TRANSFORMING CUSTOMER EXPERIENCE THROUGH ARTIFICIAL INTELLIGENCE: THE MARKETERS' PERSPECTIVE

TRANSFORMACIJA ISKUSTVA KUPACA PRIMJENOM UMJETNE INTELIGENCIJE: PERSPEKTIVA MARKETINŠKIH STRUČNJAKA

Market-Tržište
Vol. 36, No. 2, 2024, pp. 153-167
UDK: 658.89:004.8
DOI http://dx.doi.org/10.22598/mt/2024.36.2.153
Original scientific paper

Vatroslav Škare[a]

[a] University of Zagreb, Faculty of Economics & Business, Trg J. F. Kennedyja 6, 10000 Zagreb, CROATIA, e-mail: vskare@efzg.hr

Abstract

Purpose – The emergence of artificial intelligence (AI) created many opportunities for improving and enhancing customer experiences in the digital environment. The aim of this paper is to highlight the main areas of customer experience improvements and enhancements based on the application of artificial intelligence, from a marketers' perspective.

Design/methodology/approach – A literature review was conducted to assess current scientific knowledge on the role of artificial intelligence in improving and enhancing customer experience of digital products and services. Furthermore, as part of exploratory research, in-depth interviews were conducted with marketing experts experienced in digital product/service management.

Findings and implications – A range of insights and reflections on the role of artificial intelligence in customer experience improvements and enhancements are provided. Key areas of applicability of artificial intelligence in customer experience improvements and enhancements are identified and discussed, including personalization, service quality, and convenience.

Sažetak

Svrha – Pojavom umjetne inteligencije (engl. artificial intelligence, AI) u digitalnom su okruženju stvorene brojne prilike za poboljšanje i unapređenje korisničkog iskustva (engl. customer experience, CE). Rad se bavi glavnim područjima poboljšanja i unapređenja korisničkog iskustva temeljenim na primjeni umjetne inteligencije, a iz perspektive marketinških stručnjaka.

Metodološki pristup –- Proveden je pregled literature kako bi se analizirale trenutne znanstvene spoznaje o ulozi umjetne inteligencije u poboljšanju i unapređenju korisničkog iskustva digitalnih proizvoda i usluga. Nadalje, provedeno je izviđajno istraživanje putem dubinskih intervjua s marketinškim stručnjacima iskusnim u upravljanju digitalnim proizvodima/uslugama.

Rezultati i implikacije – Pružen je niz uvida i promišljanja o ulozi umjetne inteligencije u poboljšanjima i unapređenjima korisničkog iskustva. Identificirana su i raspravljena ključna područja njezine primjenjivosti u poboljšanjima i unapređenjima korisničkog iskustva, uključujući personalizaciju, kvalitetu usluge i dostupnost.

Ograničenja – Rezultati istraživanja ograničeni su prirodom samog istraživanja i metodologijom dubinskih

Limitations – The findings of this study are constrained by its exploratory nature and the methodology of in-depth interviews with a limited number of key informants, potentially limiting their generalizability. Furthermore, the reliance on qualitative data may introduce subjective biases and overlook quantitative analysis.

Originality – This study extends understanding of the role artificial intelligence has in improving and enhancing customer experience in the digital environment. It also provides a managerial perspective on the phenomenon.

Keywords: customer experience, artificial intelligence, personalization

intervjua s ograničenim brojem ispitanika što potencijalno ograničava generaliziranje rezultata. Nadalje, oslanjanje na kvalitativne podatke može dovesti do subjektivnosti i zanemarivanja kvantitativnog uvida.

Doprinos – Rad proširuje razumijevanje uloge umjetne inteligencije u poboljšanju i unapređenju korisničkog iskustva u digitalnom okruženju. Također, pruža perspektivu stručnjaka iz prakse o ovoj problematici.

Ključne riječi: korisničko iskustvo, umjetna inteligencija, personalizacija, kvaliteta usluge

1. INTRODUCTION

Customer experience has become one of the most important concepts for understanding the interaction between businesses and their customers. From the rise of the experience economy (Pine and Gilmore, 1998) to more recent discussions on customer journeys (Lemon & Verhoef, 2016) and technological advancements in interacting with customers (Chiang, 2023), customer experience remains one of the most dynamic areas in marketing science and practice. Since its emergence, the concept of customer experience has been refined to include a broad set of direct and indirect interactions between customers and businesses (Gupta & Vajic, 2000; Meyer & Schwager, 2007; Brakus, Schmitt & Zarantonello, 2009; Homburg, Jozić & Kuehnl, 2017). These interactions take place across stages – before, during, and after a purchase – placing responsibility on managers to coordinate these interactions effectively throughout the whole customer journey (Lemon & Verhoef, 2016). Initially, definitions of customer experience were focused on interactions of customers with humans or physical components at the side of the offerings, but more recently literature recognizes that the digital realm has become an equally important component of modern customer experiences (Bolton, Gallan, Orsingher, Witell & Zaki, 2018; Verhoef, 2021).

Constant development of digital technologies puts an emphasis on how these technologies are transforming customer experience and require marketing managers to pursue omni-channel integration (Verhoef, Kannan & Inman, 2015). As new digital touchpoints (such as chatbots, virtual assistants, and robotics) emerged, researchers focused on examining their impact on customer experience in real-time, personalized contexts (Bolton et al., 2018; Hoyer, Kroschke, Schmitt, Kraume, & Shankar, 2020; Chiang, 2023). These developments have led to a broader conversation about artificial intelligence (AI) and its transformative capacity in managing customer experiences. Although AI is not a novel discipline, it has only recently achieved a level of development and accessibility that can meaningfully impact marketing practice (Wu & Monfort, 2023). A growing number of studies examine AI's capabilities in analysing large quantities of customer data, automating or augmenting service interactions, and integrating digital and physical experiences (Hoyer et al., 2020; Chaturvedi & Verma, 2022). But the surge in public attention to AI tools in late 2022 (Roose, 2022) significantly accelerated their diffusion and provided new applications that go beyond the boldest predictions. As a result, marketing managers now face a rapidly shifting landscape in which AI's features are amplified by advances in natural language processing, predictive analytics, recommendation systems, and multimodal models.

Following these recent advances in making AI much more accessible and applicable for marketing practice since late 2022, significant gaps persist in the understanding of how modern AI-enabled technological solutions transform, rather than merely enhance, customer experiences. Much extant research has focused on particular AI applications (e.g., service chatbots), specific industries (e.g., hospitality, retail), or narrow outcome measures (e.g., Ameen, Tarhini, Reppel, & Anand, 2021; Hoyer et al., 2020). Several researchers have highlighted the importance of exploring AI's transformative influence on customer experience more holistically, including organizational challenges, ethical considerations, and strategic integration across channels (Bolton et al., 2018; Kumar, Rajan, Venkatesan, & Lecinski, 2019; Becker & Jaakkola, 2020). Finally, current literature has not sufficiently examined the role of marketers' experiences with emerging AI tools, especially as these tools evolve at an unprecedented pace. In other words, while it is known that AI has the potential to transform customer experience at scale, questions remain as to how marketing professionals are navigating these changes and how they anticipate the future of AI-driven customer experience. This study addresses this particular gap by investigating marketers' perspectives on AI's transformative role in customer experience. Through

six in-depth interviews with experienced marketing experts, this study strives to reach the following research objectives: (1) to identify current challenges marketers are facing in managing customer experiences; (2) to enhance the understanding of the main ways in which AI transforms/will transform customer experiences; and (3) to explore marketers' firsthand experiences in using AI to transform customer experiences. By comparing current theoretical insights on customer experience and AI with practical experiences from marketing experts, this study contributes to a richer understanding of AI's potential in transforming customer experiences and the obstacles to its successful implementation.

The remaining part of the paper is structured as follows. First, a literature review on the emergence of customer experience concept, its digital transformation, and the role of AI in its management, is provided. Next, methodology is described in terms of research approach, sampling, data collection and analysis. Next, the results of in-depth interviews are presented, followed by the discussion and conclusions. Finally, limitations of the study and future research recommendations are given.

2. LITERATURE REVIEW

2.1. The emergence of customer experience concept

The concept of experience in the area of marketing gained traction in the late 1990s, when literature started to describe experience as a specific economic offering, beyond goods and services (Pine & Gilmore, 1998; Schmitt, 1999). Practitioners and consultants quickly embraced new terms such as customer experience and customer experience management, followed by researchers who expressed a significant interest in this new domain (e.g., Gupta & Vajic, 2000; Meyer & Schwager, 2007; Brakus et al., 2009; Verhoef, Lemon, Parasuraman, Roggeveen, Tsiros & Schlesinger, 2009; Palmer, 2010; Lemon & Verhoef, 2016; Homburg et al., 2017; Becker & Jaakkola, 2020; Chiang, 2023). One of the first comprehensive definitions of customer experience comes from Gupta and Vajic (2000), who define it as a customer's sensation or knowledge acquisition which are a result of certain level of interaction with different elements of a context created by a service company. Harris, Harris and Baron (2003) introduced the concept of total customer experience, defined as all contacts that a customer has with an organization. Meyer and Schwager's (2007) highly cited paper conceptualized customer experience as the internal and subjective response of customers to any direct or indirect contact with an organization. These perspectives emphasized the importance of managing customer touchpoints effectively to enhance customer experience. In the context of brand management, Brakus et al. (2009) introduced the concept of brand experience and defined it as subjective (sensations, feelings, and cognitions) and behavioral consumer responses evoked by brand-related stimuli (i.e., brand's design and identity, packaging, communications, and environments). Following seminal contributions on the phenomenon, Verhoef et al. (2009) added to the initial definitions of customer experience by stressing its holistic nature which involves the customer's cognitive, affective, emotional, social, and physical responses to an organization. According to Verhoef et al. (2009), customer experience is created by elements that a business control (e.g., service, price), as well as the elements that a business cannot control (e.g., customer's goals, social influence). These authors also emphasize that customer experience starts before the purchase, continues after the consumption, and is influenced by previous customer experiences. This has led to framing customer experience in stages, i.e., the customer journey (Lemon & Verhoef, 2016), which encompasses pre-purchase, purchase, and post-purchase phases of the current customer experience, as well as previous and future customer experiences. It enables a touchpoint-focused approach and considers the effect that past experiences can have on current, as well as future experiences. Following

the abovementioned developments, Homburg et al. (2017) proposed a contemporary and holistic definition customer experience, as "the evolvement of a person's sensorial, affective, cognitive, rational, and behavioral responses to a firm or brand by living through a journey of touchpoints along pre-purchase, purchase and post-purchase situations and continually judging this journey against response thresholds of co-occurring experiences in a person's related environment" (Homburg et al., 2017, p. 384).

Marketing practitioners were pioneers in understanding and applying the concept of customer experience by means of customer experience management or CEM. Nevertheless, Palmer (2010) was among the first to propose a scientific conceptualization of CEM, claiming that "customer experience managers" could succeed where "customer relationship managers" failed – to deliver customer value in the form of experience that meets a customer's needs and expectations. The reason for this is that customer relationship management (CRM) primarily focuses on using customer data for customer retention and profit maximization. Meanwhile, CEM focuses on the design and continuous improvements of experiences by integrating cultural mindsets, strategic initiatives, and organizational capabilities for the purpose of building long-term customer loyalty (Homburg et al., 2017). CEM is based on collaboration between marketing, operations, and human resources, which brings many challenges that managers face in its application (Palmer, 2010; Kandampully, Zhang & Jaakkola, 2018).

Scientific knowledge about customer experience and CEM comes from different areas, such as retailing (e.g., Verhoef et al., 2009), branding (e.g., Brakus et al., 2009; Schmitt, Brakus & Zarantonello, 2014), and hospitality (e.g., Kandampully et al., 2018). Therefore, Becker and Jaakkola (2020) provided a synthesis of customer experience research and identified two research traditions: 1) studying customer experience as responses to managerial stimuli (e.g., services marketing, retailing, branding, etc.), and 2) as responses to consumption processes (e.g., service-dominant logic). They also defined a set of fundamental premises of customer experience and proposed multiple guidelines for future research. Among other propositions, investigating the role of technological innovations, creating extraordinary experiences, new types of stimuli, and segmenting customers by specific responses to stimuli are suggested topics for future research. Since customer experience exists at the intersection of digital, physical, and social realms (Bolton et al., 2018), digital transformation of customer experience deserves constant attention from scientific and practice perspectives.

2.2. Customer experience in the digital age

Constant development of digital technologies significantly impacts the concept of customer experience and introduces new challenges for managers. Customer journeys include both offline and digital touchpoints, which calls for integration of physical and digital channels, often referred as omni-channeling (Verhoef et al., 2015). The role of omni-channeling is to enhance the overall customer experience, ensuring that customers receive consistent and personalized service irrespective of whether their chosen platform is digital or non-digital, which consequently reinforces brand reliability and customer loyalty. Klaus (2014) highlights digital customer experience as an important competitive battleground for businesses and proposes a typology of customer experience management practices linked to measurable organizational outcomes. Digital customer experience is not just a subset of customer experience because customer expectations of a fast and seamless interaction with companies in the digital environment surpass those involving offline customer experiences (Borowski, 2015; Parise, Guinan & Kafka, 2016). Therefore, when managing customer experiences in the digital environment, companies should provide a high level of consistency, constantly ask for customer feedback, and complement existing customer

journeys with digital initiatives (Borowski, 2015). According to Grønholdt (2019), digital customer experience is driven by seven dimensions (e.g., customer journey, customer insight and data, innovation, etc.) and strongly affects total customer experience, and consequently a firm's market and financial performance.

Many new forms of digital touchpoints emerged in the last decade, such as digital/virtual assistants and service robots (Parise et al., 2016; Bolton et al. 2018). These new forms of digital offerings, or add-ons to existing offerings, provide highly personalized and immersive experiences based on an interactive exchange between businesses and customers in real time. Chiang (2023) states that the role of digital technologies in customer experience has failed to draw sufficient academic attention and proposed a digital experience service model (DESM) which, at the service concept level, emphasizes the role of big data analytics, AI, recommendation systems, and sophisticated machine learning techniques in crafting deeper customer experiences.

Customer experience in the digital age is under a strong influence of combining advanced technology, data-driven insights, and strategies that include a high level of personalization. Marketing managers are faced with new opportunities of choosing and implementing digital technologies for the purpose of enhancing customer experiences. Among many technological advancements, AI is continuously emphasized as a technological tool with high impact on modern customer experiences (e.g., Bolton et al., 2018; Kumar et al., 2019; Hoyer et al., 2020; Verhoef, 2021; Chiang, 2023). This positions AI at the center of discussions among marketing practitioners and researchers.

2.3. The role of AI in managing customer experience

Although AI was established as an academic discipline in the 1950s, it has gained a more significant scientific and practical interest since the 2000s (Haenlein & Kaplan, 2019). In simple terms, AI can be defined as "a system's ability to interpret external data correctly, to learn from such data, and to use those learning to achieve specific goals and tasks through flexible adaptation" (Kaplan & Haenlein, 2019). For marketers, AI's capabilities became more apparent in the 2010s due to the increased computational power and the availability of big data. Wedel and Kannan (2016) discussed the impact of big data analytics on marketing mix optimization, personalization, customers' privacy and data security, and predicted that AI-related technologies will have an important role in marketing analytics in data-rich environments. In one of the early conceptual contributions to understanding the role of AI in the future of marketing, Huang and Rust (2018) discussed how four different intelligences required for service tasks (i.e., mechanical, analytical, intuitive, and empathetic) will be accomplished by means of AI. They argue that AI will eventually have all four intelligences (including intuitive and empathetic ones) and start to replace human roles in the service setting, not just augment them. Davenport, Guha, Grewal, and Bressgott (2020) differentiate between task automation (simple applications of AI) and context awareness AI technologies (AI being able to learn how to learn), the latter being a potential game changer in marketing. Huang and Rust (2021) developed a holistic strategic framework for AI in marketing, recognizing mechanical, thinking and feeling AI, and how it will affect marketing research, marketing strategy (i.e., segmentation, targeting, positioning), and marketing action (4Ps/4Cs). Meanwhile, AI's potential in marketing operations was recognized as well, predicting that AI-driven CEM could enable proactive problem-solving in interactions with customers while also optimizing resource allocation (Gacanin & Wagner, 2019).

Nowadays, the concept of AI is based on several technologies, including machine learning, natural language processing, computer vision, and others that vastly broadened the applicability of AI and allowed marketers to apply it in various areas of marketing (Wu & Monfort, 2023). The role of these technologies in managing customer experience was recognized by several

researchers, even before the public AI boom in late 2022. Hoyer et al. (2020) proposed a typology of AI-powered technologies that are able to transform customer experience (the Internet of Things, augmented/virtual/mixed reality, virtual assistants, chatbots, and robots) and analyzed the impact of these technologies on pre-purchase, purchase, and post-purchase stages of the customer journey. The authors discuss how AI enables improved information search, alternative evaluation, and decision-making in the pre-purchase stage; facilitates seamless transactions and customized experiences during purchase; and enhances product usage, customer support, and relationship management post-purchase. Similarly, Verhoef (2021) identified four major technologies which are transforming customer experience and customer journeys: mobile devices, big data and machine learning, AI and robotics, and the Internet of Things. For example, AI and robotics are used in the services setting, in the form of self-serving technologies (e.g., automated services, chatbots) and service robots (e.g., machines that mimic human behavior). Besides the benefits they bring to businesses (e.g., reducing costs) and customers (e.g., saving time), both self-service technologies and service robots are lacking human contact and could cause discomfort (Verhoef, 2021). Modern AI has the opportunity to further "personalize" these digital touchpoints and minimize the negative effect of the absence of personal contact (Hoyer et al., 2020). For example, natural language processing enabled building more sophisticated chatbots and automated customer service systems, making interactions more human-like and personalized. Furthermore, big data in combination with machine learning enables deep understanding of customer preferences and anticipated behavior, allowing businesses to optimize customer experience through personalization. Chaturvedi and Verma (2022) identified six key AI-enabled technologies transforming customer experience: big data analytics, recommendation systems, conversational agents, service robots/delivery bots, the Internet of Things, and extended reality. They proposed an AI-driven customer journey framework and stressed the importance of identifying critical customer journeys, developing cross-functional customer experience teams, using AI for real-time understanding of customer behavior and preferences, providing personalization, minimizing customer churn, resolving customer pain points, and continuous monitoring and improvement.

Despite a limited range of AI-enabled tools available to marketers before late 2022, researchers explored their impact on customer experience by means of quantitative studies. These studies were mostly done in the context of customer service chatbots, as the most prominent tools powered by AI features at that time. For example, Ameen et al. (2021) empirically confirmed the positive impact of AI-enabled service quality, perceived convenience, and personalization on customer experience through the mediating effects of trust and perceived sacrifice. They also confirmed a significant effect of relationship commitment on AI-enabled customer experience. Chen, Le, and Florence (2021) found that the usability of the AI chatbot had a positive influence on extrinsic values of digital customer experience (mediated by personality), while the responsiveness of the AI chatbot had a positive impact on intrinsic values of digital customer experience. Nguyen, Quach, and Thaichon (2021) found a positive impact of AI service and information quality on customer experience outcomes: flow and customer-brand identification. In particular, they found that AI information currency and AI system flexibility positively influence flow, with AI system timeliness positively influencing customer-brand identification. Meanwhile, the impact of several dimensions of AI information and AI service quality on customer experience outcomes could not be confirmed. Furthermore, the use of AI in enhancing customer experiences is not without its challenges. Ethical concerns regarding data privacy and algorithmic biases have been increasingly recognized as barriers that marketers needed to address (Hoyer et al., 2020; Verhoef, 2021; Chaturvedi & Verma; 2022).

There are multiple calls for further research on how AI transforms the way businesses manage customer experience (Bolton et al, 2018; Kumar et al., 2019; Chiang, 2023; Wu & Monfort, 2023). Becker and Jaakkola (2020) pointed out that while firms cannot create customer experience, they can manage various stimuli affecting it. Hoyer et al. (2020) argue that new technologies, as brand-related stimuli, can evoke different experience dimensions and by that create experiential value. The responsibility of managers in leveraging the potential of AI in the design and delivery of customer experience is very high, especially when it comes to integrating digital, physical, and social realms of customer experiences (Bolton et al., 2018). The public boom of AI tools in late 2022 and rapid developments through 2023 dramatically changed the state of applicability of AI in marketing in general, and in managing customer experiences in particular. This happened way faster than predicted in earlier scientific contributions (cf. Davenport et al., 2020). Advanced NLP tools, AI productivity features, AI copilots, and multimodal models create a whole new world of opportunities and challenges for marketing professionals. Therefore, this study strives to explore the transformative impact that AI currently has on customer experience, as rapidly developing offering-related stimuli. Since practitioners are again taking the lead when it comes to new developments in customer experience, this study analyses the opinions and experiences of marketing experts in leveraging AI for the purpose of transforming customer experience.

3. METHODOLOGY

3.1. Research approach

Since the public boom of advanced AI tools happened relatively recently (in late 2022), and practitioners are taking the lead in exploring its applicability in marketing practice, an inductive approach, informed by an interpretive stance and conducted using a qualitative methodology, was adopted for this study. This approach is justified by the fact that the current state of the phenomenon requires in-depth insights (attitudes, perceptions, and behaviors) from experts to create a basis for further theory building (Bryman & Bell, 2011). Given that interviews are among the most useful tools for exploratory studies (Kvale & Brinkmann, 2009), data were collected by means of semi-structured in-depth interviews with marketing experts.

3.2. Study participants

In order to reach study objectives, a purposive sample comprised of marketing experts was selected to draw on the specific knowledge of the participants (Braun & Clarke, 2006; Silverman, 2020). It consisted of six marketing experts from Croatia, who are well versed in managing customer experiences and working with AI technologies. Participants were identified through professional networks and selected on the basis of their ability to discuss current practice and challenges in transforming customer experience by means of AI tools. All participants have formal education in marketing (university master level). They hold different marketing roles, with their business experience ranging from 5 to 14 years. The companies they work for cover different industries and all of them operate at the international level. Table 1 shows the profile of the research sample.

TABLE 1: Profile of the research sample

Participant No.	Job Title	Years of experience	Company activity
P1	Marketing lead	12	Product development consulting
P2	Product manager	9	Digital wallet/blockchain
P3	Creative director	14	Marketing consulting
P4	Product manager	13	Mobile app management
P5	Business development specialist	5	IT services
P6	Managing director	10	Marketing consulting

3.3. Interview guide, data collection, and analysis

For the purpose of collecting data by means of semi-structured interviews with marketing experts, an interview guide with seven open-ended questions was developed. These questions align with research objectives stated in the introductory section of the paper. To check for content validity, the interview guide was pre-tested on a marketing expert with a similar level of expertise in managing customer experience and applying AI solutions as the participants in the interviews. That pre-test resulted in minor corrections of questions and addition of further explanations to some of them. A final list of interview questions and the corresponding research objectives are presented in Table 2.

TABLE 2: Overview of interview questions and corresponding research objectives

Research objective	Interview question
(1) To identify current challenges marketers are facing in managing customer experiences.	1. In your opinion, what are the main challenges in managing customer experience across different industries today?
(2) To enhance the understanding of the main ways in which AI transforms/will transform customer experiences.	2. In which types or forms of customer experience improvements does artificial intelligence hold the greatest potential? In other words, in what ways do you believe artificial intelligence will most significantly influence the transformation of customer experiences? 3. In which industries do you expect the biggest changes in customer experience management due to the use of artificial intelligence? 4. Can you provide a few examples of how artificial intelligence is being applied to improve customer experience (in the Croatian or international market)? 5. How would you assess the success of artificial intelligence in these examples of transforming customer experiences?
(3) To explore marketers' firsthand experiences in using AI to transform customer experience.	6. Have you personally taken part in applying artificial intelligence to enhance customer experience for your company or a client/partner company? If so, could you briefly describe the purpose of employing artificial intelligence and the final outcome of the project? 7. What internal (within the company) and external (from consumers) obstacles do you anticipate in the future application of artificial intelligence to transform customer experience?

Six interviews were conducted using an online communication platform (45-60 minutes each) within a period of 45 days. Participants received interview questions 7 days prior to the interview. All the interviews were transcribed based on the recordings. In order to identify themes and perspectives, a thematic analysis of the interviews was conducted (Braun & Clarke, 2006). The analysis was done manually by means of standard office software, with a thematic analysis checklist used for the analysis to maintain consistency of the approach. All the themes were color-coded and then aggregated for further analysis and comparison. Results are presented in the following section and structured according to the research objectives.

4. FINDINGS

4.1. Current challenges in managing customer experiences

First, the study strived to identify current challenges that marketers are facing in managing customer experience. According to the majority of participants in the study, the two main challenges in managing customer experience nowadays are: (1) providing a seamless/omnichannel experience across all channels and throughout the customer journey (P1, P3, P4, P6), and (2) providing the expected level of personalized experience (P1, P2, P3, P6). Two interesting comments about managing the customer journey and omnichannel approach are as follows:

- *"In general, there is still not enough awareness among marketing managers about the importance of managing customer experience. Meanwhile, those marketing managers who are aware of its importance, still struggle with managing the overall customer journey… Customer experience is scattered across channels and integrative strategies are not very common…"* (P4)
- *"There are industries where personalization is more feasible than in others (for example, banking), but most businesses in those industries still prefer offering standardized products and services, over personalized ones."* (P1)

According to the number of times they were mentioned by interview participants, two more challenges stand out: (1) struggling with fast deployment of new technologies (P2, P3, P4), and (2) not being able to leverage on customer data (P2, P4, P6). The challenge of struggling with keeping up with the new technologies is well-illustrated in the quote below:

- *"Deployment of new technologies is speeding up, but most companies are adopting them at the same pace as [they did] several years ago. This makes them actually slower and slower in leveraging on new technologies."* (P2)

Other challenges mentioned by the participants are: managing customer expectations (P1, P5), lack of customer orientation (P2, P4), need for fast responses to customer demands (P3, P6), maintaining privacy and security (P2, P6), and measuring the quality of customer experience (P1).

4.2. Understanding the main ways in which AI transforms customer experience

Participant 1 nicely summarized the potential of AI for transforming customer experience with the following statement:

- *"AI has the potential to transform all aspects of customer experience which rely on big data."* (P1)

All participants in the study (P1-6) identified two areas of managing customer experience in which AI has the highest current usage and future potential: (1) providing personalized customer experience, and (2) providing high-quality customer service (support). They emphasized the potential of AI for creating customized offerings based on data analysis in real time, and its potential to substantially replace humans in customer service activities (minding the lack of human resources nowadays for this important activity in many industries). Two interesting insights emerging from the interviews are:

- *"AI will definitely bring a scalable personalization of the offerings to individual customers. This kind of scalable personalization based on AI already happens in other areas of marketing, such as marketing communication. It is just a matter of time when this will become a reality at the level of all elements of marketing mix."* (P2)
- *"Well-implemented AI in customer support speeds up the service and results in customer satisfaction. Nevertheless, today we still have too many cases of poorly implemented AI algorithms in AI-enabled customer service. But this is changing rapidly and AI will definitely take over many activities in customer service."* (P1)

Besides transforming customer service as the experience in post-purchase phase of the customer journey, three participants see the potential of AI to transform pre-purchase activities by means of smart digital shopping assistants (P4, P5, P6). Doing predictive analytics was also mentioned by three participants (P1, P2, P6), which is the activity closely associated with personalization, pre-purchase activities, and post-purchase (customer) services because it enables predicting customer preferences, size of the demand, and patterns in behavior. As participant 6 noted:

- *"In many industries, AI is already utilized for pattern recognition, and this is not related excursively to high-tech industries. This helps market research, sales and logistics, which in the end is something that customers feel as the improvement of their experiences with the company."* (P6)

Participants also mentioned the potential of AI in streamlining the complete customer journey and maintaining quality of the experience (P1, P3).

When it comes to the industries in which they expect the biggest changes in customer experience management due to the use of AI, participants emphasized the following: e-commerce (P1, P3, P4), medical services and pharmaceuticals (P2, P4, P6), financial services (P1, P6), hospitality (P1, P3), media business (P1), and telecom services (P1).

Participants also provided examples of a successful application of AI in transforming customer experience. Participants 1 and 4 mentioned an AI-enabled digital personal assistant for balanced nutrition, developed by a large food producer operating in Central and Eastern Europe. This digital personal assistant helps customers in choosing the right ingredients for a balanced diet as well as in preparing these ingredients. Similarly, participant 1 mentioned an AI-enabled chatbot from a local insurance company, which not only helps with customer support (solving various issues) but also provides part of the core service (navigating through service options). Participant 2 gave two examples: an international mobile app which has more than half of the features powered by AI, and a large regional hospitality company which uses AI to analyze and sort huge number of incoming emails from customers to provide faster and more informative replies. Participants 3, 4, 5 and 6 mentioned different examples of companies which use AI for transforming pre-purchase activities (providing advice to customers about which service level to choose, and similar).

4.3. Marketers' firsthand experiences in using AI for transforming customer experiences

All interviewees in the study participated in some form of applying AI for managing customer experience. Three of them participated in the projects applying AI to improve pre-purchase experience (P1, P3, P6). Participants 1 and 3 created solutions for optimizing the process of choosing B2B services and lowering customer effort. Participant 6 created a B2C AI-enabled product recommendation service for an e-commerce site. Participant 2 used AI to transform customer experience during the central part of the customer journey – building new AI-enabled product features for a mobile app. Finally, participants 4 and 5 used AI to improve the post-purchase phase of the customer journey by means of AI-powered chatbots. Most of the participants' experiences with applying AI

in transforming customer experience are positive. Participant 6 was the only one questioning the success of the project due to a high cost in comparison to the improvement of customer experience:

- *"The AI-based solution brought a better product selection experience for customers, which resulted in an increase of sales and consequently revenues. Unfortunately, the cost of developing, implementing, and maintaining such an AI-based solution was too high, and overshadowed the benefits it created. Customer experience improvements must be feasible."* (P6)

Finally, participants were asked (based on their experiences) to point out any internal (within the company) and external (from the customer side) obstacles they anticipated in the future application of AI for transforming customer experience. When it comes to anticipated internal obstacles, the most often mentioned were: (1) lack of strategic approach and knowledge about AI technology (P1, P2, P3, P4, P6), and (2) resistance from company employees (P1, P2, P3, P5, P6). Two quotes illustrate these results:

- *"Many times, companies lack technical understanding of AI-related technologies. Because of that, top management is not considering AI at the strategic level. Meanwhile, companies which decide to implement AI in managing customer experience, find themselves in trouble when they have to technically integrate AI solutions with the existing systems and procedures."* (P2)
- *"Employees often see AI as a threat to their role in the company. But when they have an opportunity to test AI-enabled tools, they usually find out that it enhances their productivity and enables them to provide value for the customer which was impossible without AI."* (P6)

Other internal obstacles mentioned include: a high cost of AI solutions (P1, P5), implementing data privacy and security (P1), and the quality control of AI outputs (P4).

Meanwhile, customer skepticism towards AI is the most commonly identified external obstacle in implementing AI to transform customer experiences (P1, P2, P5, P6):

- *"Consumer skepticism towards AI is especially evident in certain industries, where trust is an important part of the value proposition, such as financial services."* (P1)
- *"Customers are sometimes skeptical about the outputs created by AI, because they had bad initial experiences with chatbots or similar. This made them believe that only humans can provide high-quality and satisfying experience."* (P2)

Participants also stressed potentially negative impact of data privacy and security issues (P3, P6) and copyright issues (P1, P4).

5. DISCUSSION AND CONCLUSION

Building on existing literature and collected data, this study suggests that managing customer experience has evolved into a complex, omnichannel endeavor featuring personalization among the focal points. While many contributions about managing customer experience emphasize the importance of a seamless experience across digital, physical, and social realms (e.g., Bolton et al., 2018; Lemon & Verhoef, 2016), interviews in this study highlight practical challenges in achieving such integration. Specifically, participants stressed difficulties in providing consistent experiences during the customer journey, as well as organizational inertia in adopting the latest digital tools. The lack of integrative strategies indicates that, despite growing awareness of the need for customer journey management, many businesses remain siloed and miss the opportunity to develop and implement a comprehensive customer experience strategy.

AI is identified in both the literature (e.g., Hoyer et al., 2020; Verhoef, 2021) and the interviews as a crucial driver for providing personalization

and high-quality customer support. Participants in the study identified personalization and customer service as the two areas with the highest AI-driven impact. This is consistent with previous research on chatbots and predictive analytics (Ameen et al., 2021; Chen et al., 2021). By means of machine learning, businesses can generate individualized product recommendations, optimize customer service interactions, and improve operational efficiency (e.g., inventory decisions) in ways that positively influence the customer journey.

Implementing AI in managing customer experience is not without challenges. As participant 6 stated, return on investment in AI-driven customer experience initiatives can be questionable when the investments overshadow improvements in transforming customer experience. Furthermore, both operational and cultural issues can hinder the application of AI in customer experience projects. While the early literature (e.g., Huang & Rust, 2018) anticipated that AI would evolve from performing mechanical tasks to more empathetic ones, findings of this study suggest that businesses still struggle with both technical and human aspects of AI adoption. Lack of strategic direction and top-management understanding of AI, as well as employee resistance were among the barriers mentioned by the study participants. These issues align with a broader attitude that the AI adoption is not only a technological innovation but a transformational change which requires changes of capabilities and culture (Haenlein & Kaplan, 2019; Davenport et al., 2020). Furthermore, external factors such as consumer skepticism and privacy concerns complicate the broad deployment of AI in certain industries (e.g., financial services), reflecting the previously identified ethical and trust-related challenges in AI (Hoyer et al., 2020; Chaturvedi & Verma, 2022).

Finally, based on the opinions and experiences of the marketing experts, this study further corroborates that AI can substantially transform customer experience, particularly through real-time personalization, scaled customer support, and predictive analytics. At the same time, identified implementation barriers still do not guarantee transformative outcomes. Businesses must adopt a holistic and strategic approach that addresses human, organizational, and market factors in combination with the technological capabilities.

6. LIMITATIONS AND FUTURE RESEARCH

Despite offering valuable insights, this study is not free of limitations. The interview-based approach involved a small number of participants, which limits the generalizability of the findings. Future research should expand the sample size, incorporate multiple industries, and include perspectives from non-marketing stakeholders (e.g., IT managers, data scientists) to provide a more holistic understanding of AI-enabled customer experience. Next, the rapidly evolving nature of AI tools creates a challenge for capturing up-to-date practices. Longitudinal studies could better capture the continuous changes in AI capabilities and their implications for customer experience management. Finally, while the qualitative findings bring several specific insights concerning the application of AI in transforming customer experiences, further quantitative analyses could provide a more precise insight into managerial practices across industries and contexts.

REFERENCES

1. Ameen, N., Tarhini, A., Reppel, A., & Anand, A. (2021). Customer experiences in the age of artificial intelligence. *Computers in Human Behavior, 114*, 106548.
2. Becker, L., & Jaakkola, E. (2020). Customer experience: fundamental premises and implications for research. *Journal of the Academy of Marketing Science*, *48*, 630-648.
3. Bell, E., Bryman, A., & Harley, B. (2022). *Business Research Methods*. Oxford University Press.
4. Bolton, R. N., McColl-Kennedy, J. R., Cheung, L., Gallan, A., Orsingher, C., Witell, L., & Zaki, M. (2018). Customer experience challenges: bringing together digital, physical and social realms. *Journal of service management, 29*(5), 776-808.
5. Borowski, C. (2015). What a great digital customer experience actually looks like. *Harvard Business Review, 11*(9), 2-5.
6. Brakus, J. J., Schmitt, B. H., & Zarantonello, L. (2009). Brand experience: what is it? How is it measured? Does it affect loyalty?. *Journal of Marketing, 73*(3), 52-68.
7. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.
8. Chaturvedi, R., & Verma, S. (2022). Artificial intelligence-driven customer experience: Overcoming the challenges. *California Management Review Insights*.
9. Chen, J. S., Le, T. T. Y., & Florence, D. (2021). Usability and responsiveness of artificial intelligence chatbot on online customer experience in e-retailing. *International Journal of Retail & Distribution Management, 49*(11), 1512-1531.
10. Chiang, C. T. (2023). Engraving customer experiences through digital technologies. *Journal of Services Marketing, 37*(5), 671-685.
11. Davenport, T., Guha, A., Grewal, D., & Bressgott, T. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science, 48*(1), 24-42.
12. Gacanin, H., & Wagner, M. (2019). Artificial intelligence paradigm for customer experience management in next-generation networks: Challenges and perspectives. *IEEE Network, 33*(2), 188-194.
13. Grønholdt, L. (2019). Digital Customer Experience: An Emerging Theme in Customer Service Excellence. Paper presented at 22nd QMOD-ICQSS International Conference on Quality and Service Sciences, Krakow, Poland.
14. Gupta, S., & Vajic, M. (2000). The contextual and dialectical nature of experiences, In: J. A. Fitzsimmons & M. J. Fitzsimmons (Eds.), *New Service Development: Creating Memorable Experiences* (pp. 33-51). Thousand Oaks, CA: Sage.
15. Haenlein, M., & Kaplan, A. (2019). A brief history of artificial intelligence: On the past, present, and future of artificial intelligence. *California Management Review, 61*(4), 5-14.
16. Harris, R., Harris, K., & Baron, S. (2003). Theatrical service experiences: Dramatic script development with employees. *International Journal of Service Industry Management, 14*(2), 184-199.
17. Homburg, C., Jozić, D., & Kuehnl, C. (2017). Customer experience management: toward implementing an evolving marketing concept. *Journal of the Academy of Marketing Science*, *45*, 377-401.
18. Hoyer, W. D., Kroschke, M., Schmitt, B., Kraume, K., & Shankar, V. (2020). Transforming the customer experience through new technologies. *Journal of Interactive Marketing, 51*(1), 57-71.
19. Huang, M. H., & Rust, R. T. (2018). Artificial intelligence in service. *Journal of Service Research, 21*(2), 155-172.
20. Huang, M. H., & Rust, R. T. (2021). A strategic framework for artificial intelligence in marketing. *Journal of the Academy of Marketing Science, 49*, 30-50.

21. Kandampully, J., Zhang, T., & Jaakkola, E. (2018). Customer experience management in hospitality: A literature synthesis, new understanding and research agenda. *International Journal of Contemporary Hospitality Management*, *30*(1), 21-56.
22. Kaplan, A., & Haenlein, M. (2019). Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. *Business Horizons, 62*(1), 15-25.
23. Klaus, P. (2014). Towards practical relevance—Delivering superior firm performance through digital customer experience strategies. *Journal of Direct, Data and Digital Marketing Practice*, *15*, 306-316.
24. Kumar, V., Rajan, B., Venkatesan, R., & Lecinski, J. (2019). Understanding the role of artificial intelligence in personalized engagement marketing. *California Management Review, 61*(4), 135-155.
25. Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing*. Sage.
26. Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing*, *80*(6), 69-96.
27. Meyer, C., & Schwager, A. (2007). Understanding customer experience. *Harvard Business Review*, *85*(2), 116-126.
28. Nguyen, T. M., Quach, S., & Thaichon, P. (2022). The effect of AI quality on customer experience and brand relationship. *Journal of Consumer Behaviour, 21*(3), 481-493.
29. Palmer, A. (2010). Customer experience management: a critical review of an emerging idea. *Journal of Services Marketing*, *24*(3), 196-208.
30. Parise, S., Guinan, P. J., & Kafka, R. (2016). Solving the crisis of immediacy: How digital technology can transform the customer experience. *Business Horizons, 59*(4), 411-420.
31. Pine, B. J., & Gilmore, J.H. (1998). Welcome to the experience economy. *Harvard Business Review*, *76*(4), 97-105.
32. Roose, K. (2022). The brilliance and weirdness of ChatGPT. The New York Times, https://www.nytimes.com/2022/12/05/technology/chatgpt-ai-twitter.html
33. Schmitt, B. (1999). Experiential Marketing. *Journal of Marketing Management*, *15*(1–3), 53-67.
34. Schmitt, B. H., Brakus, J., & Zarantonello, L. (2014). The current state and future of brand experience. *Journal of Brand Management, 21*, 727-733.
35. Silverman, D. (Ed.). (2020). *Qualitative Research*. Sage.
36. Verhoef, P. (2021). Customer experience creation in today's digital world. In B. B. Schlegelmilch, & R. S. Winer (Eds.*), The Routledge companion to strategic marketing* (pp. 107-122).
37. Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2015). From multi-channel retailing to omni-channel retailing: introduction to the special issue on multi-channel retailing. *Journal of Retailing, 91*(2), 174-181.
38. Verhoef, P. C., Lemon, K. N., Parasuraman, A., Roggeveen, A., Tsiros, M., & Schlesinger, L. A. (2009). Customer experience creation: Determinants, dynamics and management strategies. *Journal of Retailing*, *85*(1), 31-41.
39. Wedel, M., & Kannan, P. K. (2016). Marketing analytics for data-rich environments. *Journal of Marketing, 80*(6), 97-121.
40. Wu, C. W., & Monfort, A. (2023). Role of artificial intelligence in marketing strategies and performance. *Psychology & Marketing, 40*(3), 484-496.