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**Review Article**

# IMPACT OF ARTIFICIAL INTELLIGENCE-DRIVEN PERSONALIZATION ON CONSUMER PURCHASE DECISIONS IN E-COMMERCE

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## Abstract

How come the internet knows about our needs before us? The research will focus on the impact of artificial intelligence (AI)-powered personalization on consumers' behavior in e-commerce. As one of the common daily experiences, which can be explained by the fact of widespread personalization using AI, a customer observes some particular shoes while online shopping, and then starts receiving ads for the same shoes via different channels. In this paper, the authors are going to analyse the impact of such intelligent tools specifically at the final stage of the decision-making process on the consumer's side – namely, on making purchase decisions symbolized by the click on "Buy Now." It has been identified that AI-powered personalization works as the "tale of two cities" in terms of consumer purchasing behaviour: although it plays a great role in the form of personalized recommendations, dynamic pricing, and targeted advertising, not all outcomes are positive. Moreover, another concept known as "perceived intrusiveness," which means that there is too much personalization and it can lead to consumer mistrust, is discussed in this paper. After literature review and theoretical implications, the real-life effects on buying behaviour and current challenges are described, the study concludes that the main objective for the firms would be to strike the right balance in the future use of personalization. The implications for management practices indicate a move towards the move away from simply trying to increase sales via the use of AI and towards building authentic relationships with their customers. This suggests that those firms which transform themselves from recommendation engines to shoppers' assistants are set for success.

**Keywords:** *Artificial intelligence, Personalization, Consumer behaviour, Purchase decisions, E-commerce, Personalized recommendations.*

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## 1 Introduction

Imagine any average Tuesday night: a person logs on to his computer just to look up the weather forecast, and before he can blink, he has stumbled upon running shoes that he saw briefly a few days ago on an entirely different site. And by the time morning comes, the very same shoes have appeared on Instagram, via his inbox, even in the margins of a piece of news article he is reading for work. None of this has happened out of luck, and none of it has been magic — it has all been through artificial intelligence that has tracked his clicks, pauses, and scrolling speed to show him the perfect thing at the perfect moment. This is the behind-the-scenes dance of pretty much every purchase that takes place nowadays online, and it prompts the thrilling and rather unsettling question of whether it is truly we who choose what we want when machines know better than us already.

Personalization: a double-edged sword. It can be seen as getting a truly attentive salesperson who never forgets anything and gets equally excited each time. Alternatively, personalization can be viewed as being spied on. Artificial intelligence has changed the dynamics of the virtual shopping experience by making online spaces highly adaptive to the needs of each individual shopper – something that could not even be imagined ten years ago (Ofodile & Oyewole, 2024). This adaptation has been made possible through the use of AI technologies which analyse users' behaviour data – purchases, click history, search history, even how many seconds the person spent looking at the picture of the product in question – to predict their future actions. These adaptations have become so integrated into our daily digital lives that they do not surprise us anymore – Amazon recommendations ("Customers who bought this also bought..."), algorithms generating "For You" feed on TikTok and Instagram, emails informing that the cart has been abandoned for too long – all of this is based on the same principle.

The extent of the transformation is difficult to exaggerate. The rapid development of e-commerce sites, together with rising data-driven technologies, has completely changed the landscape of online markets, with artificial intelligence playing a key role in this process and providing the knowledge needed for companies to communicate with their customers on an individual level (Hassan et al., 2025). In terms of benefits for the company, there are many – increased sales, improved loyalty among customers, better spending of advertising budget (Liu et al., 2025). For the client, it offers many advantages as well – comfort, access to relevant information, savings of time, and a higher probability of purchasing something worth buying (Alsaffarini & Awwad, 2026). It is not often that a certain technology satisfies the needs of both parties of the process.

And yet, the most important question lies in the contrast between what personalization claims to do and what it does when it is actually applied to an individual's mind engaged in decision making. How will the consumer feel as soon as he sees that the online service knows everything about him? Will he feel that he is appreciated or rather that he is being forced to make his choice? This research aims to find the answers to these questions by analysing the ways in which personalization and artificial intelligence affect the consumer's buying decision, and by describing the definition of the AI-driven personalization and its main uses in e-commerce; at the same time, it identifies the major challenges and risks connected with it, and formulates human-oriented guidelines for business.

However, these aims are relevant far beyond that of merely being academically valuable, and it makes sense to dwell on the reasons. Indeed, as personalization becomes ever more sophisticated, the danger of actual conflict becomes greater as well; specifically, there are two areas in particular that require additional consideration: privacy paradox, when customers say they appreciate their privacy, yet readily exchange their personal information for ease (Ameen et al., 2022); and over-personalization, which means that while algorithms eagerly try to please, they limit the range of items shown to consumers (Mansoury et al., 2020). The reason why understanding the aforementioned two areas of friction is crucially important is that these two aspects occur right at the crossroads of two areas that are usually not considered simultaneously. In the context of modern paradigm of e-commerce, when the competitive advantage is achieved through large-scale algorithmic personalization, both unsolved privacy paradox and over-personalization become a direct threat to the commercial viability of the entire platform itself – after all, a surveyed consumer just stops using the service (Hassan et al., 2025). The same frictions undermine the assumption about the rational, independent decision maker in consumer behaviour theory, as well, since they apply to scenarios where there is a clear mismatch between the expressed preferences of the consumer (for privacy, for choice, for independence) and his or her actual behaviour (continued information sharing, reduced choice, algorithmic steering). Ignoring such frictions poses a serious danger of undermining the very foundations of trust built by personalization. The reason why this paper makes sure to discuss both the positive and negative impact of personalization is because most existing sources focus either on one or the other aspect.

However, the crucial question remains: what is going on in the mind of a consumer as she navigates this quietly persuasive digital environment and how does it eventually affect the choices she makes? This is the question that will be addressed in this paper through the examination of the existing literature on the topic.

## 2 Challenges in AI-Driven Personalization

Despite the obvious advantages of personalization based on AI for both companies and customers, there are various difficulties associated with implementing such technologies.

**The "Creepy Factor" and the Privacy Paradox** - This appears to be the biggest obstacle for consumers' adoption of personalization technology. Consumers tend to exhibit a phenomenon called the privacy paradox where they claim to have a very high desire for privacy in terms of personal data while at the same time being ready to sacrifice their data in exchange for convenience provided by personalization (Ameen et al., 2022). The phenomenon is much more serious than it might seem since it shows that businesses need to find ways of managing the contradiction between convenience and trust.

**Quality of Data and Algorithmic Bias** - It goes without saying that the performance of an AI system greatly depends on the quality of the information used for training. Poor data will produce poor recommendations (Liu, 2024, Mohsin, 2024) identifies three types of biases that affect the quality of recommendation: data bias, model bias, and feedback loop effect.

**The Filter Bubble Effect** - Personalization algorithms have been designed to present content in accordance with users' interests. Nevertheless, the use of such algorithms may lock consumers into a "filter bubble" or "echo chamber" by presenting them with the same types of products and ideas again and again (Nguyen et al., 2014). While the recent research findings about the extent of the filter bubble effect have been challenged in certain media studies (Liu et al., 2025), the very mechanism is still considered a potential threat in e-commerce recommendation systems through which homogenous product categories reduce consumer discovery opportunities (Mansoury et al., 2020).

**Over-Personalization and Choice Limitation** - One of the promises offered by the internet was infinite choice. The threat of hyper-personalization may actually undermine this principle by creating an exclusive online shopping environment for the users. People usually appreciate the possibility of making unexpected discoveries, and personalization algorithms may unintentionally hinder it (Mansoury et al., 2020).

**Technical Obscurity and Opacity** - The rationale behind the AI recommendation systems is difficult to grasp by ordinary users. It creates mistrust since the lesser the customer knows about the reasoning behind the recommendation of a certain good, the less likely he or she will follow it (Zerilli et al., 2019). The same level of obscurity applies to AI-based dynamic pricing. If the consumer discovers that he or she paid more money for the same product or service as some other person did, then this consumer builds a permanent negative attitude towards the platform (Zhang & Cheng, 2024).

**Table 1: Challenges of AI-Driven Personalization and Their Impact on Consumers**

| Challenge | Description | Impact on Consumer Purchase Decisions |
|---|---|---|
| Data Privacy Concerns | Extensive usage of personal data for personalization reasons | May lower consumer trust and lead to purchase abandonment |
| Lack of Transparency | Lack of clarity about how the recommendations are created | May cause consumer confusion and lack of control |
| Over-Personalization | Constant display of similar products | May hinder exploration and result in less engagement |
| Algorithmic Errors | Invalid or outdated recommendations | May cause consumer frustration and lower purchase intent |

## 3 Impact of AI-Driven Personalization on Consumer Purchase Decisions

AI-driven personalization affects customer behaviour at each step of their customer journey, starting from product consideration and going all the way to the moment of purchase and further. Specifically, there are several areas where the impact occurs.

**Relevance rather than overload** - Given the attention economy that exists today, AI makes choice less cognitively overwhelming. An item-specific homepage or an email subject line like "[Name], your new winter collection is here!" stands out much better than generic marketing messages. In other words, by personalizing the interaction, AI alleviates the cognitive overload from choosing out of millions of possible products, saving

time and preventing shopping cart abandonment (Alsaffarini & Awwad, 2026).

**Encouraging impulse purchases and upselling** - Real-time application of AI shows its strengths best. "Frequently bought together" reminders are a traditional example of upselling through AI that leads to increased average order size, whereas alerts like "Only 2 left in stock!" or "Price drop on your wishlist items!" create a sense of urgency and scarcity, prompting customers to make an additional purchase that they would not consider doing otherwise (Feng et al., 2024).

**Trust and Loyalty dynamics** - In the case where personalization is applied ethically and transparently, then this will foster the sense of understanding and hence make the practice effective and persuasive. Where streaming services provide customers with the best playlist, or where a grocery application provides a customer with all of his past purchase items, a valuable bond between the company and the customer forms hence fostering trust and loyalty (Hassan et al., 2025). In contrast, where trust is breached by the provision of recommendations without explanation from the algorithm, the situation leads to distrust (Wang et al., 2025).

**Price Sensitivity** - The AI technology uses the dynamic pricing approach in which the cost of the products sold is based on the level of demand shown by the user, or customer class and browsing history. Dynamic pricing makes people price sensitive and hence where a customer finds out that he/she has been charged higher than another person for what seems to be the same product, for instance, hotels and plane seats, he/she gets a perception of unfairness (Xia et al., 2004, Zhang & Cheng, 2024).

**Nudging of users psychologically** - Personalization can be viewed as a covert way of behavioural manipulation using technological means. By highlighting specific products, presenting decisions in a certain way, and facilitating the process of buying, personalization subtly manipulates users into taking a certain action – the most common one being making a purchase. Thus, personalization directly takes advantage of behavioural economics in order to make purchasing easy for the user (Feng et al., 2024).

Overall, these mechanisms lead to a contradiction that dominates much of the existing literature: the characteristics of personalization that make it effective from a commercial perspective (relevance, urgency, and nudge of consumers psychologically) are also the characteristics that, when overdone, create the privacy problems, lack of trust towards algorithms, and low purchase intention highlighted in **Table 1**, (Feng et al., 2024, Mohsin, 2024). It is the aforementioned contradiction that will be discussed further in the paper.

## 4 Literature Review

Personalization based on artificial intelligence (AI) is one of the greatest innovations that have recently taken place within the realm of e-commerce, thanks to the considerable impact made on consumer behaviour, marketing and the shopping process itself. Recent studies suggest that personalization has a considerable influence on purchase decision-making, customer satisfaction and brand loyalty.

There are several lines of research that come up with the results suggesting that personalization makes a positive impact on customers' purchase decisions, behaviour and general satisfaction from online shopping. According to (Kumawat & Mathur, 2025, Moodley & Sookhdeo, 2025, Rolando, 2025), personalization can help consumers overcome the problem of information overload, thus providing more relevant product choices, which increases efficiency of consumer choice and chances for purchasing. This finding is complemented by (Hassan et al., 2025), who use the structural equation modelling and demonstrate the existence of the statistically significant positive influence of trust on both satisfaction and loyalty, which is moderated by personalized recommendations.

In addition to the above, there is extensive research on the commercial value derived from personalization using AI by businesses. According to Ingriana and Rolando (2025), AI-based personalization helps increase the conversion rates, boosts customer loyalty and results in increased revenues via dynamic pricing and communication. In a similar vein, the study by (Ofosu-Ampong et al., 2025) views AI as an indispensable means for competitive intelligence and marketing performance. At the same time, (Alsaffarini & Awwad, 2026) expand the discussion on the topic in that the researchers discuss the ways in which personalization may be used to enable consumers, if only the system is designed not with persuasion in mind but with a consideration of the consumer's agency and ethical treatment of data.

The other significant topic in the discussion on the use of AI in the modern world is the importance of trust, relevancy, and consumer satisfaction for the success of recommendation engines. As proven by (Mischin et al., 2025), the effect of the AI recommendations on the consumers' shopping behaviour is moderated by the level of consumer satisfaction. (Hassan et al., 2025) take this idea further and demonstrate that the trust generated at the platform level impacts satisfaction and loyalty, with personalized recommendations serving as

moderators of this trust-satisfaction-loyalty relationship. (Wang et al., 2025) provide additional behavioural support by demonstrating that the level of perceived social presence and anthropomorphism in marketing communication generated through AI affects consumer trust and purchase intention.

However, apart from these beneficial results, there are multiple studies that point to the challenges linked to personalization tools based on AI technologies. For example, according to (Mohsin, 2024), the problem lies in the dilemma between the quality of recommendations and consumer privacy, as the excessive data collection is linked to consumer discomfort and loss of confidence in the service. According to (Ameen et al., 2022), the personalization – privacy paradox can be discussed in relation to the use of AI for personalizing the smart retail environment, showing that the individuals reveal their personal data despite significant privacy concerns, if the benefit is considered valuable enough by them. The same idea can be expressed in terms of privacy calculus theory that presupposes that consumers balance between expected benefits and privacy cost before accepting the personalization of retail. According to (Moodley & Sookhdeo, 2025), the "voluntariness of use" and user control over the data are among the main factors that affect consumer acceptance of AI-based personalization solutions.

The related issue of bias and over-personalization in algorithms is also discussed in the literature. According to (Ballı, 2024, Ofosu-Ampong et al., 2025), an aged and biased database may lower the efficiency of recommendations and perpetuate negative stereotyping. (Liu, 2024) classifies the risks involved in terms of data biases, model biases, and feedback-loop issues, and outlines how their interaction leads to the emergence of filter bubbles on major platforms. The empirical study by (Nguyen et al., 2014) is still a landmark work in this line of investigation, for its authors were the first to show how the use of recommender system affects the diversity of information users consume — and this conclusion was recently complicated by (Liu et al., 2025) who, based on large-scale experiments, showed that the extent to which the effect in question emerges may differ greatly across platforms and areas of application. The connection between the discussed phenomenon and purchase behaviour is made by (Mansoury et al., 2020) who, through large-scale simulations, revealed how feedback loops in the operation of recommender systems affect "tunnel vision" shopping experience.

Personalization also has a quantifiable impact on the psychological components of consumers' decision-making process, such as their attention, sense of urgency, and perception of value. In particular, real-time recommendations, scarcity alerts, and dynamically changing prices were all found to encourage impulsive purchasing and increase average spending amounts (Feng et al., 2024). According to (Kumawat & Mathur, 2025), there is a strong positive relationship between the value of the recommendation and the actual purchase decisions, meaning that consumers react well to highly personalized shopping experience. On the other hand, research on dynamic pricing with the help of artificial intelligence technologies warns about the pitfalls of these effects: when the consumers perceive that the pricing algorithms are unclear and unfair, then the trust to the platform drops sharply, independent of the statistical rationale behind the dynamic price (Zhang & Cheng, 2024). The transparency and explainability methods were identified as the most consistently effective solutions in this body of studies: according to (Moravec et al., 2025), the impact of personalization on trust and acceptability greatly depends on the level of digital media literacy of the user and his or her understanding of how algorithmic control systems function.

As a general observation, whereas past studies have provided significant insights into the technical, psychological, and business aspects of personalization using artificial intelligence, most of the studies conducted in the past are either highly technical or largely ethical, with a small number of studies examining both the benefits and drawbacks of personalization under one roof (Ofodile & Oyewole, 2024). This is what this review tries to fill.

**Table 2: Literature Review on AI-Driven Personalization and Consumer Behavior**

| Author & Year | Focus Area | Key Findings | Major Suggestions |
|---|---|---|---|
| (Alsaffarini & Awwad, 2026) Personalization and Consumer Empowerment | Personalization can empower consumers if it is done with user agency in mind | Design personalization in a way that would include consumer empowerment features | |
| (Alsaffarini & Awwad, 2026) personalization and online decision making | Trust, not relevance, determines the impact of personalization on decision making | Ensure trust building rather than optimizing for relevance | |
| (Ameen et al., 2022) | Privacy calculus in retail AI | Consumers provide personal information in spite of privacy concerns when benefits are more tangible | Making consumers aware of what they get in return for their data |
| (Ballı, 2024) | Product personalization | Boosts satisfaction and loyalty | Use AI for data analysis |
| (Feng et al., 2024) | AI recommendations, scarcity perception, and purchase intentions | Scarcity perception and urgency triggers substantially enhance impulsive purchasing behaviors | Matching the urgency cues to consumers' knowledge level |
| (Hassan et al., 2025) | Trust and Purchase Decision Making | Personalization highly increases consumer trust, which acts as mediator for purchase intention | Ensure trust building along with personalization |
| (Hassan et al., 2025) | Trust transfer in AI personalization | Platform-level trust transfers to trust in specific recommendations | Build platform-level trust, not just algorithm accuracy |
| (Ingriana & Rolando, 2025) | AI personalization in e-commerce | Personalization by means of AI increases conversion rates, loyalty, and sales | Leverage dynamic pricing and personalized communication |
| (Kumawat & Mathur, 2025) | AI personalization and purchase decisions | Recommendations' perceived value correlates with purchase decision | Invest in highly personalized shopping experiences |
| (Liu, 2024) | Bias in AI recommendations | System bias, data bias, and model bias jointly create filter bubbles | Use fairness-aware learning and diversity optimization |
| (Mansoury et al., 2020) | Feedback loops and over-personalization | Over-personalization narrows consumer choice and willingness to explore | Build deliberate variation into recommendation feeds |
| (Mischin et al., 2025) | AI recommendations and user satisfaction | User satisfaction moderates the effect of recommendations on purchases | Improve recommendation accuracy and trustworthiness |
| (Mohsin, 2024) | AI personalization and consumer privacy | Oversharing creates uneasiness and suspicion | Balance recommendations with users' privacy needs |
| (Moodley & Sookhdeo, 2025) | AI personalization in retail | Relative advantage affects purchase decisions | Increase personalization quality |

*Table 2 continued from previous page*

| Author & Year | Focus Area | Key Findings | Major Suggestions |
|---|---|---|---|
| (Moravec et al., 2025) | Transparency, control, and trust | Acceptance of personalization depends on digital media literacy and algorithmic understanding | Pair personalization with transparent data-use communication |
| (Nguyen et al., 2014) | Content diversity in recommended systems | The usage of recommended systems correlates with decreased content diversity over time | Balance accuracy and diversity in design |
| (Ofodile & Oyewole, 2024) | AI Personalization and Market Trends | AI personalization transforms engagement, trust building, and customer loyalty | Maintain the balance between customization and privacy protection |
| (Ofosu-Ampong et al., 2025) | AI-Powered Marketing Personalization | AI plays an important role in competitive intelligence; biased data influences the recommendation | Audit algorithms to reduce biases; ensure ethics in marketing |
| (Rolando, 2025) | Recommendation systems | Personalization has a strong effect on intention | Implement explainable AI |
| (Wang et al., 2025) | Social presence and anthropomorphism | Human-like interfaces increase recommendation trustworthiness | Use more natural, conversational language in AI recommendation interfaces |
| (Zhang & Cheng, 2024) | Algorithmic ethics in AI-powered pricing | Opaque or unfair-looking pricing reduces consumer trust irrespective of its precision | Making algorithms explainable and proportional |

## 5 Materials and Methods

The research is conceptual and exploratory, based exclusively on secondary data in accordance with the research problem, since the issue here relates to the synthesis and interpretation of existing literature on AI personalization. Such an approach is justified not only because of the broad scope of the topic (that encompasses aspects of computer science, marketing, consumer psychology, and digital ethics), but also because of a pragmatic understanding that a survey or experimental study can capture only a small fragment of a quickly changing technological reality. A conceptual synthesis, in turn, enables the researchers to integrate results from different disciplines and see certain patterns that might go unnoticed in an empirical study.

**Search Strategy and Sources Selected** - Literature on this topic was found through systematic searches in academic databases and indexing sites, including Google Scholar, ScienceDirect, SpringerLink, SSRN, ResearchGate, MDPI journals, and Taylor & Francis Online. The search queries used were based on key themes relevant to the topic of inquiry, including phrases like "AI personalization e-commerce," "personalization consumer trust," "algorithmic bias recommendation systems," "filter bubble e-commerce," "dynamic pricing consumer perception," and "privacy paradox AI." Boolean operations were used where applicable to combine the key terms, and the search results were filtered, when possible, to include peer-reviewed journal articles, conference papers, and reliable working paper repositories dating back from 2022 to 2025 to establish the timeliness of the technology and behavioral claims being considered.

**Criteria for Inclusion/Exclusion** - The sources that met three criteria were included in the literature review: firstly, the source should have dealt with personalization, recommendation system or algorithmic pricing by AI in consumer-oriented or e-commerce environment; secondly, the source should provide either empirically based results or conceptual contribution that relates to trust, privacy, purchasing decision-making or algorithmic transparency in any way; thirdly, the source should have been written in full text or in an extensive enough abstract to interpret it correctly. Those sources were not included in the review which were just promotional or marketing materials with no research-oriented content, those sources which dealt with AI personalization only outside commerce, such as health care or political news recommendation and did not relate to purchasing behavior and those sources which could not be verified against their published record at all. Such process resulted in selection of the literature collected in **Table 2**.

**Approach** - Secondary literature was subjected to analysis by means of qualitative thematic synthesis. All sources were read thoroughly, and manually coded in relation to recurring constructs that emerged as key in addressing the problem statement: consumer trust, perceived relevance, privacy concern, algorithmic transparency, perceived intrusiveness, purchase intention, and algorithmic bias. If empirical connections between two or more of these constructs were observed in a source – for example, the effect of personalization on trust, or of transparency on purchase intention – these relations were recorded and compared within the framework of the literature to determine consistency and contradictions in the available data. In cases when a source provides conceptual or normative claims, such as an ethical framework for personalization algorithms or a critique of algorithmic opacity, their key arguments were also synthesized along with the empirical evidence to form a comprehensive understanding of the mechanics and implications of AI-based personalization. Thematic synthesis was chosen as an alternative to meta-statistical analysis due to the substantial heterogeneity of methodologies, contexts, and measurements in the underlying studies; thematic synthesis offers an opportunity to interpret recurring patterns of evidence across heterogeneous literature (Liu, 2024, Moravec et al., 2025).

**Discussion of Findings** - It is the interpretation of the results of the above coding process, namely, how the process of personalization serves as a productive way to overcome choice overload and develop loyalty, but at the same time has a destructive aspect in case it causes any sense of privacy intrusion, obscurity, or over-personalization, that provides the basis for the Discussion section that follows below. Since it is secondary research, no surveys, interviews or experimental work were conducted, so the findings obtained were interpretive in their nature.

**The Gap This Paper Addresses** - Most of the current studies about AI-based personalization focus on being either very technical, discussing the inner working and structure of algorithms, or very ethical, addressing regulation and privacy issues. Since the present study uses secondary data, the results might also be affected by the speed of technological development in the area. Despite the mentioned, there is still a great need for the discussion that would be easy to comprehend and would take into account both the positive and negative aspects of AI technology, as well as its effect on the decision-making process of the consumer. The present study will try to fill this gap.

## 6 Discussion

And, while there may be many concepts to keep in mind from everything discussed before, there is at least one idea that needs to be embraced above all others. Namely, personalization driven by artificial intelligence is neither evil, nor good by nature. It is a very powerful instrument and, being such, is determined by its user alone. The main contradiction throughout the study has been that of efficiency versus authenticity and convenience versus control.

It is absolutely clear that personalization is efficient. This technology automates marketing processes, raises conversion rates and generates income (Liu et al., 2025). What concerns the consumer, personalization offers him/her a chance to get convenience and learn something new (Alsaffarini & Awwad, 2026).

On the contrary, the excessive focus on efficiency can lead to a reduction of the authenticity level. Modern consumers are not ready to be perceived by companies as those who can be predicted and manipulated (Alsaffarini & Awwad, 2026). The emergence of "deinfluencing" content as an opposing force to heavily curated marketing material on social networks has become an obvious consequence of this trend (Mansoury et al., 2020).

What this implies is that as far as business management is concerned, one thing is clear: personalization must be thought of not in terms of sales, but in terms of establishing a trusted relationship with the consumer. This implies that instead of showing the consumer the most expensive possible item through the use of AI, a more sustainable one is shown (Alsaffarini & Awwad, 2026, Moravec et al., 2025).

Thus, there appears to be a useful lesson for managers – it is important not to view personalization as a technique that can be used to optimize the sale process but as a tool to establish a relationship of trust with the consumer. This implies applying AI to identify a sustainable or suitable product which the customer will be able to appreciate instead of trying to sell the costliest products available (Alsaffarini & Awwad, 2026, Moravec et al., 2025).

Put differently, the companies that are expected to achieve success in the next decade will be those using AI as an obvious, reliable assistant and not as an invisible manipulative tool, which helps make decisions by people and does not replace humans' choice (Hassan et al., 2025, Zerilli et al., 2019).

## 7 Suggestions

Building upon the above synthesis, the following human-centric recommendations are made for organizations that wish to utilize AI-based personalization.

1. **Come First with Transparency and Control** - Make clear the use of data by using simple statements such as "We use your web history to better customize our suggestions." Most importantly, create a privacy dashboard where people can see their profile, change their settings, or opt-out from personalization (Ameen et al., 2022, Moravec et al., 2025).
2. **Pursue a Value Exchange Approach** - Phrase every data gathering and personalization effort around the concept of value. Make sure you are asking for the value the customer gets, whether it is an actual discovery, a discount, or time saved (Ameen et al., 2022).
3. **Consciously Create Surprise** - Disrupt your filter bubble using tools like "Outside Your Bubble," "Editors' Picks," or "Random Discovery," each of which makes the experience more exciting for the customer and counteracts the narrowing effect described in the literature (Liu, 2024, Nguyen et al., 2014).
4. **Foreground Context over History** - Shift your attention from "what the user has done" to "what the user might need right now." Factor in contextual cues, such as weather (recommend raincoats on rainy days), time (promote coffee machines in the morning), and lifecycle events (offer a truly special birthday discount) (Feng et al., 2024).
5. **Make the AI More Human** - The user needs to believe that the algorithm is on his/her side. Talk to the user in a conversational tone while offering recommendations.
6. **Perform Regular Ethical AI Audits** - Analyze your algorithms for signs of bias. Establish if any customer groups regularly receive worse recommendations or higher prices, and consider it a standard process, not an exceptional one (Liu, 2024, Mansoury et al., 2020).

## 8 Conclusion

However, it is worth returning briefly to the story about those shoes that seemed unwilling to leave their potential customer alone online. This seemingly small and slightly strange moment actually opens the door to what can be considered one of the more significant changes in the history of retailing. AI-powered personalization becomes an important catalyst for consumer engagement and online purchasing behavior, with its impact on the purchasing process being difficult to underestimate since it impacts consumer behavior in terms of influencing it and moving it toward brand loyalty.

However, this study shows that it is not always a case of sure thing or guaranteed success. The very technology that can result in such success can cause a feeling of unease if used improperly. It is only those firms that understand that using data to personalize their offerings is not just about selling more products, but rather developing a real relationship with their customers, that will see real success in the future. In other words, the future belongs to neither the most enigmatic nor the most convincing firms in the market, but those that are completely honest and genuinely helpful to their customers.

## 9 Limitations of This Research

Limitations of this paper include the following -

1. **Conceptual nature of research** - This is a research paper that focuses on synthesis and analysis of available secondary literature. No new primary data is collected as part of this study in the form of surveys and experiments that would allow collecting original statistical data.
2. **Technological obsolescence** - The sphere of artificial intelligence develops at an incredibly fast rate. New technologies, including AI technologies used to create personalized content, are constantly emerging, and therefore this report reflects the current state of technology.
3. **Social generalizability** - Privacy and personalization issues differ across different cultural environments. This report uses a lot of literature that emerged due to conditions of Western markets and cannot be fully generalized for the conditions of Asian or African markets.
4. **Industry-specific nuances –** While the above discussion is meant to be as general as possible, the real-world impact of personalization varies greatly by industry – for example, comparing fashion and finance, or entertainment and food retailing. An industry-specific analysis could generate better results.

## 10 Scope for Further Research

There are many possibilities for further research that this paper brings up.

- **Personalization and Generative AI** - How does the implementation of ChatGPT-like tools influence the personalization of the shopping process? Some research areas include AI writing of product descriptions, personalized email marketing copywriting, and shopping chatbot assistance.
- **Contradiction between "Consumption and Sustainable Personalization."** - Is there any way to design recommendation systems that would help achieve not only sales but also promote sustainable consumption such as durable, repairable, and reusable goods?
- **Neuromarketing and Personalization –** Future research might consider subliminal effects of personalization and non-personalization in relation to consumers using biometric methods such as eye tracking and electroencephalography (EEG).
- **Cross-Culture Comparison –** Future comparative research can analyze the differences in the impact of similar personalization approaches between consumers from collectivist cultures (e.g., Japan) and individualist cultures (e.g., U.S.).
- **Data Collection and Validation of Findings –** Future research might proceed from the current conceptual synthesis of literature and gather primary data for the validation of established relationships.
- **Emerging Technologies in Personalization Environments –** Future monitoring of emerging AI technologies and applications in the context of personalization cases is necessary considering fast technological changes reviewed above.

## 11 Conflict of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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## 14 Authors' Contribution

Ayush Gupta (AG) is the lead author of this manuscript who has conceptualized the research problem, methodology, data collection, data analysis, and synthesis of results, drafted the manuscript, and critically reviewed the manuscript post-review by the editor. On the other hand, Dr. Mudit Tomar (MT) is the co-author who provided critical feedback, suggestions, and comments in order to fine tune the analysis and structure of the manuscript. Both authors have reviewed and approved the final manuscript.

## 15 AI Declartion

As per the BJIKS AI Ethics Policy, the authors declare that the following AI tools have been used in the preparation of the manuscript, only as language assistance and editing tools and not as content generators:

1. **ChatGPT (OpenAI)** – utilized in finding and correcting grammatical mistakes in the document and in structuring sentences within the already drafted content.
2. **Claude (Anthropic)** — utilized to analyze the coherence of structural elements of different sections and to help with paraphrasing of author's original text.
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4. **Grammarly** — used for grammar checking, punctuation adjustment, and general language refinement of the manuscript.
5. **QuillBot** — used for paraphrasing and rewording of certain sentences to improve clarity and readability.
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All intellectual inputs, including the conceptualization, literature search, analysis, and conclusions are original contributions from the authors. The AI tools mentioned above were used solely as assistive tools for language improvement, structural editing, and exploratory literature search, but did not create any content, argument, or conclusion within the paper.

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