

3.1.3.1 Klue

By providing a platform, Klue helps businesses to better understand the actions of their rivals and improve their strategy. The platform offers an ongoing, dynamic updating of information on rivals, assisting in the enhancement of competitive positioning and commercial results.

Klue has capacity to gather, arrange, and communicate market information from both internal and external sources. This includes information from multiple workplace communication channels including emails, chats, papers, and presentations as well as information from outside sources like web footprints and the digital activity of rival businesses and their employees.

Klue's mission is to enable organizations to take well-informed decisions by combining scattered data pieces from within the company and from the larger internet environment. The platform aims to tackle the issue of missed business opportunities brought on by a lack of understanding of competition actions. Klue intends to facilitate effective competitive intelligence gathering, curation, and dissemination by supporting the integration of internal and external data, encouraging its practical use across various teams inside the organization.

Fig III.27: Klue Logo



Source: <https://klue.com/>

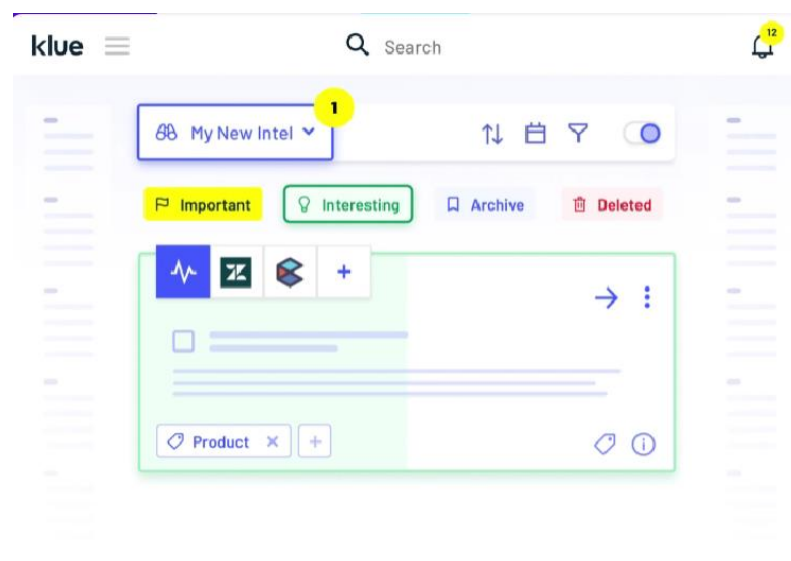
Making Decisions With Connected Competitive Intelligence

To facilitate well-informed decision-making across various organizational sectors, Klue offers a solution for the efficient collection, management, and dissemination of competitive information. The platform expedites the acquisition and distribution of relevant data through integration with email, web, mobile, and Salesforce systems, across a range of communication channels.

Tracking of competitors centrally

Klue diminishes the likelihood of overlooking critical information by employing AI-driven algorithms to amalgamate data from multiple sources. This strategic approach provides the extraction of competitive intelligence, which is subsequently centralized in a single location for easy access.

Fig III.28: Competitor Tracking Tool



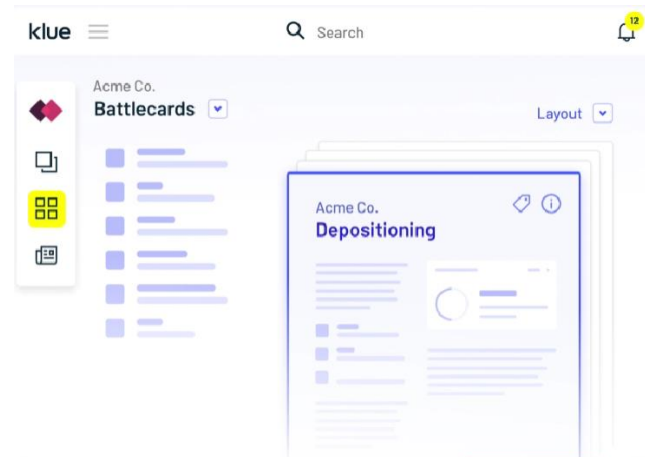
Source: <https://klue.com/>

Battlecard-enhanced Distribution

Klue provides real-time intelligence distribution through battlecards, newsletters, self-serve tools, and connectors to enable efficient assistance for sales teams. With

the aid of timely information, this strategic approach makes sure that sales professionals are better able to interact with consumers.

Fig III.29: Battlecard Distribution By Klue

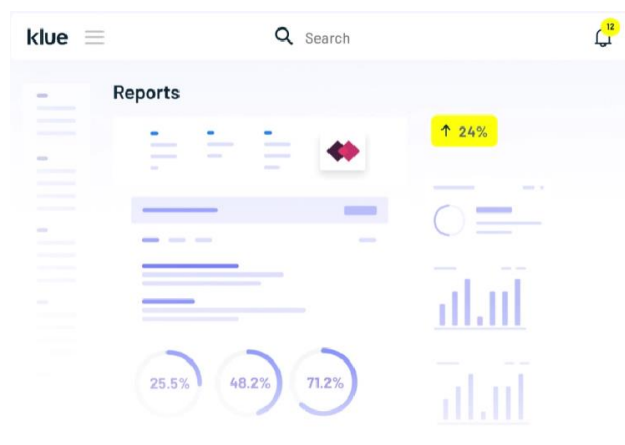


Source: <https://klue.com/>

Measurable Effects and Insights

By tracking variables including revenue impact, battlecard usage, and competitive win rates, Klue assists in assessing the effectiveness of competitive initiatives. This comprehensive analysis provides valuable insights into the return on investment (ROI) of competitive activities, assisting businesses in addressing competitive challenges.

Fig III.30: Reports By Klue



Source: <https://klue.com/>

Workflow Simplification and Scalability

The platform enables quick modifications to dynamic sales battlecards with simultaneous dissemination and a scalable process for competitive information. This effectiveness enhances the distribution of information and upholds consistency across many platforms.

Real-Time Insights for Strategizing

By tracking rival websites, keywords, content, and news in real-time, Klue enables businesses to improve their go-to-market strategy. Such knowledge enables companies to improve their positioning strategies and maintain competitiveness.

Deal Competitiveness

Klue ensures that sales teams are thoroughly prepared for transaction negotiations by furnishing them with up-to-date industry trends, competitive insights, and tactics. The seamless dissemination of competitive materials enhances team preparedness and responsiveness.

Integration with Current Workplaces

As a result of Klue's integration with essential technologies currently in use inside a business, competitive intelligence is easily available through well-known platforms.

Determine the Competitive Revenue Gap

The platform makes it possible to determine the Competitive Revenue Gap and offers insights into the potential revenue impact that may be attained via initiatives to increase competition.

In summary, Klue offers a holistic and integrated solution for enhancing decision-making by efficiently gathering, disseminating, and analyzing competitive information across an organization.⁷⁹

3.1.3.2 Crayon

By furnishing insights into the competitive landscape, Crayon presents a comprehensive platform designed to aid revenue teams. This technology facilitates a comprehensive understanding of competitors, both in online and offline arenas, aiming to enhance competitive strategies and stimulate revenue growth.

Fig III.31: Crayon Logo



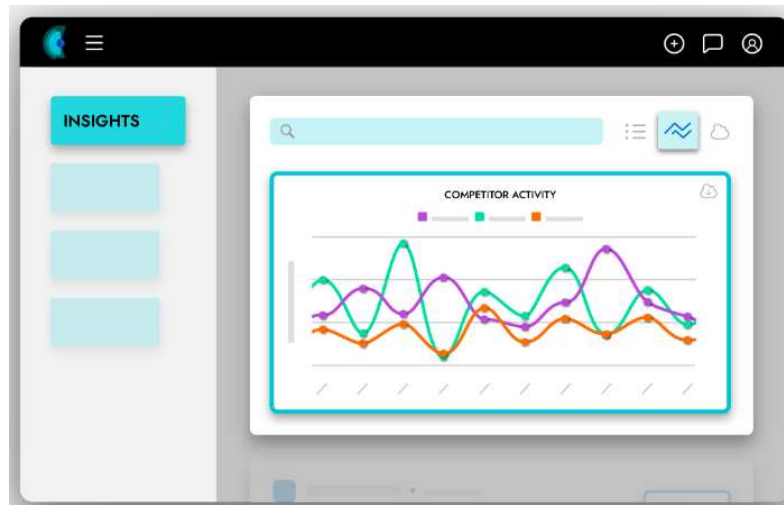
Source: <https://www.crayon.co/>

Competitive Intelligence

Crayon offers simple access to competitive information via a single platform. The use of sophisticated artificial intelligence and machine learning algorithms allows revenue teams to concentrate on practical insights that have an impact on their plans by proactively identifying relevant data from a variety of sources. Real-time insights mixed with historical studies offer a thorough picture of market trends and prospects.

⁷⁹ <https://klue.com/>

Fig III.32: Industry Insights By Crayon



Source: <https://www.crayon.co/>

Increasing Potential Revenue

Crayon facilitates the efficient sharing of pertinent data thanks to a simplified, scalable platform that is available to all team members. The reach of competitive intelligence is expanded by integration with well-known platforms like Slack, Teams, and Salesforce, and organization-specific alerts and newsletters may be created to meet specific needs.

Using Intelligence to Generate Income

Revenue teams get a competitive edge by offering crucial insight at key points in the sales and renewal cycles. The platform places a focus on important indicators like win rates and affected revenue, encouraging a competitive intelligence mindset across the whole firm.

Tracking and Analysis

Crayon makes it possible to track the digital footprints of rivals by catching updates from websites and other sources. The platform automatically monitors more than 100 forms of intelligence from various data sources, ensuring that enterprises are aware of

key events such as price adjustments, messaging changes, team changes, and other changes.

Analysis and Insights

Users can use that time to do strategic competitive analysis instead of laborious research. In order to spot patterns, Crayon provides viewpoints that range from weekly to annual, while word clouds reveal message tactics. The examination of subcategories gives several departments useful information.

Making use of competitive intelligence

Crayon may draw attention to important results, insights can be categorized, highlighted, pinned, and remarked upon. Insight sharing by email, Slack, PDF, or CSV export enables more thorough analysis and reporting. Distributing well chosen competitive knowledge is made simple with customizable reports, battlecards, and weekly digests.

In short, Crayon's platform provides a comprehensive approach to boosting competitive strategies, empowering revenue teams, and producing measurable company results.⁸⁰

3.1.4 AI Powered Tools In Closing&Follow-Up Steps

After overcoming objections in the sales process, the closing stage turns into a rather simple process that doesn't reap significant benefits from the use of AI. Instead, automating order processing and fulfillment is AI's major and most important potential.

⁸⁰ <https://www.crayon.co/>

The sales representative is responsible for filling out the order at the follow-up and ensuring a follow-up. A lot of software may assist with administrative tasks like automatically putting up a purchase order based on the content of an email and then, with the use of APIs with a supply chain management system, entering the order of materials, manufacturing, and product delivery. A virtual assistant can get in touch with the consumer to confirm everything is in order when they get their order.

Artificial neural networks will then be able to identify up-selling and cross-selling possibilities based on the data from the CRM system. Then, sales representatives will be in a position to approach the consumer at the appropriate time and present them with fresh options.

3.1.4.1 Super.ai

A new Intelligent Document Processing (IDP) solution from super.AI extracts data from various document formats by utilizing the power of Large Language Models (LLMs). The platform enables on-demand human-in-the-loop (HITL) evaluation by seamlessly integrating cutting-edge AI models and the Data Processing Crowd.

The creativity used to create and implement machine learning algorithms at TrueMotion is what inspired super.ai's technology.

Fig III.33: Super.ai Logo



Source: <https://super.ai/>

Super.AI's Intelligent Document Processing (IDP)

Super.AI's Intelligent Document Processing (IDP), a branch of AI, provides a method to extract data from a variety of documents. The platform guarantees outcomes by utilizing AI models and the super.AI Data Processing Crowd, which includes human-in-the-loop (HITL) assessment.

Fig III.34: Intelligent Document Processing by Super.ai

The image shows a 'BILL OF LADING' document. At the top, it says 'Page 1 of 1'. The document is divided into several sections:

- SHIPPER INFORMATION:** Name: Digital AI, Address: 305 Art1evoh, 304, N, City/State/Zip: 30131, 301, Germany.
- CONSIGNEE INFORMATION:** Name: SUPER AI, Address: 305C AI, 30131 per, City/State/Zip: 30131, 301, Germany.
- CARRIER INFORMATION:** CARRIER NAME: 1992895, Trailer number: 1992895, Seal number(s): 1992895, BCAC: 1992895, Pre number: 1992895.
- Freight Charge Terms:** Freight charges are prepaid unless marked otherwise. Prepaid: 2243, Collect: 33200, 3rd Party: 302.
- CUSTOMER ORDER NUMBER:** 1992895.
- TABLE:** A table with columns: CUSTOMER ORDER NUMBER, # PKGS, WEIGHT, PALLET/UP, ADDITIONAL SHIPPER INFO. It contains one row with values: 1992895, 1, 340kg, Y, N, and '1992895 WITH CARR. 1992114 19941 1991895'.
- COMMODITY DESCRIPTION:** 1992895 WITH CARR. 1992114 19941 1991895.
- GRAND TOTAL:** 1992895.
- SHIPPER SIGNATURE:** 1992895, 1992114 19941 1991895.
- CARRIER SIGNATURE:** 1992895.

Source: <https://super.ai/>

Automating Documents with Generative AI

Super.ai provides the power of modern Large Language Models (LLMs) to overcome obstacles in document automation. The platform allows for quick customisation of AI applications and models utilizing private data, improving the accuracy of data extraction from a variety of document sources.

Automatic Automation

The outcomes achieved through the collaborative efforts of software, AI, and human labor are intelligently amalgamated to create a cohesive product. The platform frequently integrates additional AI capabilities to expedite the augmentation of

automation rates.

Super.AI Intelligent Document Processing's Workflow

The platform makes it possible to process a variety of documents with results. There are numerous crucial steps in the procedure:

Prioritizer: Based on project objectives, users choose which aspects of quality, cost, and time to trade off.

Connector: It is made easier to upload and download documents manually or via an API.

Classifier: Automatic document type detection using AI is used.

Router: For best outcomes, document processing is divided into simpler jobs and automatically directed to the right AI, human, or software employees.

Combiner: A coherent, organized product is skillfully created by combining the results from several sources.

Post-processor: In-house or crowdsourcing workers are allocated tasks that require human input under the guidance of 150+ quality assurance procedures and gamification.

Trainer: New AI employees are deployed as a result of ongoing learning from human input, gradually improving both quality and automation rates.

Utilize Intelligent Document Processing (IDP) from super.AI to simplify and improve document processing activities with uncompromising accuracy and effectiveness.

Processing Manual Invoices: Challenges

Without AI support, managing bills manually is characterized by tedious chores, monotony, and error susceptibility. The inconsistent formatting of invoices is a big problem. Multiple areas are involved in the complex nature of invoicing and payment

processing, and various businesses and workers use different forms. The processing of this unstructured data is challenging for both humans and machines, which results in mistakes.

Using Super.AI Platform for Unstructured Data Processing (UDP) in AI

Inconsistently formed bills are a problem that is addressed by the Unstructured Data Processing (UDP) Platform from Super.AI. The software retrieves structured, applicable, and trustworthy data from these bills by adding structure to them. Since this data is readily available, educated business decisions are possible.

Fig III.35: Unstructured Data Processing By Super.AI

The image shows a sample invoice from Super.AI. The invoice is for Marceline Anderson, totaling USD \$1,680. It lists services such as Storybook, Magazine, Notebooks, Comic, and Novel. A table on the right side of the invoice summarizes the services, and a payment method section is also visible. To the right of the invoice, a list of extracted data points is shown with checkmarks, indicating that the Super.AI platform has successfully identified and structured the following information:

- ✓ Invoice To
- ✓ Total Due
- ✓ Payment Method
- ✓ Price
- ✓ Total
- ✓ Service
- And many others...

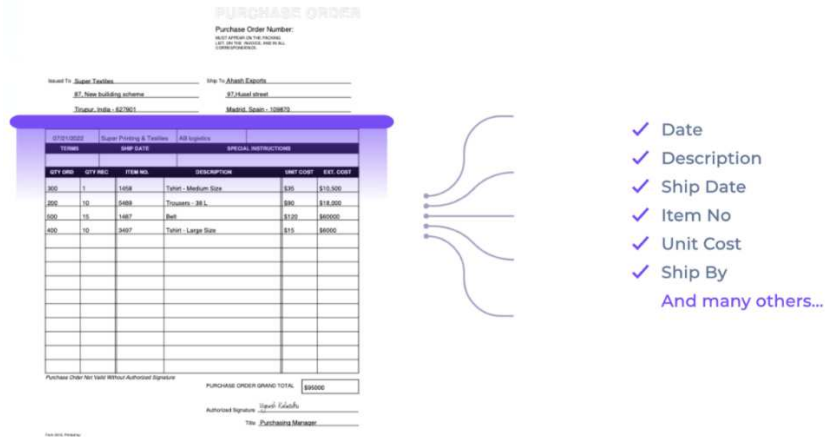
Source: <https://super.ai/>

Negative aspects of manually processing purchase orders

The tedious, labor-intensive, and prone to mistake manual processing of purchase orders is defined by these characteristics. Numerous advantages result from the use of artificial intelligence into the automation of purchase orders, including increased productivity, decreased setup costs, accelerated turnaround times, and improved data

accessibility for subsequent procedures like CRM and accounting systems.

Fig III.36: Automation Of Purchase Orders By Super.AI



Source: <https://super.ai/>

Data Extraction by Hand from Customs Forms

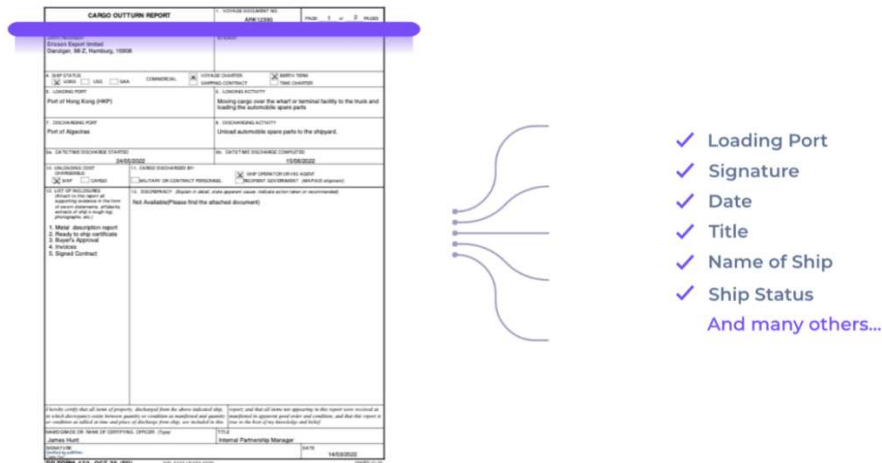
Manual data extraction from customs forms is time-consuming, boring, and prone to mistakes. Despite these difficulties, many governmental entities and businesses that process customs documents continue to use human data input. Artificial intelligence is used by Super.AI's Unstructured Data Processing (UDP) Platform to automatically extract information from a variety of document formats, freeing up human workers to concentrate on more important duties. Over 90% of human data input may be done away with by using UDP, which streamlines operations, saves time, and lowers expenses.

Data Extraction from Customs Forms Automatically

For a variety of customs forms, including ProForma Invoices, Customs Packing Lists, Country of Origin Certificates, Commercial Invoices, Shipping Bills, Bills of Lading, Airway Bills, Bills of Sight, Letters of Credit, Bills of Exchange, Export Licenses, Warehouse Receipts, and Health Certificates, Super.AI's UDP Platform offers

automatic data extraction capabilities. Employees are relieved of tedious data entry work thanks to automation, which boosts productivity while saving time and resources.⁸¹

Fig III.37: Automation Of Proforma Invoices By Super.AI



Source: <https://super.ai/>

3.1.4.2 Peak

A noticeable transformation is currently underway in the corporate landscape. Artificial intelligence (AI) has emerged as a pivotal tool for fostering sustainability, profitability, growth, and efficiency within businesses. At present, there exists a significant opportunity to integrate AI applications into the core processes of business decision-making, thus enhancing competitive advantages.

In response to this imperative, Peak is dedicated to uniting engineering, data science, and business unit teams on a unified platform. This convergence seeks to generate

⁸¹ <https://super.ai/>

value across various business domains, expediting a fundamental shift in the way business decisions are conceptualized and executed.

Peak's primary objective is to introduce artificial intelligence (AI) to the realm of professions. This endeavor aspires to establish a fresh community of thriving enterprises capable of growing, adapting, and competing successfully in ways that were hitherto unimaginable. Peak envisions contributing to the creation of employment opportunities, economic prosperity, sustainability, and a more equitable future through this transformation. This vision encompasses the democratization of access to cutting-edge technology, ensuring that it is available to a broader spectrum of individuals and businesses, rather than being the exclusive domain of a privileged few.

Fig III.38: Peak Logo



Source: <https://peak.ai/>

Inventory Management Powered by AI

Better to leverage artificial intelligence (AI) technologies to enhance inventory management practices that consider demand and market volatility. By employing this approach, surplus inventory is minimized, safety stock levels are optimized, transportation costs are reduced, and a sound working capital is upheld.

Getting Accurate with Inventory Intelligence

Peak enables to obtain a thorough understanding of your inventory to enable accurate forecasting, strategic ordering, and the upkeep of evenly distributed stock levels throughout your network.

Using Dynamic Intelligence to Improve Inventory Management

Inventory management is crucial for businesses since it has a big influence on whether they succeed or fail. Utilizing inventory management software is essential to gaining insightful knowledge about goods. However, maintaining a balance between service and inventory levels can be difficult, particularly for goods with erratic demand.

Peak presents their dynamic inventory management software as a solution to this problem. This program, which is powered by AI models, assists in finding the optimum balance between service and inventory levels, making sure that potential sales are not lost. Dynamic Inventory processes data on inventory, orders, products, locations, and previous sales by utilizing AI capabilities. This advanced processing allows for more precise planning of inventory levels within the distribution network, consequently improving the accuracy of demand forecasts.

The influence of this approach also extends to safety stock optimization, assuring availability and profit maximization while reducing the likelihood of stockouts, waste, and unneeded expenses inside the distribution centers. This optimization aids in satisfying service level agreements (SLAs), on-time in-full (OTIF) goals, improving operational efficiency, and releasing working capital.

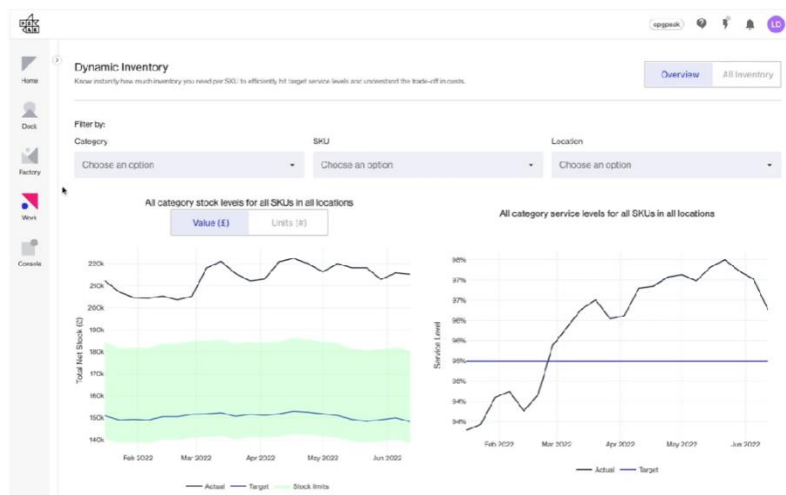
Peak's AI technology serves as the foundation for Dynamic Inventory, integrating demand forecasts and safety stock models. The program makes suggestions for reorder points and inventory levels by integrating and manipulating data from various sources.

Demand is forecasted using a forecast model customized to the specific factors of the firm, and inventory levels for completed items are decided using safety stock models that take into account previous demand volatility. The system makes it easier to make educated judgments by taking into account details like service levels, financial objectives, product popularity, capacity restrictions, and seasonality.

The dashboard gives customers the ability to monitor reorder points, optimize safety stock, and evaluate trade-offs between cost and service quality by visualizing stock holdings in relation to capacity. With this analytical strategy, inventory is managed strategically, risks are reduced, and the distribution process is in line with the required service standards.

In summary, Peak's Dynamic Inventory solution offers an intelligent approach to address the intricate challenges associated with inventory management. By adding AI-driven forecasting and optimization, businesses can manage their inventory levels to enhance customer service, lower costs, and increase operational efficiency.

Fig III.39: Dynamic Inventory Management By Peak



Source: <https://peak.ai/>

SKU-Level Strategic Reordering with AI-driven Accuracy

Reordering choices must be well-informed and precise in order to maximize working capital and guarantee product availability. Peak's "Reorder" module offers a solution that allows organizations to maintain availability while releasing working capital tied up in excess stock through precise SKU-level demand forecasts and automated reordering recommendations.

Making exact reordering decisions is difficult in the complicated environment with hundreds of goods, several channels, shifting demand, and supplier lead times. The top and bottom 20% of SKUs frequently receive attention, but because detailed research is lacking in the intermediate range, it is still susceptible to overstocking and stockouts. This problem is addressed by the AI-driven strategy of Reorder. It simplifies data analysis and proposes ideal reorder amounts and timing for each product line by offering SKU-level demand projections throughout the full product range. By ensuring that availability is balanced, this strategy avoids lost sales opportunities and overstocking, which locks up working capital.

Reorder's ability to automate the SKU-level demand forecasting process, which does away with the need for manual spreadsheet analysis, is one of its distinctive characteristics. This frees up critical time that may be used to decide strategically when to place orders for a variety of items. Since the module's accuracy, decision-making is more effective since stockouts, overstocking risks, markdowns, and waste are avoided. It also helps to streamline the decision-making process while lowering warehousing and logistics expenses.

In conclusion, Peak's Reorder module provides a data-driven approach to managing enormous product portfolios, erratic demand, and complicated supplier relationships.

Businesses may increase overall inventory management efficiency, guarantee product availability, and optimize working capital by using AI-generated SKU-level predictions and automatic reordering suggestions.⁸²

3.1.4.3 SmartAction

SmartAction specializes in facilitating conversational AI interactions for companies. SmartAction is dedicated to assisting established enterprises in the implementation of finely-tuned virtual agents capable of managing the substantial volume of routine customer calls that inundate contact centers. By diminishing the need for live agents, this approach allows them to allocate their time and resources toward addressing more intricate client needs.

Fig III.40: SmartAction Logo



Source: <https://smartaction.ai/>

SmartAction's aim is to improve the quality of interaction between the company and customers thanks to speech-based artificial intelligence technologies.

Fig III.41: SmartAction Procedure How Operates



Source: <https://smartaction.ai/>

⁸² <https://peak.ai/>

Here is a description of how SmartAction procedure operates:

Solution: To create the groundwork for your conversational AI solution, SmartAction first determines your company goals and Return on Investment (ROI). When the project's parameters are established, SmartAction designs the solution and develops a unique demo that simulates the actions of your top agent while providing a look into the interaction between humans and AI.

Design: To create conversation flows, the SmartAction team of conversation designers works with you. SmartAction creates a thorough flowchart of the user experience, outlining handling guidelines and required API calls. Pre-built designs can be tailored to your needs for frequent use cases in important industries.

Build: At this step, SmartAction builds your virtual agent by modifying Natural Language Understanding (NLU) tools to recognize the goals of users' intended activities. For every encounter, SmartAction add application logic and easily interface with your call center, phone system, and data sources. Numerous CCaaS platforms, telecommunication systems, data sources, and internal systems may be integrated using SmartAction services.

Train: Your virtual agent receives thorough instruction on how to recognize and interpret consumer intents. The performance of the bot and the AI models are initially optimized by our quality assurance team before going live with your solution.

Hypercare: SmartAction hypercare team assumes control of the system after it has been launched, concentrating on improving and enhancing the AI models. The performance of the virtual agent will also be improved, along with more training.

Order Management

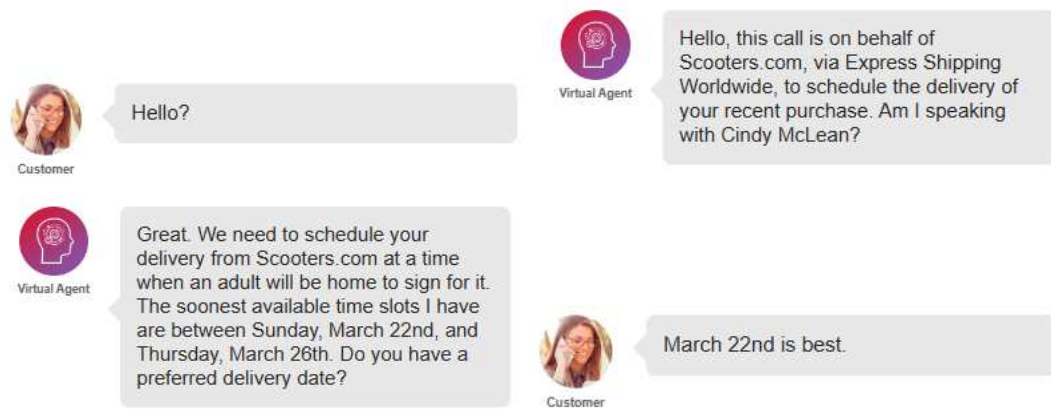
In the area of order management, AI-powered virtual agents are used to automate routine interactions that are now handled by human agents. Organizations typically start this automation using SmartAction's Omni-Bot™ capability in voice interactions. They then expand this capability to text-based channels to create a comprehensive omnichannel self-service strategy.

Due to their standardized processes, which call for little to no complicated decision-making, virtual agents excel in automating order management activities. These virtual agents are intended to relieve customer care professionals of regular order administration discussions and interactions. These virtual agents use natural language processing (NLP) to gather order numbers and product details, provide accurate order statuses, issue confirmation receipts, and perform other tasks that are typically handled by human agents by seamlessly integrating with Customer Relationship Management (CRM) or Enterprise Resource Planning (ERP) systems.

Virtual agents may automate a wide range of order management functions, including: Cancellation of Orders, Inventory Checks, Confirmation Receipts, Delivery Reminders, Driver Check-Ins, Exchange Reminders, Order Notifications, Order Status Inquiries, Placing New Orders, Reordering, Returns Initiation, Checking Return Status. These typical order management exchanges may be efficiently and successfully managed with the use of AI-driven virtual agents, improving customer satisfaction and maximizing operational effectiveness.⁸³

⁸³ <https://smartaction.ai/>

Fig III.41: AI-Driven Virtual Agent In Order Management



Source: <https://smartaction.ai/>

3.2 AI Technologies Impact on the Evolution of B2B Sales Processes

According to Kreutzer & Sirrenberg, AI technology is "quickly evolving from a nice-to-have technology to a have-to-have technology" in their book emphasizing how essential AI technology is and how it will eventually pervade every aspect of business and daily life.

By integrating AI technology into parts of their operations, common organizations, and B2B enterprises in particular, are adjusting to the changing business environment. Forrester estimates that up to 53% of worldwide data analytics decision-makers have installed, expanded, upgraded, or are currently implementing some type of AI technology. Stating the value of AI technology for businesses and offering information on how it affects all types of enterprises, including B2B ones.

It is noteworthy that there are currently few studies that discuss how AI technologies are changing the B2B sales cycle. Mostly as a result of the technology's novelty in B2B sales. Additionally, there aren't many studies that focus specifically on B2B

marketing⁸⁴. However, certain research, especially Paschen, Wilson, & Ferreira, Syam & Sharma, have examined the importance of AI technology in B2B sales in an implicit manner. Other unpublished research that have examined the use of AI technology in B2B selling procedures are available. The published research, however, are regarded as theoretical studies since they have explored the Theoretical perspectives on AI phenomena in B2B sales. The study's conclusions were also not based on any empirical or experimental evidence. However, those studies have given us a clearer view of how AI technology can alter the B2B sales process.

Notably, the studies under consideration demonstrate how disruptions caused by AI technology may have a substantial impact on B2B sales processes at every stage. The reviewed research has used the traditional 7th stages of selling as a framework to identify and illustrate how AI is transforming the B2B selling process. The contribution of AI at each level of the selling processes is shown in Figure III.42 below.

Fig. III.42: Explain the role played by AI technologies in connection to each stage of the B2B selling processes.

B2B Sales Processes	AI Contribution
Prospecting	<p>Creating leads: AI may assist in finding new clients by scanning databases on the internet, creating profiles, or using individualized and specially targeted marketing.</p> <p>Lead qualification: AI may rank potential customers according to their</p>

⁸⁴ Lilien, G. L. (2016), “*The B2B Knowledge Gap*”, International Journal of Research in Marketing, 33(3), pp. 543–556.

	<p>desire for the goods and likelihood to make a purchase.</p> <p>Contacting leads: AI may assist automate the contact process and optimize the contact strategy, such as when and how to contact the lead.</p>
Pre-Approach	<p>Lead nurturing: AI may provide the business an advantage by gathering and analyzing customer information more quickly and freeing up human resources for other duties.</p>
Approach	<p>Lead approaching: AI may be used to automate boring and repetitive chores like scheduling, providing common answers, and even initiating contact via chatbots, for instance.</p>
Presentation	<p>Presentation/pitching: There are several ways in which AI might be helpful during the presentation stage. With the use of techniques like virtual and augmented reality, it may be utilized to create a dynamic and interesting presentation. It can assist with data analysis and optimization so that the client receives the greatest points of presentation. The presenter's body language, eye contact, speaking patterns, and other gestures may all be improved by using AI to analyze the presenter's emotional reactions.</p>

Overcoming Objections	AI designed to evaluate emotional response performs well here as it did during the presentation phase. AI may be used to generate battle cards and pitches that will assist the company stay ahead of the competition and more effectively communicate the value that the product adds. Chatbots powered by AI could potentially automate the entire procedure.
Closing	Given that the process of overcoming objections is correctly finished, closing is a simple procedure that does not benefit much from AI. Last but not least, automating order processing and fulfillment is the key potential of AI.
Follow up	The two primary components of the follow-up procedure are completing the order and following up once it has been completed. With AI, the follow-up procedure may be fully automated.

To sum up, the research that were analyzed revealed agreement about the effects of AI technology on B2B sales functions and outstanding value creation of such AI technologies in support of B2B selling operations.

CONCLUSION

In conclusion, this thesis has taken us on a remarkable expedition through the intricate world of B2B sales, where the influence of Artificial Intelligence (AI) has become increasingly pronounced. We have ventured through the foundational aspects of B2B sales processes, understanding their nuances and complexities. We then dove deep into the realm of AI, witnessing its evolution, mechanisms, and diverse applications across industries. Most importantly, we explored the integration of AI into B2B sales, a transformative journey that promises to redefine success in the business world.

The application of AI technologies in B2B sales has unlocked a wealth of opportunities. From revolutionizing lead generation and pipeline management to enhancing customer interactions and data-driven decision-making, AI has proven itself as a powerful ally. The ability to optimize conversions, reduce churn, provide actionable insights, and prioritize sales support messages has redefined efficiency and effectiveness in sales processes.

Yet, with these opportunities come challenges. Organizational and cultural shifts, coupled with technical complexities, demand careful consideration and strategic planning. However, the potential benefits far outweigh the obstacles, and businesses that embrace AI in B2B sales are poised for a competitive advantage.

The integration of AI into B2B sales is not a mere technological evolution but a paradigm shift that demands visionary leadership and adaptability. As businesses

navigate this transformative landscape, it is imperative to recognize that AI is not a replacement for human expertise but a tool that amplifies human capabilities.

In this era of digital transformation, the collaboration between humans and machines is reshaping the future of B2B sales. The role of Artificial Intelligence is not just a chapter in the story of modern commerce; it is the catalyst that propels businesses into a new era of growth, efficiency, and profitability. This thesis has explored the beginnings of this transformative journey, and the possibilities that lie ahead are limited only by the vision and determination of those who dare to embrace the future.

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