



Digital Sales in B2B: Status and Application

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Abstract. The megatrend of digitalization has transformed the way companies are doing business with their clients. We show that digitizing business-to-business (B2B) sales is not solely a question of technology, but also involves considerations of the buying cycle. Therefore, we discuss the progression from the traditional buying cycle to the customer journey. We illustrate the need for digitizing this journey and outline important customer touchpoints. Afterward, we identify emerging technologies in B2B sales and show how they can be applied to digitize different customer touchpoints. Additionally, we investigate how digitalization in sales revolutionizes the seller organization, briefly discuss our results, and offer recommendations for B2B digital sales.

Keywords: B2B · Sales · Digitalization · Buying cycle · Artificial intelligence · Big data · Augmented reality · Virtual reality · Customer journey

1 Introduction

Digitalization influences almost every company at different levels. However, because of the complexity of introducing the change that accompanies digitalization, most companies struggle to respond to digital disruption and fail to support salespeople in managing their changing requirements.

To explore this, we conducted research focused on digital technologies in business-to-business (B2B) sales. We used databases that included Business Source Premier, EconBIZ, and Science Direct, and we limited the search to studies conducted between 2015 and 2020. We found 113,922 entries after an initial screening, and of these, we retained 170 entries. For the final list of studies, our quality criteria included having at least 25 participants, being published in a peer-reviewed journal, and being published in English. After a complete analysis, we obtained a final list of 71 sources that fulfilled all criteria. We found that almost all publications related to artificial intelligence (AI) and Big Data in B2B sales were rather broad and were not intended for a specific digital application. Thus, we focused on potential applications in sales.

Based on the literature review, we decided to consider the phases of the buying cycle and to highlight the customer journey with its touchpoints, as explained in Sect. 2, to

illustrate the applications of different digital technologies in B2B sales. To serve these touchpoints, we present technologies and corresponding application scenarios within the buying cycle (Sect. 3) and focus on the influence of digitalization on the supplier's organization (Sect. 4). Afterward, we briefly discuss our results (Sect. 5) and present the conclusion of our research in Sect. 6.

2 Transformation to Digital Sales: The Rise of the Customer Journey

As earlier mentioned, the transformation in B2B markets introduces a change in perspective on the buying cycle. Thus, we outline the various viewpoints on the buying cycle that have emerged in the last few decades.

An early model of the buying cycle considered only the mutual decision of the customer and the seller who agree on the stated buying conditions. Next, the characteristics of the buying situation were considered, and later, the behavioral factors of the parties involved. Later still, the buying cycle was seen from the viewpoint of the supplier, who is responsible for designing effective marketing material to obtain a successful customer response. Later research considered the dyadic interactions between the supplier and the customer, and later the overall network of relationships. Then, the most recent model arose: the customer journey. It highlights the influence of digital technologies and describes the buying cycle as a holistic process experienced by the individual customer. It is important to look at the customer journey from the customer's point of view [1].

Mapping the customer journey has become increasingly popular. The customer journey considers the "general" customer, but also underscores that each customer has a unique journey and unique touchpoints with the seller company. To improve the customer experience and better serve the customer, the seller must clearly understand these touchpoints [2].

Typically, customers progress through four stages as stated in the customer journey model: (1) the *consideration* stage, in which the customers perceive a set of brands; (2) the *evaluation* stage, in which they include or reject brands based on their evaluation criteria; (3) the *buying* stage, which leads to a brand selection and the purchase of the product; (4) finally, the customers experience the product and build expectations for the future relationship. This can produce a loyalty loop, where customers buy a new product directly from the same company with shortened consideration and evaluation phases [3].

To best service the resulting touchpoints, companies need to replace analog processes and automate the entire journey. Moreover, companies should be proactive, tailoring customers' experiences based on their preferences and guiding them through their journey. This contextual interaction requires that the seller tracks the customers along their journey. The constant improvement of the customer journey and awareness of critical touchpoints is the key to success [3–5].

3 Emerging Technologies in B2B Sales

As we have already mentioned, the customer journey requires digital technologies to best serve the needs of the customer. However, despite the positive contributions of digital

technologies, their application in B2B sales does not yet fulfil their potential [6]. Thus, we present three technologies, namely virtual reality (VR)/augmented reality (AR), Big Data, and AI, and show how they can be applied to the customer journey.

3.1 Virtual and Augmented Reality

Whereas VR allows users to navigate through a simulated or imagined world, AR adds virtual and real objects to a real environment [7, 8].

In a previous study, we examined popular applications of AR and VR in B2B sales: These technologies are used to present the seller company and its products, to visualize and document customer projects, for training purposes, and to support the installation and maintenance of products after they have been purchased by the customer. We discovered that VR and AR could change the sales process somewhat and assist salespeople in their interactions with the customer. They improve communication with customers because the transfer of complex content becomes easier through visualization, and the customers receive information as active participants in the conversation [9].

3.2 Big Data

The term Big Data is commonly described by the 3 vs: *volume*, which refers to the high amount of data in an organization, *velocity*, which refers to the generation and processing of data in real time, and *variety*, which means the large number of data types [10].

Big Data has the potential to influence the entire operating environment of a company [11] and to enable transformation to a data-driven organization [10]. To unfold its full potential, the large amount of data is translated to information using text analytics, audio analytics, video analytics, social media analytics, and predictive analytics to support decision-making [12]. This can lead to various benefits in sales and makes customers more transparent because they can be tracked and segmented, and thus customer needs can be better understood [11]. This contextual awareness allows personalized marketing efforts, dynamic pricing, and improved customer service due to better problem awareness [10].

Accordingly, it is evident that Big Data enables companies to increase the efficiency of their business operations and to optimize business processes. Information from multiple sources can be acquired to support the decision-making process, especially in sales. Application areas cover the entire customer journey, from creating to maintaining and extending the customer relationship. Thus, Big Data improves, strengthens, and personalizes the customer relationship across the entire journey [13].

Overall, it can be said that Big Data increases a company's competitive advantage. Big Data can improve cost efficiency and enable greater responsiveness and better decision-making. Automated algorithms can replace human decision-making, enabling new business models to be set-up [10, 14, 15].

Despite the various possibilities of Big Data, several challenges have arisen, *How do customers perceive Big Data and its value? Which offerings and segments are most profitable? How can pricing be customized, and what influences the loyalty of customers?* [15].

3.3 Artificial Intelligence

AI is a technology that exhibits human intelligence and emulates intelligent human behavior in an online environment. It could be said that AI interprets data, learns from it, and exhibits flexible adoption. Due to the characteristics of AI, sales could be considered the department in which AI would have the most meaningful impact. AI can influence sales processes, customer service, and customer behaviors [16, 17].

AI can automate the customer journey in different ways. Using a rich prospect profile, AI can support lead generation and lead qualification, among other things. For instance, it can automate interaction with customers. Although salespeople currently interact personally with prospects to advise them or acquire them as customers, this could be done by AI in the future. AI or a bot could imitate the behavior of salespeople and have real-time conversations with customers. By interpreting customers' emotions, AI can consult with customers by evaluating a product and negotiating to close the sale. Through enriched customer profiles, AI can also support the after-sales phase [17–19].

Accordingly, AI can augment or replace human interaction. Moreover, AI enables companies to better screen their customers and respond according to their requirements. Companies can better identify most important customers and their needs, and subsequently recognize how they must adjust their business model. However, despite the various advantages, companies are still struggling to operationalize AI at the different customer touchpoints in an effective way [17, 19].

4 Organizational Alignment to Guide the Customer Journey

Digitization strengthens the trend of digital servitization that represents the integration of services in physical products [20]. Thus, companies tend to develop from a product provider to a solution provider. To successfully act as a solution provider, companies must change their way of doing business. Revenue streams must change, long-term relationships must be established, and closer collaboration with customers is required. This changes an organization's sales process [6].

Despite these fundamental changes, the existing literature presents only the traditional skills of a sales organization [21–26]. Based on the studies reviewed, we were able to identify several research gaps, which considered the increasing importance of digitalization in the customer journey.

Though there exist various fields of application for the technologies presented in Sect. 3, social selling is still important to B2B sales and has attracted increasing attention. Social selling is defined as leveraging social media platforms for understanding and engaging with customers and prospects at touchpoints along their customer journey. In addition to company and industry factors, the attitude and behavior of salespeople play an important role in the successful application of social selling in B2B sales. However, these characteristics were not considered in the reviewed studies in a meaningful way [27].

Hence, we can state that an organization must rethink its structure and processes. Value is no longer delivered via well-established routines in sales organizations. Not only is the type of value is changing, but so is how it is delivered to customers.

This is why sales organizations must become more customer-centric and develop new skills [28].

5 Discussion

The progression from a buying cycle to the customer journey reveals that digitalization plays an increasing role in customer service. New technologies are required to guide customers through the journey. Thus, the viewpoint of the seller is changing. Formerly they focused on product sales, now the view of the customer has become increasingly important. Along the entire customer journey, the seller must analyze each customer touchpoint and discover what the customer really wants and how value can best be delivered to the customer. To best guide customers through this journey, digital technologies, such as VR/AR, Big Data, and AI are required.

The technologies presented can support almost every phase of the customer journey. However, despite the various opportunities, many questions have arisen. A sales organization must determine how the massive amount of data can be processed, and which data and features are really needed for supporting salespeople and their customers. According to the theory of customer journeys, we should not neglect the attitudes of the customers toward digital technologies: Is it really their desire to become completely transparent and to be advised by bots instead of human salespeople [9, 10, 17, 29]?

Keeping these questions in mind, the organization must decide how to guide customers through their journey. Therefore, organizations need to identify digital technologies and decide how to apply them in sales to serve customer needs and how to best address customer touchpoints. To do so, organizations need to become more customer-centric and salespeople must develop new competencies. What these are, and how they differ in the respective markets should be addressed by future studies in this field.

Furthermore, organizations can establish new disciplines to guide the customer journey. For instance, a journey product manager could observe customer behaviors in more detail, explore what attracts customers, and find ways to optimize the entire journey [3]. Another professional that takes customer-centricity into account is the customer success manager. They proactively use information about customers to advise them, establish trustworthy relationships, and finally guide them for maximal success with their products [30].

6 Conclusion

It can be concluded that digital technologies enable salespeople to access a considerable amount of information about their product offerings and their customers. Thus, digital technologies can simplify the management of customer relationships in sales, allow faster reactions, and offer a competitive advantage. The customer journey requires digital technologies like VR, AR, Big Data, and AI to serve customer needs. We outlined the potential of these technologies and how they can be applied in B2B sales. Finally, we briefly discussed that digital sales requires changes in the sales process of an organization and new capabilities for salespeople. To best guide customers, and to consider and fulfill their needs, two new disciplines are conceivable: product journey managers and customer success managers.

References

1. Steward, M.D., Narus, J.A., Roehm, M.L., Ritz, W.: From transactions to journeys and beyond: the evolution of B2B buying process modeling. *Ind. Mark. Manage.* **83**, 288–300 (2019)
2. Rosenbaum, M.S., Otolora, M.L., Ramírez, G.C.: How to create a realistic customer journey map. *Bus. Horiz.* **60**, 143–150 (2017)
3. Edelman, D.C., Marc, S.: Competing on customer journeys. *Harv. Bus. Rev.* **93**, 88–100 (2015)
4. Toman, N., Brent, A., Gomez, C.: *The New Sales Imperative*, vol. 95, pp. 118–125 (2017)
5. Lemon, K.N., Verhoef, P.C.: Understanding customer experience throughout the customer journey. *J. Mark.* **80**, 69–96 (2016)
6. Rodríguez, R., Svensson, G., Mehl, E.J.: Digitalization process of complex B2B sales processes – Enablers and obstacles. *Technol. Soc.* **62**, 101324 (2020)
7. Bonetti, F., Warnaby, G., Quinn, L.: Augmented reality and virtual reality in physical and online retailing: a review, synthesis and research agenda. In: Jung, T., tom Dieck, M.C. (eds.) *Augmented Reality and Virtual Reality*. PI, pp. 119–132. Springer, Cham (2018). https://doi.org/10.1007/978-3-319-64027-3_9
8. Gallardo, C., et al.: Augmented reality as a new marketing strategy. In: De Paolis, L.T., Bourdot, P. (eds.) *AVR 2018. LNCS*, vol. 10850, pp. 351–362. Springer, Cham (2018). https://doi.org/10.1007/978-3-319-95270-3_29
9. Fischer, H., Seidenstricker, S., Poepfelbusch, J.: Extended reality in business-to-business sales: an exploration of adoption factors. In: Ahram, T.Z., Taiar, R., Groff, F. (eds.) *Advances in Intelligent Systems and Computing: Human Interaction, Emerging Technologies and Future Applications IV: Proceedings of the 4th International Conference on Human Interaction and Emerging Technologies: Future Applications (IHJET-AI 2021)*, 28–30 April 2021, Strasbourg, France, vol. 1378, pp. 123–130. Springer, Cham (2021). https://doi.org/10.1007/978-3-030-74009-2_16
10. Lee, I.: Big data: dimensions, evolution, impacts, and challenges. *Bus. Horiz.* **60**, 293–303 (2017)
11. Sanders, N.R.: How to use big data to drive your supply chain. *Calif. Manage. Rev.* **58**, 26–48 (2016)
12. Gandomi, A., Haider, M.: Beyond the hype: big data concepts, methods, and analytics. *Int. J. Inf. Manage.* **35**, 137–144 (2015)
13. Hallikainen, H., Savimäki, E., Laukkanen, T.: Fostering B2B sales with customer big data analytics. *Ind. Mark. Manage.* **86**, 90–98 (2020)
14. Fosso Wamba, S., Akter, S., Edwards, A., Chopin, G., Gnanzou, D.: How ‘big data’ can make big impact: findings from a systematic review and a longitudinal case study. *Int. J. Prod. Econ.* **165**, 234–246 (2015)
15. Akter, S., Wamba, S.F.: Big data analytics in e-commerce: a systematic review and agenda for future research. *Electr. Mark.* **26**, 173–194 (2016)
16. Chui, M., et al.: Notes from the AI frontier: Insights from hundreds of use cases (2018). <http://straty.com/wp-content/uploads/2018/04/McKinsey-AI-Frontier-paper-April-2018.pdf>. Accessed 20 Jan 2021
17. Davenport, T., Guha, A., Grewal, D., Bressgott, T.: How artificial intelligence will change the future of marketing. *J. Acad. Mark. Sci.* **48**(1), 24–42 (2019). <https://doi.org/10.1007/s11747-019-00696-0>
18. Paschen, J., Wilson, M., Ferreira, J.J.: Collaborative intelligence: how human and artificial intelligence create value along the B2B sales funnel. *Bus. Horiz.* **63**, 403–414 (2020)
19. Paschen, J., Kietzmann, J., Kietzmann, T.C.: Artificial intelligence (AI) and its implications for market knowledge in B2B marketing. *JBIM* **34**, 1410–1419 (2019)

20. Kamalaldin, A., Linde, L., Sjödin, D., Parida, V.: Transforming provider-customer relationships in digital servitization: a relational view on digitalization. *Ind. Mark. Manage.* **89**, 306–325 (2020)
21. Koponen, J., Julkunen, S., Asai, A.: Sales communication competence in international B2B solution selling. *Ind. Mark. Manage.* **82**, 238–252 (2019)
22. Busch, T.K.: Determining competencies for frontline sales managers in for-profit organizations. *Adv. Dev. Hum. Resour.* **15**, 296–313 (2013)
23. Lacoste, S.: From selling to managing strategic customers - a competency analysis. *J. Pers. Selling Sales Manage.* **38**, 92–122 (2018)
24. MySkillsProfile.com Ltd.: Sales Competencies Questionnaire (2014). <http://www.myskillsprofile.com/Guides/Sales%20Competencies%20Questionnaire%20User%20Manual.pdf>. Accessed 7 Dec 2021
25. Lapoule, P., Colla, E.: The multi-channel impact on the sales forces management. *Int. J. Retail. Distrib. Mgt.* **44**, 248–265 (2016)
26. Powers, T.L., Jennings, J.A.C., DeCarlo, T.E.: An assessment of needed sales management skills. *J. Pers. Selling Sales Manage.* **34**, 206–222 (2014)
27. Barney-McNamara, B., Peltier, J., Chennamaneni, P.R., Niedermeier, K.E.: A conceptual framework for understanding the antecedents and consequences of social selling: a theoretical perspective and research agenda. *JRIM ahead-of-print*, vol. 267 (2020)
28. van den Hemel, C., Rademakers, M.F.: Building customer-centric organizations: shaping factors and barriers. *J. Creating Value* **2**, 211–230 (2016)
29. Singh, J., et al.: Sales profession and professionals in the age of digitization and artificial intelligence technologies: concepts, priorities, and questions. *J. Pers. Selling Sales Manage.* **39**, 2–22 (2019)
30. Vaidyanathan, A., Rabago, R.: *The Customer Success Professional's Handbook. How to Thrive in one of the World's Fastest Growing Careers-While Driving Growth for your Company.* Wiley, Hoboken, New Jersey (2020)