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ARTIFICIAL INTELLIGENCE IN MARKETING: A STUDY ON CONSUMER VULNERABILITY AND AI

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ABSTRACT

Purpose: Marketing is a field that has been impacted by artificial intelligence (AI). The research question of this study is: How can the use of artificial intelligence influence purchase intention and contribute to an enhancement of the consumer's state of vulnerability? Therefore, the general objective of this article is to understand how the use of artificial intelligence can influence purchase intentions and contribute to enhancing the state of consumer vulnerability.

Originality: The originality of this study lies in the exploration of the negative implications of artificial intelligence (AI) in marketing, especially in relation to the constructs "purchase intention" and "consumer vulnerability", from a perspective that has not yet been addressed in the literature. Unlike most studies that take an optimistic approach and focus on the benefits of AI for personalization and marketing efficiency, this research focuses on the ethical concerns and adverse effects that AI can have on consumers. By emphasizing the vulnerabilities and ethical implications of AI in marketing, the article makes an innovative contribution to the field by complementing the predominant narrative of benefits with a more critical analysis, promoting a broader discussion about the implications of AI in consumer relations.

Methodology: This study follows a qualitative approach, using semi-open interviews with 20 smartphone consumers in Salvador-Bahia, to explore their experiences with AI uses in the marketing field and how this can contribute to purchase intention and consumer vulnerability. The data was analyzed through content analysis, allowing the identification of relevant patterns and contributions.

Results: The results of this study indicated that the majority of respondents feel uncomfortable with the excessive volume of advertisements and the perception of constant surveillance, indicating that the intensive use of AI in marketing can, in many cases, be detrimental to purchase intent. In addition, the results showed that while AI facilitates personalization and

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efficiency in marketing strategies, it also increases consumer vulnerability. The majority of respondents reported a feeling of lack of control and insecurity over the use of their personal information, reinforcing the state of vulnerability. Therefore, consumer vulnerability in the context of AI is enhanced by several interrelated factors. The collection of data, the lack of transparency about the use of this information and the psychological impact of constant interactions with AI algorithms exacerbate the feeling of lack of control. In addition, financial and performance expectations are often not met, which increases the risk of impulsive decisions and regrets, as seen in the testimonies of the interviewees in this study.

Conclusion: This article concludes that while AI offers commercial benefits, it also presents significant challenges for consumer well-being. The results of the study highlight that even though AI offers strategic advantages to companies, it also increases the state of vulnerability of consumers, especially with regard to privacy, emotional manipulation and trust in digital interactions.

Keywords: Artificial intelligence. Consumer vulnerability. Marketing.

INTELIGÊNCIA ARTIFICIAL E SEU USO NO MARKETING: UM ESTUDO SOBRE VULNERABILIDADE DO CONSUMIDOR E IA

RESUMO

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INTRODUCTION

Artificial Intelligence (AI) is a scientific field that seeks to develop computational systems capable of performing tasks that traditionally required human intelligence to be carried out (Mccarthy, 2007). In this sense, AI is the simulation of human intelligence by machines, allowing them to automatically perform human tasks without human intervention (Tussyadiah & Park, 2018; Newman & Oak, 2020). According to Russell and Norvig (2010), artificial intelligence can be defined as a subfield of computer science that studies how to create computers capable of performing tasks that, until now, could only be carried out by humans, such as visual perception, speech recognition, decision-making, and learning

For Puntoni et al. (2021), artificial intelligence can help companies offer benefits to consumers, such as advice through recommendation systems, smart home products, and convenience through voice-activated virtual assistants. Carah (2017) highlights that companies can use artificial intelligence to provide a more personalized and efficient customer experience, since AI can be used for purchase forecasting, prediction of consumption preferences, and brand

perception. Therefore, researchers in the fields of marketing, product management, and services have turned their attention to studies on how companies have been implementing AI and to what extent customers adopt it (Makridis & Mishra, 2022; Namatherdhala, Mazher & Sriram, 2022; Tong et al., 2021; Xu, Frankwick & Ramirez, 2016). According to Belanche et al. (2024), most studies on artificial intelligence and marketing adopt a positive view, focusing on the factors that drive the diffusion of AI or on measuring the performance improvements generated by it..

However, Puntoni et al. (2021) draw attention to the fact that, although AI may be seen as a neutral tool to be evaluated in terms of efficiency and accuracy, such an approach does not take into account the social and individual challenges that may arise when AI is implemented. It is important to emphasize that the use of AI in marketing can also raise ethical and privacy concerns, since not all users are aware of such use and may find themselves in a state of vulnerability (Leal et al., 2021). The term "vulnerability," according to Baker, Gentry, and Rittenburg (2005), is defined as a state of powerlessness experienced as a result of imbalances in market transactions or in the consumption of marketing messages and products, which may occur when the individual loses control of the situation.

Neste contexto, Leal *et al.* (2021) sugerem que o uso da inteligência artificial pelas empresas pode amplificar a vulnerabilidade dos indivíduos, pois a IA pode ser usada para coletar e analisar dados pessoais dos consumidores sem o seu conhecimento e consentimento. Além disso, para os autores, o uso da IA pelas empresas pode ter impactos no processo decisório de compra do consumidor, por meio da curadoria/apresentação de opções ao consumidor sem que ele faça esforço algum e do direcionamento de anúncios.

In view of this scenario, the research question of this study is: How can the use of artificial intelligence influence purchase intention and contribute to an intensification of the consumer's state of vulnerability? Therefore, the main objective of this article is to understand how the use of artificial intelligence can influence purchase intention and contribute to an intensification of the consumer's state of vulnerability. To achieve the objective of this work, a qualitative approach study was carried out, employing semi-structured interviews with 20 consumers who use smartphones. In this sense, content analysis was used as the method of analysis.

This article aims to contribute to the discussion about the possible negative externalities of artificial intelligence in marketing, considering that this is a topic that deserves greater attention from marketing researchers. Authors such as Belanche et al. (2024) and Barari et al.

(2024) point out a gap in the literature in this regard when they state that most studies on artificial intelligence in marketing are overly optimistic about the implementation of AI, and there is still a need to explore the negative side of this technology. These authors observe that the literature lacks studies discussing the potential negative impacts on consumers, companies, and society, as well as the moral concerns associated with the use of AI in services.

Puntoni et al. (2021) point to the same gap when they draw attention to the fact that the literature should not only observe the benefits but also be concerned with the costs of AI for consumers. By studying how AI can intensify consumer vulnerability and influence purchase intention, the present study contributes by broadening the understanding of the AI phenomenon in marketing, considering that such a phenomenon should be viewed from several angles and not only from the perspective of its benefits, which would be incomplete. Furthermore, from the perspective of studies on consumer vulnerability, Lucena Filho, Aguiar, and Machado (2024) highlight that "there are few studies that explore the concept of vulnerability" (p. 73) and suggest conducting research that seeks to identify the antecedents of consumer vulnerability.

From a managerial point of view, the study is relevant for companies in the sense of proposing a reflection on ethics in marketing regarding the social consequences of the use of AI. Mogali, Soetan, and Kieu (2021) believe that understanding the ethical implications, as well as the challenges related to data and modeling, is necessary for a more successful implementation of AI in organizations.

2 THEORETICAL FRAMEWORK

2.1 Artificial Intelligence

During the 1950s, Alan Turing created a method to define AI, which consisted of testing a computer's ability to pass itself off as a human being during a conversation with another person, without the person knowing that they were interacting with a machine. To be considered successful, the computer would have to convince the person that it was a human being in all cognitive tasks. Based on this experiment, Turing defined AI as the ability of a system to achieve human-level performance in all cognitive tasks, to the point of deceiving the interlocutor (Turing, 1950).

According to Skalfist, Mikelsten, and Teigens (2019), artificial intelligence is in constant evolution. Currently, artificial intelligence is known as narrow AI (or weak AI), insofar

as it is designed to perform a narrow/specific task and does not attempt to execute the full range of human cognitive abilities (Skalfist, Mikelsten & Teigens, 2019; Bory, Natale & Katzenbach, 2024). Examples of narrow or weak AI include virtual assistants such as Siri, Alexa, and Google Assistant, as well as recommendation systems used in e-commerce and streaming platforms (Cardoso, 2024).

However, Skalfist, Mikelsten, and Teigens (2019) explain that the long-term goal of many researchers is to create strong AI (or AGI), which does not yet exist. According to them, strong AI can be defined as a system as effective and flexible as human intelligence, not limited to a specific problem or task. For these authors, strong AI may lead to the development of computer systems whose intelligence could surpass that of human beings in almost all cognitive tasks.

The term "strong AI" was introduced by John Searle, a philosopher at the University of California, Berkeley, in 1980, to describe this category of AI research (Skalfist, Mikelsten & Teigens, 2019). Bory, Natale, and Katzenbach (2024), on the other hand, point out that strong AI currently refers only to hypothetical systems that serve as material for science fiction, since they do not yet exist in reality. In this sense, they argue that weak AI should be more firmly placed at the center of public debates on emerging technologies, rather than strong AI.

Narrow or weak AI is currently used in almost all fields of human life, such as autonomous vehicles, cloud computing, the Internet of Things, bioinformatics, materials science, and other scientific domains (Namatherdhala, Mazher & Sriram, 2022). For Belk et al. (2023), AI is therefore an umbrella concept that represents the technological advances that have emerged since the advent of the Fourth Industrial Revolution. However, the literature points out that special care is necessary regarding the use of AI, particularly in matters related to ethics, privacy, data security, transparency, and trust (Namatherdhala, Mazher & Sriram, 2022; Belanche et al., 2024).

2.2 Artificial Intelligence and Its Use in Marketing

Artificial intelligence is increasingly present in companies and in their marketing strategies, bringing improvements to business operations, such as the enhancement of customer experience, optimization of processes, and creation of new business models (Leal et al., 2021; Brill, Muñoz & Miller, 2019). The application of AI in marketing offers a range of benefits, such as content personalization, real-time data analysis, and process automation (Costa, Pontifícia & Veiga, 2022; Puntoni et al., 2021).

In the digital marketplace, such as in apps, websites, and marketplaces, the daily collection of search data is common, which is then analyzed and transformed into offers for customers, influencing the buying and selling process within these environments (Grewal, Roggeveen & Nordfält, 2017). When consumers interact with websites, social media, or applications, they leave digital traces that can be stored and used for commercial, political, or other types of purposes (Kaufman & Roza, 2013).

The inclusion of elements such as Big Data, machine learning, and the Internet of Things has played a fundamental role in the analysis and processing of large volumes of data, as well as in improving individuals' experiences (Marinchak, Forrest & Hoanca, 2018). These technologies provide marketing professionals with a better understanding of consumer behaviors and preferences, allowing for the creation of more efficient and personalized strategies (Costa, Pontifícia & Veiga, 2022).

More and more, several functional areas of Management have been fully exploring the possibilities offered by AI, especially regarding its potential impacts on consumer behavior and the decision-making process (Leal et al., 2021). AI algorithms are capable of detecting complex patterns in data and analyzing past behavior to make future predictions, which is valuable for the development of marketing strategies aimed at influencing the behavior of target audiences and their purchase intentions (Kaufman, 2018).

It is possible to observe a trend of integration between the fields of marketing and artificial intelligence, especially regarding consumption and with a focus on predicting consumer behavior (Hakimpoor et al., 2011; Fox, 2016). However, despite the benefits offered by AI in marketing, there are some guidelines that should be considered, one of the main concerns being consumer privacy (Namatherdhala, Mazher & Sriram, 2022). As AI collects and analyzes consumer data, it is necessary to ensure that personal information is protected and used ethically (Belanche et al., 2024). Lockey et al. (2021) draw attention to possible violations of trust and ethical norms that may be harmful to society, leaving consumers in a state of vulnerability.

2.3 Consumer Vulnerability

In general terms, vulnerability can be seen as an unfavorable condition—that is, a certain level of exposure that makes an individual susceptible to potential risks (Silva et al., 2021). As stated by Oliveira (2020), the application of the concept of vulnerability is crucial to ensure social justice and to prevent exclusion against groups that face specific challenges. Silva

et al. (2021) explain that, in Brazil, the term *consumer vulnerability* (CV) initially gained attention within the field of Law.

The authors state that concern with conflicting consumer relations emerged in Law at the end of the 19th century and later led to the creation of organizations whose purpose is to defend consumers, such as the Consumer Protection and Defense Program (PROCON). Law No. 8,078 (1990) of the Brazilian Consumer Defense Code aims to protect consumers from situations of vulnerability in relation to company actions.

However, in the marketing literature, there is no unified consensus on the concept of consumer vulnerability, since different authors hold distinct perspectives (Lucena Filho, Aguiar & Machado, 2024). For example, for Smith and Cooper-Martin (1997), consumer vulnerability refers to consumers who, due to their physical or psychological characteristics, are more susceptible to economic, physical, or psychological harm. Baker, Gentry, and Rittenburg (2005), on the other hand, define consumer vulnerability as a state of powerlessness resulting from an imbalance in market interactions or in the consumption of marketing messages or products, occurring when some kind of barrier prevents consumer control, hinders, or compromises their decision-making and freedom of choice.

In any case, Lucena Filho, Aguiar, and Machado (2024), in their bibliometric analysis on the topic of consumer vulnerability, state that "most authors agree that, although not classified as a disadvantaged group, all consumers can expect to be at a disadvantage at some point in their lives" (p. 74). The present study adopts the perspective of consumer vulnerability proposed by Baker, Gentry, and Rittenburg (2005).

Both Silva et al. (2021) and Lucena Filho, Aguiar, and Machado (2024) point out that there is a vast field for the development of research on consumer vulnerability. Consumer vulnerability becomes an even more challenging topic in a context where people increasingly face, in their daily lives, artificial intelligence technologies that collect their data without their full knowledge and consent, thereby increasing the intensity of human–machine interaction (Leal et al., 2021). The following topic discusses the relationship between consumer vulnerability and artificial intelligence, as well as the challenges associated with AI.

2.4 Artificial Intelligence, Its Challenges, and Consumer Vulnerability

Belanche et al. (2024) point to several challenges related to AI concerning AI design (for example, it can reinforce biases), its potential harmful consequences for consumers (for example, loss of privacy, heavy dependence, and loss of human skills), and its disruptive impact

on service delivery (for example, lack of emotion and empathy). Complementing Belanche et al. (2024), authors such as Leal et al. (2021) and Chouk and Mani (2016) argue that consumers may become potentially vulnerable in the context of AI because they are exposed to risks related to the privacy of their data, their psychological health, and their financial and performance expectations regarding artificial intelligence.

According to Belanche et al. (2024), the use of artificial intelligence by companies can reinforce discrimination and prejudice through its human-like aesthetics in AI interaction design. They explain that robots, chatbots, and AIs can be anthropomorphically designed to represent virtual human assistants. In this sense, the authors exemplify that companies tend to design AI systems with feminine characteristics (for example, voice, name, physical traits) because such features elicit more favorable reactions from consumers, such as satisfaction and willingness to interact. In their view, "this practice reinforces gender stereotypes that perpetuate a servile role for women in society," and therefore, "there is a movement against the use of the female gender in technological agents" (Belanche et al., 2024, p. 151).

In addition, the authors also point out that the use of AI can reinforce prejudice due to the biases embedded in the data it relies on. They state that AI learns from the online environment, where it is exposed to hate speech, racism, and social stereotypes. Such an environment can lead AI systems to reproduce the tone and content of these comments and stereotypes in their responses to users. One example provided by Belanche et al. (2024) is Microsoft's launch of the Tay profile on Twitter (now known as X) in 2016. In this case, the AI chatbot was allowed to post tweets and learn from user interactions. According to the authors, only 16 hours later, the company had to shut it down because it had turned into a racist extremist, posting messages that expressed support for Nazism. This AI-based chatbot was designed to learn from its environment, which included hate-filled comments present on the platform. For Belanche et al. (2024), such data biases and the learning of social stereotypes cannot be ignored.

Another challenge related to AI concerns its potential harmful consequences for consumers, such as the loss of privacy. Regarding privacy loss, Puntoni et al. (2021) argue that AI can lead to surveillance that may be direct and sensory—such as facial recognition—or indirect and non-sensory, such as when a consumer's online activity is tracked and cross-referenced. As mentioned earlier, AI is fueled by vast amounts of data collected by tracking both online and, at times, offline behaviors of individual users. These records of analyzed digital

behaviors can then be used by companies to develop marketing strategies aimed at influencing consumers' purchase intentions (Belanche et al., 2024).

Belanche et al. (2024) draw attention to the fact that, while many consumers actively provide their data—for instance, through health and fitness apps—there are also consumers who do not wish to do so. In this regard, laws have been established as a means to resist such digital tracking (Belanche et al., 2024). In the Brazilian context, there is Federal Law No. 13.709/18, also known as the General Data Protection Law (Lei Geral de Proteção de Dados – LGPD) (Brazil, 2018).

This law constitutes the main Brazilian regulatory framework on privacy and personal data protection, establishing rules for the processing of personal data within Brazilian territory, with the goal of promoting greater control by citizens over their personal information. The LGPD outlines several legal bases that justify the processing of personal data, such as the data subject's consent, compliance with legal or regulatory obligations, execution of contracts, protection of the data subject's life, and the controller's legitimate interest, provided that the rights of data subjects are respected (Brazil, 2018). According to Belanche et al. (2024), increasingly restrictive laws are being designed to prevent customers from losing control.

Another potential harmful consequence that AI may bring to consumers is excessive dependence and the loss of human skills, which can negatively affect users' mental health. Leal et al. (2021) emphasize that the increasingly intensified contact with technology and AI may lead individuals to experience a range of sensations such as technological dependence, negative emotions, technostress, anxiety, and other forms of vulnerability. From Leal et al.'s (2021) perspective, the origin of this condition may stem from the exchange of information generated by the digital traces—also known as cookies—left by users when accessing platforms and intelligent assistants.

> The vast pool of data about the lifestyles of users of these technologies serves as a source of information for decision-making, often without them realizing how their own data are being used, thus creating a scenario of constant surveillance. (...) In this sense, those who are unable (or unaware of how) to control the use of technologies may develop some form of technological dependency, as pointed out by Chouk and Mani (2016) (Leal et al., 2021, p. 36).

In this context, Belanche et al. (2024) state that this environment, in which technology reigns supreme, has also created new forms of dependency, as well as obsolescence and passivity (Du & Xie, 2021). According to the authors, AI-based services are designed to make people avoid performing tasks. Thus, AI is freeing people not only from mechanical tasks but also from analytical and thinking activities. This, in turn, leads to a lack of human development

(Belanche et al., 2024). Park and Lee (2022) explain that the intensive use of smartphones, particularly among young people, results in the loss of cognitive abilities such as attention span and working memory.

Belanche et al. (2024) point out that dependency and addiction to social media are a delicate phenomenon, particularly among young people. The authors explain that social media platforms rely on AI to create a vicious feedback loop based on dopamine (that is, short-term pleasure). Excessive use of social media has been linked to other harmful consequences, such as depression and distorted perceptions of reality, leading to a growing number of health clinics specializing in social media addiction disorders (Belanche et al., 2024).

Beyond the challenges of AI and the vulnerabilities discussed so far in this section, it can also be argued that consumers are susceptible to risks related to financial and performance expectations. Both are functional risks and are interrelated. Chouk and Mani (2016) explain that the risk associated with performance expectations is a functional risk linked to the trust placed by the user in the information communicated by the object or device powered by artificial intelligence, as it may provide unreliable or incorrect information. Meanwhile, the risk related to financial expectations refers to the consumer's potential financial losses in the event of a poor decision.

Another challenge brought by AI concerns its impact on service delivery, particularly regarding the lack of emotion and empathy. Belanche et al. (2024) explain that services provided by AI differ significantly from those provided by human employees, as AI lacks emotional depth and empathy. The authors view this as particularly problematic because, in addition to the mechanical or analytical tasks carried out by AI in pursuit of efficiency, many AI-driven work tasks involve interactions with humans that require the ability to feel.

In any case, the authors point out that although current AI systems lack emotion and empathy, technological advances may eventually reduce this deficit, as today's AI systems are already capable of identifying customer emotions and responding accordingly. Belanche et al. (2024) provide the example that AI can display affective reactions—such as adapting greetings or offering encouraging relational messages—so that the system "pretends" to have empathy. Even so, achieving technology truly embedded with emotion is highly complex and unlikely to occur in the short term, since it involves elements machines do not possess, such as physiological sensations, self-awareness (e.g., desires), and life-related concerns (e.g., survival).

In this sense, Belanche et al. (2024) emphasize that AI lacks empathy, which is a crucial aspect in service encounters (Bitner, Booms & Tetreault, 1990). The authors reflect that empathy, in turn, requires bidirectionality, and without it, the natural reciprocity of the customer–provider relationship is likely to disappear (Belanche et al., 2020). They conclude that despite the distancing in the customer–creator relationship, the subtle human bond that is formed still exists and adds value.

2.5 Purchase Intention and Its Relationship with Artificial Intelligence

Purchase intention is an important construct in the field of marketing, as companies seek for consumers to develop a favorable intention to act toward their products and services, which may occur in response to informational stimuli (Kim & Johnson, 2016; Gomes & Vera, 2022). Bhagat, Chauhan, and Bhagat (2023) define purchase intention as the degree of a consumer's willingness to pay, as well as their attitude and orientation toward purchasing a particular good or service. According to Sharma et al. (2024), in today's technology-driven marketing scenarios, it is crucial to understand how artificial intelligence affects consumers' purchase intentions.

In their study conducted in the context of online retail, Bhagat, Chauhan, and Bhagat (2023) found that the ease of use provided by artificial intelligence positively influences consumers' purchase intentions. From the authors' perspective, by adopting AI technology, the consumer decision-making process becomes much simpler, reducing the consumer's search costs for finding products and comparing them with competitors, saving time, and offering many options to choose from.

According to Bhagat, Chauhan, and Bhagat (2023), the use of artificial intelligence has increased customers' intentions toward certain products and services, as it helps them make final purchasing decisions from wherever they are. The authors highlight that the use of augmented reality through AI technology "allows customers to visualize products in a completely different way and helps them make the best purchase decision" (p. 251). In line with Bhagat, Chauhan, and Bhagat (2023), Malhotra and Ramalingam (2023) also believe that through artificial intelligence, consumers' purchase intention increases significantly, especially in the online retail sector, where retailers offer attractive deals to motivate consumers.

In turn, Mittal et al. (2024) conducted a study with 237 online retail customers to identify the factors that determine the negative aspects of artificial intelligence and its impact on the purchase intention of online retail customers with respect to AI-enabled e-commerce platforms.

As a result, the authors found that lack of security, low consumer trust, AI autonomy, reliability issues due to the novelty of the concept, and system malfunctions are factors that negatively impact the purchase intention of online retail customers regarding AI-enabled e-commerce platforms.

Similarly to Mittal et al. (2024), Barari et al. (2024) found in their study that purchase intention is negatively affected by the adverse effects of AI, including privacy concerns, perceived risks, customer alienation, and disregard for exclusivity. Privacy concern refers to the extent to which individuals are worried about how AI-based products and services collect, access, use, and protect their personal information (Pitardi & Marriott, 2021; Barari et al., 2024). Perceived risk, according to Barari et al. (2024), represents the uncertainty regarding the consequences of using a service, as customers may feel insecure about the outcomes of relying on AI-based technologies, such as product recommendations or service delivery.

The authors also explain that customer alienation refers to the extent to which AI-based products and services can reduce the human aspects of customer–company interactions. In turn, disregard for exclusivity represents the degree to which AI products and services overlook subtle differences among customers. According to the authors, such disregard can result in impersonal experiences that fail to satisfy the customer's need for exclusivity. All these adverse effects of AI negatively influence purchase intention, according to the authors.

3 METHODOLOGY

This study follows a qualitative approach, whose objective is to understand human experience and how people interpret and give meaning to events in their lives. This approach focuses on specific and unique aspects in order to gain a deep understanding of the phenomenon under study, usually related to the attitudes, beliefs, motivations, feelings, and thoughts of the population being examined (Paulilo, 1999). For this study, the qualitative approach was chosen with the aim of exploring the experiences of a specific group of consumers in Salvador, Bahia. The type of research adopted is descriptive, which aims to understand and interpret reality without interfering with or modifying it (Silva & Fossá, 2015). Its focus lies in discovering, observing, and describing phenomena, as well as classifying and interpreting them (Vieira, 2002).

Data collection was carried out through interviews, which, according to Gil (2009), are among the most commonly used data collection techniques in applied social science research. This method is considered appropriate for obtaining information about people's knowledge, beliefs, expectations, and desires, as well as for understanding the reasons behind each response. The

interviews were conducted individually, using a semi-structured guide, allowing participants to share their experiences and situations related to the research context, and to add information whenever they felt comfortable, without necessarily following a fixed script. This flexible approach was adopted based on the recommendations of Boni and Quaresma (2005) and Merriam (2009).

The interview guide was developed based on the data collection instrument by Oliveira (2021) in their master 's dissertation, "'O futuro presente': influência da inteligência artificial na qualidade de vida do consumidor" (The Present Future: The Influence of Artificial Intelligence on the Consumer's Quality of Life). The guide for the present research was designed with the objective of understanding how the use of artificial intelligence can influence purchase intention and contribute to an intensification of the consumer's state of vulnerability. Table 1 presents the questions that guided the interviews with the participants:

Table 1 - Data Collection Instrument

Category	**Questions**	**Sources**
Profile of the Interviewee	What is your age? What is your gender? What is your educational level and academic background? What is your profession?	
Level of Knowledge	Do you usually make purchases using your mobile phone? If so, how often do you do it?	Zhang; Chen & Lee (2013); Jenkins (2009); Roy & Moorthi (2017); Clarke (2001); Leal *et al* (2019); Chouk & Mani (2016); Belk (2021); Davenport *et al*. (2019); Walsh & Mitchell (2005)
	Do you know what the concept of Artificial Intelligence is? Can you give an example of its use?	
	Can you tell whether you have already interacted with any form of artificial intelligence through your mobile phone? Could you give examples?	
	Have you ever experienced a situation where, after searching for a product on your mobile phone, you started receiving ads and promotions related to what you had searched for? Does this happen frequently? Could you give an example of how this occurred?	
Purchase Intention and Feelings of Vulnerability in Relation to AI	How do you feel when you keep receiving multiple ads and/or promotions about something you have searched for?	Frazão (2019); Schlosser (2003); Panda & Swar (2013); Kaufman & Roza

	Have you ever received a discount on a product or service you had previously searched for and ended up making the purchase, influenced by the ad or special offer? Do you usually feel satisfied with that decision, or have you ever regretted such a purchase?	(2013); Davenport *et al*. (2019); Sánchez (2021); Piteira & Aparício; Costa (2019); Belk (2021)
	When it comes to the ads and promotions you receive on your mobile phone, do you usually intend to make a purchase in most of these cases? If so, what motivates you to complete the purchase? If not, what prevents you from doing so?	
	Do you believe that the number of ads related to something you have previously searched for or clicked on is appropriate while using your smartphone? How do you feel about the appearance of these ads?	
	When you receive a large number of ads, promotions, or discount coupons related to something you have searched for, do you believe this has a positive or negative impact on your satisfaction and well-being as a consumer? Please explain the reason for your perception.	
Use of AI in Marketing Strategies	In your opinion, can organizations use Artificial Intelligence as a strategy for promotion and communication with consumers? Can you give an example?	Belk (2021); Fox (2016); Leal *et al* (2019); Sánchez (2021); Ng & Wakenshaw (2017); Piteira; Aparicio & Costa (2019).
	Do you think companies are able to access what you search for, click on, or say through your mobile phone?	
	If you knew that a company had access to your location and to what you search for, click on, or say through your mobile phone, how would you feel?	
	When you conduct a search and start receiving ads and promotions related to what you searched for, do you believe these actions are marketing strategies aimed at encouraging you to make a purchase? If so, why do you believe these strategies are or are not effective?	
	When you conduct a search and later receive coupons or advertisements related to what you searched for, what do you think about the company that uses this type of strategy?	

Source: prepared by the authors based on Oliveira (2021).

The interviews began with an explanation of the general objective of the study, making it clear that the interviewee could feel free to ask questions or add examples and situations. Each interview was conducted continuously, without pauses or interruptions, and lasted an average of 20 minutes. The inclusion criteria for participants were: (1) residing in Salvador, Bahia; (2) using smartphones with internet access; and (3) making online purchases. By setting these criteria, the study sought to obtain specific and relevant information about the use of such devices and to explore how they impact the lives of these consumers.

The selection of participants who collaborated in the research was based on criteria of accessibility, convenience, and the use of the "snowball" sampling technique. This technique, described by Sampieri, Collado, and Lucio (2010), aims to identify key participants for the study and ask whether they know other individuals who could provide broader information, then contact them to include them in the research. Thus, the first interview participant was selected based on a referral, and from that initial contact, subsequent participants were recruited through additional recommendations, also considering accessibility and convenience.

A total of 20 interviews were conducted. Of these, nine were held in person, while the remaining eleven were conducted online using the Google Meet application, which made it possible to observe participants' reactions to the questions even at a distance. The decision to conclude the interviews was made when they reached the "saturation point," which, according to Thiry-Cherques (2009), occurs when no new information is being added to the research, and additional interviews no longer alter the understanding of the phenomenon under study.

This research sought to respect the confidentiality of sources, ensuring the anonymity of participants. All interviewees agreed to and signed the interview consent form. To preserve confidentiality, all participants were referred to using identifiers such as "Interviewee 1," "Interviewee 2," and so on. Another important consideration concerned age, as all participants were over 18 years old. These measures were adopted to ensure the ethical integrity of the study, protecting the privacy and right to confidentiality of the interviewees.

After the data collection, a theoretical categorization of the results was carried out with the purpose of interpreting the data and justifying their organization into the categories established by the research instrument. It is important to highlight that, according to the content analysis technique, the raw data obtained—regardless of their origin—do not hold meaning until they are compared with theory and properly categorized (Flick, 2008). In this sense, theoretical categorization made it possible to assign meaning to the collected data, establishing

connections with relevant theoretical concepts and providing an interpretative structure that contributed to the understanding of the results obtained in the study.

4 ANALYSIS OF RESULTS

4.1 Characterization of the Interviewees' Profile

The profile of the interviewees is essential for obtaining relevant and representative information, and it is important to consider characteristics such as age, gender, educational level, occupation, and experience related to the topic. This process aims to obtain comprehensive insights and a deeper understanding of the subject. Table 2 presents the profile of the interviewees who participated in the data collection for this research:

Table 2 – Profile of the Interviewees

Interviewee	**Age**	**Gender**	**Education Level**	**Occupation**
Interviewee 1	24 years old	Female	Incomplete Higher Education	Student
Interviewee 2	23 years old	Female	Completed Higher Education	Marketing Analyst
Interviewee 3	25 years old	Male	Postgraduate	Project Analyst
Interviewee 4	24 years old	Female	Incomplete Higher Education	Student
Interviewee 5	23 years old	Female	Incomplete Higher Education	Student
Interviewee 6	20 years old	Female	Incomplete Higher Education	Student
Interviewee 7	20 years old	Male	Incomplete Higher Education	Student
Interviewee 8	49 years old	Female	Postgraduate	Project Manager
Interviewee 9	23 years old	Male	Completed Higher Education	Administrator
Interviewee 10	23 years old	Male	Incomplete Higher Education	Student
Interviewee 11	24 years old	Female	Completed Higher Education	Psychologist
Interviewee 12	23 years old	Male	Incomplete Higher Education	Student
Interviewee 13	33 years old	Male	Postgraduate	Systems Analyst
Interviewee 14	24 years old	Female	Completed Higher Education	Student
Interviewee 15	56 years old	Female	Postgraduate	Entrepreneur
Interviewee 16	24 years old	Female	Completed Higher Education	Advertising Professional
Interviewee 17	23 years old	Male	Incomplete Higher Education	Student

Interviewee 18	53 years old	Male	Postgraduate	Administrator
Interviewee 19	38 years old	Male	Postgraduate	Coordinator
Interviewee 20	50 years old	Female	Completed Secondary Education	Housekeeper

Source: prepared by the authors (2024).

After analyzing the interviewees' profiles, it was observed that the sample represented significant diversity in terms of gender, age range, and educational level. Regarding gender, of the twenty interviewees, eleven identified as female and nine as male. With respect to age, the interviewees ranged from 20 to 56 years old, providing a broad and representative view of different perspectives and experiences, with a focus on participants between 20 and 30 years old. In terms of education, one participant had completed secondary education, eight had incomplete higher education, six had completed higher education, and five held postgraduate degrees.

This variety of profiles enriched the collected responses, allowing for a more comprehensive understanding of the topic. In addition, all research participants stated that they make frequent use of the internet through their smartphones and confirmed that they make purchases using their mobile devices.

4.2 Level of Knowledge About Artificial Intelligence

Artificial intelligence is defined as the ability of a system to achieve human-level performance in all cognitive tasks, to the point of deceiving the interlocutor (Turing, 1950). In the present study, interviewees were asked whether they knew the concept of artificial intelligence and could provide examples of its application. All participants stated that they were familiar with the concept; however, they showed some difficulty in expressing and exemplifying it. Out of the twenty interviewees, fourteen mentioned "ChatGPT" as a reference and example of artificial intelligence. Among those who had some prior knowledge about the topic, these were some of the responses:

> **Interviewee 1:** I can't explain exactly what artificial intelligence is, but I know it's a set of learning systems and technologies that can have various functionalities. I can give an example of its use in my field of customer experience, where there are many tests involving artificial intelligence for customer communication. And besides that, ChatGPT—I don't really know how to explain what it is, but I know it's an artificial intelligence.
> **Interviewee 10:** In my understanding, it's a type of programming that analyzes its database and keeps improving over time. One example is ChatGPT.
> **Interviewee 13:** Artificial intelligence is everything that is thought out intelligently, everything that is done by machines. For example: Waze, which uses artificial

> intelligence for traffic, weather forecasts that rely on conditions of temperature and variation, ChatGPT, etc…
> **Interviewee 14:** I understand AI as the ability of a machine to learn and perform human cognitive tasks that can be executed by machines. As an example: data algorithms that assist in decision-making.

When asked whether they had interacted with any form of artificial intelligence through their mobile phones, all respondents said yes. The examples mentioned were divided among ChatGPT, Alexa, and Siri (from the iPhone). The interviewees also cited advertisements and sponsored posts on social media as examples, which shows that they are aware of the use of artificial intelligence in marketing strategies focused on paid media and ads..

The interviewees reported that this happens very frequently. All twenty participants stated that when they access social media, advertisements and promotions often start to appear. According to the respondents, sometimes they merely talk about a certain topic in a conversation and "it feels like there's a robot listening," as ads about that topic soon begin to appear. Among them, six interviewees said they had deliberately searched for a specific product in order to trigger promotions related to it.

> **Interviewee 4:** A lot of ads appear—very frequently. Sometimes I search for something on my computer, and an ad for it shows up on my phone!!
> **Interviewee 5:** Yes, that has happened to me. I'll search for some topic or product on the internet, and right afterward, for example, when I go on Instagram, several ads and promotions start appearing in my feed and stories. And yes, it happens quite often.
> **Interviewee 14:** I get the impression that it does. Many times, I feel like there's a microphone on my phone, because I'll be talking to someone in person, with my phone nearby, and a week later ads about that topic start appearing. If I search on Google or YouTube, the same thing happens—then a lot of ads and sponsored posts begin to show up…
> **Interviewee 16:** It happens to me all the time! Of course—it happens every day. Even if I just visit an Instagram profile or a website about a certain topic, I start seeing only ads related to it. I once made a purchase using my phone, and immediately ads appeared on my social media—promotions, bus companies I'd never even heard of.

It can be observed that, in general, the interviewees possess only a minimal level of knowledge about the topic, even though artificial intelligence is part of everyone's daily life. However, five of them were unaware of situations that qualify as applications of artificial intelligence used by companies to connect with consumers. This finding aligns with what the literature highlights—that consumers do not always have full awareness of how companies apply and use artificial intelligence—which raises ethical concerns regarding transparency in the use of data by companies (Leal et al., 2021; Puntoni et al., 2021; Belanche et al., 2024),

4.3 The Use of AI in Marketing and Its Relationship with Purchase Intention

Purchase intention is defined as the degree of a consumer's willingness to pay and their attitude toward purchasing a particular good or service (Bhagat, Chauhan & Bhagat, 2023). Authors such as Malhotra and Ramalingam (2023) and Bhagat, Chauhan, and Bhagat (2023) concluded in their studies that the use of artificial intelligence significantly contributes to purchase intention in online retail. However, in the present study, the results differed from this conclusion.

Out of the twenty interviewees, only two stated that the use of AI in marketing—through, for example, ads and recommendations on social media—positively influences their intention to purchase. Both Interviewee 11 and Interviewee 12 mentioned that viewing discounts on products offered online helps motivate their intention to buy. On the other hand, most of the research participants made it clear that the excessive use of AI in marketing is bothersome and negatively influences their purchase intention. Some of the following statements illustrate this:

> **Interviewee 1:** When I start receiving ads and promotions on the internet, I usually don't make a purchase, because I once heard a theory that when you search for something online and start getting a lot of ads, some prices tend to go up. So, if I want to buy something, I usually look it up, wait a few days, and then search again. (...) I do believe it's used as a marketing strategy to encourage purchases, but I don't think it's very effective. Sure, sometimes you get an ad now and then after searching for something or even talking about it, but I think the way it happens nowadays is really bizarre. I don't think it's effective because the amount of ads we're bombarded with afterward is overwhelming. It really bothers me to receive like five ads for the same thing I searched for… It makes me uncomfortable.
> **Interviewee 2:** I don't buy in most cases. First, because I receive too many ads. I think the main reason I don't buy is the sheer number of ads—it's too much information for me to process. Sometimes I follow the page just to check it later, but I don't usually buy because there are just too many ads.
> **Interviewee 13:** No, nowadays I resist because of the number of ads! I find it annoying!
> **Interviewee 15:** No, because I'm conscious about consumerism—I only buy what I need, I don't buy just for the sake of buying.
> **Interviewee 16:** No, because it's irritating to see the same thing all the time—it really annoys me.
> **Interviewee 17:** No. I think they're excessive and repetitive. I feel like I'm being pushed to buy them.

Thus, the research findings indicate that the use of AI in marketing does not always contribute positively to consumers' purchase intentions. This insight is consistent with the conclusions of Mittal et al. (2024) and Barari et al. (2024). From the interviewees' statements, it is clear that discomfort related to the lack of privacy negatively affected their purchase intentions. The fact that participants described AI-driven ads as "excessive," "repetitive," "annoying," and "irritating" signals that this massive use of AI in marketing can feel invasive.

This aligns with Barari et al. (2024), who emphasize that privacy concerns are a factor that negatively influences purchase intention.

Another element that emerged in the interviewees' statements was a lack of trust. For example, Interviewee 4 reported that the use of AI in marketing does not inspire confidence to make a purchase. Interviewee 6, in turn, said that she has no intention to buy because she has regretted past purchases and fears being scammed. Interviewee 14 shared the following account about what prevents her from having the intention to buy:

> **Interviewee 14:** The main reason that prevents me from buying is the feeling that I'm being manipulated... They bombard me with ads and manipulate me into buying, especially from places I never asked to see. For example, Instagram — I go there to look at my friends' photos, and they keep sending me ads.

This result supports the findings of Mittal et al. (2024), who identified consumers' lack of trust in AI as a factor that negatively affects purchase intention regarding AI-enabled online retail platforms. Based on these results, it can be inferred that the trend of excessive use of AI in marketing is not always positive for businesses or for consumers' purchase intentions. In such cases, it can have the opposite effect—causing discomfort, a sense of invasion, and a lack of trust among consumers.

4.4 Consumer Vulnerability in Relation to AI in Marketing

Consumer vulnerability occurs when some kind of barrier prevents consumers from maintaining control, thereby hindering or compromising their decision-making and freedom of choice (Baker, Gentry & Rittenburg, 2005). The investigation of this feeling among the interviewees was carried out through questions about how consumers feel and perceive certain purchasing situations through their mobile phones.

The use of AI in marketing is directly related to the massive collection of personal data, often without consumers' full awareness, which increases their sense of vulnerability. Out of the twenty interviewees, eighteen reported feeling uncomfortable with the sensation of being watched, as illustrated by the following statements:

> **Interviewee 1:** I feel watched, because it seems like artificial intelligence is constantly being used to try to deliver the things we look for, and that's a bit frightening. It really bothers me a lot, because it gives me the feeling that I'm being 100% monitored all the time.
> **Interviewee 3:** I feel invaded.
> **Interviewee 6:** I feel a loss of privacy, as if everything on my phone were being used to attract me to a product or brand. When the ads are related to very personal data or to things I've said, it scares me a little.

> **Interviewee 8:** I feel invaded! For example, on Instagram — I do a search on my laptop, and then when I'm on Instagram, several ads appear. Sometimes I've already bought the product, but I keep receiving ads about it.
> **Interviewee 14:** I feel uncomfortable because I don't feel like I gave permission for anyone to have access to that information. However, I know that I agreed to the "terms of use" when using my phone and social networks. But I feel there should be more explicit consent, because no one reads 20 pages of terms just to use Google or a smartphone. And I know that if I didn't agree to the "terms of use," I wouldn't be able to access what I want.

These accounts demonstrate a negative impact of data collection and reinforce the idea discussed by Puntoni et al. (2021) that AI intensifies surveillance and the loss of data privacy, especially in online activities. Interviewee 14's statement about feeling that she did not grant companies the right to access her data also supports the points made by Leal et al. (2021) and Belanche et al. (2024), who explain that data collection often occurs without consumers' full knowledge or consent, thereby heightening tensions in the human–machine interaction.

Even though there is a consent form regarding data use, consumers often do not read the terms of use due to the length and complexity of the texts. In other words, the consent form does not seem sufficient to ensure a sense of data security and privacy for consumers, which, to some extent, leaves them in a vulnerable situation. According to Leal et al. (2021), this creates a barrier to consumer autonomy, compromising their decision-making power. Thus, the consumer finds themselves in a situation of vulnerability, since—even though they have technically "agreed" to the use of their data—they do not have full clarity about what is being done with this information.

This dynamic of data collection and use without adequate transparency can lead to manipulation of purchasing behavior and intensify consumer vulnerability—an issue discussed in the AI and marketing literature by Leal et al. (2021). Belanche et al. (2024) suggest that this control of data by AI algorithms can lead to the creation of highly personalized strategies that, on one hand, maximize sales but, on the other, expose consumers to a scenario of "permanent surveillance".

It is observed that most interviewees dislike the excessive number of ads and promotions related to their search history. The most frequently used words were "invaded," "watched," and "bothered." This result aligns with what Leal et al. (2021) pointed out—that AI can make individuals experience negative emotions and feelings of surveillance. The interviewees were also asked whether receiving a large number of ads or promotions related to what they had searched for had any impact on their well-being. Some representative responses can be seen below:

> **Interviewee 1:** I think it has a negative impact. At least for me, it really makes me anxious to know that I'm being watched all the time, and sometimes I'm afraid that the things I'm searching for will become more expensive. It makes me feel very insecure with the amount of content I receive. For me, this is dissatisfying and has a very negative impact.
> **Interviewee 3:** Negative impact. Because I receive ads all the time. The platforms you access keep trying, in an invasive way, to influence you to consume constantly. Consume all the time, consume… And this is quite harmful, even to one's mental health.
> **Interviewee 5:** I believe this doesn't have such a positive impact on my life, because I think that anything in excess is not good.
> **Interviewee 6:** Negative impact, due to the insecurity it creates.
> **Interviewee 13:** Long-term negative impact, because it suffocates me and doesn't give the customer time to think!
> **Interviewee 14:** I feel like a hostage of a digital world… Permanently a hostage… Because it's hard to step away from your phone once you're inside that environment. So yes, I feel trapped — a one-way path!
> **Interviewee 15:** It has a negative impact on me! Because I feel invaded and forced. The amount is absurd! I end up deleting everything!
> **Interviewee 19:** It's annoying and takes away my peace. It triggers an uncontrollable urge to consume, which I don't like… And besides that, it steals my time.

When analyzing the responses from the interviewees in this study, it can be seen that Interviewee 13 stated feeling suffocated by the excessive number of ads and promotions, while Interviewees 1 and 6 reported feelings of insecurity. Interviewee 3, in turn, considered it harmful and said it affects mental health, mainly due to the constant pressure to consume, and Interviewee 14 reported feeling like a "hostage of the digital world". Thus, it can be observed that, beyond privacy and data security, the use of AI in marketing may also have a potential impact on consumers' psychological health, as highlighted in the literature. The constant use of AI to generate personalized advertisements can lead to the phenomenon known as *technostress*, which is associated with the intensive use of digital technologies (Leal et al., 2021).

The literature—particularly Leal et al. (2021)—supports this sense of psychological strain by stating that intensified contact with technology can lead to technological dependence, anxiety, and negative emotions. This occurs because AI uses consumer data to create feedback loops that encourage continuous consumption, contributing to passivity and the obsolescence of cognitive skills such as memory and attention (Belanche et al., 2024). The constant consumption of AI-generated information can therefore result in a loss of control on the part of the consumer, who becomes more psychologically vulnerable to these continuous stimuli.

In general, out of the twenty participants in the study, fourteen explicitly stated that the impact on their well-being is negative, indicating that it is harmful for the majority of interviewees. According to Leal et al. (2021), this results from companies' use of AI to curate or present options to consumers without requiring any effort from them, as well as from the redirection of ads. Only six interviewees said that the impact on their well-being is positive or

neutral, as they benefit from access to discounts and promotions through the ads or recommendations displayed.

Another point that emerged from the interview analysis was the impact of AI on financial and performance expectations. Out of the twenty interviewees, thirteen reported experiencing impulsive purchases motivated by ads and special offers. However, five interviewees admitted regretting these impulse purchases, as can be seen in some of the following statements:

> **Interviewee 1:** I once received a discount on a product and ended up making an impulse purchase. The promotion motivated me to buy, and yes, sometimes I regret it—especially when the bill arrives. In many cases, it wasn't something I needed, but I bought it anyway because it seemed like a good deal.
> **Interviewee 2:** Yes, I've regretted some purchases I made that way.
> **Interviewee 6:** I've bought things on impulse and regretted it. I once bought a piece of clothing that wasn't as nice as in the photo and didn't fit me.
> **Interviewee 10:** That has happened before, and I regretted it… I bought a piece of clothing that, when it arrived, wasn't exactly what I expected. It wasn't worth the price.

According to Chouk and Mani (2016), this type of financial vulnerability is common when consumers place too much trust in the information presented by AI systems, which can lead them to make impulsive or poorly informed purchasing decisions. The risk of unmet financial expectations is linked to the fact that AI algorithms create an environment that encourages purchasing, often without giving consumers the opportunity to properly assess their needs or the financial consequences of their decisions. AI also influences performance expectations by providing predictions or product recommendations that may be inaccurate or exaggerated. When a product's actual performance fails to meet the expectations created by AI, consumers may experience both financial losses and emotional frustration, further increasing their state of vulnerability.

4.5 Use of AI in Marketing Strategies

Finally, the study sought to analyze what interviewees think about the use of AI in companies' marketing strategies. In general, the responses indicated that many recognize AI as part of current marketing practices, focusing on sales optimization, offer personalization, and decision-making processes. This finding suggests that the interviewees are aware of what the literature (Costa, Pontifícia & Veiga, 2022; Puntoni et al., 2021; Leal et al., 2021; Brill, Muñoz & Miller, 2019) discusses regarding the purposes and applications of AI in marketing strategies, as previously addressed in the theoretical framework.

Although some interviewees viewed this neutrally or positively — such as Interviewee 2, who saw no problem with the strategy when used responsibly — others, like Interviewee 1 and Interviewee 7, expressed ethical concerns, suggesting that companies should develop more efficient strategies without relying heavily on the use of consumer data. The interviewees' statements illustrate these views:

> **Interviewee 1:** I do think companies could use artificial intelligence as a communication strategy with consumers, but I believe there should be a certain limit. I don't think we should invade the customer's life or corner them, bombarding them with too much information about a subject, because that causes some discomfort and can be a bit frightening.
> **Interviewee 2:** I think most companies nowadays use this strategy, whether they are large or small businesses. It's a marketing strategy. I don't see a problem with it — in fact, I like it when it offers me a coupon. But of course, as long as it's used responsibly, it's fine by me.
> **Interviewee 3:** On the other hand, companies also need to think about the consumer — about their well-being — and set some boundaries, limits on how much influence they can exert on people, because the way things are now, it's excessive. (...) I'm not against it; it should exist, but in a limited way, because it's about people's data security, you know? So, there must be a limit to the power of influence, considering each individual — not just a company's pursuit of profit.
> **Interviewee 7:** I believe the company could develop efficient strategies that don't rely on using our personal data.
> **Interviewee 14:** I just think it's a company adapting to modern technologies and to what's available. I do feel a bit invaded, but I don't take it personally against the company itself. I understand that it's part of the modern marketing world and the moment we're living in.
> **Interviewee 18:** I think the company is clever. But I miss having an option where I can say I no longer want to receive these ads and promotions.

The perceptions expressed by the interviewees align with the literature discussed in the theoretical framework, which addresses both the benefits and the ethical challenges associated with the use of such technologies. According to Leal et al. (2021) and Belanche et al. (2024), data collection through AI to create more effective marketing strategies can have negative consequences for consumers, such as feelings of privacy invasion and constant surveillance — as reported by Interviewees 14 and 18. The perspective that AI use is part of modern practices, as mentioned by Interviewee 14, reflects an understanding of the current landscape but also highlights the need for greater transparency and ethical responsibility in the use of these technologies.

The literature suggests that, although companies use AI to achieve marketing objectives such as increased productivity and sales, they must also address ethical concerns regarding data privacy and the impact on consumers' well-being (Belanche et al., 2024; Puntoni et al., 2021). The lack of consumer control over their data can lead to feelings of vulnerability, as described by Baker, Gentry, and Rittenburg (2005). This was confirmed in the interviewees' responses,

as they expressed discomfort with the excessive and often non-consensual use of their personal information.

In summary, the interviewees' responses show that while many understand the relevance of AI use in marketing, there are concerns regarding how data are handled and the transparency of such strategies. This aligns with the literature, which emphasizes the importance of ethical and responsible practices in corporate AI use. The analyzed results contribute to the theoretical framework on AI by indicating that consumers may feel uncomfortable and vulnerable when exposed to excessive AI-driven marketing strategies. This suggests that, beyond considering how AI can enhance productivity and sales, it is crucial to pay attention to the consequences for human beings and their well-being. Therefore, it is essential that organizations adopt a more ethical approach to address the issues raised by individuals and pursue practices that generate more positive than negative feedbacks.

5 CONCLUSIONS

The main objective of this research was to understand how the use of artificial intelligence can influence purchase intention and contribute to an increased state of consumer vulnerability. To achieve this objective, a qualitative study was conducted through interviews with 20 participants. The categories addressed in the study explored issues related to the participants' level of knowledge about AI, their purchase intentions, and their feelings of vulnerability concerning AI use—particularly regarding how companies apply artificial intelligence in marketing.

Based on the results of this study, it is possible to conclude that artificial intelligence plays a significant role in influencing consumers' purchase intentions. However, most interviewees reported feeling uncomfortable with the excessive volume of advertisements and the perception of constant surveillance, indicating that the intensive use of AI in marketing can, in many cases, be detrimental to purchase intention. This result is consistent with the findings of authors such as Mittal et al. (2024) and Barari et al. (2024).

The results of this study indicate that while AI enhances personalization and efficiency in marketing strategies, it also amplifies consumer vulnerability. This occurs especially when there is massive data collection without adequate transparency, resulting in feelings of privacy invasion and manipulation. Most interviewees reported a sense of loss of control and insecurity regarding the use of their personal information, reinforcing their state of vulnerability. This

finding supports what Leal et al. (2021), Puntoni et al. (2021), and Belanche et al. (2024) discuss regarding the loss of privacy as one of the negative social consequences of AI use in marketing.

Therefore, consumer vulnerability in the context of AI is intensified by several interrelated factors, as shown in the interviewees' responses and supported by the theoretical framework. Data collection, the lack of transparency regarding the use of such information, and the psychological impact of constant interaction with AI algorithms all exacerbate the sense of lost control. In addition, financial and performance expectations are often unmet, which increases the likelihood of impulsive decisions and subsequent regret, as evidenced in the participants' testimonies from this study.

In this regard, while AI offers commercial benefits, it also poses significant challenges to consumer well-being. The literature highlights the importance of adopting an ethical and transparent approach to the use of these technologies in order to mitigate their negative impacts on data security, psychological health, and consumers' financial stability. The results of this study emphasize that, even though AI provides strategic advantages to companies, it simultaneously increases consumers' vulnerability—particularly concerning privacy, emotional manipulation, and trust in digital interactions. Therefore, it is crucial that companies use AI ethically and transparently, respecting privacy boundaries and promoting a healthy balance between commercial efficiency and consumer well-being.

In this context, it is essential to increase public discussion and research on artificial intelligence in society, in order to disseminate information about this technology—especially regarding its applications that have already become part of many people's daily lives, even if they are not aware of it. Thus, this study becomes relevant both academically and socially, as it addresses emerging topics related to AI and presents, in both the theoretical framework and the results, the positive and negative aspects of artificial intelligence in marketing, as well as consumers' feelings of vulnerability toward it. This approach enables a deeper and more comprehensive understanding of the phenomenon.

This article also contributes to companies, the field of digital law, and the potential development of public policies. By addressing the theme of consumer vulnerability, it highlights the importance of market regulation, which can help make technological knowledge on the subject more accessible to the population and promote respect for consumer privacy. Regarding this study's limitations, it is important to note that, as a relatively new topic, there was some difficulty in finding articles, books, and references in Brazil specifically focused on artificial intelligence in marketing and consumer vulnerability. Although the subject has been

widely explored internationally, the presence of Brazilian studies and research on the topic is considered essential to provide a localized understanding of the issue. Nonetheless, this limitation also represents a valuable research opportunity for Brazilian academia in fields such as Business Administration, Marketing, and Law.

Regarding future studies on the topic, there is a clear need to make information about artificial intelligence more accessible and easier to understand, while also emphasizing ethical considerations. One suggestion is the development of a measurement model that can assess consumer vulnerability in relation to AI-driven marketing actions. This model could be created through the development of specific measurement scales for this purpose in a potential quantitative study. A quantitative study with a larger sample of participants could provide a broader and more representative understanding of consumers' perceptions and experiences in this context. In addition, future research could focus on specific target groups such as low-income consumers, university students, children, and adolescents.

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