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# Role of artificial intelligence chatbot marketing in enhancing customer satisfaction and loyalty in digital shopping experiences

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## **Abstract**

This study aims to explore the impact of AI chatbot marketing on customer satisfaction and loyalty within the context of online shopping in Saudi Arabia. It seeks to understand how the usability and responsiveness of AI chatbots influence customer perceptions and behaviors, ultimately contributing to enhanced satisfaction and loyalty. A cross-sectional research design was employed, utilizing a structured questionnaire to collect data from 271 customers with prior experience in online shopping. Convenience sampling was used to gather responses, and the questionnaire included dimensions related to the usability and responsiveness of AI chatbots. Structural equation modeling (SEM) was applied to analyze the data and assess the relationships between AI chatbot marketing, customer satisfaction, and customer loyalty. The results reveal that AI chatbot marketing significantly enhances customer satisfaction, which in turn positively influences customer loyalty. Additionally, customer satisfaction was found to mediate the relationship between AI chatbot marketing and customer loyalty. These findings highlight the critical role of AI chatbots in shaping customer experiences and fostering long-term loyalty. The study concludes that AI chatbot marketing is a powerful tool for improving customer satisfaction and loyalty in the online shopping environment. By investing in advanced AI technologies and optimizing chatbot functionalities, businesses can create more engaging and satisfying customer interactions. The findings suggest that businesses should prioritize the development and implementation of AI chatbots to enhance customer experiences. By focusing on usability and responsiveness, companies can drive higher levels of satisfaction and loyalty, thereby gaining a sustainable competitive advantage in the digital marketplace. These insights are particularly relevant for online retailers in Saudi Arabia and other regions aiming to capitalize on the growing trend of AI-driven customer engagement.

Keywords: Artificial intelligence, Loyalty, Marketing, Satisfaction, Shopping.

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#### 1. Introduction

The rapid advancement of artificial intelligence (AI) has significantly transformed various industries, particularly in how businesses engage with their customers [1]. Among the most notable innovations in this arena are AI chatbots, which have emerged as essential tools for enhancing customer service, improving communication, and streamlining interactions [2]. As consumer behavior increasingly shifts toward online shopping, the demand for effective customer service solutions has never been more pressing [3]. Customer satisfaction has long been recognized as a critical determinant of customer loyalty. Studies suggest that businesses prioritizing positive customer experiences are more likely to cultivate long-term relationships and foster brand loyalty [4]. In this context, AI chatbots can play a fundamental role, providing customers with immediate responses, personalized interactions, and round-the-clock availability [5, 6]. However, the effectiveness of AI chatbots hinges significantly on two key dimensions: usability and responsiveness. These dimensions influence how customers perceive and interact with chatbots, thereby impacting their overall satisfaction levels [7]. Furthermore, as online shopping continues to gain popularity, understanding the factors that contribute to a positive customer experience becomes essential [8, 9]. AI chatbots facilitate transactions and play an essential role in addressing customer inquiries, providing product recommendations, and handling post-purchase support [10]. The integration of AI chatbots into customer service strategies can significantly reduce response times and improve service quality, which are vital components of customer satisfaction.

The Saudi Arabian market presents a unique opportunity to study the impact of AI chatbot marketing due to its rapidly growing e-commerce sector and a tech-savvy population that embraces digital solutions [11]. The demographic diversity and varying customer expectations in this market highlight the necessity for businesses to leverage AI technologies to meet customer needs effectively. By understanding how AI chatbots can enhance customer satisfaction and foster loyalty, organizations can develop targeted strategies that resonate with the local consumer base.

Despite the increasing prevalence of AI chatbots in the marketplace, there remains a need for empirical research that specifically examines their impact on customer satisfaction and loyalty [12]. This study aims to bridge the existing research gap by exploring the relationships between AI chatbot marketing, customer satisfaction, and customer loyalty. The findings contribute to a deeper understanding of how AI-driven marketing strategies can enhance the customer experience in the digital age. Ultimately, this research is positioned to inform both academic discourse and practical applications in the field of marketing. This study investigates the role of AI chatbot marketing in improving customer satisfaction and loyalty within the online shopping landscape in Saudi Arabia. By shedding light on the significance of AI chatbots in the context of online shopping, this study seeks to provide valuable insights that can help businesses leverage technology to foster customer engagement and loyalty. As the digital marketplace continues to evolve, understanding the dynamics of AI-driven customer engagement strategies will be key for organizations seeking to thrive in an increasingly competitive environment.

## 2. Literature Review

### 2.1. AI chatbot Marketing

AI chatbot marketing has rapidly transformed the landscape of digital marketing, offering businesses innovative ways to engage with customers and enhance their overall experience [5]. As customer expectations continue to rise, companies are increasingly adopting AI chatbots to streamline communication and provide immediate assistance. These intelligent systems utilize advanced algorithms and natural language processing to interact with users in real time, enabling a more personalized and efficient approach to customer service [6, 9]. The effectiveness of AI chatbots in marketing lies in their ability to analyze vast amounts of customer data, allowing businesses to tailor their communication and services to meet individual needs [13]. By integrating chatbots into their marketing strategies, companies can deliver personalized recommendations, respond to inquiries promptly, and address customer concerns efficiently [10]. This level of responsiveness fosters stronger customer relationships and builds brand loyalty, which is imperative in a competitive market [12].

Central to the success of AI chatbot marketing are two dimensions: usability and responsiveness. Usability refers to how easy and intuitive it is for users to interact with the chatbot [7]. A user-friendly interface, clear navigation, and straightforward conversation flows are essential for ensuring that customers can easily access the information or assistance they need. When usability is high, customers are more likely to engage with the chatbot, leading to a more satisfying experience [14]. Companies can enhance usability by incorporating user feedback, continually refining the interface, and ensuring that the chatbot understands various user intents. Responsiveness, on the other hand, pertains to the chatbot's ability to provide timely and relevant answers to user queries [7]. This dimension is critical for maintaining customer engagement and satisfaction. Customers expect quick responses, and a responsive chatbot can significantly reduce wait times, enhancing the overall

experience. Furthermore, the ability to handle multiple inquiries simultaneously ensures that businesses can manage high volumes of customer interactions without compromising service quality [15]. By utilizing machine learning algorithms, chatbots can continually improve their responsiveness by learning from past interactions and adapting their responses accordingly.

Moreover, chatbots play a central role in enhancing operational efficiency. By automating routine tasks such as answering frequently asked questions, processing orders, and providing product information, businesses can free up valuable resources [26]. This allows human employees to focus on more complex and strategic tasks, ultimately leading to improved productivity and enhanced customer satisfaction. AI chatbots also facilitate 24/7 customer support, which is increasingly important in today's fast-paced digital environment [16]. Customers appreciate the convenience of being able to receive assistance outside of regular business hours, and chatbots ensure that help is always available. In addition to meeting customer expectations, providing immediate support enhances conversions by increasing the chances of completing a purchase [17]. Additionally, the use of AI chatbots can significantly improve marketing effectiveness by collecting valuable insights into customer behavior. By tracking interactions and analyzing data patterns, businesses can gain a deeper understanding of their target audience [18]. This information can then be leveraged to refine marketing strategies, optimize campaigns, and enhance overall customer experiences. Hence, the following hypotheses are proposed.

H<sub>I:</sub> Al chatbot marketing influence on customer satisfaction

H<sub>2:</sub> Al chatbot marketing influence on customer loyalty

### 2.2. Customer Satisfaction

Customer satisfaction is a fundamental aspect of determining the success and sustainability of businesses, especially in the context of digital interactions [19]. It refers to how well a product or service meets or exceeds the expectations of customers. In the era of AI chatbot marketing, customer satisfaction has emerged as a key performance indicator that reflects the effectiveness of customer support and service interactions. Satisfied customers are more likely to engage with a business repeatedly, leading to enhanced loyalty, positive word-of-mouth, and overall business growth [20]. AI-driven chatbots are increasingly utilized as a tool to enhance customer satisfaction by providing real-time assistance and personalized interactions [21]. The ability of these chatbots to deliver accurate, timely, and relevant responses to customer inquiries plays a critical role in shaping overall satisfaction levels. Chatbots are designed to engage with customers 24/7, handling queries, resolving issues, and offering recommendations without the need for human intervention. This efficiency is a significant driver of satisfaction, as customers today expect quick and seamless interactions, particularly in online shopping and service environments [17]. Customer satisfaction in AI chatbot marketing is also linked to how well the chatbot understands and addresses individual needs [22]. Personalization and contextual awareness in chatbot responses contribute to a more fulfilling customer experience, which in turn leads to higher satisfaction levels [23]. Businesses that invest in enhancing the sophistication of their chatbot systems often see a direct impact on customer retention and satisfaction, as the technology becomes better equipped to meet diverse customer needs. Ultimately, customer satisfaction in the digital age is closely tied to the effectiveness of AI chatbot interactions. As businesses continue to refine their AI technologies, the ability to meet and exceed customer expectations will remain central to maintaining a competitive edge and fostering long-term customer relationships. Hence, the following hypotheses are proposed.

*H*<sup>3</sup>: *Customer satisfaction influence on customer loyalty.* 

H<sup>4:</sup> Customer satisfaction mediates between Al chatbot marketing and customer loyalty.

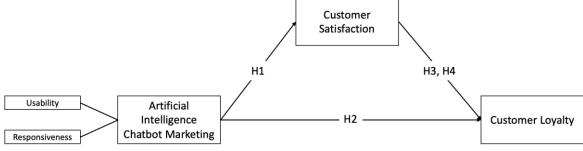


Figure 1. Research model.

## 3. Methodology

This study employed a cross-sectional design to examine the experiences of customers engaging in online shopping in Saudi Arabia. Data were collected from a sample of 271 participants who had experience with online shopping, utilizing a convenience sampling technique to select respondents. The survey instrument included a 5-point Likert scale, allowing participants to express their level of agreement or disagreement with various statements related to their experiences. The focus of the study was on the evaluation of AI chatbots, which were assessed through two key dimensions: usability and responsiveness. To measure usability, nine items were adapted from the work of Rose, et al. [7]. The responsiveness dimension was assessed using four items adapted from Chung, et al. [24]. Additionally, customer satisfaction was measured with four items adapted from Rose, et al. [7], while customer loyalty was evaluated using four items adapted from Forgas-Coll, et al. [25]. Data analysis was conducted using Partial Least Squares Structural Equation Modeling, which enabled the exploration of relationships among the constructs and provided insights into the underlying patterns in the data.

## 4. Results

Table 1 presents the demographic profile of the participants (n=271). In terms of gender, the sample comprises 54% male (146 participants) and 46% female (125 participants). The age distribution indicates that the largest group falls within the 25-34 age range, accounting for 48% (131 participants), followed by the 18-24 age group at 24% (64 participants). The 35-44 age range includes 14% (39 participants), while those aged 45-54 represent 12% (32 participants), and only 2% (5 participants) are in the 55-64 age group. Regarding education levels, 55% of participants hold a bachelor's degree (148 participants), 32% have a master's degree (87 participants), and 13% have completed high school or an equivalent qualification (36 participants).

The measurement model in Table 2 provides an assessment of the reliability and validity of the constructs: AI chatbot marketing with two dimensions such as usability and responsiveness, customer satisfaction, and customer loyalty. All constructs show acceptable reliability, with Cronbach's alpha values ranging from 0.763 to 0.831, indicating strong internal consistency among the items. Composite reliability values, although slightly lower, still meet the acceptable threshold of 0.70, suggesting that the items reliably measure their respective constructs. The average variance extracted values for all constructs are above 0.50, demonstrating good convergent validity, meaning that the constructs explain more than half of the variance in their indicators. Additionally, the item loadings for each construct exceed the 0.70 threshold, further confirming the adequacy of the measurement model. The evaluation of higher-order constructs was conducted for AI chatbot marketing.

The discriminant validity of the constructs (Table 3)—AI chatbot marketing, customer loyalty, and customer satisfaction—was assessed using the Fornell-Larcker criterion. Discriminant validity is established. The square root of the AVE for AI chatbot marketing (0.76), customer loyalty (0.657), and customer satisfaction (0.678) is higher than their respective correlations with each other.

The path coefficients in Table 4 illustrate the relationships between AI chatbot marketing, customer satisfaction, and customer loyalty. The path from AI chatbot marketing to customer satisfaction shows a positive and significant effect, with a beta value of 0.396, a t-statistic of 11.626, and a p-value of 0.00, supporting H1. Similarly, AI chatbot marketing has a strong positive impact on customer loyalty, with a beta of 0.584, a t-statistic of 14.447, and a p-value of 0.00, confirming H2. Customer satisfaction also positively influences customer loyalty, as shown by a beta of 0.426, a t-statistic of 9.253, and a p-value of 0.00, supporting H3. Additionally, the mediation analysis demonstrates that AI chatbot marketing influences customer loyalty through customer satisfaction, with a beta of 0.453, a t-statistic of 7.59, and a p-value of 0.00, supporting H4. Thus, all four hypotheses are supported, indicating significant relationships among the constructs.

The R-square values in Figure 2 indicate the proportion of variance explained by the independent variables for each dependent variable in the model. The R-square value for customer satisfaction is 0.416, meaning that AI chatbot marketing explains 41.6% of the variance in customer satisfaction. Similarly, the R-square value for customer loyalty is 0.397, indicating that AI chatbot marketing and customer satisfaction together explain 39.7% of the variance in customer loyalty. These values suggest that the model has moderate explanatory power for both customer satisfaction and customer loyalty.

**Table 1.**Demographic profile of participants (n=271)

	Frequency	Percent	
Gender			
Male	146	54%	
Female	125	46%	
Age			
18-24	64	24%	
25-34	131	48%	
35-44	39	14%	
45-54	32	12%	
55-64	5	2%	
Education			
High School or equivalent	36	13%	
Bachelor's Degree	148	55%	
Master's Degree	87	32%	

**Table 2.** Measurement model.

		Cronbach's	Composite	Average variance
Items with constructs	Loadings	alpha	reliability	extracted (AVE)
AI chatbot marketing		0.831	0.788	0.532
Usability		0.795	0.712	0.594
US1: "Learning to navigate e-commerce websites is				
simple with assistance from the chatbot."	0.713			
US2: "Searching with assistance from the chatbot saves				
me time."	0.753			

T. 10	T 11	Cronbach's	Composite	Average variance
Items with constructs	Loadings	alpha	reliability	extracted (AVE)
US3: "The chatbot makes e-commerce websites easy to	0.012			
use and effortless."	0.813			
US4: "The chatbot can initiate conversations for further				
discussion, such as by offering suggestions or presenting				
the functionalities of products or services on e-commerce	0.02			
websites."	0.83			
US5: "The chatbot provides customers with specific,	0.702			
preferred information."	0.793			
US6: "The chatbot provides clear, easy-to-read	0.702			
information."	0.782			
US7: "The chatbot provides a comprehensive solution to	0.711			
my problems."  US8: "The chatbot is aware of the context during a	0.711			
	0.720			
conversation"	0.729			
US9: "The chatbot is capable of solving my problems."	0.783	0.700	0.776	0.622
Responsiveness	0.001	0.788	0.776	0.632
RE1: "The chatbot responds quickly."	0.801			
RE2: "Getting in contact with the chatbot is simple."	0.794			
RE3: "The chatbot is always available when I need it."	0.776			
RE4: "The chatbot provides credible guidance."	0.739			
Customer Satisfaction		0.763	0.756	0.661
CS1: "I am pleased to use the chatbot."	0.748			
CS1: "I am satisfied with the pre-purchase experience of				
using the chatbot, including product search, the quality of				
information on products or services, and product				
comparison."	0.764			
CS1: "I am satisfied with my overall experience using the				
chatbot."	0.791			
CS1: "I recommend that others use the chatbot."	0.722			
Customer Loyalty		0.801	0.782	0.551
CL1: "I would visit the chatbot again."	0.691			
CL2: "I encourage my friends to visit the chatbot."	0.733			
CL3: "I consider chatbots to be my first choice for future				
purchases."	0.772			
CL4: "I would recommend the chatbot to my friends."	0.793			

**Table 3.** Discriminant validity (Fornell-Larcker criterion).

	Al chatbot marketing	<b>Customer loyalty</b>	Customer satisfaction
Al chatbot marketing	0.76		
Customer loyalty	0.537	0.657	
Customer satisfaction	0.626	0.536	0.678

**Table 4.** Path coefficients.

Paths	Beta	Standard deviation	T statistics	P values	Results
Al Chatbot marketing -> Customer satisfaction	0.396	0.181	11.626	0.00	H1 supported
Al Chatbot marketing -> Customer loyalty	0.584	0.187	14.447	0.00	H2 supported
Customer satisfaction -> Customer loyalty	0.426	0.34	9.253	0.00	H3 supported
Al Chatbot marketing -> Customer satisfaction -> Customer loyalty	0.453	0.191	7.59	0.00	H4 supported

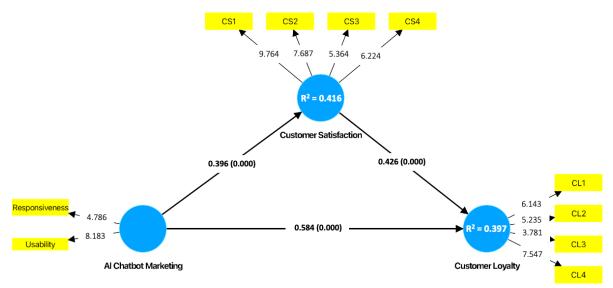


Figure 2. Structural model.

## 5. Discussion

The results of this study provide strong support regarding the relationships between AI chatbot marketing, customer satisfaction, and customer loyalty. Each hypothesis was tested and validated, highlighting the critical role that AI chatbots play in enhancing customer experiences in online shopping. Hypothesis 1 (H1) posited that AI chatbot marketing positively influences customer satisfaction ( $\beta = 0.396$ ). This indicates that effective AI chatbot marketing strategies significantly enhance customer satisfaction. The interaction with AI chatbots allows customers to receive immediate assistance and personalized support, leading to a more enjoyable shopping experience. These results align with existing literature, suggesting that user-friendly AI technologies can substantially improve customer engagement and satisfaction [15]. Hypothesis 2 (H2) examined the relationship between AI chatbot marketing and customer loyalty ( $\beta = 0.584$ ). This finding underscores the importance of AI chatbots not only in satisfying customers but also in fostering their loyalty. When customers experience effective communication and assistance through AI chatbots, they are more likely to develop a lasting connection with the brand. This relationship emphasizes the need for businesses to leverage AI chatbots as a tool to enhance customer loyalty by ensuring a positive interaction experience [26]. Hypothesis 3 (H3) explored the impact of customer satisfaction on customer loyalty ( $\beta = 0.426$ ). The positive correlation between these constructs suggests that organizations should prioritize customer satisfaction initiatives, as satisfied customers are more likely to exhibit loyalty and repeat business [13, 14]. This reinforces the idea that enhancing customer experiences through effective AI interactions is essential for fostering long-term loyalty. Hypothesis 4 (H4) posited that customer satisfaction mediates the relationship between AI chatbot marketing and customer loyalty ( $\beta = 0.453$ ). The results indicate that customer satisfaction acts as a vital intermediary in this relationship. This finding emphasizes that while AI chatbot marketing directly impacts customer loyalty, it is the level of customer satisfaction achieved through these interactions that ultimately drives loyalty outcomes. Organizations must recognize the importance of optimizing customer satisfaction through AI chatbot interactions to realize its full potential in promoting customer loyalty [27]. The results of this study affirm the significant interconnections between AI chatbot marketing, customer satisfaction, and customer loyalty. These findings highlight the necessity for businesses to invest in the development and optimization of their AI chatbot systems, ensuring they provide high usability and responsiveness [11]. By doing so, companies can create a more satisfying customer experience, which in turn fosters loyalty and enhances overall brand value in the competitive online shopping landscape.

The findings of this study carry significant implications for businesses aiming to enhance customer experiences and foster loyalty through AI chatbot marketing. Firstly, organizations should prioritize investments in AI technologies, particularly AI chatbots, to improve customer service capabilities [28]. As AI chatbot marketing significantly enhances customer satisfaction, companies must ensure that their chatbots are equipped with advanced features that facilitate userfriendly interactions. This includes providing accurate information, immediate responses, and personalized support tailored to individual customer needs [29]. It's also important to make AI chatbot design more user-friendly and responsive. Businesses will need to evaluate and update on a regular basis to ensure that their chatbots remain intuitive and efficient [30]. By improving responsiveness, businesses can significantly boost customer satisfaction and loyalty. Additionally, customer satisfaction should be integrated as a core component of the overall business strategy, with organizations regularly collecting feedback through surveys, reviews, and direct chatbot interactions to assess satisfaction levels and identify areas for improvement [31]. Creating a culture that prioritizes customer satisfaction will help build long-term relationships, leading to repeat business and advocacy [32]. Leveraging insights gained from chatbot interactions also presents an opportunity for targeted marketing strategies. By understanding customer preferences, behaviors, and pain points, businesses can tailor marketing campaigns and offers to enhance satisfaction and loyalty. Moreover, while AI chatbots can handle many inquiries, human customer service agents are still essential for addressing complex issues. Thus, investing in training programs that empower human agents with insights derived from chatbot interactions can lead to more informed support and improved

customer experiences, especially on social media [33, 34]. Establishing key performance indicators to monitor customer satisfaction metrics from AI chatbot interactions is also vital; metrics such as customer satisfaction scores and net promoter scores can guide strategic decision-making and continuous improvement efforts.

Finally, businesses should focus on creating an integrated customer experience, ensuring seamless transitions between chatbot interactions and other customer service channels. This holistic approach will enhance customer satisfaction by providing a consistent experience across touchpoints, ultimately driving loyalty. In summary, the implications of this study underscore the necessity for businesses to harness the capabilities of AI chatbots to strengthen customer satisfaction and loyalty, achieving sustainable competitive advantages in an increasingly digital marketplace.

## 6. Conclusion

This study highlights the pivotal role of AI chatbot marketing in enhancing customer satisfaction and loyalty within the online shopping landscape. The findings demonstrate significant positive relationships between AI chatbot marketing, customer satisfaction, and customer loyalty, along with the mediating role of customer satisfaction in influencing loyalty. These results underscore the importance of investing in advanced AI technologies and optimizing chatbot usability and responsiveness to effectively meet customer needs. Organizations are encouraged to prioritize customer satisfaction as a core component of their strategic initiatives, leveraging insights gained from chatbot interactions to tailor marketing efforts and improve service delivery. By fostering a culture centered on customer satisfaction and ensuring seamless integration across service channels, businesses can strengthen customer relationships and cultivate long-term loyalty. Ultimately, the implications of this research provide valuable insights for practitioners and contribute to the growing body of knowledge on the impact of AI-driven customer engagement strategies. As the digital marketplace continues to evolve, harnessing the power of AI chatbots will be essential for organizations aiming to enhance customer experiences and achieve sustainable competitive advantages.

## References

- [1] D. C. Gkikas and P. K. Theodoridis, "AI in consumer behavior," *Advances in Artificial Intelligence-based Technologies: Selected Papers in Honour of Professor Nikolaos G. Bourbakis*, vol. 1, pp. 147-176, 2022. https://doi.org/10.1007/978-3-030-80571-5 10
- [2] S. O. Babatunde, O. A. Odejide, T. E. Edunjobi, and D. O. Ogundipe, "The role of AI in marketing personalization: A theoretical exploration of consumer engagement strategies," *International Journal of Management & Entrepreneurship Research*, vol. 6, no. 3, pp. 936-949, 2024. https://doi.org/10.51594/ijmer.v6i3.964
- [3] V. Vidhya, S. Donthu, L. Veeran, Y. S. Lakshmi, and B. Yadav, "The intersection of AI and consumer behavior: Predictive models in modern marketing," *Remittances Review*, vol. 8, no. 4, pp. 2410–2424, 2023.
- [4] N. Naveeenkumar, S. Rallapalli, K. Sasikala, P. V. Priya, J. Husain, and S. Boopathi, "Enhancing consumer behavior and experience through AI-driven insights optimization. In AI Impacts in Digital Consumer Behavior," IGI Global. https://doi.org/10.4018/979-8-3693-1918-5.ch001, 2024, pp. 1-35.
- [5] Y. Cheng and H. Jiang, "Customer–brand relationship in the era of artificial intelligence: understanding the role of chatbot marketing efforts," *Journal of Product & Brand Management*, vol. 31, no. 2, pp. 252-264, 2022. https://doi.org/10.1108/JPBM-05-2020-2907
- [6] W. E. Kedi, C. Ejimuda, C. Idemudia, and T. I. Ijomah, "AI Chatbot integration in SME marketing platforms: Improving customer interaction and service efficiency," *International Journal of Management & Entrepreneurship Research*, vol. 6, no. 7, pp. 2332-2341, 2024. https://doi.org/10.51594/ijmer.v6i7.1327
- [7] S. Rose, M. Clark, P. Samouel, and N. Hair, "Online customer experience in e-retailing: an empirical model of antecedents and outcomes," *Journal of retailing*, vol. 88, no. 2, pp. 308-322, 2012. https://doi.org/10.1016/j.jretai.2012.03.001
- [8] U. Arsenijevic and M. Jovic, "Artificial intelligence marketing: chatbots," in 2019 International Conference on Artificial intelligence: Applications and Innovations (IC-AIAI). https://doi.org/10.1109/IC-AIAI48757.2019.00010, 2019: IEEE, pp. 19-193
- [9] A. Bariş, "A new business marketing tool: Chatbot," *GSI Journals Serie B: Advancements in Business and Economics*, vol. 3, no. 1, pp. 31-46, 2020.
- [10] Y. Kurachi, S. Narukawa, and H. Hara, "AI chatbot to realize sophistication of customer contact points," *Fujitsu Scientific and Technical Journal*, vol. 54, no. 3, pp. 2-8, 2018.
- [11] Y. Alamoudi, H. Alasmari, G. Alamoudi, and H. Alghamdi, "AI-powered virtual assistant: To enhance Saudi Arabia travel experience and support tourism growth," presented at the Intelligent Systems Conference, Cham: Springer Nature Switzerland, 2024.
- [12] A. Ramesh and V. Chawla, "Chatbots in marketing: A literature review using morphological and co-occurrence analyses," *Journal of Interactive Marketing*, vol. 57, no. 3, pp. 472-496, 2022. https://doi.org/10.1177/10949968221095549
- [13] C. Prabha and S. Kumari, *AI in marketing: AI-powered chatbot. In Ethical AI and Data Management Strategies in Marketing.* IGI Global. https://doi.org/10.4018/979-8-3693-6660-8.ch002, 2024, pp. 11–25.
- [14] X. Luo, S. Tong, Z. Fang, and Z. Qu, "Frontiers: Machines vs. humans: The impact of artificial intelligence chatbot disclosure on customer purchases," *Marketing Science*, vol. 38, no. 6, pp. 937-947, 2019. https://doi.org/10.1287/mksc.2019.1192
- [15] S. M. Murali, C. Sandhya, N. Behare, A. Unnikrishnan, and B. Rajasekaran, "Analysis of Chat bots based Artificial Intelligence (AI) Marketing," *Indian Journal of Natural Sciences*, vol. 13, no. 73, pp. 45606-45610, 2022.
- [16] A. K. Kushwaha and A. K. Kar, "MarkBot–a language model-driven chatbot for interactive marketing in post-modern world," *Information Systems Frontiers*, vol. 26, no. 3, pp. 857-874, 2024. https://doi.org/10.1007/s10796-021-10184-y
- [17] F. R. Sofiyah, A. Dilham, A. Q. Hutagalung, Y. Yulinda, A. S. Lubis, and J. L. Marpaung, "The chatbot artificial intelligence as the alternative customer services strategic to improve the customer relationship management in real-time responses,"

  \*International Journal of Economics and Business Research\*, vol. 27, no. 5, pp. 45-58, 2024. https://doi.org/10.1504/IJEBR.2024.139810

- [18] A. Alabed, A. Javornik, D. Gregory-Smith, and R. Casey, "More than just a chat: A taxonomy of consumers' relationships with conversational AI agents and their well-being implications," *European Journal of Marketing*, vol. 58, no. 2, pp. 373-409, 2024. https://doi.org/10.1108/EJM-01-2023-0037
- [19] H. Jiang, Y. Cheng, J. Yang, and S. Gao, "AI-powered chatbot communication with customers: Dialogic interactions, satisfaction, engagement, and customer behavior," *Computers in Human Behavior*, vol. 134, p. 107329, 2022. https://doi.org/10.1016/j.chb.2022.107329
- [20] M. Sohail, Z. Mohsin, and S. Khaliq, "User satisfaction with an AI-enabled customer relationship management chatbot," in *International Conference on Human-Computer Interaction, Springer. https://doi.org/10.1007/978-3-030-90176-9\_36*, 2021, pp. 279-287.
- [21] J. Kaur, A. Choppadandi, P. K. Chenchala, V. Nakra, and P. K. G. Pandian, "Case studies on improving user interaction and satisfaction using AI-Enabled chatbots for customer service," *International Journal of Transcontinental Discoveries*, vol. 6, no. 1, pp. 43-48, 2019.
- [22] B. A. Eren, "Determinants of customer satisfaction in chatbot use: evidence from a banking application in Turkey," *International Journal of Bank Marketing*, vol. 39, no. 2, pp. 294-311, 2021. https://doi.org/10.1108/IJBM-02-2020-0056
- [23] D. Huang, D. G. Markovitch, and R. A. Stough, "Can chatbot customer service match human service agents on customer satisfaction? An investigation in the role of trust," *Journal of Retailing and Consumer Services*, vol. 76, p. 103600, 2024. https://doi.org/10.1016/j.jretconser.2023.103600
- [24] M. Chung, E. Ko, H. Joung, and S. J. Kim, "Chatbot e-service and customer satisfaction regarding luxury brands," *Journal of Business Research*, vol. 117, pp. 587-595, 2020. https://doi.org/10.1016/j.jbusres.2018.10.004
- [25] S. Forgas-Coll, R. Palau-Saumell, J. Sánchez-García, and L. J. Callarisa-Fiol, "Urban destination loyalty drivers and cross-national moderator effects: The case of Barcelona," *Tourism Management*, vol. 33, no. 6, pp. 1309-1320, 2012. https://doi.org/10.1016/j.tourman.2011.12.013
- P. Rivas and L. Zhao, "Marketing with chatgpt: Navigating the ethical terrain of gpt-based chatbot technology," *AI*, vol. 4, no. 2, pp. 375-384, 2023. https://doi.org/10.3390/ai4020019
- [27] A. N. Alnasser, "Determinants of retailers' adoption intentions and attitudes toward augmented reality marketing: An empirical analysis," *Journal of Statistics Applications & Probability*, vol. 13, no. 5, pp. 1465-1476, 2024. https://doi.org/10.18576/jsap/130504
- [28] S. Alateeg and A. Alhammadi, "The impact of organizational culture on organizational innovation with the mediation role of strategic leadership in Saudi Arabia," *Journal of Statistics Applications & Probability*, vol. 13, no. 2, pp. 843-858, 2024.
- [29] S. Al-Ayed and A. Al-Tit, "The impact of digitized customer behaviors on performance: The mediating and the moderating role of digitized CRM," *International Journal of Data and Network Science*, vol. 8, no. 1, pp. 189-194, 2024. https://doi.org/10.5267/j.ijdns.2023.10.005
- [30] S. Alateeg and A. Alhammadi, "The role of employee engagement towards innovative work behavior mediated by leadership in small businesses," *International Journal of Advances in Applied Sciences*, vol. 11, no. 2, pp. 145–156, 2024. https://doi.org/10.21833/ijaas.2024.02.016
- [31] A. N. Alnasser, M. A. Almushaiti, and S. A. Almositeer, "Factors influencing intention to use augmented reality for shopping in United States," *American Journal of Business Science Philosophy*, vol. 1, no. 1, pp. p58-60, 2024. https://doi.org/10.70122/ajbsp.v1i1.12
- [32] S. Alateeg and S. Al-Ayed, "Exploring the role of artificial intelligence technology in empowering women-led startups," *Knowledge and Performance Management*, vol. 8, no. 2, p. 28, 2024. https://doi.org/10.21511/kpm.08(2).2024.03
- [33] T. Tasente, M. Alina Carataş, and T. T. Y. Alabdullah, "Sentiment analysis of the European Central Bank's social media activity during the Covid-19 pandemic and the Ukraine war: A crisis communication navigator," *Doxa Comunicación*, no. 38, 2024. https://doi.org/10.31921/doxacom.n38a2051
- [34] T. Tasente and M.-A. Caratas, "Sentiment Analysis in Social Media: A Comprehensive Bibliometric Analysis," *adComunica*, pp. 243-270, 2024. https://doi.org/10.6035/adcomunica.7819