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The Impact of AI along the Customer Journey Mapping: How AI Agents are Changing Customer Journey

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Abstract. *Customer journey mapping is a strategic business tool that helps companies illustrate and comprehend their customer' experiences as they interact with company's brands across multiple touchpoints. The wide spread of digital channels, as well as the huge amount of customer data that is generated, makes it possible to improve customer journey mapping by using artificial intelligence and advanced analytics. Artificial intelligence-supplied customer journey can detect hidden patterns, foretell prospective consumer behaviors, and present personalized mediations. None of this would be possible if businesses have to rely solely on human analysts. Artificial intelligence agents, which adaptively perform arduous tasks by utilizing reasoning with minimal direct supervision, differ from generative AI systems (such as language models that answer specific questions and/or image generation), because they can perform a variety of actions while at the same time being reliable enough that, under certain circumstances, the customer can trust them enough to act effectively and autonomously on complex tasks on their behalf. As a result, businesses are constantly investing in artificial intelligence-based customer journey (mapping) to increase their competitive advantage. Despite the above mentioned, the academic literature about artificial intelligence (agents) and customer journey (mapping) remains insufficient. Existing research on the topic deal with specific artificial intelligence techniques, like natural language processing for sentiment analysis or computer vision for touchpoint tracking, or is limited to conceptual frameworks. The main objective of the paper is to explore artificial intelligence (agents) and their application during the customer journey and how this changes the journey for consumers.*

Keywords: artificial intelligence (AI), AI agents, customer journey, customer journey mapping, agentic artificial intelligence, customer experience, consumer behavior.

Introduction

Artificial intelligence (AI) is no longer just a science fiction idea – it is part of our everyday lives. And the continuous development of AI (Davenport et al., 2020) is reshaping almost every aspect of global society today (McKinsey & Company, 2024), transforming business and the way we live. This has provided new possibilities for companies to influence the customer journey and has reshaped customers' expectations.

With the increasing prevalence of technology, AI has gained momentum with brands that aim to provide exceptional customer experiences. There are several avenues for companies to improve the experience for customers with the use of AI tools, like offering a higher degree of personalization. A key factor for the possibilities is the large amounts of data that these technologies are capable of collecting. This potential of AI has sparked considerable interest among businesses to explore its impact, and how it can be used to streamline the customer journey and enhance the customer experience (Dhiman et al., 2023) in an increasingly competitive market (Dhiman et al., 2023; Shankar, 2018). Companies that effectively leverage AI technologies have the opportunity to increase value and satisfaction, by creating technology-driven interactions that prioritize consumers' needs and preferences (Hoyer et al., 2022). In order to increase profitability

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and sales, human expertise and machine intelligence have to work together in a harmonic environment made possible by AI agents (Pallathadka et al., 2023; Soni et al., 2020).

The current research is motivated by the scarcity of literature that combine AI and marketing (Feng et al., 2020). And currently there are few articles of AI agents, this largely depends on its nascent phase in development processes (Dhiman et al., 2023; Lemon & Verhoef, 2016). It is further emphasized by Calvo et al. (2023), that AI technologies have not experienced deeper studies and thereby a further research in the area is necessary. Despite the rapid development and adoption of AI, academic research regarding its impact on the customer experience remains insufficient (Hoyer et al., 2022). Consequently, this emphasizes the interest of researching AI implementations' influence on the customer experience in the customer journey and its mapping.

Taking into account all of the above mentioned, this paper aims to address this gap by exploring AI (AI agents in in particular) and customer journey (mapping) and answering the following questions: 1) What is agentic AI and what distinguishes it from generative AI? 2) How AI will shape a new era for customer journeys? 3) What are AI agents and how they are transforming the customer journey (mapping)?

By answering these questions, the paper will provide valuable insights to both researchers and practitioners on the role of AI on enhancing customer journey mapping as a strategic business tool. The findings will contribute to the growing knowledge concerning the practical applications of AI in Marketing and customer experience management.

The paper emphasizes the transformative potential of AI agents in customer journey mapping, particularly in their ability to deliver more personalized customer experience. It also highlights the importance of leveraging AI agents for data-driven decision-making, ensuring businesses stay competitive in an increasingly complex and customer-centric market. The main objective of the research is to relate AI and customer journey, becoming relevant in the sense of seeking to clarify the complexities surrounding AI agents and demonstrate their applicability during the customer journey mapping.

Specifically, the current paper is structured as follows: The first section decodes the concept of AI and its application in Marketing. This leads the research to the next point – presenting agentic AI and its features. Then the union of AI and Marketing, focusing on the customer journey, is explored. The next section seeks to draw a map in which the customer uses AI agents to meet their needs in all phases of the customer journey. The final section presents the conclusions, where some final considerations are gathered, contributions that the current paper offers are discussed and also the limitations encountered throughout the research and some suggestions for studies to be carried out in the future are presented.

Literature review

Background

The integration of AI allows companies to gather rich insights of the consumers and their customer journey (Kietzmann et al., 2018). A paper by Dhiman et al. (2023) indicates that AI offers a wide range of tools and capabilities that can be strategically deployed at various phases of the customer journey, facilitating opportunities for personalization, as well as improve efficiency and engagement. Despite the potential benefits, some businesses still struggle to put AI solutions into practice due to limitations of necessary infrastructure and mechanisms. Overall, there is a significant gap between recognizing AI's potential and achieving its successful implementation, which complicates companies' competitiveness. Furthermore, there is limited research focused on

the implementation of AI agents for companies who are currently navigating this challenge (Tehrani, 2023).

A World Shaped by AI Capabilities

Although AI is a trendy topic nowadays, its first traces in its history began a long time ago. The term AI, dates back to 1956, mentioned by John McCarthy (Gomes et al., 2022). And its evolution is connected to the early days of computers – machines based on the abstract essence of mathematical reasoning (Groumpos, 2019). The idea of machines simulating human behavior, however, has been proposed by Alan Turing, who developed the Turing test in order to distinguish humans from machines (Mintz & Brodie, 2019). From that time, computing power has advanced to such scales that it allows for immediate calculations and real-time evaluation of new data based on previously evaluated data (Mintz & Brodie, 2019). The rise in the use of AI today is due to stated above, the amount of data available, and the number of specialists, qualified to work with the AI tools, as well as the decrease in the costs of using these tools (Csoré Suhonen, & Hjelm, 2021).

AI can learn, ration and act by themselves, make their own decisions when facing new situations, in the same way that human beings do (Wang et al., 2022). Despite this, AI has not yet reached its maximum capacity, as it is still learning through human engagement so that AI can then replicate (Ribeiro, 2021). Specifically, AI encompasses several technological advancements in areas such as computer vision, speech recognition (Longoni et al., 2022), decision-making, speech and image recognition (Mussa, 2020), machine learning, neural networks, and natural language processing (Davenport et al., 2020). In addition to this, new opportunities for AI applications are emerging, which are further facilitated by the abundance of data available for algorithm training (Bornet et al., 2021). Thus, AI contributes to a number of areas, such as Marketing (Davenport et al., 2020).

In terms of Marketing and AI, it can be argued that there is a mutually beneficial relationship, as evidenced by the huge changes in the evolution of marketing, caused precisely by the continuous advancement of technology (Siau, 2017). According to research by Kumar et al. (2019), personalized technology helps marketers create value by building close relationships with consumers.

In addition to the abovementioned, AI has the ability to recognize existing patterns in the data that has been collected and to predict possible consumer behavior (Kumar et al., 2019), that allows for better segmentation and understanding of the preferences of each customer so that their needs can be efficiently met in real time, and that changes the way value is delivered (Kumar et al., 2019).

AI seeks to replicate human thinking through algorithms (Rodgers & Nguyen, 2022; Longoni et al., 2019), does not experience emotions, and therefore does not take into account the characteristics of each consumer (Longoni et al., 2019; Puntoni et al., 2021). Because AI does not have the emotional abilities of humans to understand customer moods, it cannot adapt to what consumers sense (Davenport et al., 2020), which sometimes makes customers feel uncomfortable. Despite this, AI algorithms outperform humans in terms of predictive analysis, decision-making, and problem-solving based on acquired knowledge, but have difficulty predicting customer behavior when consumers choose not to provide information (Moura & Reis, 2021). That is why, it is important to understand customer perceptions towards AI use (Puntoni et al., 2021), as consumer's opinions influence AI adoption.

All of the abovementioned has led to the so called "personalization vs invasion paradox", where consumers value personalized content that is appealing to them and in turn this helps in customers' decision-making (Cloarec, 2022; Xu et al., 2011; Zhu & Chang, 2016) and contributes to brand loyalty. However, these same consumers may feel watched, because of the collection and/or analysis of their personal data, and this fact highlights some privacy issues related to AI (Chen et al., 2022).

It should also be noted that the perception of AI is not homogeneous. There are customers with a positive opinion of AI. And there are others who have concerns related to AI, namely – data privacy (Davenport et al., 2020), loss of control over their data and lack of human contact. Some authors (Kotler, 2021) confirm in their papers that customers and AI assistants have to be complementary and work together in order to improve their capabilities mutually (Davenport et al., 2020). Therefore, customers opinions about AI may differ, but consumers tend to have more positive perceptions of AI when the benefits outweigh the risks to which they are exposed.

Agentic AI – an Emerging Paradigm in Artificial Intelligence

According to Russell & Norvig (2020), the development of AI is based on four lines of thought. Two of them are connected to the process of thinking and reasoning: 1) systems that think like humans and automate activities such as decision-making, problem-solving and learning, like artificial neural networks; 2) systems that think rationally and simulate the rational logical thinking of human beings –machines capable of understanding, reasoning and acting, like intelligent systems. And the other two are related to behavior: 3) systems that act like humans – computers that perform tasks similar to human beings, like robots; and 4) systems that act rationally and try to imitate the rational form of human behavior, like intelligent agents. In this regard, it should also be noted that the lines of thought that think and act like humans measure success by how faithful they are to human performance. Those that think and act rationally, however, measure success by comparing it to an ideal concept of intelligence – rationality. A system is considered rational if it performs everything correctly, with the data at its disposal (Russell and Norvig, 2004). However, there exists a tension between the approaches that are focused on humans and those, concentrated on rationality (Gomes, 2010).

To put this in another way, AI is undergoing a fundamental change from systems that can produce synthetic content (on demand) to autonomous agents that can pursue long-term goals, make decisions, and execute complex workflows. In contrast to the traditional generative AI (see Table 1) that responds reactively to user prompts (Huang, Rust, & Maksimovic, 2019; Mukherjee & Chang, 2024), agentic AI proactively organizes processes, such as running complex tasks or making real-time decisions with limited human involvement and adapts to dynamic environments (Russell & Norvig, 2020). Companies that initiated the development of generative AI tools are now building AI agents that can be commanded to navigate the web on their own, perform a broad range of online tasks, and serve as artificial personal assistants and/or virtual coworkers. For instance, Gartner predicts that by 2025, 50% of knowledge workers will use a virtual assistant daily (Gartner, 2019) and by 2028, 33% of enterprise software applications will include agentic AI. According to Mustafa Suleyman (a cofounder of DeepMind and CEO of Inflection AI and a venture partner at Greylock), the next AI aim is to build agents that can fulfil an ambiguous, open-ended, complex goal that requires interpretation, judgment, creativity, decision making, and acting across multiple domains, over an extended time period (see Suleyman, 2023, MIT Technology Review).

Table 1. Differences between Generative AI and Agentic AI

Feature	Generative AI	Agentic AI
Definition	Reacts to a predefined set of inputs, like creating content based on existing data and human prompts.	Plans multi-step strategies, adapts dynamically to unforeseen conditions, and proactively generates novel solutions in natural language – capabilities often seen as bridging into human-level judgment calls
Level of autonomy	Requires human input and oversight to provide prompts and refine outputs.	Operates with a higher degree of autonomy, making decisions and executing tasks independently.
Focus	Content production based on prompts.	Handles complex, multi-step processes that require reasoning and strategic planning.
Integration of functions	Learns from data	Designed to continuously adapt and improve its performance based on real-time feedback and outcomes.
Examples	Dall-E 2, Midjourney, ChatGPT	HubSpot's AI agents, Salesforce's Agentforce, Thoughtspot's Spotter
Impact on Marketing	Automates content creation, provides insights.	Transforms customer journey, enabling companies to tackle complex challenges and optimize operations more effectively (than traditional generative AI tools); enables personalization at scale.

Source: Authors' own research.

Before proceeding, a substantial clarification has to be made – the term AI agents in this paper refers to systems capable of autonomously planning and pursuing long term complex tasks, making decisions, and executing complex workflows with only limited human involvement (Jennings, Sycara, & Wooldridge, 1998; Russell & Norvig, 2020; Chan et al., 2023). Agentic AI shares conceptual roots with both intelligent agents – goal-oriented software intended to sense and act in an environment (Wooldridge & Jennings, 1995) – and autonomous agents in multi-agent systems (Stone & Veloso, 2000). However, AI agents are different, because they are not mere tools. Rather than simply produce synthetic content and react to a predefined set of inputs, AI agents can be distinguished by their capacity to plan multi-step strategies, independently cope with open-ended tasks and adapt dynamically to unexpected conditions that extend beyond their training data and proactively generate original solutions in natural language. Their human-like reasoning and communication abilities allow AI agents to achieve different objectives on behalf of humans (see Gur, I. et al., 2023). This shift from recommendatory roles to proactive execution notes a new form of digital agency (Durante et al., 2024).

AI, Customer Experience and Customer Journey

Thiraviyam (2018) establishes the concept of AI Marketing as a method of using customer data or information in order to predict consumers' next actions and improve customer journeys. Overgoor et al. (2019) go even further and define it as the development of artificial agents that, based on the information they have about customers, company's competition and its focus, suggest and/or take marketing actions to achieve the best results possible. Recently, Jain and Aggarwal (2020) introduce this concept as a technique that makes the most effective use of technology to improve customer experience.

Customer experience in AI context relates to the general level of interaction and satisfaction that consumers have when dealing with AI apps or systems (Shah et al., 2023). This includes how customers feel about the usability, efficiency, effectiveness, and emotional satisfaction when using AI technologies. Consumers' preferences, and emotional reactions are also part of the customer

experience in the field of AI, together with the functional characteristics of the system such as accuracy and responsiveness (Lemon and Verhoef, 2016).

In addition, Hoffman and Novak (2018) argue that the traditional consumer-centric view of customer experience may not adequately represent the interactions between customers and smart products in an era where technology is essential. Despite the fact that the current literature related to customer experience emphasizes on interaction as essential to the idea of customer experience, the anthropocentric perspective of traditional customer experience models is being challenged by the trend towards human-object interaction (De Keyser et al., 2015; Wang et al., 2023). In line with the abovementioned, businesses have started to look ahead the traditional customer journey – actively guided by consumers on their applications – to explore the idea of a more complex customer journey – orchestrated by a network of trusted autonomous agents trained to perform certain tasks with minimal human intervention.

Methodology

For the purposes of the research, the following methods have been used: content analysis and synthesis; descriptive analysis; tabular and graphical method. Specifically, the paper has used a literature review, drawing on several interrelated domains, including customer journey mapping and AI, based primarily on scholarly sources (consisting of journals and peer-reviewed articles). The chosen publications have been analyzed in relation to the research issue. The literature that has been reviewed for the purposed of the paper has mainly been published between the years of 2017-2024. Relying on updated literature, enables the paper to capture the current insights and innovations, thus ensuring relevance and applicability within the dynamic fields of AI and customer journey. However, there are some exceptions in the literature with earlier publishing years. This is because of its high relevance and contribution to the research. The basic keywords that have been used to collect applicable literature are as follows: AI, customer journey, customer experience.

AI (Agents) and Customer Journey (Mapping)

Salesforce CEO Marc Benioff claims in his keynote speech at Dreamforce 2024 that service workers spend more than 40% of their time on repetitive and low-value tasks (see Tordjman et al., 2025). Furthermore, a lot of consumer research done through websites, call centers, and/or applications can turn into a perplexing, annoying, and error-prone experience. Instead of going through all of the abovementioned activities, a company's chatbot as an agent can do all these for the consumer, because it has been taught and built to make sophisticated inferences on its own using the personal data that the customer has given it access to. Despite only providing the customer with answers like in a *traditional customer journey*, a vertical network of proprietary and third-party agents can operate in the background to accomplish the discrete tasks of a *complex customer journey*, as illustrated in Figure 1. As a result, the network of AI agents can handle a large portion of the laborious tasks that a customer will otherwise have to complete manually via an application or a website. Moreover, agentic AI will provide more thorough and individualized experiences, services, and products as it learns each customer's particular preferences.

Incorporating AI agents in the customer journey, however, goes beyond simply deploying GenAI to test the value of use cases (Tordjman et al., 2025). The capability to forge a strong link between significant enhancements in operational efficiency and a fundamentally different, better customer experience compels companies to create innovative business models or face the danger of being outpaced. These models will serve complex data driven customer journeys rather than

separate traditional customer journeys, as the dual forces of autonomous agents and multimodal hardware keep advancing and merging.

Mapping the journey of the customers requires intense work and continuous effort to understand how they think and make decisions (Court et al., 2009). Customer journey mapping traditionally involves tracking a consumer's interactions with a brand across multiple touchpoints—from pre-purchase to post-purchase behavior. Following that, the emerging role of AI agents in shaping the customer experience is presented below.

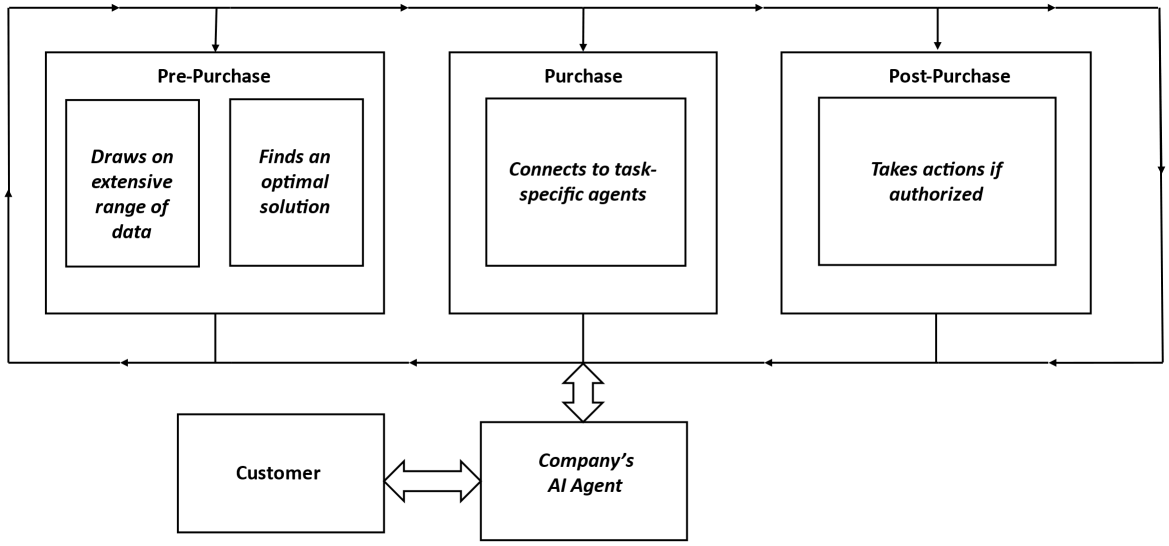

Figure 1. AI enhanced customer journey mapping

Adapted from Lemon and Verhoef (2016) and Tordjman et al., BCG (2025) and modified by the author of the paper for the purposes of the research.

Presuming that the customer journey has three different phases, namely pre-purchase, purchase, and post-purchase (Lemon & Verhoef, 2016), the proposed framework (see Figure 1.) illustrates the application of AI agents throughout the customer journey. Consumers' interactions with AI agents enable customers to make purchases easily and swiftly, because of better information gathering (Hoyer et al., 2020) and also improved processes such as automated payments, better customer service – chatbots that are available 24/7 (Jarek & Mazurek, 2019; Thiraviyam, 2018). This proactive, multi-turn engagement exemplifies a fundamental shift from reactive customer interactions to robust AI autonomy. Such autonomy enables convenience, redefining how customers interact with brands — from planning the purchase to real-time adjustments.

Pre-Purchase phase

AI agents can retrieve information about which items a customer has searched for, clicked on, added to a shopping cart or wish list, abandoned, and/or purchased by using consumer search activities on (e-commerce) websites, and/or shopping applications that are recorded and analyzed (Trusov et al., 2016). Additionally, as suggested by Hofacker et al. (2016, p.91), it is possible to know "which search terms attracted prospective customers from search engines, and whether it was a paid search term or an organic one".

Using all of the data gathered during this first phase, a customer profile can be created to help the AI agent better understand the consumer by emphasizing who they are, what their interests

are, what they are looking for and what they want. These insights will assist businesses in identifying their customer's characteristics (demographics), and behavior (psychographics). Additionally, using customer data helps AI agents get to know each individual customer better and deliver value to the consumer, because consumers get the brand(s) they actually want. This translates into happier customers, reduced client churn, and bigger profits for the company.

Purchase phase

Agentic AI possesses the ability to independently perform extensive internet research, advancing beyond basic queries to orchestrate complex, multi-step investigations. It can evaluate data from a variety of sources (including text, images, and PDFs), and consolidate the results into comprehensive reports – tasks that traditionally required human analysts' expertise and judgment. Therefore, AI agents are able to make autonomous choices regarding the reliability of sources, assess conflicting information, and determine the organization of their final report, thus demonstrating the proactive autonomy and innovative decision-making inherent to agentic AI.

The second phase of the journey is typically "the most temporally compressed" (Lemon & Verhoef, 2016, p. 76), but it provides access to comprehensive information about transactions, the consumer's geographic location, how price affects their decision to buy, and the best-selling branded products. Data gathered during this stage of the journey can be examined "in terms of purchase history, credit, and return history available" (Chauhan, Mahajan, & Lohare, 2017, p. 486). Consequently, all the information collected in the second phase is useful for customer profiling, demand forecasting and profit optimization.

Post-Purchase phase

The post-purchase phase of the customer journey may, in theory, continue from the time of the purchase to the end of the customer's life. Understanding how the consumer feels about the branded product's features or the service experience, whether they are satisfied or not is essential for building a long-lasting competitive advantage for businesses. During this phase of the customer journey, AI can be used to monitor the consumer sentiments (Marine-Roig & Clavé, 2015; Culotta & Cutler, 2016), or to automatically quantify the customer needs from social media (Kühl, Mühlthaler, & Goutier, 2019).

The knowledge gained from AI-enhanced customer journey mapping allows companies to create a more individualized, seamless, and engaging customer experience. By predicting customer needs, preferences, and pain points, businesses can take proactive measures to resolve issues, deliver timely support, and present customized branded products and services. This can result in increased customer satisfaction, higher retention rates, and greater brand loyalty, thus driving long-term business growth.

Discussions

The task of understanding the customer journey is complicated. Fortunately, according to Erevelles, Fukawa, and Swayne (2015, p. 898), consumers have become an "incessant generator of both structured, transactional data as well as contemporary unstructured behavioral data". Consequently, because of AI, businesses can collect customer data from many sources and deliver an important insight about consumers' path to purchase. Likewise, a report about mastering the customer journey from Microsoft Advertising (2019) highlights that companies apply AI to high-quality data to predict consumer's intentions and create customized interactions at every step of the customer journey.

As AI agents take over the customer journey, businesses have to begin considering their role in increasingly complex and comprehensive customer journeys. A breakdown of how agentic AI is transforming the customer journey is summarized below:

Enhanced Customer Experiences: AI is fundamentally transforming the manner in which consumers interact with brands, making these engagements more human-centric, personalized, significantly less cumbersome and confusing. For instance, various AI tools can recommend customized experiences based on consumer profiles and preferences, which are continuously updated as customers engage with different touchpoints. This is where the convergence of next-generation hardware and autonomous agents presents transformative opportunities. Agentic AI has the potential to automate various tasks, personalize interactions, and secure 24/7 support, thereby fostering more efficient and enjoyable customer experiences. Envision AI agents that can manage routine inquiries, provide personalized product recommendations, and/or proactively resolves issues through real-time data analysis. The successful implementation of AI agents also depends on companies' readiness to adopt these cutting-edge technologies. Grewal et al. (2023) further acknowledge that companies that seize these opportunities to optimize operational efficiency and enhance customer experience, are likely to achieve greater success in the future.

Exchanged Decision-Making Power: Kietzmann et al. (2018) suggest that AI presents a significant opportunity for businesses to effectively identify and reach customers at various phases of the customer journey, such as gathering comprehensive insights of consumers and their purchasing process. As technological advancements increasingly shape the decision-making processes of customers, it becomes imperative for companies to understand, adopt, and reshape the customer journey to leverage the benefits of these advances (Grewal & Roggeveen, 2020). This has the potential to elevate a superior standard of convenience and service and alleviate what can sometimes be a dizzying overabundance of choices. Various AI technologies can be applied across multiple stages and touchpoints of the customer journey. Consequently, it is crucial for businesses to understand each stage and what technological tools are expected from customers to successfully enhance the experience (Dhiman et al., 2023).

As AI agents become more sophisticated, they are likely to assume greater decision-making roles for consumers, thereby influencing various phases of the customer journey. This raises questions regarding brand relevance. To remain pertinent, brands will have to target AI agents as a novel category of customer to guarantee they are included in recommendations and choices. Nevertheless, at present, it is more appropriate to view agentic AI systems as operating in pursuit of goals defined by customers and in environments determined by humans, often collaborating with human counterparts, rather than as entirely fully-autonomous systems that independently determine their own goals.

Redefined Brand Loyalty: Customer journeys can vary significantly in terms of duration, number of touchpoints, placement, and various other factors. Nevertheless, their design plays a crucial role in influencing consumers' perceptions of a brand (Maechler, Neher, and Park 2016). The experience stimulates customers' behavioral, cognitive, emotional, and sensorial responses, which can subsequently lead to increased loyalty and engagement with the brand (Amorim 2018). AI is transforming the manner in which consumers interact with brands, making their interactions more human, more personalized, and less tedious and confusing.

Currently AI agents serve as intermediaries and brands have to explore innovative strategies to cultivate customer loyalty. This may require ensuring the AI agents are aligned with brand values and deliver consistently positive experiences. Additionally, it is essential to create unique value

propositions that resonate with both consumers and AI assistants. Furthermore, establishing trust and transparency into their AI-powered interactions will be crucial.

The evolution of AI creates new opportunities for companies and their ability to create tailored customer experiences. Businesses can create more interactive, lively, and richer experiences for their consumers (Hilken et al., 2017), thereby facilitating consumer's imagination to the surround of a particular product beyond the physical world (Hoyer et al., 2020). This can potentially reduce post-purchase churn (Jarek & Mazurek, 2019; Thiraviyam, 2018). Finally, it allows for a high level of personalization of the post-purchase service that goes beyond the branded product and thus creates additional value (Jarek & Mazurek, 2019; Thiraviyam, 2018).

Conclusion

AI has emerged as a prominent topic in recent years, prompting companies to seek advancements in customer experience through AI-driven solutions. The influence of AI is steadily increasing, significantly transforming the Marketing landscape. The most recent AI technologies possess the ability to analyze vast amounts of data, to identify the most impactful touchpoints and interactions, as well as to determine their effectiveness across various market segments. So AI assists marketers in crafting customer journeys that appear seamless and integrated. When utilized in real-time scenarios, AI can navigate consumers through personalized customer journeys that enhance both engagement and conversion rates. Furthermore, additional AI capabilities can refine the content and communications that drive these journeys, leveraging real-time engagement data.

Following the literature review and the answers to the research questions, it became feasible to formulate some *concluding observations* that, in various respects, facilitate a deeper exploration of the researched topic:

- Agentic AI represents a notable advancement in the AI field, distinguished by its autonomy, goal-oriented behavior, and adaptability across diverse environments.

- Agentic AI distinguishes itself from generative AI, that depends on structured instructions and close oversight, by demonstrating a high degree of adaptability, advanced decision-making abilities, and self-sufficiency. This allows it to function effectively in changing environments without the need for constant instructions or supervision. This transformative shift is expected to broaden the scope of the target area of AI from being passive and reactive to focusing on strategic planning, information processing, and problem solving, ushering in a new era once the appropriate conditions are met.

- The genuine value proposition of AI agents extends beyond their conversational abilities, rather it resides in their ability to deliver human-like services while overcoming the physical and affective limitations of human labor.

- Building upon the notion of the AI agents, the paper provides an overview of their potential applications at various stages of the customer journey.

- Integrating AI agents requires more than just using them as branding tools; they offer substantial functionalities that significantly enhance the customer experience. It is essential to regard AI agents as authentic, committed, and proactive team members who manage the entire customer journey, rather than viewing them solely as automated systems.

- The integration of AI-agents in customer journey mapping can improve the recognition of unfulfilled customer needs and facilitate continuous branded product improvement based on real-time customer feedback.

Key contributions:

- A review of agentic AI systems, highlighting the distinctions between these systems and other types of commonsense and generative AI systems.

- The research's expected contributions are more than simply a literature review; rather, they offer a useful and well organized foundation for exploring the issues and complexities of agentic AI in customer journey (mapping).

The findings indicate that customer perceptions about AI play a crucial role in determining the extent of its adoption, particularly when AI is clearly identified. However, there seems to be a degree of cognitive dissonance regarding the definition of AI and a tacit acceptance of some of its advantages.

Future research directions and challenges include:

- Exploring the application of emerging AI techniques, including reinforcement learning and generative models, to improve the creativity and flexibility of customer journey mapping.

- Examining the ethical and societal implications of AI-powered customer journey mapping, especially in relation to data privacy, algorithmic bias, and the fair allocation of the benefits.

- Longitudinal research should be undertaken to evaluate the long-term impact of AI-driven customer journey mapping on key metrics, such as customer lifetime value, revenue growth, and operational efficiency.

As the technological landscape continues to evolve, the strategic implementation of AI-driven customer journey mapping becomes increasingly important for businesses. This approach is essential for those aiming to distinguish themselves, achieve sustainable growth, and sustain a competitive advantage within their industries. By adopting this innovative approach, companies can discover new opportunities, enhance operational efficiency, and provide outstanding customer experiences that that foster lasting loyalty.

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