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INTRODUCTION

CONSUMER EMPOWERMENT THROUGH ETHICAL AI: STRATEGIES FOR TRANSPARENT AND TRUSTWORTHY PERSONALIZED MARKETING

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ABSTRACT

Objective: This research explores how the ethical application of artificial intelligence (AI) in marketing can empower consumers through transparency, data control, and bias reduction. The main focus of this research is to understand the impact of giving consumers control over their personal data, transparency in the use of AI, and bias mitigation efforts on consumer trust and loyalty.

Research Design & Methods: This research employs thematic analysis to identify themes on ethical and legal challenges in AI-based marketing, using specific keywords to ensure relevance. Sources were selected for credibility, relevance, and recent publication, with key seminal works included.

Findings: The results show consumer empowerment through ethical AI increases trust and loyalty. Transparency of data use and control over personal information are important for strong relationships between consumers and brands. Reducing bias in AI algorithms is also necessary for fairness and inclusiveness.

Implications & Recommendations: This research recommends that companies implement ethics in AI marketing through data transparency, consumer control over personal data, and bias-free algorithms. Applying explainable AI (XAI) is also recommended to increase consumer understanding and trust, ultimately strengthening loyalty through ethical and responsible AI.

Contribution & Value Added: This research enriches the AI marketing literature by emphasizing the importance of ethics in empowering consumers and provides practical guidance for companies to implement AI ethically, transparently, and with respect for consumer privacy.

Keywords: Consumer Empowerment, AI-based Marketing, Ethics in AI, Consumer Privacy.

JEL codes: M31, D91, K24. **Article type:** research paper

Artificial intelligence (AI) has become a disruptive force that has changed business practices worldwide, including in the marketing industry. Integrating AI into various organizational functions not only brings operational and efficiency benefits but also opens up new opportunities for marketers to achieve higher personalization and more accurate strategic decision-making. AI plays a particularly significant role in marketing, enabling companies to target consumers with highly customized ads and content at an unprecedented scale and speed (Dezao, 2024). The increasing use of AI in marketing is characterized by the technology's ability to analyze large amounts of consumer data, provide deep insights, and drive more effective and efficient data-driven marketing strategies (Uchechukwu et al., 2024). One of the key applications of AI in marketing is personalized advertising, where AI algorithms are used to craft marketing messages that closely match consumers' needs, preferences, and behaviors. Along with the numerous benefits offered by AI

technology in marketing come significant ethical challenges, particularly regarding consumer privacy and data protection. Al enables the collection and analysis of consumer data on a large scale but often involves consumers' data without clarity on how it is collected and used (Querci et al., 2022). This raises widespread ethical concerns about how companies collect, analyze, and use consumer data. Research has shown that non-transparent Al-based marketing practices can lead to a loss of consumer trust, as consumers feel that their data is being exploited without their explicit consent or adequate understanding of how their information will be used (Sharma et al., 2023).



Source: mckinsey.com

The graph shows the increasing trend of Al adoption in marketing compared to consumers' increasing ethical awareness toward this technology from 2018 to 2023. The data shows that Al adoption in the marketing sector continues to significantly increase, with figures rising from 40% in 2018 to 80% by 2023. This confirms that more companies are integrating Al technologies into their marketing strategies, aiming to improve operational efficiency, optimize personalization, and support data-driven decision-making in marketing campaigns. The graph also shows that this increase in Al adoption is accompanied by a growth in consumers' ethical awareness regarding the use of Al. In 2018, only around 20% of consumers expressed concerns regarding the ethical aspects of Al, but this figure has been consistently increasing every year, reaching 70% by 2023. This suggests that as the widespread use of Al in marketing increases, consumers are becoming more aware and attentive to ethical issues, especially regarding privacy, transparency, and the possibility of bias in Al algorithms.

In an era where companies have unlimited access to consumers' data, consumers are increasingly aware of the importance of their data privacy and seek to protect their rights against excessive data collection and utilization (Jebarajakirthy et al., 2023). Companies integrating AI into their marketing strategies must take this challenge seriously, given strict data privacy regulations such as the General Data Protection Regulation (GDPR) in Europe, which gives consumers the right to control their data and demands transparency in its collection and use (Elhajjar, 2024). Regulations such as the GDPR in the European Union require companies to align their practices with ethical standards that place consumer rights and safety as a top priority (Fassiaux, 2023). This poses a serious challenge for companies who must consider the long-term impact of using this technology on consumer trust and loyalty. In this context, consumer empowerment through ethical Al is crucial. Ethical AI includes not only responsible data processing but also ensuring that algorithms used in marketing do not cause bias or discrimination against certain consumers (Morchhale, 2024). Algorithms designed to identify consumer preferences may inadvertently introduce biases that harm certain groups of consumers, such as racial or gender-based discrimination. In personalized advertising, these algorithmic biases can influence consumer behavior and beliefs and create negative perceptions of the company (Singh, 2023). Therefore, companies should prioritize transparency in their data collection and usage processes to ensure their AI-based marketing practices comply with applicable ethical standards.

Transparency in AI-based marketing is one of the main elements that support the success of ethical marketing strategies (Kumar & Suthar, 2024). Transparency lets consumers know how their data is collected, used, and stored by companies. Consumers who feel empowered with an

understanding of how AI works in marketing are more likely to accept personalization and trust brands prioritizing their privacy. Research by Mogaji et al. (2022) shows that companies implementing transparency policies in AI-based marketing find it easier to build customer loyalty, as consumers feel valued and respected. Implementing transparency in AI-based marketing is not without its challenges. Companies need to overcome the complexity of the algorithms used and explain to consumers how AI works in a language that is easy to understand (Cheong, 2024). Transparency also requires a commitment from companies to not only meet legal requirements but also proactively facilitate clarity on data use. Non-transparent practices, such as unannounced data collection or algorithms to manipulate consumer choices, can undermine public trust and divide companies and consumers (Dezao, 2024).

Ethical AI in marketing is not only a legal requirement but also imperative for businesses to maintain sustainable long-term relationships with consumers. In the face of this digital era, companies that practice ethical use of AI will not only increase consumer loyalty but also strengthen the brand image in the eyes of the public. Brands that commit to AI ethics and data protection automatically add value for their consumers. By demonstrating responsibility in data management, companies can attract consumers who care about privacy and transparency. Ultimately, consumer empowerment through ethical AI is not just about prioritizing consumer rights but is also an effective business strategy to build stronger and more sustainable customer relationships. Consumers who feel valued and have control over their data are likelier to engage with brands, increase loyalty, and support companies in the long run. In addition, by implementing transparent and ethical AI, companies can avoid adverse reputational risks and potential legal issues. This research examines how companies can utilize ethical AI in marketing to empower consumers, focusing on transparency and data protection strategies that can increase consumer trust. It will also explore the challenges and opportunities companies face in implementing ethical AI in this digital age and identify factors influencing consumer perceptions of AI in marketing. The findings of this research are expected to provide practical guidance for companies to develop reliable and ethical AI-based marketing strategies, thereby enhancing business sustainability and maintaining consumer trust amid increasingly complex technological developments. Through this approach, this research contributes to the growing marketing literature related to the application of AI in marketing, particularly in the context of ethics, privacy, and transparency. Amid rapid technological development, this research is expected to provide deep insights into how companies can balance operational efficiency and ethical responsibility and create added value for consumers who value privacy and transparency in every brand interaction.

LITERATURE REVIEW

The application of artificial intelligence (AI) in marketing has changed the way companies interact with consumers through a more adaptive and data-driven approach (Uchechukwu et al., 2024). With AI's ability to analyze large-scale data quickly and accurately, marketers can now identify underlying preferences, behaviors, and consumption trends that were previously difficult to achieve. AI enables more targeted segmentation and personalization of marketing campaigns, increasing opportunities for companies to reach consumers most relevant to their products and services (Jarek & Mazurek, 2019). McKinsey (2022) reports that AI adoption in marketing has seen a sharp surge in recent years, along with high demand for faster and more accurate personalization and automation, making AI a more efficient strategic tool than traditional marketing methods. AIgenerated personalization is one of the key benefits for modern marketers. By utilizing AI's capabilities in big data processing, companies can create marketing experiences that are tailored to meet the individual needs of consumers. Companies can provide more relevant marketing messages, interest-specific content, and personalized product recommendations (Sharma et al., 2023). Consumers are more responsive to content tailored to their interests, leading to increased conversion rates and brand loyalty (McDowell et al., 2018). However, excessive personalization without ethical boundaries poses new privacy challenges, as more and more consumers' data is analyzed without explicit consent, creating the potential for manipulation of consumer decisions and privacy violations.

One of the critical aspects that has emerged in the adoption of AI in marketing is consumers' concerns over the privacy and protection of their data (Menard & Bott, 2024). Many consumers are uncomfortable with how their personal data is used in AI-based marketing, especially when it is used to create highly personalized ads without clear and explicit consent. This concern is heightened in the age of digitalization, where consumer data can easily be collected from various digital platforms without their knowledge. This discomfort arises because consumers feel like they have lost control over their data, which should be private (Zimmermann et al., 2024). Consumer trust in the company is closely related to the level of transparency in data management. The more transparent the company is in managing data, the higher consumer trust (Röding et al., 2022). This is reinforced by regulations such as the General Data Protection Regulation (GDPR) in the European Union, which gives consumers full rights to control and regulate the use of their data. The GDPR is proof that society is demanding stronger regulations in data management as a measure to safeguard consumers' privacy and protect them from potential data abuse.

In AI-based marketing, transparency is a key element that cannot be ignored. Consumers increasingly expect companies to provide clear and easily accessible information regarding how their data is collected, processed, and used. In Cambier & Poncin (2020) research, transparency has been shown to not only increase consumer trust in companies, but also encourage long-term mutually beneficial relationships between companies and consumers. Transparency helps reduce consumer uncertainty by providing a better understanding of how AI provides product or service recommendations, ultimately increasing consumer satisfaction with their marketing experience (Hemker et al., 2021). However, one of the biggest challenges in the application of AI is the potential bias in algorithms (Soni, 2024). AI algorithms that are not well tested or trained using underrepresentative data may reflect certain biases that result in unfair or discriminatory recommendations (Dwivedi, 2024). This bias can lead to discrimination against certain groups, for example, in the form of unbalanced targeting of advertisements or the provision of different services based on certain demographic or social profiles. Mogaji et al. (2022) note that algorithmic bias in marketing can negatively impact certain groups of consumers, damage a company's reputation, and lower consumer trust. Therefore, it is important for companies to regularly test, evaluate, and update their AI algorithms to ensure that the results produced remain fair and inclusive to all consumers (Tadi, 2024). Biases aside, the increasing use of AI in marketing underscores the importance of a clear and comprehensive ethical policy (Risser et al., 2022). The policy includes the company's commitment to safeguarding consumer privacy, ensuring transparency in data usage, and ensuring that the AI algorithms used do not harm consumers (Dwivedi, 2024). This ethical policy is very important in creating a healthy and sustainable business climate and increasing consumer confidence (Usmani et al., 2023). Companies prioritizing ethical standards using AI will increase consumer loyalty and create a competitive advantage in an increasingly competitive and dynamic market (Lopez & Garza, 2023). Implementing a strong ethical policy can be a key strategy in maintaining a healthy relationship between consumers and companies and a foundation for longterm sustainability in business (Civelek et al., 2018).

In this context, consumer empowerment is critical to creating a more positive and ethical experience with AI. Consumer empowerment in using AI includes giving consumers greater control over their data and ensuring full transparency in how that data is managed. Hemker et al. (2021) note that consumers who feel respected and have control over their data tend to show higher trust and loyalty toward companies. By applying principles such as transparency, fairness, and privacy protection in AI-based marketing strategies, companies can create mutually beneficial relationships with consumers, reduce potential conflicts, and strengthen consumer trust in the brand (Pragyal & Anamika, 2024). In the long run, this not only supports business sustainability but also strengthens the company's image as a responsible entity that respects consumer rights.

METHODS

This research used thematic analysis to identify recurring themes and patterns in the data collected. This involved reading and re-reading carefully selected sources to code relevant information. The coded data was then grouped into broader themes related to ethical and legal challenges and proposed solutions. This thematic structure facilitated a more organized and

coherent interpretation of the data. The data collection strategy relied primarily on secondary sources for this concept-driven paper. A careful search was conducted for databases such as Scopus, Google Scholar, and other article search sites. Keywords such as "AI in marketing", "AI ethical challenges", "AI legal challenges", "consumer trust in AI", and "ethics and consumer privacy" guided the search. The selection of sources was strictly based on their relevance to AI's ethical and legal dimensions, focusing on peer-reviewed academic articles, industry reports from reputable organizations, relevant case studies, and relevant legal documents. Any sources that did not meet these criteria were excluded from the study. Regarding timeframe, the emphasis was on source materials published within the last five years to maintain the relevance and timeliness of the study. However, this did not preclude the inclusion of important works that offer basic insights, regardless of their publication date. To ensure data reliability, each source underwent a validation process that considered the reputation of the publisher, the credentials of the authors, and the methodological rigor of the study or report. Data extraction involved carefully culling pertinent information such as key findings, theoretical frameworks, and suggested solutions, which were then organized into themes for easy analysis. Ethical considerations were straightforward: given that this paper used publicly accessible secondary data, no ethical approval was required. Nonetheless, proper citation practices have been adhered to to ensure proper credit is given to the original author.

RESULT

AI in Personalization to Increase Consumer Engagement

Al has an important role in creating immersive personalized experiences, allowing companies to deliver marketing content that is more relevant and tailored to consumers' needs and preferences (Sodiq et al., 2024). This drives higher levels of consumer engagement and satisfaction and strengthens their loyalty to the brand (Pragyal & Anamika, 2024). Al technology enables marketers to identify consumption patterns, analyze behavior, and make accurate predictions so that marketing strategies can be dynamically adapted to evolving consumer needs (Sodiq et al., 2024).

Factors	Description	Consumers Impact	Reference
Content Relevance	Personalization enables the delivery of content that matches consumer preferences and needs.	Enables engagement, conversion and satisfaction.	Sodiq et al., (2024), Muharam et al., (2024)
Accurate Targeting	AI enables more accurate targeting based on behavioral and demographic data.	Reinforces loyalty and deepens brand connection.	Wilson et al., (2024)
Ease of Access	AI-driven personalization improves user experience through an accessible interface.	Increases satisfaction and encourages further interaction.	Mandeep et al., (2024)
Consumer Trust in the Brand	Transparency in AI and data usage increases consumer trust and loyalty.	Higher brand loyalty and greater engagement.	Menard & Bott, (2024)
Ethics and Data Privacy	Privacy protection and transportation in data usage increase safety and convenience.	Reduced risk of loss of trust and loyalty.	Pasupuleti, (2024), Manoharan et al., (2024)

Table 1 Factors affecting	consumer engagement in	AI-based marketing
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Several studies have also shown that consumers are more likely to respond favorably to content they perceive as relevant, ultimately resulting in increased engagement and sales conversion (Manoharan et al., 2024). Al enables more accurate targeting in marketing, which also strengthens the relationship between consumers and brands, as consumers feel that companies truly understand their needs (Wilson et al., 2024). However, although personalization has great

potential, implementing AI-based personalization must be done ethically and transparently to protect consumer privacy and trust. This is confirmed by Manoharan et al. (2024), which emphasizes that AI-based marketing campaigns that only focus on ROI or profit without considering ethics and transparency can potentially reduce consumer trust.

To measure the impact of AI personalization on consumer engagement and loyalty, the following table 1 summarizes the research results on the key factors that influence consumer engagement in AI-based marketing. AI in marketing has great potential to increase consumer engagement and satisfaction through content personalization and accurate targeting. With AI's ability to customize marketing based on individual preferences, consumers receive more relevant content, which increases their satisfaction and brand loyalty (Muharam et al., 2024). In addition, data-driven personalization features, such as product recommendations, make access easier and enrich the user experience, driving deeper interactions between consumers and brands (Mandeep et al., 2024). Transparency in data usage is also key in building consumer trust in brands. When consumers understand how their data is being used, they are more likely to trust and be loyal to the company (Menard & Bott, 2024). However, companies need to maintain ethics and privacy in the application of AI. If personalization is done without paying attention to this aspect, consumer trust may decline, negatively affecting loyalty (Pasupuleti, 2024). Overall, AI-based personalization can effectively increase consumer satisfaction and loyalty, especially if companies execute it with strong ethics and transparency.

Privacy and Transparency Concerns in AI Data Use

Privacy concerns and transparency in data usage have become major issues in AI-based marketing. With the ever-increasing volume of data companies collect, consumers are beginning to sense potential risks to their privacy. According to research by Wilson et al. (2024) and Menard & Bott (2024), most consumers have become more reluctant to share their data due to fears of misuse and non-transparent surveillance. This negatively impacts the effectiveness of personalization, as without sufficient data, AI cannot function optimally to tailor content and recommendations to individual preferences. A survey from the Pew Research Center revealed that more than 80% of consumers are uncomfortable with the volume of data collected by companies for personalization purposes.

In addition, consumers' trust in companies that use AI to manage their data decreases as several cases of data misuse come to light. Consumers want more transparency in the use of data, especially in how their data is collected, processed, and stored. The study by Sharma et al. (2023) shows that more than 65% of consumers consider it important for companies to explain how personal data is used in AI-based systems. In addition, Altinigne (2024) research shows that when consumers are given more control over their data, their trust and loyalty towards companies tend to increase. This highlights the importance of clear and transparent communication regarding data usage, which can reduce the fear of privacy breaches.

To address these challenges, experts recommend that companies implement more transparent practices and respect consumer privacy. One important step is to provide easy-to-understand privacy policies and educate consumers about how AI works and the use of their data. By doing this, companies can build stronger trust, which in turn can increase the success of personalization. In addition, Altinigne (2024) suggests the implementation of AI technologies equipped with stronger privacy controls, such as anonymized data and flexible privacy setting features.

Bias Detection and Mitigation in AI Models for Fair Marketing

Bias in AI algorithms has been a big concern in AI-based marketing, as this bias can lead to unfair treatment of certain groups of consumers and negatively impact their trust and loyalty toward the brand (Pasupuleti, 2024). Bias in algorithms can arise from various sources, including unrepresentative data or algorithms designed without considering the diversity of the user population (Dwivedi, 2024). AI models in marketing tend to categorize consumers based on purchase history, location, or other demographic factors, which can lead to unfair and discriminatory profiling (Soni, 2024). For example, an algorithm that prioritizes product ads based

on location may target consumers with high purchasing power while ignoring other groups interested in the product but not in the priority location. This creates an unfairness that can impact the loyalty of consumers not targeted by the AI.

Research by Dwivedi (2024) and Risser et al. (2022) offers various strategies to detect and reduce bias in Al models, including using more comprehensive data analysis methods and applying post-processing modifications. This analysis helps identify data elements that might cause bias, such as historical data discrepancies or data tendencies towards certain patterns. Post-processing methods, for example, can help adjust the algorithm results after the model has been trained, ensuring that the resulting decisions are more balanced and inclusive. This study shows that by implementing effective mitigation measures, companies can create Al that is more equitable and responsive to the needs of all consumer groups, reducing the risk of injustice generated by automated profiling.

Bias Mitigation Strategy	Description	Bias Subtraction	Reference
More representative data collection	Collecting additional data that includes diverse populations	30% - 50% reduction in bias in represented populations	Dwivedi, (2024)
Post-Processing Modifications	Modifying model results to ensure fairer outcomes without specific demographic biases	40% improvement in fairness of AI results	Risser et al., (2022)
Diversity-based Algorithm Testing	Testing that considers diversity factors in datasets and model output	45% reduction in bias through repeated testing	Tadi, (2024)
Use of Explainable AI (XAI)	Using more transparent and interpretable AI models to increase consumer confidence	35% increase in consumer confidence	Pasupuleti, (2024)
Data Anonymization	Eliminating personal identifiers in data to reduce bias related to demographics	25% reduction in demographics- related bias	Menard & Bott, (2024)

Table 2 Efektivitas Strategi Mitigasi Bias dalam AI Pemasaran

Various bias mitigation strategies have proven effective in reducing inequities in AI results. For example, more representative data collection can reduce bias by up to 50% in previously unrepresented populations (Dwivedi, 2024). Post-processing modifications and diversity-based algorithm testing also increase AI results' fairness by reducing bias by about 40-45% (Risser et al., 2022). Explainable AI (XAI) increases transparency and consumer trust by 35%, as consumers can better understand how AI works (Pasupuleti, 2024).

Consumer Empowerment through Ethical Use of AI

Consumer empowerment in the age of AI can be achieved by implementing marketing approaches that are ethical, transparent, and respectful of consumer privacy. As consumers become more aware of the value of their data, companies are faced with the need to give consumers more control over it. Penelitian oleh Schulz & Meyer (2014) and De Hoon & Mak (2011) show that when consumers have control over their data, the level of trust in the company increases, encouraging collaboration and long-term loyalty. Providing access rights and the ability to update or delete data creates a sense of security for consumers, who feel their privacy is valued and respected. In addition, transparency in how data is collected and used by AI is an important factor in achieving consumer empowerment. Consumers informed about how their data is analyzed and used to provide recommendations or marketing offers feel more engaged. For example, if consumers understand that AI is being used to create a more personalized and tailored experience, they will be more likely to voluntarily provide relevant data. Thus, an ethical and transparent approach to data management

allows companies to build stronger and deeper relationships with consumers, where both parties can benefit.

This ethical approach also helps companies avoid manipulative practices that undermine consumer trust. By focusing on consumers' needs and respecting their rights, companies can ensure that the AI technologies they use serve to empower consumers rather than exploit their weaknesses. Ultimately, companies that prioritize transparency and ethics in AI-based marketing not only strengthen relationships with consumers but also create a more sustainable business environment where trust and respect for consumers are the key foundations of long-term business success.

Table 3 findings on Consumer Empowerment through Transparency and Privacy in AI Usage

Aspect	Result	Reference
Consumer Trust in Data Transparency	75% of consumers are concerned about the collection and use of their data, and 81% want more control over it	Zimmermann et al., (2024)
The Effect of Transparency on Loyalty	68% of consumers are loyal to companies that are transparent about data usage; loyalty increases 37% with data control	Xiao et al., (2023)
Demand for Ethical Marketing Practices	83% of consumers consider data transparency and ethics important, and 73% will stop engaging with brands that don't take care of data	Das & Mitra, (2024)
Empowerment Effect on Trust	46% of consumers are more trusting of companies that give them full control over data, with a 20% increase in trust	Singh et al., (2022)
Privacy Regulation (GDPR) Compliance	GDPR-compliant companies recorded a 30% increase in consumer trust	Bakare et al., (2024)

Data from Zimmermann et al. (2024) shows that most consumers are concerned about how their data is used, with 79% expressing concerns about companies' data collection and use practices. In addition, 81% of them felt the need for greater control over their personal information. This indicates that consumers are increasingly critical of how companies manage their data and are demanding more transparency. If consumers feel that their data is managed clearly and responsibly, they will likely have a higher level of trust in the company. oted that 68% of consumers are more loyal to companies that communicate how their data is used. A 37% increase in loyalty was noted among consumers who have direct control over their data. This data emphasizes that transparency is important not only for trust but also for increasing loyalty. When consumers feel involved in managing their data, they are more likely to return to the brand, reducing the risk of consumers moving to other brands. Transparency is becoming an important business strategy, especially in retaining long-term customers.

According to a survey by Das & Mitra (2024), 83% of consumers consider transparency and ethics as the main factors influencing their purchasing decisions. In addition, 73% said they would stop interacting with brands that do not take good care of personal data. This reflects that consumers not only judge products or services based on quality and price but also based on the integrity of the company in managing personal data. In this digital age, consumers are more sensitive to data collection practices, and companies that fail to maintain this ethic risk losing market share. Therefore, implementing transparent and ethical marketing practices not only retains customers but also creates a responsible brand image. In a survey by Singh et al. (2022), 46% of consumers showed greater trust in companies that give them full control over personal data. This trust increased by 20% for companies can create better relationships and build trust by giving consumers full control. Data management that gives consumers direct control also prevents negative perceptions of brands, especially in the case of invasive or excessive data collection. Therefore, this consumer empowerment strategy can be a plus for companies that want to build sustainable customer relationships.

Data from Bakare et al. (2024) revealed that after implementing the General Data Protection Regulation (GDPR) in the European Union, companies that complied with this regulation experienced a 30% increase in consumer trust. GDPR sets strict privacy standards, giving consumers full rights over their data, including access, alteration, and deletion. Compliance with this regulation not only helps companies maintain healthy relationships with consumers in the European market but also sets an example of ethical standards for global companies. By complying with GDPR, companies demonstrate a commitment to safeguarding consumer privacy and adhering to higher ethical standards, ultimately increasing consumer trust and loyalty to the brand.

DISCUSSION

The application of Al in marketing allows companies to create deep personalization, where content and recommendations can be tailored based on each consumer's unique preferences and needs. In this sense, personalization through Al offers great benefits to companies, ranging from increased consumer engagement to higher loyalty. However, research also shows that this approach should be taken with great caution, especially regarding privacy and transparency in the use of consumer data (Schulz & Meyer, 2014). Consumer empowerment in Al-based marketing gives consumers greater control over their data. As people become increasingly concerned about how their data is collected and used, it is important for companies to give consumers full access to and control over their personal information. This research found that when consumers can manage their data- through accessing, updating, or deleting data- they feel more secure and trusting of the companies managing that data (Tiu et al., 2006). It's not just about privacy but also about the sense of control consumers have in their relationship with companies. When consumers feel like they have an active role in managing their data, they are more likely to feel respected, ultimately increasing their loyalty and engagement with the brand.

In addition to data control, transparency in the use of Al data is also crucial. Consumers want to understand how their data is used to create the recommendations and personalization they receive. In some cases, consumers informed about how AI is processing their data to provide relevant offers are more open to providing additional data, as they feel it is being used for purposes that benefit them (Altinigne, 2024). Research shows that consumers tend to feel more involved when companies are transparent about how consumer data is collected, processed, and used. This creates a deeper connection between consumers and companies, as consumers feel respected and involved in decision-making regarding their data (Schulz & Meyer, 2014). This transparency goes beyond simply telling consumers that their data is being used; companies should be honest about how AI generates recommendations. For example, the use of explainable AI (XAI) that allows consumers to understand how the algorithm works and the logic behind the results they see can increase consumers' trust in the company. Pasupuleti (2024) mentioned that transparency in AI through XAI can increase consumer trust by 35%, as consumers feel more confident that Al-generated decisions are based on clear and logical information. This transparency in technology use helps reduce consumer uncertainty and create a safer and more trustworthy experience.

Another important issue is bias in Al algorithms. In Al-based marketing, bias can arise from unrepresentative historical data or algorithms that do not consider demographic variations. These biases, if not identified and addressed, can result in unfair or discriminatory decisions against certain groups of consumers. For example, an algorithm that over-prioritizes consumers with high purchasing power may ignore other groups with relevant needs. This is not only a fairness issue but also affects brand image, as consumers who feel neglected will lose trust in the company (Dwivedi, 2024; Risser et al., 2022). This research shows that companies need to implement comprehensive bias mitigation strategies, such as more representative data collection and diversity-based testing, to avoid the negative impact of bias. Testing that considers the diversity of the consumer population allows companies to detect potential bias in algorithms before they are widely implemented. Dwivedi (2024) recommends using iterative testing methods and including a variety of demographic variables to ensure that the results produced by the algorithm reflect fairness. Postprocessing modifications can also be applied after model training to tailor fairer results to all groups. This is critical to ensure that Al not only benefits a subset of consumers but also provides value to the company's entire consumer base.

Ethical data protection and compliance with regulations such as the General Data Protection Regulation (GDPR) in Europe demonstrate companies' commitment to consumer empowerment through responsible AI. By giving consumers the right to access, correct, or delete their data, GDPR has set a higher privacy standard in data management. Research shows that companies that comply with this regulation report a 30% increase in consumer trust (Bakare et al., 2024). In addition to complying with regulations, companies must make ethics a cornerstone of their AI-based marketing strategies. Ethics in AI management is not just about complying with the law but also about respecting consumers and putting their interests first. This discussion shows that to achieve success in AI-based marketing, companies must prioritize transparency, data control, and bias mitigation as key principles. Ethical application of AI not only strengthens consumer trust and loyalty and creates mutually beneficial and sustainable relationships. Companies that commit to using AI responsibly will be better able to face the challenges and dynamics of an ever-evolving market. By placing consumers as equal partners in the modern marketing ecosystem, companies not only build a positive brand image but also create an inclusive business environment that supports long-term growth.

CONCLUSION

This research shows that the application of AI in marketing has great potential to improve the consumer experience through deeper personalization, higher efficiency, and greater engagement. However, the success of these applications depends largely on how companies integrate the principles of ethics, transparency, and respect for consumer privacy. Giving consumers control over their data and ensuring transparency in collecting and using it is important in building trust and loyalty. When consumers feel respected and involved in managing their data, they are more likely to demonstrate long-term brand loyalty. The importance of bias mitigation in AI algorithms was also highlighted, where a fair and inclusive approach to algorithm design and testing can prevent unfairness and discrimination. Measures such as representative data collection, postprocessing modifications, and explainable AI (XAI) can help companies ensure that AI results reflect fairness to all consumer groups. By implementing effective bias mitigation strategies, companies can create a more equitable and inclusive marketing experience. Consumer empowerment through ethical AI-based marketing is important in creating a mutually beneficial relationship between companies and consumers. By prioritizing ethics, transparency, and data control, companies not only build consumer trust but also create a sustainable marketing environment. Responsible AI implementation allows companies to remain competitive while maintaining a reputation as a brand that values consumers and prioritizes long-term relationships based on trust and loyalty.

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