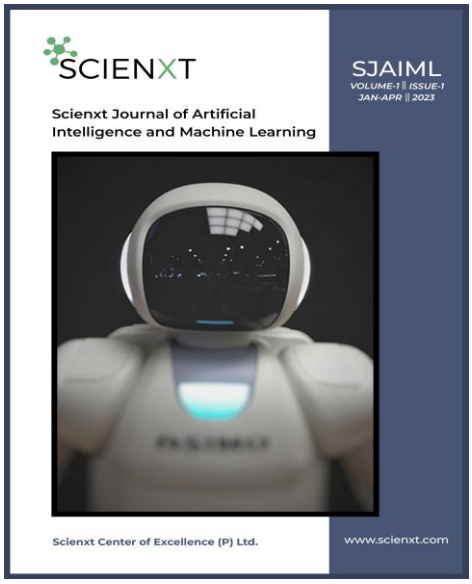

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Analytical study on the artificial intelligence-based technologies empowering the customer experience

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Abstract:

The market is becoming increasingly competitive, expanding the options available to consumers. Understanding and meeting the precise wants of the customer is currently the greatest challenge for any organisation seeking to retain current clients and attract new ones. It is crucial to meet and surpass consumer expectations in order to achieve customer satisfaction through enhanced customer experiences. Future technologies, such as artificial intelligence, will provide a variety of opportunities for gaining a deeper comprehension of evolving customer habits and behaviour. On the other hand, relatively little academic study has been undertaken on the aspects that significantly impact the customer experience or the growing importance of AI in this field. This study aims to comprehend how the implementation of artificial intelligence affects the user experience. This article may be valuable for managers and practitioners who desire a seamless transition throughout their entire organization. The purpose of this article is to outline a plan for addressing challenges that may develop while implementing an AI-driven strategy to improve the overall customer experience.

Keywords:

Artificial Intelligence, Customer Experience, Quality of Service, Personalization

1. Introduction:

The artificial intelligence that computers are capable of producing is distinct from the natural intelligence exhibited by machines. It adds experience and emotional consciousness to the robots. The intellect of the machines is comparable to that of both humans and animals. As a result of the advancement of artificial intelligence, the relationship between customers and digital marketers is undergoing a radical transformation. The user experience is being vastly enhanced by digital marketing innovations that make increasingly sophisticated use of artificial intelligence. Customers have shown more pleasure in interactions following the implementation of artificial intelligence. To provide meaningful customer information, digital marketing techniques are continuously developed [1].

With the assistance of artificial intelligence, data collection, analysis, and processing can be completed, and the results can be made available at a later time. Utilizing the most recent advancements in artificial intelligence, businesses continuously improve the digital marketing strategies they employ. In addition, it offers firms extremely useful viewpoints and insights. Future success will depend on the use of artificial intelligence, the expansion of digital marketing, and the production of digital products to satisfy consumer demand.

The phrase "customer experience" is defined as "the sum of all customer interactions with a company, based on all consumer contacts and impressions of the company" [2]. By 2025, it is anticipated that nearly all client interactions will take place via channels supported by artificial intelligence (AI) [3]. When artificial intelligence is applied to provide a nicer, more practical, and more interactive customer experience, customers are happier and more loyal. AI for customer experience Analytics makes the most of billions of consumer data by accurately anticipating future occurrences, identifying the primary drivers and potential deviations, and determining the linkages within the data. AI is excellent at providing businesses with a variety of unique solutions that can increase customer loyalty and sales, promote operational efficiency, enhance decision-making, and provide customers with better In addition to reducing the customer churn rate, these options involve offering clients more relevant products and services. The growth of artificial intelligence (AI) as a major factor in the redefinition of customer service has led to an increase in the number of researchers in this sector.

Customers' increasing familiarity with digital technology in the modern environment presents businesses with a potentially huge growth opportunity. They can now generate significantly more influential client experiences than they could in the past [5]. Previously challenging and time-consuming tasks are now accomplished with a single click. In this era of the fourth

industrial revolution, practitioners increasingly employ AI to improve client experiences [6]. Artificial intelligence can provide a large array of services, including automation, personalisation, future prediction, suggestion, and many others [7]. According to global online polls of senior managers and executives performed in 2016–2017 all around the world, just 15% of organisations do not have any AI-related strategies [8]. The evolution of artificial intelligence has created new opportunities for competitive advantage, but it has also produced obstacles. It is difficult, for instance, to restructure the entire system simultaneously using AI-based technologies [9]. Second, artificial intelligence makes customization possible, but at the expense of user privacy (personalization-privacy paradox) [10]. Third, even when a substantial amount of money has been invested in the use of such technology, gaps in profitability result from customers switching between brands and companies [11].

2. Artificial Intelligence and Customer Experience:

The term "customer experience" refers to a customer's perception of a company or brand as a result of their individual interactions or contacts with that company or brand. In this inquiry, customer experience is the dependent variable, whereas the independent variables are hassle-free service, quality of service (QoS), and personalization. On the topic of how the use of AI technology is impacting the consumer experience, numerous studies have been published. Numerous unique authors contributed to these publications. The research undertaken by [12] examines how AI has impacted global trends in a variety of fields and industries. In addition, it provides insight into how management, marketing, and the ever-changing external environment influence the interactions between customers and B2C organisations.

According to the findings of a study done by [13], clients today desire a service that is not only swift but also personalized, and which may not even require human interaction. It is also brought to our attention that businesses utilize chatbots to improve customer connection, customer engagement, the purchasing process, and the automatic resolution of recurring questions, all of which contribute to a great customer experience.

According to [14], the primary advantage of chatbot adoption is that it is productive in the sense that it simplifies information collection, expedites procedures, and is available twenty-four hours a day, seven days a week. The simplicity with which information can be retrieved is another element influencing the adoption of chatbots. It also demonstrates that customers love engaging with chatbots and use them as their preferred means of customer assistance, which

encapsulates the other factors compelling businesses to adopt chatbots in order to give superior customer service.

2.1. Personalization and AI:

Target marketing is sometimes known as "personalized advertising." Targeted marketing is a form of personalised marketing. Targeted marketing is a form of customized marketing that uses data points and automation to offer clients personalised information in an effort to increase customer pleasure and engagement. The authors of the study [15] explain how recent improvements in AI-driven markets and consumer micro-targeting have facilitated the personalization of content recommendations for customers, resulting in more individualized and straightforward options. Using customization in marketing, firms can more successfully address the specific demands of their customers without compromising their right to privacy, according to [16]. This article aims to introduce the concept of hyper-personalization, which can help organisations better understand their consumers' viewpoints and streamline their marketing strategies. According to the findings of research [17] and [18], chatbots allow customers to communicate with businesses in a more personalised and convenient manner. It also investigates the role chatbots play in the collection of information about consumer preferences for goods, services, and content, as well as their usage patterns, the creation of additional user touch points to increase convenience, and the delivery of individualized service through the application of deep learning.

2.2. Hassle-free service and AI:

What we mean by "hassle-free service" is to provide flawless, problem-free service. This form of service meets the client's needs without posing any challenges or barriers. [19] [20] investigates how blended AI, which combines data analytics, human intelligence, and artificial intelligence, can be utilized to enhance digital marketing and provide clients with a seamless experience. The phrase "blended AI" was coined by the author to characterize the process of combining data analytics, human intelligence, and artificial intelligence. [21] Discuss how customers consider chatbot discussions to be more adaptable and accessible than conventional forms of customer service. This is due to the fact that clients do not need to wait long lengths of time for a response to their calls and messages, making the operations simple to comprehend and less prone to error. The study by [22] examines how enhancing customer service provided by chatbots and robots at the front of modern enterprises adds to a more enjoyable shopping experience. This can be accomplished by reducing the amount of time spent on time-consuming billing procedures, searching for necessary items in the store, and accompanying consumers

while they shop. In addition, it discusses how these AI-powered robots may connect to the company's database in order to extract consumer preferences, allowing the store to give a hassle-free experience for customers.

2.3. QoS and AI:

The overall experience is the most important factor in determining the quality of the product or service a consumer receives while making a purchase. This section examines how AI could improve service quality by decreasing the incidence of supply chain failures, enhancing manufacturing efficiency, and shortening the development cycle. The paper explains how AI helps to provide more accurate estimates, which in turn helps to reduce inventory-related expenditures. In addition, it describes how AI can raise revenues by improving lead detection and pricing optimization, and most importantly, how it may expedite product delivery, thereby optimising the customer experience. All of these factors contribute to improving the overall quality of the client relationship. The authors [24] and [25] presented the findings of a study that examined how artificial intelligence and bots are increasingly being utilized to improve customer service, especially in the travel and hotel industries. [24] and [25] Additionally, it implies that more participatory methods of providing service, communicating with customers, and interacting with them result in higher quality service.

3. Artificial Intelligence based technologies empowering the customer experience:

To improve the customer experience in the modern day, conversational agents, robotics, recommender systems, the Internet of Things, and AI-driven data science techniques must be implemented. Extended reality, robotics, recommender systems, and the Internet of Things are a few other examples of necessary technologies. These are the most up-to-date practices for avoiding getting left behind by digital transformations. According to the findings of a survey done by Bain & Company, the vast majority of firms today use AI-based customer experience solutions in order to preserve a competitive advantage. This section will discuss the six emerging technologies that are enabled by AI and have the potential to alter how customers interact with brands (Fig.1).

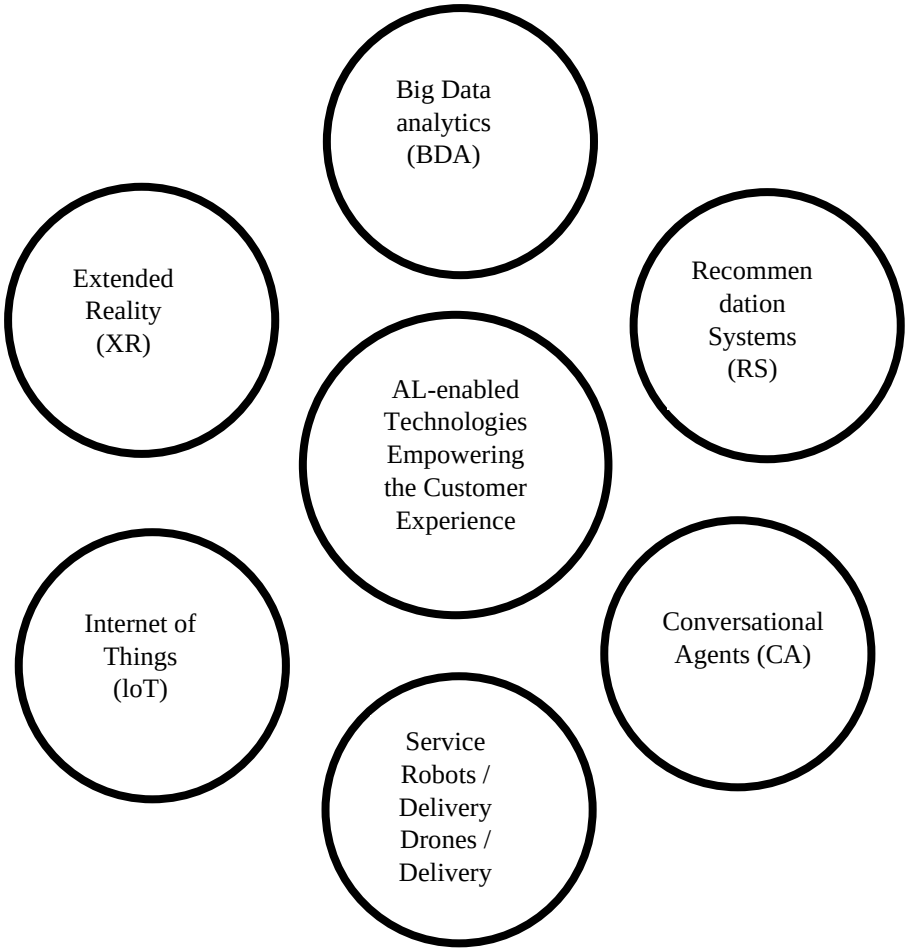

Figure.1: Emerging technologies that are enabled by AI

3.1. Big data analytics (BDA):

Due to the development in popularity of digital marketing and online purchasing, big data has enabled the collection of huge quantities of client information. This information could be used to improve customer service. This information contains details about clients' health, purchases, locations, preferences, choices, likes, dislikes, and GPS signals and comments. Big data are still being collected, offering a treasure trove of customer insights that may be leveraged to improve both services and products. These insights can be utilised to improve both services and goods. In the realm of the Internet, both the maximum data transfer rate and the total data transfer rate are essential aspects. Real-time data, including GPS position, is being considered as a potential solution to the challenge of tracking online orders by executives. Utilizing enormous quantities of raw data that have been turned into meaningful information could aid in demand forecasting. Using this knowledge, it is also possible to predict consumer behaviour and prospective purchases. Big data analytics is beneficial for managers' forecasting, decision-

making, and other management tasks since it provides descriptive, predictive, and prescriptive analytics. When a consumer selects Amazon's anticipatory shipping option, they are presented with products Amazon believes they may be interested in purchasing in the near future. Companies that self-identify as data-driven outperform their competitors in terms of both objective criteria and the company's financial operations. Industry titans such as Amazon and Google are embracing Big data analytics (BDA) to acquire a competitive advantage in this era of intense analytics competition.

3.2. Recommendation Systems (RS):

Having access to so much data, however, can lead to information overload and unsatisfactory decision-making, which can be compounded by the fact that e-commerce offers a range of data and options. Customers can overcome this barrier with the assistance of AI-powered recommender systems that guide them to the finest products and services and aid in the decision-making process. Recommender systems aggregate the individual recommendations of users and distribute them to the most relevant seekers. The underlying techniques can be utilized to generate an extensive variety of recommender system configurations. For instance, content-based recommender systems use behavioral data to generate recommendations, whereas collaborative recommender systems rely on historical data collected from a community. Hybrid recommendation systems use a variety of algorithmic combinations to provide the most useful suggestions.

3.3. Conversational Agents (CA):

Conversational agents are another AI-driven breakthrough that has drastically altered the commercial landscape (CA). A digital or voice assistant converses with clients as part of CA, a new communication method that businesses and customers may use. Conversational commerce is the process through which customers engage a digital assistant to perform their purchasing actions. Customers utilize digital assistants for normal chores such as placing food orders, listening to music, making purchases, and other similar activities, according to a PWC report. Intelligent personal assistants, such as Apple's Siri, Microsoft's Cortana, Amazon's Alexa, and Google's assistant, aim to make users' jobs easier and faster while enhancing their overall experience. Depending on the circumstances, digital assistants can also provide assistance around the house or business, serve as a friend or companion, and do a variety of other tasks.

3.4. Service robots/ Delivery Drones/ Delivery Bots:

Utilizing cutting-edge technologies, such as AI-powered service robots, biometrics, and image processing, there is a substantial opportunity to enhance the customer experience. Future service robots may take the shape of both virtual and physically embodied robots. To assist customers with typical issues, hologram-based service robots may be put in shopping centres, clinics, hotels, airports, train stations, and other public venues. Holograms do not require expensive equipment or a large amount of floor area. In a similar fashion, delivery drones and robots are capable of swiftly delivering food bundles or lightweight items to the customer's doorstep. This distribution system would be desirable to consumers due to its low cost, few negative effects on the environment, and environmental friendliness.

3.5. Internet of Things (IoT):

The Internet of Things is a network of interconnected things, machines, and people that communicate with one another over the internet (IoT). In the not-too-distant future, advanced sensors will enable electrical equipment and home appliances such as air conditioners, washing machines, televisions, refrigerators, and microwaves to work independently. Imagine if your refrigerator could place online orders for fresh foods such as fruits, vegetables, milk, eggs, bread, and butter based on the remaining supply in the various containers. Soon, the internet of things will make all technologies more sophisticated and user-friendly. The Internet of Things has enormous untapped potential to revolutionize the retail experience. The Internet of Things (IoT) enables products to show information about themselves, such as pricing, usage, manufacturing date, specifications, and expiration date, on wearable’s or smartphones.

3.6. Extended Reality (XR):

Extended reality is the combination of augmented reality, virtual reality, and mixed reality, all of which increase our perspective of the surrounding environment. Instagram filters, the Lenscart 3D mirror, and IKEA applications are the best examples of augmented reality (AR), which enhances the actual view by superimposing computer-generated data on top of it (AR). Virtual reality (VR) replaces the user's natural perspective with a 3D frame that presents a virtual environment. Virtual reality has a wide range of applications in a variety of industries, including gaming and entertainment, and its use is steadily growing into other fields, such as education, healthcare, and training. The tourism industry has also identified new opportunities as a result of the capacity of virtual reality technology to give people the feeling of being on a tour without leaving their homes. The ability to project a virtual reality environment into the physical world is a characteristic of MR, which fuses the virtual and physical worlds. Imagine a scenario in which customers who enter a vegetable store are instantly transferred to a farm.

This would be an intriguing and novel approach to retail therapy. Using mixed reality technology, they may harvest items from trees and crops that are actually part of a complex hoax.

4. Literature Review:

According to the findings of [26] research, customer experience and artificial intelligence are intertwined in a way that makes them interdependent. This is because the level of consumer empowerment that may be achieved through social media has a significant impact on a company's or business's reputation. It is significantly more effective to align consumer satisfaction with digital marketing strategies that utilize cutting-edge technological innovations. Improving customer experiences is the manner by which this objective can be achieved. It may be conceivable to enable the crucial role that artificial intelligence plays in providing excellent customer service through a combination of digitization and the supportive dedication of personnel to enhance client experiences. Digital marketing and artificial intelligence have the potential to influence consumers' shopping behaviors in a number of ways, including the identification of needs, the exploration of alternatives, and the evaluation of product suggestions at the purchase stage. During the buying phase, decisions are made, the most suitable method of payment for the transaction is selected, and the buyer's entire satisfaction is ensured. The second level, known as the post purchase level, comprises providing a brief description of how the consumer utilized the goods, how much they consumed, how they engaged with it, and what services or requests they made after completing the purchase. The dynamic manipulation capabilities of the digitalized system as well as the introduction of robotics into the business process and artificial intelligence to automate thought disrupt these patterns. This action is being taken to facilitate the employment of marketing robots.

[27] addressed the role of artificial intelligence in digital marketing, which eventually leads in improved consumer experiences across a variety of organisations. Financial institutions, search engines, and telecommunications firms, among others, have the power to affect how customers interact with digital material. The use of artificial intelligence to improve customer service, sale-purchase support, and effective firm management methods has a direct impact on the perception of digitalization. This phenomenon has been affected by numerous factors. Some of these factors include the use of social media to expand the business, the promotion of small businesses on various social media sites, the promotion of products through online advertisements, and a greater emphasis on customer support and services as well as after-sale

support through technological innovations. Additionally, online booking and buying are growing in popularity.

To boost operational marketing productivity and maximize the output of exceptional customer experiences, [28] focus on the evolution of marketing practices that reach the target customers by employing a variety of technologies in business planning approaches. To enhance the share of operational marketing, [28] focus on the creation of marketing practices that reach target consumers by employing a variety of technologies in corporate planning strategies. Integration of artificial intelligence into the business model and the digital interface play a vital part in the decision-making process involving computational components, such as data sets and the long-term profitability of the commercial endeavour. This role has a substantial impact on the decision-making process involving computational elements, such as data sets, and the long-term profitability of the commercial endeavour. Popular applications of artificial intelligence in decision-making and digital transformation include recommender systems, online pricing, and digital advertising. Business-to-business marketing influences the processes involved in the administration of data and information through the use of technical data management systems. These technologies make it easier to manage customer preferences and the breadth of consumer marketing as a result of automation and extensive digitalization.

In their discussion of the significance of AI in marketing, [29] give a thorough evaluation of the preceding data as well as an analysis of the future effects of the digital world on the growth of various types of enterprises and digital processing. In addition, the writers analyze the potential impacts of the digital age on the future of the labour. Disruptive technologies are explored and discussed in the context of the study using pertinent theoretical frameworks. This knowledge facilitates comprehension of the business applications of concepts such as blockchains, artificial intelligence, big data analysis, the Internet of Things, and digital marketing. It achieves this by employing the appropriate approaches for analyzing business data, hence advancing machine learning technology. Artificial neural networks are neural network models that recreate the patterns of brain cells and neuronal networks using mathematics and computer science. These simulations imitate the structure and function of human brain cells with the aim of creating programs with a comparable level of intensity to integrate learning and commands (ANNs). Using AI and disruptive technologies, researchers can study a variety of topics, including but not limited to the following: The launch of businesses that specialize in e-commerce, promotion management, place management, advertising, or managerial responsibilities, etc. The implementation of chatbots, robotics, and smart retail outlets to enhance the consumer experience.

5. Results:

For our research on the relationship between the evolution of the customer experience and the expansion of business practises brought about by new technologies, we are use qualitative data analysis. In order to do the secondary analysis, which was utilized to conduct the research, it was essential to read a number of papers that provided descriptive work on client experiences. As part of the examination, a qualitative analysis of historical research on digital technology, digital marketing, and disruptive technology is being conducted. This will be conducted as part of the overall investigation. To prepare for the transition of traditional business models into the digital realm, artificial intelligence is being explored in the context of marketing and business management. The aims of the study are to enhance client experiences and accelerate the decision-making process for AI-based online technology solutions. In addition, this research is being undertaken to prepare for the upcoming transition.

The articles utilized centered on certain subtopics pertaining to customer experiences. These specialties included exchange rules that merged artificial intelligence conceptual frameworks with perception, interaction, communication, customer service representation, business navigation, product receipt, and product delivery variables. Additionally, a more extensive study is conducted on the role that digitalization plays in the customer experience, with a particular focus on how it affects the sustainable performance of supply chain conditions. It's a chance to investigate the potential for innovation in customer experience by employing digitalization and automated corporate management technologies. The article examines the significance of artificial intelligence and digital marketing in the marketing of a firm, as well as the benefits that chatbots, virtual assistants, and robots offer. This gives some light on the current situation.

The themes are grouped into the three groups outlined in the preceding sentence. Concerns include artificial intelligence, internet marketing, and the effects of numerous digitalization-related apps on various user experiences. Studies on artificial intelligence (AI) and customer experience have focused on the many beneficial and bad aspects of AI's application in business and marketing. This topic, which focuses on understanding the fundamentals of technology in relation to business, examines the customer experience while utilizing digital marketing, with a strong emphasis on business-related technology concepts. The third topic examines the ways in which digital media can improve business operations and the levels of customer satisfaction that can be achieved through interactions with such organisations.

6. Conclusion:

Artificial intelligence-enabled technology has the potential to enhance customer service in a range of service-based sectors. These innovations include, among others, big data analytics, recommendation engines, conversational agents, service robots and delivery bots, the Internet of Things, and extended reality. AI can provide a significant competitive edge, but there are still issues that need to be resolved. To incorporate AI throughout the entire system, a transition is required, which requires considerable financial investment and careful management of the change process. This article is a resource for managers and practitioners who desire to implement change successfully within their organisations. The study lays the groundwork for overcoming the obstacles associated with implementing an AI-driven strategy to improve customer service. The research focuses especially on improving customer service standards.

7. References:

(1) Sakthivel, H. (2016). AN ANALYSIS OF DIGITAL MARKETING: CUSTOMERS' AND MARKETERS' PERSPECTIVE. Research Gate; unknown. https://www.researchgate.net/publication/337311509_AN_ANALYSIS_OF_DIGITAL_MARKETING_CU STOMERS'_AND_MARKETERS'_PERSPECTIVE

(2) Beal Vangie. "What is customer experience," Webopedia. [Online]. Available: https://www.webopedia.com/TERM/C/customer_experience.html.

(3) "Powering the Future of the Customer Experience" Microsoft, 8 November 2017 [Online]. Available: https://news.microsoft.com/europe/features/ai-powering-customerexperience.

(4) "Impact of AI for Customer Experience", Capgemini [Online]. Available: https://www.capgemini.com/wpcontent/uploads/2019/06/Point-of-view_Impact-of-AI-forCX_Final.pdf .

(5) Bharat Poddar, Yogesh Mishra, and Anandapadmanabhan Ramabhadran. Transform Customer Journeys at Scale—and Transform Your Business. The Boston Consulting Group (BCG) (2019). Accessed from https://www.bcg.com/enin/publications/2019/transform-customer-journeys-scale-transform-business.

(6) Sanjeev Verma, Rohit Sharma, Subhamay Deb, and Debojit Maitra. "Artificial intelligence in marketing: Systematic review and future research direction." International Journal of Information Management Data Insights (2021): 100002.

(7) V. Kumar, Bharath Rajan, Rajkumar Venkatesan, and Jim Lecinski. "Understanding the role of artificial intelligence in personalized engagement marketing." California Management Review 61, no. 4 (2019): 135-155.

(8) Jürgen Kai-Uwe Brock, and Florian Von Wangenheim. "Demystifying AI: What digital transformation leaders can teach you about realistic artificial intelligence?" California Management Review 61, no. 4 (2019): 110-134.

(9) Bharat Poddar, Yogesh Mishra, and Anandapadmanabhan Ramabhadran. Transform Customer Journeys at Scale—and Transform Your Business. The Boston Consulting Group (BCG) (2019). Accessed from https://www.bcg.com/enin/publications/2019/transform-customer-journeys-scale-transform-business.

(10) Naveen Farag Awad, and Mayuram and S. Krishnan. "The personalization privacy paradox: an empirical evaluation of information transparency and the willingness to be profiled online for personalization." MIS quarterly (2006): 13-28.

(11) Ali Tamaddoni Jahromi, Stanislav Stakhovych and Michael Ewing. "Managing B2B customer churn, retention and profitability." Industrial Marketing Management 43, no. 7 (2014): 1258-1268.

(12) Pavaloiu, Alice. (2016). The Impact of Artificial Intelligence on Global Trends. Journal of Multidisciplinary Developments. 1(1), 21- 37

(13) Emma Ojapuska. (2018). The Impact of Chatbots in Customer Engagement. Vaasa University of Applied sciences Thesis. Available: https://www.semanticscholar.org/paper/The-Impact-of-Chatbots-inCustomer-EngagementOjapuska/2d30f33c4b14a7ae401f612aadc6f9b27002d306#paperheader.

(14) BaeBrandtzaeg, AsbjørnFølstad . (2017). Why people use chatbots. Conference Paper, Internet Science: 4th International Conference, INSCI 2017, Thessaloniki, Greece. Available: https://www.researchgate.net/publication/318776998_Why_people_use_chatbots.

(15) André, Q., Carmon, Z., Wertenbroch, K. et al. (2018). Consumer Choice and Autonomy in the Age of Artificial Intelligence and Big Data. Customer Needs and Solutions vol. 5, 28–37. https://link.springer.com/article/10.1007/s40547-017-0085-8.

(16) James Cannella. (2018). Artificial Intelligence in Marketing. Honors Thesis. Available: http://www.jamescannella.com/wpcontent/uploads/2018/04/Cannella_J_Spring_2018.pdf.

(17) Darius Zumstein, Sophie Hundertmark. (2017). Chatbots – An interactive technology for personalized communication, transactions and services. IADIS International Journal 15 (1), pp. 96-109.

(18) Wang, Y., &Petrina, S. (2013). Using Learning Analytics to Understand the Design of an Intelligent Language Tutor. In: International Journal of Advanced Computer Science & Applications (11), pp. 124-131

(19) Görgens, M. (2019). How can Artificial Intelligence use big data to form a better customer experience. Computer Science. 1(1)Pp 1-12.

(20) Deb, S. K., Deb, V., & Jain, R. (2018). Artificial Intelligence - Creating automated insights for customer relationship management. 758-764.

(21) Martin Adam, Michael Wessel and Alexander Benlian. (2020). AI-based chatbots in customer service and their effects on user compliance. Electron Markets. Available: https://link.springer.com/article/10.1007%2Fs12525-020-00414-7.

(22) Bertacchini, F., Bilotta, E., Pantano, P. (2017). Shopping with a robotic companion. Computers in Human Behavior, 77, No C 382– 395.

(23) Dash, R., McMurtrey, M., Rebman, C., & Kar, U. K. (2019). Application of Artificial Intelligence in Automation of Supply Chain Management. Journal of Strategic Innovation and Sustainability, 14(3).

(24) Ivanov, S., & Webster, C. (2017). Adoption of robots, artificial intelligence and service automation by travel, tourism and hospitality companies – a cost-benefit analysis. International Scientific Conference "Contemporary tourism – traditions and innovations", 19- 21 October 2017, Sofia University.

(25) Kuo, C.-M., Chen, L.-C., & Tseng, C.-Y. (2017). Investigating an innovative service with hospitality robots. International Journal of Contemporary Hospitality Management, 29(5), 1305-1321.

(26) Batra, M. (2019). Strengthening Customer Experience through Artificial Intelligence: An upcoming Trend. ResearchGate. https://www.researchgate.net/publication/341606012_Strengthening_Customer_Experience_through_Artificial_Intelligence_An_upcoming_Trend.

(27) Daqar, M. A. M. A., & Smoudy, A. K. A. (2019). THE ROLE OF ARTIFICIAL INTELLIGENCE ON ENHANCING CUSTOMER EXPERIENCE. International Review of Management and Marketing, 9(4), 22–31.

(28) Stone, M., Aravopoulou, E., Ekinci, Y., Evans, G., Hobbs, M., Labib, A., Laughlin, P., Machtynger, J., & Machtynger, L. (2020). Artificial intelligence (AI) in strategic marketing decision-making: a research agenda. The Bottom Line, 33(2), 183–200.

(29) Verma, S., Sharma, R., Deb, S., & Maitra, D. (2021). Artificial intelligence in marketing: Systematic review and future research direction. International Journal of Information Management Data Insights, 1(1), 100002. https://doi.org/10.1016/j.jjimei.2020.100002