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From AI to Experience How Personalization Shapes Online Shopping Journeys in E-Marketplaces

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Abstract

The rapid convergence of e-commerce platforms and social media has transformed the way Indonesian consumers experience online shopping. This study, titled "From AI to Experience: How Personalization Shapes Online Shopping Journeys in E-Marketplaces in Indonesia", aims to analyze the role of artificial intelligence (AI)–driven personalization in influencing consumer behavior, satisfaction, and loyalty in digital marketplaces. Using the recent development of social commerce integration into e-commerce, particularly the merger of TikTok and Tokopedia, as a contextual backdrop, the research highlights how recommendation algorithms, chatbots, and personalized content contribute to consumer decision-making processes. A quantitative method with Structural Equation Modeling (SEM) is employed to examine the relationships between AI service quality, personalization, customer experience, and purchase intention. The findings are expected to demonstrate that personalization not only improves efficiency and engagement in online shopping journeys but also fosters trust and long-term consumer loyalty. This study contributes to the literature on AI-enabled retail in emerging markets, positioning Indonesia as a key case for understanding the future of e-commerce in Southeast Asia.

Keywords

Artificial Intelligence, Personalization, E-commerce, Customer Experience, Purchase Intention

Introduction

Digital technologies have reshaped Indonesia's commerce landscape, with e-commerce platforms enabling always-on access to goods and services and accelerating the shift from offline to online purchasing (Jain et al., 2021). The ecosystem has scaled on the back of rising internet adoption and increasingly entrenched digital habits; internet penetration reached about 79.5% in early 2024, expanding the addressable base for AI-driven, data-enabled personalization (APJII, 2024). The domestic user base also grew rapidly from roughly 38 million in 2020 to an estimated 65 million in 2024, underscoring sustained adoption and market depth (PDSI Kemendag, 2024).

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At the same time, discovery and conversion pathways have evolved with the prominence of short-form video and live commerce, as major platform integrations in January 2024 normalized socially embedded, real-time product discovery and evaluation, shifting journeys from search → click → buy to watch → engage → buy.

Against this backdrop, personalization has become a central design lever of the shopping journey. AI-enabled recommendation and curation systems narrow search scope, reduce decision time, and surface contextually relevant options that raise perceived value and satisfaction (He et al., 2024; Zhao et al., 2025). In live streams, a host's social presence adds persuasive, human-like cues that shape attention, trust, and purchase behavior (Chen, 2023; Zou & Fu, 2024). Yet acceptance hinges on governance and clarity: transparent recommender logic and visible consent practices are increasingly important under data-protection expectations and influence whether personalization is perceived as helpful or intrusive (Li et al., 2024; Lin et al., 2024). This study therefore examines how perceived personalization, host social presence, and system transparency jointly affect consumer experience and purchase intention in Indonesia's marketplace context.

Methodology

General information on methodology

This study adopts a quantitative design using path analysis within Structural Equation Modeling (SEM). The specified path model is recursive, with all arrows pointing in a single direction and no reciprocal causal loops. AI is modeled as the exogenous construct, Perceived Personalization as the mediating construct, and Customer Experience as the endogenous outcome. The target population comprises active Tokopedia users in Indonesia who have purchased on the platform and been exposed to AI-based features (e.g., product recommendations or chatbots).

Because the population size is unknown, purposive sampling was applied with two criteria: (1) Tokopedia users who purchased within the last three months, and (2) users who interacted with Tokopedia's AI features. The minimum sample size was determined using Cochran's formula with a 10% margin of error, yielding at least 100 respondents. Data were collected cross-sectionally via an online questionnaire administered through a web survey form, accompanied by a cover letter explaining the study purpose and confidentiality. All items were measured on five-point Likert scales. Measurement items were adapted from recent literature: AI from Lin et al. (2024), Perceived Personalization from He et al. (2024), and Customer Experience from Barbu et al. (2021).

Data analysis was conducted in SmartPLS 3.0 (SmartPLS GmbH) following the standard two-stage procedure. The outer model was evaluated to establish indicator reliability and construct validity, and the inner model was assessed to test hypotheses using the PLS Algorithm and Bootstrapping (two-tailed tests; T- and P-values reported). Evaluation thresholds were outer loadings ≥ 0.70, Cronbach's alpha ≥ 0.70, composite reliability ≥ 0.70, and AVE ≥ 0.50. In this study, all constructs met these thresholds (all loadings > 0.70; Cronbach's alpha: X=0.828, Y=0.860, Z=0.720; composite reliability: X=0.885, Y=0.899, Z=0.836; AVE: X=0.659, Y=0.642, Z=0.631). No results or further discussion are presented in this section.

Results and Discussion

A total of n = 100 valid questionnaires from active Tokopedia users who had purchased and interacted with AI features (chatbot/recommendations) were analyzed using PLS-SEM (SmartPLS 3). The measurement model met conventional adequacy: convergent validity was supported as most outer loadings exceeded 0.50 and each construct's AVE was at or above the 0.50 threshold (or close to it and backed by strong reliability). Internal consistency was acceptable with composite reliability (CR) and Cronbach's alpha in the good range across constructs. Discriminant validity was established by the Fornell–Larcker criterion, with the square root of AVE for each construct exceeding its inter-construct correlations.

The structural model showed moderate explanatory power, with $R^2 = 0.413$ for Personalization (Z) and $R^2 = 0.431$ for Customer Experience (Y). Path estimates indicated that AI (X) positively and significantly affected Personalization ($\beta = 0.642$), and Personalization positively and significantly affected Customer Experience ($\beta = 0.316$). The direct path from AI to Customer Experience was also positive and significant ($\beta = 0.407$). The indirect effect of AI on Customer Experience via Personalization was $\beta = 0.203$, indicating partial mediation. Effect sizes (f^2) on the main paths were in the small-to-moderate range and consistent with the reported coefficients. Predictive relevance was supported ($Q^2 > 0$), and overall model fit was acceptable for PLS-SEM (SRMR ≈ 0.08).

These results suggest that improvements in AI enhance Personalization, which in turn elevates Customer Experience. The presence of a significant direct path alongside a significant indirect path indicates partial mediation, highlighting personalization as an operative mechanism rather than the sole conduit. The moderate R^2 values imply meaningful explanatory power while leaving room for additional factors beyond the present model. Practically, strengthening algorithmic service quality and making personalization perceptible to users can improve their experience; ensuring clarity and responsiveness in AI features should therefore be prioritized to sustain trust and value in the shopping journey.

Conclusion

This study demonstrates that AI significantly enhances Perceived Personalization and directly improves Customer Experience, with a concurrent indirect effect through personalization indicating partial mediation; model explanatory power is moderate, supporting meaningful but not exhaustive coverage of the determinants of experience. These findings establish the AI → Personalization → Experience pathway as a key mechanism in Indonesia's marketplace context and underscore the practical value of improving recommendation accuracy, system reliability, and transparent "why this item" explanations. The work contributes an integrated, empirically tested model tailored to video-first, live-commerce environments, clarifying how algorithmic AI translates into experiential value and offering actionable guidance for platforms and merchants seeking to strengthen trust, satisfaction, and continued use.

References

Cavdar Aksoy, N., Tumer Kabadayi, E., Yilmaz, C., & Kocak Alan, A. (2021). A typology of personalisation practices in marketing in the digital age. Journal of Marketing Management, 37(11–12), 1091–1122. https://doi.org/10.1080/0267257X.2020.1866647

Chen, L. R., Chen, F. S., & Chen, D. F. (2023). Effect of social presence toward livestream e-commerce on consumers' purchase intention. *Sustainability*, *15*(4), 3571. https://doi.org/10.3390/su15043571

Godovykh, M., & Tasci, A. D. A. (2020). Customer experience in tourism: A review of definitions, components, and measurements. *Tourism Management Perspectives*, *35*(May), 100694. https://doi.org/10.1016/j.tmp.2020.100694

He, X., Liu, Q., & Jung, S. (2024). The impact of recommendation system on user satisfaction: A moderated mediation approach. *Journal of Theoretical and Applied Electronic Commerce Research*, *19*(1), 448-466. https://doi.org/10.3390/jtaer19010024

Huang, M. H., & Rust, R. T. (2018). Artificial Intelligence in Service. Journal of Service Research, 21(2), 155–172. https://doi.org/10.1177/1094670517752459

Jain, V., Malviya, B. I. N. D. O. O., & Arya, S. A. T. Y. E. N. D. R. A. (2021). An overview of electronic commerce (e-Commerce). *Journal of Contemporary Issues in Business and Government*, *27*(3), 666. https://www.researchgate.net/publication/351775073

Keiningham, et al. (2017). The Interplay of Customer Experience and Commitment Managing. Journal of Services Marketing, 9(3), 1–72. https://doi.org/10.1108/JSM-09-2016-0337

Li, Y., Deng, X., Hu, X., & Liu, J. (2024). The effects of e-commerce recommendation system transparency on consumer trust: Exploring parallel multiple mediators and a moderator. *Journal of Theoretical and Applied Electronic Commerce Research*, *19*(4), 2630-2649. https://doi.org/10.3390/jtaer19040126

Lin, X., Wang, X., Shao, B., & Taylor, J. (2024). How chatbots augment human intelligence in customer services: A mixed-methods study. *Journal of management information systems*, *41*(4), 1016-1041. https://doi.org/10.1080/07421222.2024.2415773

Poa, T. K. E., Alfakihuddin, M. L. B., & Pasaribu, P. (2024, October). The Role of AI-Generated Personalization in Influencing Tokopedia's Consumer Experience. In *International Scientific-Practical Conference* (pp. 500-514). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-88052-0_40

Santy dan Iffan. (2023). The Effect of Artificial Intelligence and Gamification on Online Purchase Intention Mediated by Customer Experience: Study on Indonesian Marketplace Users. *Management Scientific Journal*, 1–23. http://dx.doi.org/10.22441/jurnal_mix.2023.v13i1.015

Zhao, L., Fu, B., & Bai, S. (2025). Understanding the Influence of Personalized Recommendation on Purchase Intentions from a Self-Determination Perspective: Contingent upon Product Categories. *Journal of Theoretical and Applied Electronic Commerce Research*, *20*(1), 32. https://doi.org/10.3390/jtaer20010032

Zou, J., & Fu, X. (2024). Understanding the purchase intention in live streaming from the perspective of social image. *Humanities and Social Sciences Communications*, *11*(1), 1-14. https://doi.org/10.1057/s41599-024-04054-6