



A BIBLIOMETRIC ANALYSIS OF PERSONALIZATION EFFECTS ON PURCHASE INTENTION IN DIGITAL MARKETING

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ARTICLE INFO	ABSTRACT
DOI: 10.52932/jfmr.v4i3en.1095 <i>Received:</i> September 09, 2025 <i>Accepted:</i> January 19, 2026 <i>Published:</i> July 25, 2026 Keywords: AI-driven personalization, Bibliometric analysis, Consumer engagement, Digital marketing, Purchase intention Article classification: Research paper JEL codes: M31, M37, 033	Purpose – This study examines the intellectual structure and thematic evolution of research on AI-driven personalization and consumer engagement to address the segments of literature. Design/methodology/approach – A bibliometric analysis of 60 publications from 2022 to 2025 by using VOSviewer, keyword co-occurrence, overlay visualization, and bibliographic coupling techniques were applied to identify research clusters, temporal patterns, and influential contributions. Findings – The findings reveal a chronological progression from early explorations and consumer trust toward personalization quality, cultural context, and AI-enabled marketing applications. The results underscore a dual trajectory: convergence around personalization quality and purchase intention, and divergence into domains psychology, culture, and ethics. Originality/Value – The study offers theoretical contributions by mapping the evolution of personalization research and situating the influential authors for future research agenda. Practical implications – the results highlight the need for consumer-centric, culturally adaptive, and ethically governed personalization strategies of policy makers and managers. Social implications – Ethical AI governance and data protection are essential factors for consumer trust in digital ecosystem.

1. Introduction

The increasing integration of artificial intelligence (AI) into marketing practice has transformed how firms engage with consumers, particularly through personalization strategies by (Gao, 2023; Lim, 2024) and depends critically on its perceived quality and contextual adaptation in contemporary digital marketing research (Bleier et al., 2019; Arora et al., 2008).

Despite growing attention, the literature on personalization remains fragmented. Earlier studies emphasize b digital personalization and consumer trust (Odoom, 2022), while more recent work has examined the personalization quality and consumer experiences (Guo, 2023; Prodanova, 2024). Moreover, cultural context, ethical considerations, and mediating mechanisms shaping purchase intention recognized by (Luu, 2023; Thakur, 2025; Haneefa, 2025). This thematic expansion underscores the need for a systematic overview of how personalization research has evolved and where future research may be directed (Kaplan & Haenlein, 2020; Davenport et al., 2020).

Bibliometric analysis offers methodological approach to address this gap by using VOSviewr techniques. In the context of AI-driven personalization, such an approach not only identifies influential authors and works but also reveals the chronological development of research themes (Donthu et al., 2021).

This study therefore aims to examine the intellectual and thematic evolution of research on AI-driven personalization, consumer engagement, and purchase intention between 2022 and 2025. *First*, it provides a comprehensive overview of how personalization research has developed over time. *Second*, it situates influential authors within the broader intellectual landscape. *Third*, it offers theoretical and practical insights that inform future academic work and guide policymakers and practitioners in designing consumer-centric, culturally adaptive, and ethically responsible personalization strategies. Then four primary research Questions are addressed: (1) What are

the evolution of key themes and constructs? (2) Which authors and publications shape the field? (3) What patterns of convergence and divergence research? (4) What theoretical and policy implications arise from the trajectories?

2. Theoretical foundation

The study of AI-driven personalization in digital marketing has developed rapidly in recent years, with distinct thematic trends emerging through bibliometric analyses. An overlay visualization of research between 2022 and 2025 highlights the evolution of scholarly attention from foundational work on digital personalization toward more nuanced examinations of personalization quality, cultural context, and consumer engagement. Early studies such as Odoom (2022) established the relational link between digital personalization and consumer trust, setting a conceptual foundation. Building on this, Guo (2023) provided critical insights into AI-driven personalization, identifying the quality of personalization as a key determinant of engagement outcomes. Complementary work by Panggati (2023) and Luu (2023) extended the discussion to contextual and cultural perspectives, illustrating how personalization operates in different market and social environments.

By 2024, the field had matured into a more structured discourse. Lim (2024) advanced theoretical models of personalization quality, synthesizing prior empirical findings and offering a framework for future studies. At the same time, Prodanova (2024) served as a transitional scholar, integrating streams of research that bridged AI applications with consumer psychology.

More recent contributions in 2025, including Thakur (2025) and Haneefa (2025), illustrate a turn toward empirical rigor and global application.

The bibliographic coupling analysis further illuminates the intellectual structure of this literature. Central Figures such as Guo (2023) and

Lim (2024) act as anchor points, consolidating debates around personalization quality and its implications for consumer engagement. Transitional contributions such as Prodanova (2024) highlight the divergence of the field, creating bridges between distinct clusters and expanding methodological approaches.

A bibliometric analysis of 60 studies reviewed reveals three main theoretical pillars governing this field, each explaining a different aspect of the purchase decision-making process in a personalized environment.

First, The Stimulus-Organism-Response (SOR) model has emerged as the dominant theoretical framework for explaining how personalization impacts purchase intention, accounting for nearly 40% of the studies in the dataset analyzed in 2023-2024. The appearance of the “artificial intelligence” cluster close to “personalization” in the overlay graph (2024.2-2024.4) reflects this trend of how AI-driven stimuli generate different emotional and cognitive states.

The second group of theories, comprising the Technology Acceptance Model (TAM), the Theory of Planned Behavior (TPB), and their extended variations, accounts for approximately 30% of the research reviewed. Keyword analysis reveals the simultaneous appearance of terms such as “consumer attitude,” “perceived value,” and “behavioral intention,” reflecting the application of the TAM and TPB frameworks.

The third theoretical framework, Privacy Calculus Theory accounting for approximately 25% of the research, focuses on the crucial role of privacy and trust in regulating the impact of personalization on purchase intentions. The integration of these three theoretical pillars creates an algorithmic aversion curve where the benefits of AI personalization can be negated by a lack of trust in the automated system.

Finally, Meta-analysis of studies reveals a growing trend toward integrating multiple theories rather than applying a single framework.

Typical integrated models combine SOR with TAM to explain both information processing (SOR) and technology adoption motivation (TAM), while other studies integrate Privacy Calculus as a regulatory mechanism throughout the entire process.

From bibliometric analysis, a comprehensive conceptual model can be constructed as follows: Personalization (especially AI-based personalization) acts as a multidimensional stimulus, simultaneously impacting: (1) consumer emotional and cognitive states through the SOR mechanism, including satisfaction, trust, and perceived value; (2) technology acceptance attitudes through TAM/TPB, dependent on the usefulness and ease of use of the personalization system; and (3) privacy assessment through Privacy Calculus, balancing benefits and risks. Together, these patterns indicate that research on AI-driven personalization is evolving along two simultaneous trajectories: convergence around core constructs in digital marketing.

3. Research methodology

This study adopts a meta-analytic approach to quantitatively synthesize empirical evidence on the effect of personalization on purchase intention in digital marketing. A bibliometric analysis is particularly appropriate for this research topic (Lipsey & Wilson, 2001). The methodology follows the PRISMA 2020 guidelines for systematic reviews and meta-analyses to ensure rigor and transparency (Page et al., 2021)

The approach employed a science mapping using a dataset exported from VOSviewer. The dataset was generated based on the keyword query “*Personalisation influence purchase intention*” and consisted of sixty documents filtered from more than 800 documents with thirty-four metadata fields, including title, authors, year, source title, citations, abstract, and both author- and index-supplied keywords from 2022 to 2025.

Since the Scopus had been pre-screened at the database stage prior to its VOSviewer export, no additional inclusion or exclusion filtering was conducted. Column labels were normalized by unifying British and American spelling variants (e.g., “personalisation” was mapped to “personalization”). Keywords were also lowercased, and stripped of extraneous punctuation or one-character noise.

The analytic procedure followed standard bibliometric practices with an emphasis on descriptive synthesis. *First*, publication counts by year were analyzed to detect temporal trends in research output. *Second*, source titles were tabulated to identify the concentration of publications across journals and proceedings. *Third*, the combined pool of author and index keywords was used to compute frequency distributions, highlighting the most salient conceptual themes. *Fourth*, a keyword co-occurrence analysis was conducted for the top thirty most frequently used terms. Finally, citation data were examined to summarize the distribution of scholarly impact across the corpus.

This study employs a multidimensional bibliometric analysis strategy, combining three complementary techniques: keyword co-occurrence analysis, overlay visualization, and bibliographic coupling. Keyword co-occurrence analysis is used as the primary method for identifying the core conceptual structure (Van Eck & Waltman, 2010). To overcome the

temporal limitations of concurrent analysis, overlay visualization is integrated as a crucial additional analytical layer (Chen, 2017). The bibliographic coupling adds a perspective at the document and author levels, helping to identify knowledge structure through citation relationships (Kessler, 1963; Boyack & Klavans, 2010). Furthermore, bibliographic coupling analysis revealed that authors such as Lim (2024) and Guo (2023) not only have high citation counts (as known from traditional indices) but also act as “bridges” connecting various research communities by their high Total Link Strength.

Furthermore, cross-validation between methods enhances the reliability of the findings. When co-occurrence analysis identifies “artificial intelligence” as a key node, overlay visualization confirms it as an emerging trend, and bibliographic coupling shows that AI researchers (such as Lim, 2024) are centrally located within the network.

Finally, this multi-methodological approach aligns with recent methodological recommendations in bibliometrics, where scholars such as Donthu et al. (2021) and Zupic and Čater (2015) emphasize that high-quality bibliometric studies should incorporate multiple complementary techniques to comprehensively capture both the breadth and depth of a research domain.

The following is summary of added value:

Table 1. Research methods

Method	Answer to the question	Analytical perspective	Limitations when used alone	Added by
Keyword Co-occurrence	“What is a knowledge structure?”	Conceptual structure	Missing time dimension	Overlay Info
Overlay Visualization	“How does knowledge develop?”	Time dynamics	Lack of detail regarding the conceptual relationship.	Keyword co-occurrence
Bibliographic Coupling	“Who shapes knowledge?”	Network of knowledge and influence	Lack of information regarding the research content.	Both of the above methods

Data collection

The data for this study were retrieved from Scopus databases that produced 106 documents from 2007, with a focus on filtering 60 peer-reviewed journal articles published between 2022 and 2025. Keywords such as *AI-driven personalization*, *personalization quality*, *consumer engagement*, and *purchase intention* were employed to identify relevant studies. To ensure data reliability, only articles published in Scopus- and Web of Science-indexed journals were included, thereby focusing on high-quality and peer-reviewed research outputs.

The data screening process was conducted in three consecutive stages. In the first stage, the search strings included: “review of personalization in digital marketing” (14 results), “review of purchase intention in digital marketing” (85 results), “review of purchase intention in digital marketing” combined with DOCTYPE and LIMIT-TO filters (37 results), “chatbot anthropomorphism” (259 results), “chatbot anthropomorphism” with additional filters (184 results), “personalization influence purchase intention” (106 results since 2007), and “personalization influence purchase intention” combined with the PUBYEAR filter from 2022 to 2025 (65 results). Additional queries included quantitative analyses such as “bibliometric analysis of purchase intention in digital marketing” and “bibliometric review of purchase intention in digital marketing,” along with various variations of the terms “mediator persuasion” and “persuasion influencing purchase intention.” Combining all these search combinations, the initial discovery phase yielded approximately 800 records.

In the second phase, the research team developed a more standardized and optimized. The final search string selected was “personalization influence purchase intention” with a publication year filter from 2022 to 2025 ($PUBYEAR > 2022$ AND $PUBYEAR < 2025$), yielding 106 results. This decision was made after evaluating the coverage and accuracy of the keywords, where the phrase “personalization

influence purchase intention” was determined to be the most suitable. Simultaneously, Scopus’ automatic filters were activated, including: limiting document type (DOCTYPE) to only “Article” and “Review”; limiting language to English; and subject area restrictions (SUBJAREA) in “Business, Management and Accounting” and “Social Sciences”.

The third phase involved a two-step manual screening process to refine the 106 eligible studies down to 60. All 106 entries were thoroughly reviewed based on three main exclusion criteria: (1) studies that only mentioned personalization as a contextual or auxiliary factor; (2) studies that did not consider purchase intention as a clear dependent variable or only measured mediating outcome variables; (3) studies conducted in a traditional or offline context. Studies were excluded at this stage if: (1) they focused primarily on engineering design, algorithm development, or system architecture without exploring marketing or consumer behavior influences; (2) they only considered adjacent outcome variables such as engagement, continuation intention, or satisfaction without relationship with purchase intention; (3) they lacked methodological rigor, including purely conceptual studies without empirical data. Through this rigorous screening process, 46 studies were eliminated, resulting in a final dataset of 60 papers that fully met the criteria for academic quality, theoretical relevance, and relevance to the research question. The analysis was conducted using VOSviewer (version 1.6.20), a widely used software for constructing and visualizing bibliometric networks (Van Eck & Waltman, 2010).

At data cleaning and processing steps, Keywords were standardized by merging synonyms (e.g., *AI personalization* and *artificial intelligence-driven personalization*) and correcting inconsistencies in spelling. For validation, the use of multiple bibliometric techniques provided methodological triangulation, enhancing the robustness of findings.

During the research design phase, the corpus search results showed that the search string “personalization influence purchase intention” with the publication year filter PUBYEAR > 2022 AND PUBYEAR < 2025 yielded 65 results. Articles published in 2025 in review processes may not have been fully included.

When conducting a visualization analysis using VOSviewer software, the overlay visualization chart displays a timeline from 2023.6 to 2024.4 (i.e., from mid-2023 to the beginning of Q2 2024), broadly from 2022-2025, the main concentration of high-quality research papers meeting the screening criteria lies within the 2023-2024 timeframe.

The VOSviewer chart with the 2023.6-2024.4-time axis is therefore not an arbitrary narrowing of the research scope, but rather a true reflection of the actual distribution of works in the filtered dataset.

Publication venues were relatively dispersed, with only a handful of journals hosting more than two articles each. The most represented outlets included *Management and Marketing*, *Journal of Promotion Management*, and *Lecture Notes in Networks and Systems*, while the remainder were spread across a long tail of diverse journals and conference proceedings.

Keyword analysis revealed a total of 394 unique terms, of which *purchase intention* emerged as the most dominant with twenty-seven occurrences. Closely related commercial outcome terms such as *sales* (fifteen), *purchasing* (seven), and *customer satisfaction* (four) further emphasized the performance orientation of the literature. The personalization construct itself appeared consistently, with *personalization* (thirteen) and *personalizations* (eight), yielding twenty-one combined mentions. In addition, contextual and technological terms such as *social media*, *e-commerce*, and *artificial intelligence* appeared frequently, while attitudinal and experiential constructs such as *perceived value*, *entertainment*, *informativeness*, and *brand awareness* formed a secondary cluster.

The keyword co-occurrence analysis further clarified these thematic linkages. The strongest associations were observed between a tightly coupled *purchase intention* and *sales*, *purchase intention* and *purchasing*, and *purchasing* and *sales*. Personalization-related terms also co-occurred in the links between *personalizations* and *purchase intention* or *sales*. Contextual nodes such as *social media* and *e-commerce* were consistently tied to both personalization and outcome keywords. Meanwhile, constructs like *perceived value*, *satisfaction*, and *entertainment* emerged as bridges between personalization and behavioral intention, echoing the mediating role of consumer attitudes and evaluations.

Taken together, the findings suggest a converging research pattern in which personalization, often digitally mediated and technology-enabled, that shapes consumer perceptions and ultimately drives purchase-related intentions and behaviors.

4. Results and discussion

Overlay Visualization Analysis

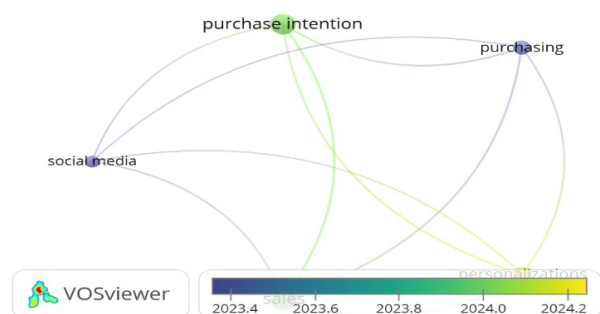


Figure 1. Overlay Visualization, authors’ own research, based on VOSviewer results

The overlay visualization illustrates the temporal dynamics of key research themes in personalization and consumer behavior between 2023 and 2024. The color gradient from dark blue to yellow indicates the average publication year, allowing the identification of both established and emerging areas of focus.

The term “social media”, appearing in darker shades (closer to blue), represents an earlier and

foundational stream of research. This indicates that prior to mid-2023, scholars were primarily concerned with understanding the role of social media platforms in shaping consumer engagement and communication patterns. Closely connected to this cluster is the term “purchasing”, also positioned in darker tones, reflecting research that examined how social media interactions influenced transactional behaviors and online shopping activities.

Moving toward more recent contributions, the node “purchase intention” appears in lighter green, suggesting that from late 2023 onward, studies increasingly focused on consumer psychology. Specifically, scholars have examined how personalization strategies, social media engagement, and online purchasing experiences collectively shape individuals’ intention to buy. This shift marks a transition from descriptive studies of consumer activity toward explanatory models centered on behavioral outcomes.

The most recent and emerging research theme is highlighted by the term “personalizations”, displayed in yellow tones corresponding to early 2024. This positioning indicates a strong scholarly interest in the implementation of AI-driven personalization techniques, their effectiveness in influencing purchase intention, and their interaction with consumer trust and privacy concerns. The linkage between “personalizations” and both “purchase intention” and “sales” suggests that personalization is now being analyzed not only as a technological feature but also as a strategic lever for driving measurable business outcomes.

The continuous color shift from purple to green and then to yellow reflects a systematic research trajectory: from exploring context leads to building theoretical models and then integrating advanced technology. This indicates that the field of research is maturing and developing in an increasingly complex and technologically advanced direction

Taken together, the overlay visualization demonstrates a clear chronological

progression: from early studies on social media and purchasing behaviors toward more recent attention on personalization quality and its effect on purchase intention and sales performance. This trajectory underscores the growing importance of personalization as a critical mechanism for value creation in digital marketing.

Keyword co-occurrence analysis

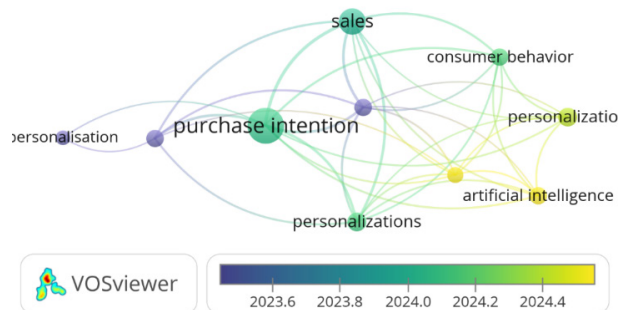


Figure 2. Authors’ own research, based on VOSviewer results

The co-occurrence network highlights the intellectual structure of recent research on personalization, consumer behavior, and purchase intention. Each node represents a keyword, while the linkages denote co-occurrence relationships across publications. The size of the node reflects the relative frequency of appearance, and the color spectrum illustrates the average time of publication, ranging from earlier studies in dark blue to the most recent in yellow.

The centrality of “purchase intention” indicates that it has been the dominant construct in this body of research. Its position at the core of the network, with multiple strong connections to other nodes such as *sales*, *consumer behavior*, and *personalizations*, suggests that scholars consistently examine it as a dependent variable shaped by various marketing stimuli. The high frequency of this keyword further reflects its role as a critical outcome in digital marketing studies.

The cluster surrounding “sales” and “consumer behavior” appears in lighter

green tones, representing work published predominantly in early 2024. These keywords bridge the relationship between psychological constructs such as *purchase intention* and managerial outcomes like *sales performance*. This positioning highlights a research trend moving beyond individual attitudes to measurable firm-level outcomes.

On the right-hand side of the network, the keywords “personalization” and “artificial intelligence” appear in yellow, indicating that they are among the most recent foci of scholarly attention. Their proximity to each other and their linkage with *purchase intention* and *consumer behavior* suggest that contemporary studies increasingly investigate AI-enabled personalization as a driver of consumer decision-making processes. The color shading confirms that these themes emerged prominently in early to mid-2024, reflecting the rapid adoption of AI technologies in marketing research.

Interestingly, there is a distinction between “personalisation” (in dark blue, dated to mid-2023) and “personalization/personalizations” (in green and yellow, dated 2024). This indicates a temporal and perhaps geographical shift in terminology: earlier works (often European) employed the British spelling “personalisation,” while more recent studies aligned with American usage. More importantly, this shift signals a conceptual evolution from general discussions of personalization toward more technical, AI-driven and multi-dimensional approaches (*personalizations*).

The analysis identifies three main clusters within the research field, each representing a distinct research direction with specific concepts and interests. (*see Appendix 2 online*)

Cluster 1 represents Consumer Decision & Behavioral Intention is the central and largest cluster, with “purchase intention” acting as the main connecting node linking all other clusters. From the network visualization, it can be seen that “purchase intention” has the densest number of links, directly connecting to “consumer behavior,” “sales,” and

“personalization.” This reflects that purchase intention is not only the main outcome variable but also the central concept connecting different research directions. This cluster developed strongly during the period 2023.6-2024.0 (green in the overlay visualization), indicating that this was the period when researchers focused on building and testing theoretical models of the causal relationship between personalization and purchase intention.

Cluster 2 represents Personalization Strategies & Technologies is notable for the emergence of “artificial intelligence” as a key node, particularly during the period 2024.0-2024.4 (yellow in the overlay visualization). The strong link between “personalization,” “personalizations” (plural, possibly referring to different forms of personalization), and “artificial intelligence” shows a research trend shifting from traditional rule-based personalization to AI-based intelligent personalization. From the network diagram, it can be seen that “artificial intelligence” occupies a peripheral position but is strongly linked to “personalization” and “consumer behavior,” reflecting its role as a supporting technology rather than an independent research goal.

Cluster 3 represents Digital Commerce Contexts is relatively smaller and developed earlier (2023.4-2023.8, light purple), focusing on specific application contexts. From the third three-dimensional graph, it can be seen that “social media” and “purchasing” form a separate sub-cluster, reflecting a particular interest in social commerce as a personalization channel. The relative separation of this cluster from the others suggests that research on the digital commerce context tends to focus on the specific characteristics of each platform rather than on overall integration.

Overall, the co-occurrence map illustrates a chronological progression of research themes: from early attention on *personalisation* and *purchase intention* (2023), to the integration of *consumer behavior* and *sales* outcomes (early 2024), and most recently, to the emergence of

AI-enabled personalization as a transformative mechanism in shaping consumer decision-making (mid-2024). This trajectory underscores a growing convergence between consumer psychology and technological innovation in contemporary marketing scholarship.

Bibliographic coupling analysis

The bibliographic coupling map highlights the degree of intellectual relatedness among authors based on shared references (*see Appendix 3 online*). Larger nodes indicate higher citation impact, while the intensity of the color (yellow vs. green) reflects the recency of their contributions. The proximity of nodes suggests stronger bibliographic connections and thematic similarities.

The analysis identifies Lim (2024) and Guo (2023) as the most influential authors in this research domain. Their nodes are not only the largest in size but also exhibit strong density in bright yellow, signifying both centrality and high coupling strength. This indicates that their works are heavily referenced alongside others, making them pivotal contributions shaping the ongoing discourse on personalization and consumer behavior.

On the left cluster, Lim (2024) is closely coupled with earlier contributions such as Odoom (2022) and Panggati (2023), as well as more recent studies like Thakur (2025) and Haneefa (2025). This pattern reflects an evolutionary trajectory, where Lim's work synthesizes earlier foundational studies while simultaneously linking to emerging research directions. Such positioning suggests that Lim (2024) serves as a bridging node, integrating both established frameworks and new developments.

On the right-hand side, Guo (2023) forms another dense bibliographic cluster, coupled with Prodanova (2024) and other authors such as Meiyi (2023). The strength of Guo's position indicates that this contribution plays a central role in consolidating research on personalization and technology-driven consumer insights. Unlike Lim's bridging role,

Guo's cluster reflects a more cohesive thematic focus, where subsequent authors build directly upon Guo's framework.

Interestingly, the relative positioning of Prodanova (2024) suggests a transitional role. While smaller in node size compared to Lim and Guo, Prodanova's work connects the two clusters, implying a cross-fertilization of ideas between them. This demonstrates that certain contributions act as intellectual connectors, expanding the scope of influence across sub-streams of the literature.

Overall, the bibliographic coupling visualization reveals two major intellectual hubs: one anchored by Lim (2024) with a forward-looking integration of recent works, and the other by Guo (2023) consolidating more cohesive thematic discussions. The presence of transitional authors such as Prodanova (2024) illustrates the dynamic interplay between foundational and emerging studies, highlighting the field's ongoing diversification and conceptual development.

Comparative Analysis: Overlay Visualization and Bibliographic Coupling

The integration of overlay visualization and bibliographic coupling provides a more comprehensive understanding of the intellectual structure and thematic evolution of the field. While the overlay visualization captures what topics are emerging and when, the bibliographic coupling reveals who the key authors are and how their works are interlinked.

The overlay visualization indicated that research between 2022 and 2025 is marked by accelerating attention to personalization quality, AI-driven marketing, and consumer engagement. Notably, the works of Odoom (2022) and Guo (2023) appeared as early anchors, shaping the conceptual foundation. These were followed by Lim (2024) and more recent contributions such as Thakur (2025) and Haneefa (2025), which push the discourse toward more nuanced frameworks of personalization and customer experience.

The bibliographic coupling map reinforces this trajectory by positioning Lim (2024) and Guo (2023) as the central intellectual hubs. Lim's work demonstrates a bridging role, coupling earlier studies (e.g., Odoom, 2022) with very recent works (e.g., Thakur, 2025), suggesting that Lim integrates established theories with forward-looking perspectives. This aligns with the overlay visualization, where Lim emerges in the latest research clusters, highlighting its role as a synthesis point for emerging themes.

In contrast, Guo (2023) forms a dense bibliographic cluster with Prodanova (2024) and related authors, reinforcing a cohesive thematic stream. The overlay visualization similarly shows Guo as a central node in 2023, reflecting a pivotal role in consolidating discourse around consumer engagement and AI-enabled personalization. This indicates that Guo's work is not only widely cited but also thematically central to ongoing debates.

The role of Prodanova (2024) is particularly noteworthy. In the bibliographic coupling map, Prodanova functions as a transitional connector between the two dominant clusters (Lim-centered and Guo-centered). In the overlay visualization, Prodanova also appears in the intermediate timeline (2024), suggesting an important mediating role between foundational contributions and more recent expansions.

The analysis from VOSviewer identifies the most influential researchers in the areas of personalization and purchase intention. Appendix 4 (*see Appendix 4 online*) presents the top authors based on citations and Total Link Strength (TLS), reflecting both academic impact and the level of collaboration within the research network.

As shown in the density visualization, Lim (2024) and Guo (2023) emerge as two major research centers with the darkest yellow areas, indicating not only high citation counts but also strong widespread influence within the research community. Lim focuses on pioneering research on AI-based personalization and the role of consumer trust, while Guo makes significant

contributions to understanding behavioral intentions in the context of e-commerce. The emergence of authors such as Haneefa and Thakur with publication years of 2025 highlights the emerging research trend of AI chatbots and the privacy paradox in personalization.

Taken together, the two analyses highlight a field that is both convergent like Guo and Lim and divergent like Prodanova.

5. Conclusions and policy implications

This study highlights the rapid evolution of research on AI-driven personalization. The bibliometric mapping reveals that personalization quality, consumer engagement, and purchase intention have become central constructs, with emerging attention directed at mediating and moderating mechanisms, as well as cross-cultural variations. Influential contributions by scholars such as Guo (2023), Lim (2024), and Prodanova (2024) underscore both the consolidation of core ideas and the diversification of perspectives in digital marketing.

From a policy and managerial standpoint, the findings carry several important implications. *First*, the prominence of personalization quality as a driver of engagement and purchase intention suggests that policymakers should encourage the ethical use of AI to enhance consumer experiences while safeguarding privacy. *Second*, firms and policymakers alike should recognize cultural differences in the perception of personalization.

Finally, the emergence of mediating and moderating constructs such as trust, cultural context, and ethical concerns indicates that personalization cannot be viewed solely as a technological solution. Both managers and regulators must address the broader socio-psychological factors that shape consumer responses to personalization.

Research gaps

Despite the growing body of work on AI-driven personalization, several important

research gaps remain. *First*, there is limited integration of ethical frameworks with technological personalization models. Recent scholarship has highlighted the urgency of incorporating responsible AI frameworks into marketing practices (Jobin et al., 2019).

Second, consumers in emerging markets often exhibit different levels of digital readiness, regulatory exposure, and cultural norms, all of which shape their responses to AI-driven personalization (Thakur, 2025; Haneefa, 2025). Expanding research into Asia, Africa, and Latin America would enrich the literature and provide a more comprehensive understanding of personalization in diverse socio-cultural environments (Dwivedi et al., 2021).

Third, personalization has largely been examined through static snapshots, often measured at a single point in time. Longitudinal studies are therefore needed to capture the effects of personalization on outcomes such as loyalty, switching behavior, and the erosion or recovery of trust over time (Bleier et al., 2023).

Fourth, personalization research continues to be dominated by marketing and consumer psychology perspectives, with limited interdisciplinary engagement in consumer-centric theories. Future research should therefore adopt interdisciplinary frameworks that combine marketing, computer science, information systems, and ethics to personalization (Kaplan & Haenlein, 2020; Davenport et al., 2020).

Fifth, despite the prominence of personalization quality as a mediating construct, there is little consensus on how it should be measured. Current approaches tend to emphasize perceived relevance or satisfaction, but neglect other dimensions such as accuracy, fairness, transparency, and cultural fit (Arora et al., 2008; Prodanova, 2024).

Finally, the growing prominence of privacy and ethical concerns in recent studies highlights the need for deeper examination of governance

and regulatory issues, (General Data Protection Regulation (GDPR) or the European Union's AI Act (EU AI Act) (European Commission, 2021, 2024; Veale & Borgesius, 2021). This gap underscores the need for studies between current policy frameworks, consumer confidence, and business competitiveness.

Research limitations

While this study provides valuable insights into the intellectual structure and thematic evolution of AI-driven personalization research, several limitations should be acknowledged. *First*, the bibliometric analysis is based on a specific dataset derived from selected databases and a defined time window (2022-2025). *Second*, bibliometric techniques such as keyword co-occurrence and bibliographic coupling reveal structural relationships but do not directly assess the quality or theoretical depth of individual studies. *Third*, the interpretation of clusters and temporal patterns remains subject to researcher judgment. *Finally*, the rapid pace of development in AI and digital marketing suggests that the field is highly dynamic, and conclusions drawn from this analysis may evolve quickly as new technologies, contexts, and regulatory frameworks emerge.

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Data Availability

Data available in appendices and upon request.

AI Usage Statement

During manuscript preparation, the authors acknowledge the use of Artificial Intelligence (AI) tools (NotebookLM of Google) for language support in refining the spelling and grammatical structure of the manuscript. Authors reviewed, edited and took full responsibility for the final content.

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