Mexican consumer perception of the implementation of artificial intelligence in marketing

Percepción del consumidor mexicano sobre la implementación de la inteligencia artificial en el marketing

Percepções do consumidor mexicano sobre a implementação da inteligência artificial no marketing

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Abstract

The implementation of Artificial Intelligence (AI) has fundamentally transformed the marketing landscape, offering significant advantages such as enhanced personalization, operational efficiency, and improved customer service. Nevertheless, some uncertainty remains regarding the use of personal data and transparency in AI applications. This research aims to analyze consumer perceptions in La Laguna concerning the integration of AI in marketing strategies, taking into account both its benefits and its ethical and emotional implications.

The study employed a descriptive and cross-sectional design, gathering data through a questionnaire administered to 150 residents of the Metropolitan Area of La Laguna, Mexico, aged between 18 and 40. Results indicate that while a majority of consumers acknowledge that AI has enhanced their experience in terms of speed, personalization, and service quality, concerns persist about the algorithmic analysis of their preferences and a lack of clarity regarding the use of cookies and legal terms.

Personalized advertising is generally perceived as relevant yet emotionally neutral. Although AI-driven recommendations influence certain purchasing decisions, they do not surpass the trust consumers place in recommendations from close social circles. The study concludes that, although AI adds considerable value to marketing efforts, its widespread adoption depends largely on consumer trust, which can only be fostered through transparent, ethical, and user-centric practices.

Keywords: Marketing, Artificial Intelligence, Perception, Consumer.

Resumen

La implementación de la Inteligencia Artificial (IA) ha transformado radicalmente el panorama del marketing, ofreciendo ventajas como la personalización, la eficiencia operativa y una mejor atención al cliente. Sin embargo, persiste cierta incertidumbre respecto al uso de datos personales y la transparencia en sus aplicaciones. Esta investigación busca analizar la percepción de los consumidores de La Laguna respecto a la incorporación de la IA en las estrategias de marketing, considerando tanto sus beneficios como sus implicaciones éticas y emocionales. El estudio se realizó con un enfoque descriptivo y transversal, y la información se obtuvo a partir del diseño de un cuestionario aplicado a 150 residentes de la Zona Metropolitana de La Laguna, México, de entre 18 y 40 años. Los resultados muestran que, si bien la mayoría de los consumidores reconoce que la IA ha mejorado su experiencia en términos de velocidad, personalización y servicio, también expresan preocupación por el análisis algorítmico de sus preferencias y la falta de claridad respecto al uso de cookies y términos legales. La publicidad personalizada se percibe como relevante, pero emocionalmente neutral, y si bien las recomendaciones de IA influyen en algunas compras, no superan la confianza depositada en círculos sociales cercanos. La conclusión es que, si bien la IA agrega valor al marketing, su adopción total depende de la confianza del consumidor, que solo puede construirse mediante prácticas transparentes, éticas y centradas en el usuario.

Palabras clave: marketing, inteligencia artificial, percepción, consumidor

Resumo

A implementação da Inteligência Artificial (IA) transformou radicalmente o cenário do marketing, oferecendo vantagens como personalização, eficiência operacional e melhoria no atendimento ao cliente. No entanto, persiste alguma incerteza quanto ao uso de dados pessoais e à transparência em suas aplicações. Esta pesquisa busca analisar a percepção dos consumidores de La Laguna quanto à incorporação da IA em estratégias de marketing, considerando tanto seus benefícios quanto suas implicações éticas e emocionais. O estudo foi

conduzido com uma abordagem descritiva e transversal, e as informações foram obtidas por meio de um questionário aplicado a 150 moradores da Região Metropolitana de La Laguna, México, com idades entre 18 e 40 anos. Os resultados mostram que, embora a maioria dos consumidores reconheça que a IA melhorou sua experiência em termos de velocidade, personalização e serviço, eles também expressam preocupação com a análise algorítmica de suas preferências e com a falta de clareza quanto ao uso de cookies e termos legais. A publicidade personalizada é percebida como relevante, mas emocionalmente neutra, e embora as recomendações de IA influenciem algumas compras, elas não superam a confiança depositada em círculos sociais próximos. A conclusão é que, embora a IA agregue valor ao marketing, sua adoção plena depende da confiança do consumidor, que só pode ser construída por meio de práticas transparentes, éticas e centradas no usuário.

Palavras-chave: marketing, inteligência artificial, percepção, consumidor

1. INTRODUCTION

The constant advancement of technology has led to an increasing presence of Artificial Intelligence (AI) in everyday life. Although AI's emergence may seem recent to many, its origins date back several decades. However, its popularity has surged in recent years due to the growth of Big Data, widespread access to computing power, and the development of new processing and analytical techniques [1]. Within this context, marketing has embraced AI as a powerful tool to transform its processes. The application of AI has enabled the optimization of operations, enhancement of consumer experiences, and expansion of the strategic reach of organizations. Since marketing fundamentally relies on data analysis, AI naturally becomes an ally, capable of leveraging vast volumes of information to design more effective campaigns, personalize offers, and reduce operational costs [2] [3].

This reduction in costs translates directly into benefits for both customers and companies, facilitating market exchange and allowing for significant growth in marketing reach. The collection and analysis of Big Data, coupled with advanced machine learning models and algorithms, can be harnessed to promote business growth and increase consumer satisfaction [4] [5]. Notably, the primary objective of using AI in marketing is to anticipate consumers' next purchasing decisions and enhance their shopping experience accordingly [6]. Although AI is applied across more than 19 industries and business functions, McKinsey & Co. identifies marketing and sales as areas with the greatest potential value for AI deployment [7].

However, as with any major innovation, AI presents both benefits and drawbacks, which become apparent as its usage expands and new applications emerge. In the case of AI, the substantial benefits often overshadow potential risks. Additionally, consumers' limited understanding of the implications of their online data, combined with the scant information provided by companies about data management practices,

generates growing uncertainty surrounding this emerging technology. This represents a latent problem, as organizational leaders seek to adopt AI but often lack sufficient knowledge of its functioning and its potential impact on information governance [8].

Moreover, research in the psychology of automation explores how customers respond to AI. Despite AI's capability to outperform humans in accuracy, customer reservations persist, negatively affecting their willingness to adopt and use AI technologies [9].

Given this scenario, it is essential to analyze the impact of AI implementation in marketing from the consumer's perspective. Understanding consumer perceptions not only helps identify the most positively received strategies but also highlights those that generate concern—insights that are crucial for designing ethical, effective, and socially accepted AI applications in today's digital environment.

1.1 Review of literature or research background

1.1.1 Artificial intelligence

The concept of AI begins with the concept of intelligence itself. According to Wang [10], intelligence is defined as the ability to adapt to the environment while working with limited knowledge and resources. AI, in turn, is described as the capability of a system to interpret external data, learn from it, and use that learning to perform tasks and solve problems through flexible adaptability [11]. Consequently, AI technologies are designed to emulate cognitive functions traditionally attributed to the human mind, such as learning, processing, and problem-solving [12].

The primary purpose of AI is to assist humans by performing functions and tasks that would otherwise require extensive time or involve processing large data sets, thereby simplifying these activities and achieving superior outcomes. AI's power lies in its ability to process, classify, and assign meaning to diverse information formats for subsequent analysis [13]. In addition to assisting in data analysis, AI systems learn from the information they receive, enabling them to generate new knowledge and progressively improve their performance and specialization over time.

AI can be classified based on the functions it performs. Artificial Narrow Intelligence (ANI) focuses on specific tasks within a limited domain, whereas Artificial General Intelligence (AGI) possesses intellectual capabilities comparable to those of the human brain [14] [15]. The potential of ANI is further categorized into three main functional areas. The first is Machine Learning (ML), which refers to AI's capacity to absorb vast amounts of data and create algorithms that improve autonomously over

time [16]. ML transforms the traditional role of algorithms by granting systems the ability to learn independently through identifying relationships within the data [17]. The second category, derived from ML, is Deep Learning (DL), which comprises algorithms that operate without manual supervision and, supported by cloud computing and server farms, can analyze complex data and deliver results in seconds [18]. The third category is Natural Language Processing (NLP), which applies ML and DL techniques to enable AI to understand, generate, and manipulate human language, leveraging extensive data sets to provide context, vocabulary, syntax, and semantics [18].

Through these capabilities, AI demonstrates disruptive potential across various industries and domains, facilitating the development of robots and autonomous vehicles, as well as advancements in text, image, and voice recognition, alongside automated decision-making processes.

1.1.2 Marketing

For each company, marketing assumes a different level of priority, yet its meaning and importance in the relationship with the customer remain constant. According to the American Marketing Association, marketing is defined as the activity, set of institutions, and processes responsible for creating, communicating, delivering, and exchanging offers that provide value to consumers, clients, and society in general [19]. Marketing involves continuous communication with the customer, from the design of the product or service to considering their feedback after purchase. Therefore, it is a fundamentally social process rather than merely an economic one focused on creating value. Kotler and Armstrong [20] define marketing as a social and managerial process that generates profitable, value-based exchange relationships with customers, through which companies produce value for their clients and build strong relationships, ultimately capturing value in return.

Value lies at the core of the connection with customers, necessitating a deep understanding of consumer behavior to meet their needs effectively. Insights gained from consumer preferences form the foundation for building marketing strategies that offer a more precise and personalized approach to what the market finds attractive [21]. Consequently, integrating the digital environment into customer interactions has become essential for fostering valuable and enduring relationships. The digital transformation in marketing and retail drives innovation, enabling companies to remain competitive in the dynamic markets created by this evolution [22]. Digital marketing is thus an adaptive process shaped by technological progress, compelling both companies and customers to create, communicate, and deliver value to all stakeholders [23].

Beyond enabling closer communication with customers, digital technologies bring additional benefits such as increased sales, reduced costs, and enhanced customer satisfaction in global markets [24]. These advantages arise not only from technological advances but also from shifts in consumer behavior, which has been transformed by ongoing interaction with the digital world. Particularly in e-commerce, greater internet access has encouraged a shift away from face-to-face contact toward faster and more personalized services [25].

Marketing's latest evolution is marked by the integration of technology into everyday life, exemplified by Marketing 5.0. This phase involves minimal human involvement in sales activities and customer interaction. As Kotler, Kartajaya, and Setiawan observe, the fifth era of marketing does not require human intervention to deliver customer value. It recognizes the significant role of the Internet of Things in customer experience and emphasizes the importance of predictive models designed to foster consumer dynamics through technology and brand engagement [26].

Marketing 5.0 centers around two primary disciplines: data-driven marketing and agile marketing. Both disciplines oversee processes ranging from market research to final evaluation, focusing on distinct tasks to enhance efficiency. Data-driven marketing uses information and statistics collected throughout the marketing process to guide decision-making [27]. gile marketing automates repetitive tasks and procedures, including audience segmentation, continuous review, feedback, and sprint planning [27].

These disciplines further divide into three key applications: predictive, contextual, and augmented marketing. Predictive marketing analyzes data to forecast upcoming changes in consumer preferences and behaviors [27]. Contextual marketing customizes the delivery of personalized advertising messages based on the consumer's current context [28]. Augmented marketing leverages popular technological tools like chatbots and virtual assistants to enhance the productivity of customer-facing marketing efforts using human-like technologies [26].

In summary, marketing has had to evolve alongside digital transformation to keep pace with market changes and meet emerging consumer needs. This evolution has given rise to new areas, roles, and functions aimed at improving customer experience and strengthening brand connections, ultimately generating profits by reducing costs and time.

1.1.3 Importance of AI in marketing

Given the profound impact that technology and Artificial Intelligence (AI) have had on daily life and across all business sectors, the emergence of the term marketing

intelligence to capture their implications in marketing is unsurprising. Marketing intelligence serves as the bridge between AI and marketing, relying on new technologies and encompassing complex topics—from basic information gathering to data mining—while fostering closer connections between consumers and organizations through improved business relationships [3].

To better understand AI's role in marketing, it is important to note that marketing is more a consumer than a producer of AI [29]. Marketing harnesses AI as a tool to enhance its efforts and achieve better results, regardless of the data generated in the process. As such, AI is embedded in numerous marketing applications, ranging from common uses like image and voice recognition to advanced technologies such as robots and autonomous vehicles [17].

Although AI's adoption has been widespread across marketing areas, this surge did not occur spontaneously. The integration of technology into marketing processes has been gradual, driven by companies' willingness to innovate and seek concrete solutions to business challenges. This evolution has propelled AI's deployment in marketing by automating commerce functions and generating valuable data to train AI systems [30]. Consequently, organizations that implement AI contribute to innovation in the industry and enhance value chain operations, including customer service, sales, and product development [31].

To illustrate AI's impact on marketing activities, Paul Roetzer [32] introduced the "5Ps" of marketing in AI: planning, production, personalization, promotion, and performance. These five areas represent AI applications across various marketing sectors, highlighting opportunities for implementation and improving client interaction. Although AI influences all marketing activities, the primary beneficiary of these advancements is the consumer [17]. AI redefines value delivery to customers by transforming communication methods, product design, content creation, post-sale data collection, and every aspect of understanding consumer behavior. AI enables organizations to connect more deeply with consumers through content tailored to their preferences and simplifies the creation of market niches based on psychographic data rather than solely geographic factors [33].

Several studies have explored AI's implications for marketing. Kumar, Rajan, Venkatesan, and Lecinski [34] analyze how AI-driven changes affect consumer interactions and global brand strategies. Bag et al. [35] examine AI's impact on user engagement and repurchase intention in India by focusing on user satisfaction. Olan et al. [36] investigate AI's positive influence on consumer attitudes and behaviors. Chen et al. [37] provide empirical evidence on AI's effect on consumer preferences and decision-making, underscoring the need for regulatory frameworks. Rohden and

Zeferino [38] focus on AI-driven recommendations and consumer privacy risk perceptions, identifying trust as a crucial mitigating factor.

Empirical evidence shows that AI, like any innovation, carries both benefits and drawbacks. Key advantages in marketing include increased productivity and efficiency through standardization, more personalized customer services, faster and more convenient purchasing, 24/7 customer support, and the creation of new jobs [39] [17]. Conversely, disadvantages include AI algorithms' inability to experience emotions or exercise common sense, which may foster consumer distrust [39] [40]; AI's inherent lack of transparency, leading to feelings of exploitation and diminished personal control [41]; and privacy concerns arising from inexpensive, long-term data storage and reuse beyond original intentions [42].

Notably, AI-powered social experiences prove valuable when human interaction is unavailable, offering consumers an alternative communication channel rather than leaving them unattended [43]. However, it is important to recognize that AI interactions tend to create more distant communication between consumer and seller, potentially weakening brand loyalty [29].

Considering these factors is crucial to avoid harming customer relationships due to insufficient understanding of AI's scope and impact on consumer behavior—even when AI benefits company performance. Much research has focused on the operational benefits to consumers, such as shorter lead times and improved service efficiency, but has paid less attention to how consumers actually feel and think about these AI-driven changes in their brand interactions. This study's significance lies in prioritizing consumer perceptions during their interactions with various AI applications.

2. MATERIALS AND METHODS

This research is descriptive, quantitative, and cross-sectional in design. The first phase involved a literature review exploring the origins and applications of AI in marketing, with particular attention to the benefits and drawbacks AI presents to consumers within marketing strategies and activities.

The second phase consisted of designing and administering a survey instrument to measure consumer perceptions of AI and its impact on their interactions with companies during online purchases.

Some variables were assessed using a seven-point Likert scale, ranging from "strongly disagree" to "strongly agree." Other items were nominal, with "yes" or "no" response options. Additionally, filter questions and those concerning socioeconomic

characteristics were nominal with multiple-choice options. The questionnaire, shown below, includes only the AI-related items.

Table 1. Questionnaire applied

1	Artificial intelligence (AI) has improved your consumer experience in the marketing field.
2	Have you noticed an improvement in the speed and efficiency with which AI-powered services respond to your needs or queries compared to traditional services?
3	The use of AI algorithms has made it possible to analyze purchasing preferences and behaviors.
4	Transparency in terms and conditions (cookies) with the use of AI by companies.
5	Online ads are more related to your personal interests or needs.
6	Do you think the ads you see add value to your online experience?
7	Have you made a purchase that you didn't initially plan as a result of a personalized recommendation received from AI?
8	Do you prefer AI-generated product or service recommendations over recommendations from your friends and/or family?

Source: Prepared by the authors.

The study participants were men and women aged 18 to 40 residing in the La Laguna Metropolitan Area, which includes the cities of Torreón, Matamoros, Gómez Palacio, and Lerdo, located in the states of Coahuila and Durango, Mexico. The sample was designed using simple random probability sampling, ensuring population representativeness with a 93% confidence level and a 7% margin of error.

The initial calculated sample size was 168 respondents; however, only 163 completed responses were collected due to difficulties in recruiting willing participants. Of these, 13 responses were excluded because they did not meet the filter criterion of having had an interaction with AI, resulting in a final valid sample of 150 observations.

Data processing and analysis were conducted using SPSS Statistics version 25, focusing on generating descriptive statistics for each variable.

Table 2. Research data sheet

Universe	Men and women aged 18 to 40, residents of the La Laguna Metropolitan Area.
Sample size	150 valid questionnaires.
Sampling error	7%
Confidence level	93%
Sample type	Simple random probability sampling.
Fieldwork period	August 2024.
Data processing	SPSS Statistics 25.

Source: Prepared by the authors.

3. RESULTS

Using descriptive statistics, an initial exploration of consumer sentiment regarding the implications of AI in their daily lives was conducted based on individual responses to each questionnaire item. This preliminary analysis served to identify patterns and specific behaviors before proceeding to a more detailed examination.

Of the 150 respondents, 54.7% identified as women, 44.7% as men, and 0.7% preferred not to disclose their gender, indicating a slight female majority in the sample. The age distribution showed a strong concentration in the 18–22 age group, comprising 68.7% of participants, while the 29–34 age group was the least represented. In terms of socioeconomic status, nearly half of the respondents (44%) belonged to the A/B level, with only 1.3% from the lowest socioeconomic bracket.

Regarding questions directly related to AI, Figure 1 illustrates that a significant portion of consumers perceive AI as having improved their experience within marketing contexts, with 24% and 21.3% agreeing with statements reflecting positive influence. This suggests an overall favorable attitude toward AI's role in shaping their purchasing decisions.
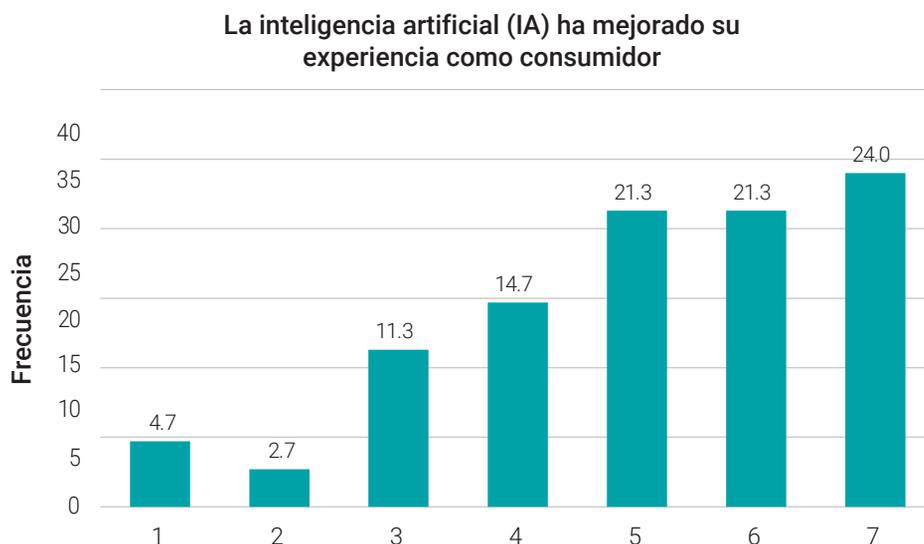
La inteligencia artificial (IA) ha mejorado su experiencia como consumidor

Figure 1. AI has improved your consumer experience
Source: Prepared by the authors.

Similarly, regarding AI-based services for problem-solving and business consultations, 85.3% of consumers reported that the response speed has improved compared to traditional services (see Figure 2).

¿Ha notado una mejora en la rapidez y eficacia con la que los servicios basados en inteligencia artificial responden a sus necesidades o consultas en comparación con los servicios tradicionales?
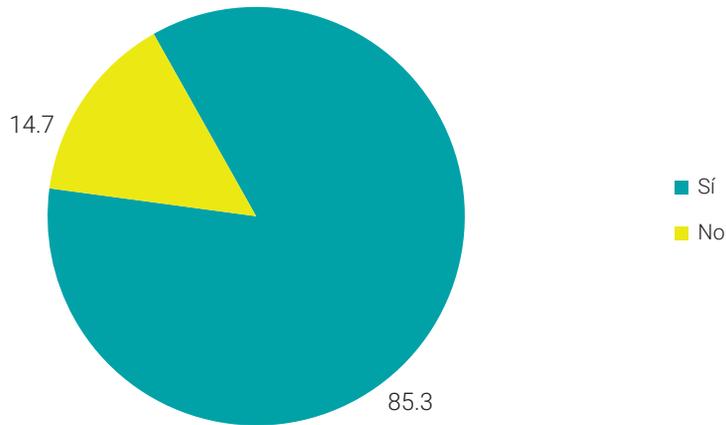

Figure 2. Speed and efficiency with which services
Source: Prepared by the authors.

However, when asked about their comfort level with AI algorithms analyzing their preferences, Figure 3 reveals that the highest percentages cluster around the neutral responses. This indicates that, despite acknowledging improvements in their experience, consumers remain ambivalent and are not fully convinced about the implications of AI-driven behavior analysis.

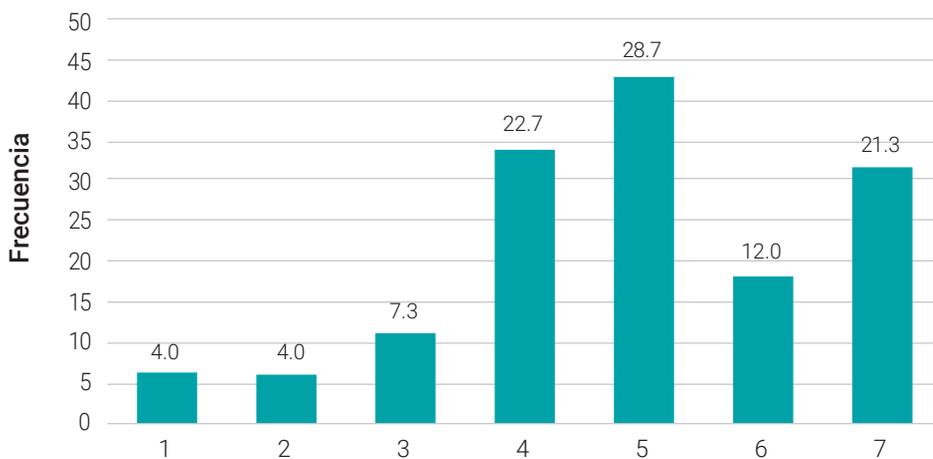**Uso de algoritmos de inteligencia artificial (IA) para analizar sus preferencias y comportamiento de compra**

Figure 3. Using AI algorithms to analyze your preferences
Source: Prepared by the authors.

Similarly, when asked about the importance of transparency in terms and conditions related to the use of AI in marketing strategies, Figure 4 shows that 39.3% of respondents consider transparency around the use of cookies to be highly relevant. This highlights that consumers value clear communication from companies regarding how their data is collected and used.

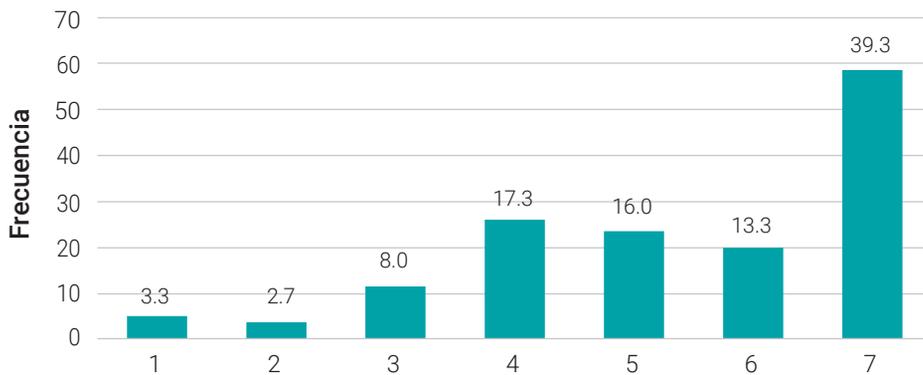**La transparencia en términos y condiciones (cookies) con el uso de IA por parte de las empresas**

Figure 4. Transparency in terms and conditions (cookies) with the use of AI
Source: Prepared by the authors.

Regarding online advertising, the data presented in Figure 5 indicates that consumers recognize the advertising content they encounter online as increasingly tailored to their interests and needs.

Los anuncios en línea están más relacionados con sus intereses personales o necesidades
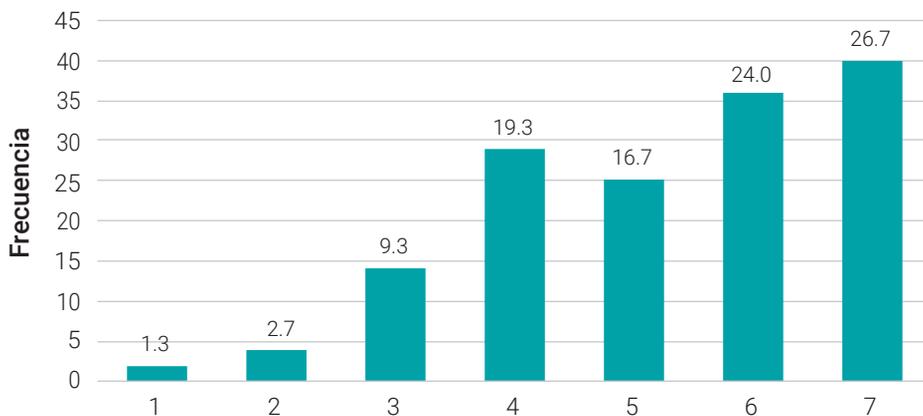

Figure 5. Ads more related to personal interests or needs
Source: Prepared by the authors.

However, when examining satisfaction with these ads (Figure 6), the concentration of responses around the middle of the scale indicates that consumers feel neutral about the value these ads add to their online experience, suggesting that such advertising has little impact on their browsing behavior.
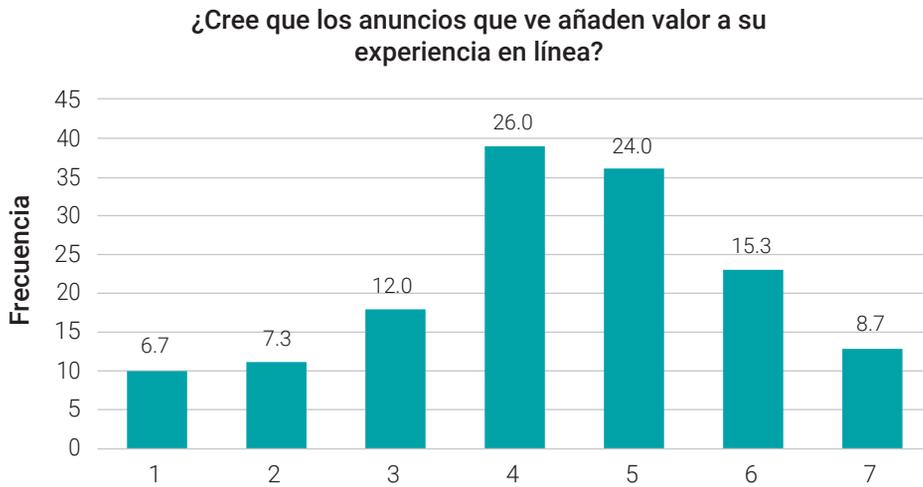
¿Cree que los anuncios que ve añaden valor a su experiencia en línea?

Figure 6. The ads you see add value to your online experience
Source: Prepared by the authors.

Meanwhile, the results concerning AI-driven product or service recommendations reveal some contradictions. As shown in Figure 7, 46% of consumers have, at some point, made a purchase based on a personalized recommendation generated by AI.

¿Ha realizado alguna compra que no tenía planeada inicialmente como resultado de una recomendación personalizada recibida de la IA de algún producto o servicio?
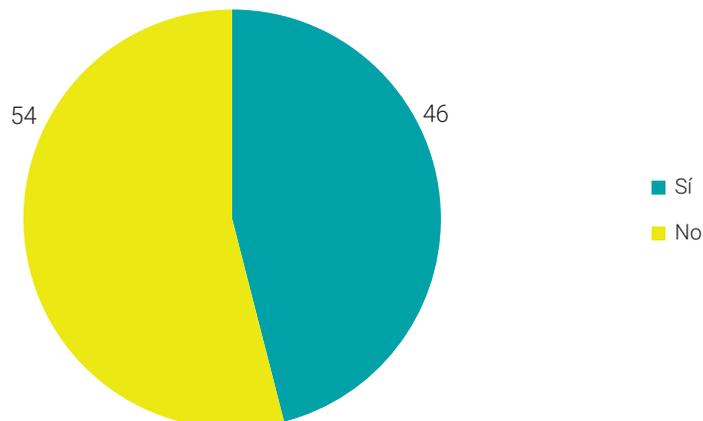

Figure 7. Purchase that was not initially planned as a result of a personalized recommendation received from the AI
Source: Prepared by the authors.

While the findings shown in Figure 8 indicate that, despite having made purchases based on AI recommendations, consumers do not show a strong preference for them, remaining neutral when choosing between AI-generated recommendations and those provided by family and friends.
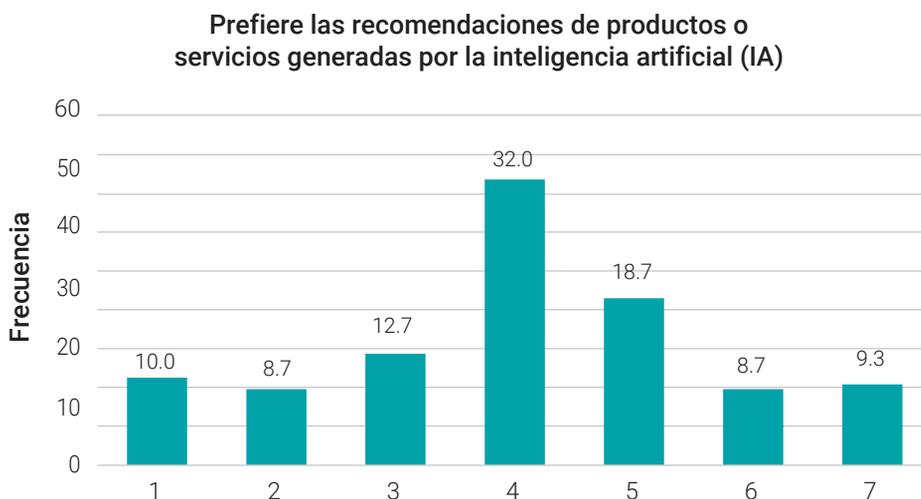
Prefiere las recomendaciones de productos o servicios generadas por la inteligencia artificial (IA)

Figure 8. Product or service recommendations generated by AI compared to recommendations from your friends and/or family
Source: Prepared by the authors.

In summary, the findings indicate that while consumers acknowledge that AI has enhanced their interactions with brands—making experiences faster, more efficient, and more personalized—there remains an underlying discomfort regarding how companies handle their personal data. Specifically, concerns about the lack of transparency in the algorithms analyzing their digital behavior foster distrust toward automated marketing strategies.

Regarding online advertising, consumers recognize that ads often align with their interests and search behaviors; however, they perceive these ads as having limited emotional or practical relevance. Consequently, such advertising rarely exerts a significant influence on their browsing or purchasing decisions. The frequent appearance of these ads is often viewed more as an algorithmic coincidence than a genuinely personalized interaction providing real added value.

Finally, although consumers have made purchases based on AI-generated recommendations—such as those on e-commerce platforms or social media—they do not consider these suggestions more trustworthy or influential than recommendations from close social circles like friends or family. This underscores that, despite technological advances, human relationships and social judgment remain central in consumer decision-making.

4. DISCUSSION AND CONCLUSIONS

At first glance, the implementation of AI in marketing appears to offer clear benefits for both companies and consumers. However, as highlighted by the literature review and the findings of this research, consumer concerns about privacy, personal data usage, and the transparency of companies' and AI's motives present significant challenges that could alienate customers over time. While consumers recognize the advantages of AI—such as simplifying decisions, personalizing service, and providing 24/7 support—the unease about how their data is handled prevents full trust in the process.

Therefore, it is essential to develop strategies centered on the consumer and their perceptions of AI, shifting focus from technology as a mere tool to how it is used to enhance the purchasing experience and strengthen brand–customer relationships across emotional, cognitive, behavioral, sensory, and social dimensions [44] [45].

AI has the potential to fundamentally redefine how value is delivered to consumers, but achieving this requires ongoing design and redesign informed by consumer concerns. The tech industry is on a continuous learning path, and balancing customer convenience with the data needed to power AI systems is complex. Insufficient protections may hinder adoption, while excessive regulation risks stifling innovation [46].

Ultimately, marketing must respond to these concerns with empathy, transparency, and commitment to maintain a stable, trusting relationship that fosters lasting and satisfying exchanges between brands and consumers in today's digital landscape.

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