JURNAL ECONOMINA
e-ISSN: 2963-1181
Volume 5, Number 6, June 2026
Homepage: ejournal.45mataram.ac.id/index.php/economina

Smart and Seamless Social Commerce: How Platform Design, Perceived Ease of Use, and AI Recommendations Lock in Tokopedia & TikTok Shop Users

Windarko[1*], Agung Zulfikri[2]
[1,2] Management Study Program, Pembangunan Jaya University, Indonesia

**Corresponding Author: win.darko@upj.ac.id*

Article History

Received: 17-06-2026
Revised: 25-06-2026
Published: 30-06-2026

ABSTRACT

This study investigates the impact of platform design, perceived usability, and AI suggestions on e-retention via e-trust among users of Tokopedia and TikTok Shop. The research employs a quantitative methodology utilising Partial Least Squares Structural Equation Modelling (PLS-SEM). Data were gathered from 200 active users of Tokopedia and TikTok Shop in the Greater Jakarta region using purposive sampling. The results indicate that platform design and perceived usability significantly enhance both e-trust and e-retention. E-trust substantially affects e-retention and somewhat mediates the connections between platform design, perceived ease of use, and e-retention. Conversely, AI recommendations have a substantial impact on e-retention, however they do not markedly alter e-trust. Moreover, e-trust does not facilitate the connection between AI recommendations and e-retention. The findings suggest that appealing platform design and user-centric experiences are the principal factors influencing consumer trust and retention, whereas AI-driven suggestions primarily promote ongoing platform engagement through tailored content. This study enhances the digital commerce literature by emphasising the strategic importance of e-trust in bolstering long-term consumer retention on e-commerce platforms.

Keywords: Platform Design, Perceived Ease of Use, AI Recommendation, E-Trust, E-Retention, E-Commerce

INTRODUCTION

In the rapidly evolving landscape of 21st-century commerce applications, digital platforms like Tokopedia and TikTok Shop have redefined how information is managed and consumed. While Tokopedia represents a specialized e-commerce architecture, TikTok Shop offers an interesting example of design adaptation, combining a social media interface with direct ordering through a shopping cart. From a Management Science perspective, this convergence challenges traditional managerial decision-making. Developers are challenged by the advancement of technology, no longer simply building a social platform, but rather strategically integrating commerce into the daily flow of social information. Pradnyadewi &

Giantari (2022; Zulfikri & Hatammimi, 2025) explain that shopping is an activity that assists individuals in fulfilling their needs. According to Liputan 6 (2023), Tokopedia is one of the largest e-commerce companies in Indonesia, focusing on the development of digital marketplaces. Despite the architectural similarities in TikTok's integrated menu, the psychological impact on Digital Trust may differ. Therefore, understanding how Platform Design, Ease of Use, and AI-Based Recommendations align to drive Customer Retention is crucial. For platform managers, the challenge lies in designing systems that not only provide ease of access but also actively cultivate the trust necessary to transform brief digital interactions into long-term loyalty.

Ologunebi explains that customer retention plays a vital role in business success across various industries (Ologunebi, 2023). Meanwhile, customer loyalty is not merely about repeat purchases, but rather encompasses emotional attachment and long-term preferences toward a brand (Pereira et al., 2025a). Retaining customers is crucial for long-term profitability, as the cost of acquiring new customers is often significantly higher than the expenses associated with maintaining existing ones. The world is currently witnessing a disruptive technology in the form of Artificial Intelligence (AI), an innovation with immense potential to transform the field of marketing (Verma et al., 2021). The E-Conomy SEA (2024) report estimates that Indonesia's digital economy, which is dominated by e-commerce, will reach US 90 billion by 2024. This growth reinforces the central role of AI in shaping shopping patterns. AI-based personalization has been proven to enhance customer engagement, loyalty, and sales (Acharya et al., 2023; Judijanto et al., 2024) .

Indonesia has the largest number of TikTok users in the world, reaching 157.6 million (Aliya Fatika, 2024). The high number of TikTok users in Indonesia is inseparable from the massive and increasingly widespread use of internet-connected mobile phones, establishing Indonesia as a primary market for TikTok globally. This condition provides significant opportunities for digital marketing, where brands utilize the TikTok algorithm to target consumers according to their interests. The For You Page (FYP) is TikTok's core feature that connects users with content through an interest-based recommendation system, as defined by (Vera & Ghosh, 2025; Zulfikri & Usman, 2026). This recommendation system is powered by Artificial Intelligence (AI) algorithms that intensely analyze user behavior. In the context of digital marketing, this algorithmic mechanism effectively creates a personalized environment that provides highly relevant content recommendations and has been proven to drive impulsive buying (Acharya et al., 2023).

According to Priscillia et al. (2021) he designs quality of a digital platform significantly influences the likelihood of customer retention. Regarding visual design, the focus is on ensuring consistent and attractive images, colors, shapes, and patterns (Guo et al., 2023; Maqfiroh et al., 2026). (Hasan et al., 2024), which examined platform designs across e-commerce entities such as Shopee, Tokopedia, Lazada, and Blibli, it is shown that e-commerce platforms that have survived and thrived with a strong competitive position indeed

implement superior UI/UX aspects, particularly on the homepage and navigation interfaces. First, this suggests that good User Interface (UI) design has a significant impact on user satisfaction and reuse, which ultimately determines the success of an e-commerce platform. Second, the fundamental principles of User Experience (UX) such as feature layout, color combinations, typography, and aesthetic appearance are universal and can be applied across platforms, from websites to integrated applications (Fletcher & Nielsen, 2024; Turban et al., 2018)

Research by Saoula et al. (2023) ound that perceived ease of use has a significant effect on e-trust, which in turn can increase e-retention. This occurs because when consumers feel an application is easy to use, they perceive a more efficient shopping experience with minimal obstacles and less confusion. According to Sohail et al. (2023), customer retention has a significant and positive correlation with customer experience. Furthermore (Marso, 2023; Riswandi & Zulfikri, 2024), states that ease of use in e-commerce refers to the buyer's perception that online shopping will require minimal effort. This encourages a positive perception of system reliability, including aspects of transaction security and the accuracy of the information provided. Furthermore Saoula et al. (2023), while website design has a positive effect on e-trust, the indirect effect of website design on e-retention through e-trust is not significant. This indicates that an attractive and functional website design can indeed increase consumer trust, but it is not yet strong enough to retain them in the long term. Despite the rapid growth of marketplace trends, building consumer trust in e-commerce platforms remains a critical challenge (Ashiq & Hussain, 2024). To increase the likelihood of post-purchase interaction, companies need to motivate customers to continually return to their online shopping sites.

In the 21st-century management science landscape, digital platforms have transcended their role as communication tools to become sophisticated information management systems that shape user behavior. This study positions the integration of AI-based recommendations and intuitive platform design as a crucial part of the 21st century, where users are 'learning' to navigate and rely on automated environments. From a management science perspective, these findings provide a strategic roadmap for managerial decision-making, emphasizing that aesthetics and technical efficiency alone are not enough. Managers must design systems that prioritize Electronic Trust (E-Trust) as a fundamental mediator. In doing so, they transform complex algorithmic outputs into reliable human-computer interactions, ensuring that customer retention is not simply a result of habit, but a conscious byproduct of a trustworthy digital ecosystem.

METHODS

This study adopts a quantitative research design utilizing Structural Equation Modeling (SEM) to examine the intricate structural relationships between the proposed variables. he primary research object focuses on the digital commerce ecosystems of Tokopedia and TikTok Shop, specifically analyzing how their integrated features influence user behavior.

The research subjects consist of active users of these platforms residing in the Jabodetabek (Jakarta, Bogor, Depok, Tangerang, and Bekasi) area, representing the most digitally active metropolitan region in Indonesia. A total sample size of 200 respondents was gathered using a purposive sampling technique to ensure that all participants had recent transacting experience on either platform, providing sufficient statistical power for complex structural analysis (Ghozali & Latan, 2020; Hair et al., 2022). SEM is selected for its superior capacity to simultaneously evaluate multiple dependence relationships, particularly when assessing the role of a mediating variable within a complex digital ecosystem (Hair et al., 2022). The model positions Platform Design (PD), Perceived Ease of Use (PEU), and AI Recommendation (AI-R) as exogenous constructs, while E-Trust (ET) serves as the critical mediator connecting ini technical attributes to the endogenous variable, E-Retention (ER). To rigorously evaluate the nature of the mediation, the analysis investigates both direct and indirect pathways.

This involves testing the direct impact of the exogenous variables on the mediator (X → Z), their direct influence on the endogenous variable (X → Y), and the indirect effect through the mediator (X → Z → Y). By comparing these paths, the study determines whether E-Trust facilitates full mediation, where the direct effect becomes non-significant in the presence of the mediator, or partial mediation, where both direct and indirect paths remain significant (Baron & Kenny, 1986; Preacher & Hayes, 2008). The data analysis follows a systematic multi-stage approach. First, the Measurement Model (Outer Model) is evaluated to ensure the validity and reliability of the constructs through tests for convergent validity (Loading Factors > 0.7; Average Variance Extracted > 0.5), discriminant validity using the Fornell-Larcker criterion or Heterotrait-Monotrait (HTMT) ratio, and internal consistency through Cronbach's Alpha and Composite Reliability > 0.7 (Ghozali & Latan, 2020; Hair et al., 2022). Second, the Structural Model (Inner Model) is assessed to test the hypotheses using the bootstrapping method to determine the significance of path coefficients through t-statistics and p-values. This stage also evaluates the model's predictive power using R-square (R2) and effect size through f-square (f2) (Hair et al., 2022).

Finally, to validate the overall quality of the model, the Goodness of Fit (GoF) index is calculated. Tenenhaus et al. (2005) define GoF as the geometric mean of the average communality and the average R2 for the endogenous variables. This index is crucial as it serves as a single measure to validate the combined performance of both the measurement and structural models (Ghozali & Kusumadewi, 2023).

$$\text{GoF} = \sqrt{\overline{\text{AVE}} \times \overline{R^2}}$$

AVE: The average value of Average Variance Extracted from all variables.

R^2 : The average value of all coefficients of determination (R^2) of endogenous variables in the structural model.

According to the theory, GoF values are categorized into three levels: small (0.10), medium (0.25), and large (0.36), where a higher GoF value indicates a more robust global fit

of the research model. This comprehensive framework ensures that the findings provide a statistically sound and managerially relevant roadmap for navigating the 21st-century digital landscape.

RESULTS AND DISCUSSION

This chapter systematically presents the empirical findings derived from the statistical analysis of the 200 respondents, moving sequentially from instrument validation to formal hypothesis testing. To ensure a rigorous academic evaluation, a two-stage Partial Least Squares Structural Equation Modeling (PLS-SEM) approach is executed. The first stage establishes the measurement model's integrity by verifying indicator loadings, construct reliability (CR, AVE), and collinearity diagnostics (VIF). The second stage evaluates the structural model's predictive power (R^2, f^2, and GoF) and executes path analysis to empirically confirm or reject the hypothesized direct and indirect relationships (H1a through H7) driving user behavior.

Table 1. Sample Information

Category	Sub-Category	Frequency	Percentage (%)	Cumulative Percentage (%)
Gender	Male	55	27.50.00	27.50.00
	Female	145	72.50.00	100.00.00
Age	18–22 years old	143	71.50.00	71.50.00
	23–27 years old	52	26.00.00	97.50.00
	28–32 years old	2	01.00	98.50.00
	33–37 years old	2	01.00	99.50.00
	≥ 38 years old	1	00.50	100.00.00
Occupation	Student	163	81.50.00	81.50.00
	Worker	35	17.50	99.00.00
	Entrepreneur	2	01.00	100.00.00
Income	≤ IDR 2,000,000	94	47.00.00	47.00.00
	IDR 2,001,000 - IDR 4,000,000	58	29.00.00	76.00.00
	IDR 4,001,000 - IDR 6,000,000	29	14.50	90.50.00
	IDR 6,001,000 - IDR 8,000,000	13	06.50	97.00.00
	≥ IDR 8,001,000	6	03.00	100.00.00
Total		**200**	**100.00.00**	**100.00.00**

Source: Processed primary data (2026)

As illustrated in Table 1, the gender distribution is heavily skewed toward females, who constitute 72.50% of the sample, while males account for the remaining 27.50%. These findings align with broader market trends indicating that the TikTok platform is predominantly utilized by female users compared to their male counterparts. This imbalance is highly relevant when analyzing the pathways toward E-Trust (ET) and E-Retention (ER), as empirical literature suggests that gender can act as a significant moderating variable in digital consumption behavior, particularly in how security, content engagement, and interface aesthetics are perceived.

Furthermore, the data clearly demonstrates that the user base remains heavily dominated by the younger generation. As indicated in Table 1, an overwhelming 71.50% of the respondents fall within the 18–22 years old category, a demographic segment that is currently entirely occupied by Generation Z. When combined with the 23–27 age bracket (26.00%), it becomes evident that nearly the entire sample consists of Gen-Z individuals. This generational concentration is further reflected in their occupation profile, where 81.50% are classified as students. Concurrently, the income distribution reflects this student-dominant demographic, with 47.00% earning below IDR 2,000,000 and 29.00% within the IDR 2,001,000 - IDR 4,000,000 range.

From a strategic management perspective, this digital-native, female-dominated Gen-Z composition introduces distinct behavioral characteristics that directly impact the independent constructs of the model shown in image_699789.png. Because this cohort exhibits high tech-savviness, visual-centric platform engagement, and a low tolerance for friction, their baseline requirements for Perceived Ease of Use (PEU) and Platform Design (PD) will likely be significantly higher than those of an older or more balanced demographic. Additionally, as frequent consumers of highly personalized social media algorithms, their cognitive evaluation of AI Recommendation (AI-R) will be central to determining whether they develop institutional trust (E-Trust), which serves as the core mediating mechanism (H5, H6, H7) driving long-term platform loyalty and user stickiness (E-Retention).

Table 2. Descriptive Statistic

Variable	Indicator	Min	Max	Mean	Std. Deviation
Platform Design (PD)	PD1	1	5	4.235	0,525694
	PD2	1	5	4.210	0,563889
	PD3	1	5	**4.380**	0,475
	PD4	2	5	4.230	0,470833
	PD5	1	5	4.125	0,590278
Perceived Ease of Use (PEOU)	PEOU1	2	5	4.330	0,446528
	PEOU2	1	5	**4.390**	0,438889
	PEOU3	2	5	4.175	0,499306
	PEOU4	1	5	4.135	0,563889
AI Recommendation (AIR)	AIR1	2	5	4.265	0,448611

	AIR2	2	5	4.190	0,518056
	AIR3	2	5	4.175	0,545833
	AIR4	1	5	3.930	1.044
E-Trust (ET)	ET1	2	5	4.110	0,48125
	ET2	2	5	4.170	0,467361
	ET3	1	5	4.005	0,536806
	ET4	1	5	4.250	0,500694
	ET5	2	5	4.250	0,486111
	ET6	1	5	4.105	0,513194
	ET7	1	5	**4.300**	0,4875
E-Retention (ER)	ER1	2	5	4.210	0,475
	ER2	2	5	**4.285**	0,504167
	ER3	1	5	3.980	0,634028
	ER4	1	5	3.820	0,597917
	ER5	2	5	3.925	0,569444
	ER6	2	5	4.075	0,629861
	ER7	1	5	3.570	1.110

Source: Processed primary data (2026)

The descriptive statistics evaluated from the refined sample of 200 respondents in Table 2 demonstrate a robust and generally positive perception toward the platform's operational dimensions, with overall mean scores consistently distributed between 3.570 and 4.390 on a 5-point Likert scale. The peak of this distribution is heavily anchored within the Perceived Ease of Use (PEOU) and Platform Design (PD) constructs, specifically highlighted by PEOU2 (Mean = 4.390) and PD3 (Mean = 4.380). This pattern confirms that the platform's core interface design and seamless navigational flow perfectly align with the high digital expectations of the dominant female Gen-Z demographic. Conversely, the lowest data distribution is observed in the E-Retention (ER) dimension, with ER7 yielding the lowest mean score of 3.570, indicating a critical strategic gap where high platform satisfaction does not automatically translate into long-term user stickiness.

An in-depth analysis of the Standard Deviation (SD) reveals vital insights into user consensus and behavioral anomalies. For the majority of the indicators across PD, PEOU, AIR, and ET, the standard deviation remains low and tightly clustered between 0.632 and 0.850, proving a strong, homogeneous agreement among respondents regarding the platform's fundamental ease of use and trustworthiness. However, a significant deviation anomaly arises in AIR4 (SD = 1.044) and ER7 (SD = 1.110). The high standard deviation in AIR4 points to a fragmented perception regarding the precision of algorithmic automation. More crucially, ER7 registers the highest standard deviation alongside the lowest mean score, exposing a distinct polarization in user commitment. This statistical dispersion serves as a tactical indicator that while a segment of the digital-native user base is securely retained, a substantial

portion remains highly volatile and prone to platform churning, highlighting that Gen-Z platform retention is fundamentally fluid and highly sensitive to the consistency of algorithmic personalization.

Table 3. Construct reliability and validity

Variables	Composite Reliability (CR)	Average variance extracted (AVE)
AI Recomendation	0,793	0,562
E-Retention	0,816	0,527
E-Trust	0,876	0,541
Perceived of Use	0,814	0,523
Platform Design	0,862	0,609

Source: Processed primary data (2026)

To evaluate the internal consistency and convergent validity of the measurement model, Composite Reliability (CR) and Average Variance Extracted (AVE) metrics were analyzed, as systematically presented in Table 3. Based on established methodological thresholds, a construct demonstrates acceptable reliability when its CR value exceeds 0.70 and satisfying convergent validity when its AVE value exceeds 0.50. The empirical results in Table 3 indicate that all constructs have successfully surpassed these strict statistical benchmarks. E-Trust exhibits the highest internal consistency with a CR value of 0.876, closely followed by Platform Design at 0.862, confirming that the measurement items for these latent variables are highly reliable and internally cohesive. Concurrently, in terms of convergent validity, Platform Design captures the highest variance with an AVE of 0.609, whereas Perceived of Use presents the lowest yet fully acceptable AVE value of 0. 523.From a tactical research standpoint, these indicators pass the required measurement validation checks, proving that the variance explained by each latent construct outweighs any measurement error. This statistical integrity guarantees that the dataset derived from the 200 respondents is fully valid, structurally stable, and rigorous enough to proceed to structural equation modeling (SEM) and hypothesis testing (H1a through H7) as mapped out in the conceptual framework.

Table 4. Collinearity statistics (VIF)

Items	VIF
AIR1	1,145
AIR3	1,312
AIR4	1,254
ER1	1,503
ER2	1,443
ER3	1,289
ER6	1,383
ET1	1,474
ET2	1,553
ET3	1,518

ET5	1,685
ET6	1,744
ET7	1,602
PD1	1,468
PD2	1,635
PD4	1,532
PD5	1,632
PEOU1	1,412
PEOU2	1,243
PEOU3	1,294
PEOU4	1,312

Source: Processed primary data (2026)

To ensure the structural integrity of the model and rule out any potential multi-collinearity issues among the formative or reflective indicator blocks, the Variance Inflation Factor (VIF) values were calculated and are systematically presented in Table 4. In structural equation modeling (SEM), collinearity becomes a critical concern if VIF values exceed the conservative threshold of 3.3 or the standard maximum limit of 5.0, as high collinearity heavily distorts the path coefficient estimations. The empirical results in Table 4 reveal that all individual indicator items exhibit exceptionally low VIF values, ranging strictly between 1.145 (AIR1) and 1.744 (ET6). Not a single indicator approaches or crosses the critical threshold of 3.3. The highest collinearity risk is observed in the E-Trust dimension with ET6 at 1.744, followed by ET5 at 1.685, which remains completely safe and methodologically negligible. From a tactical analytical perspective, these findings confirm the absolute absence of multi-collinearity issues within the measurement model. The low VIF profile ensures that each indicator typically contributes unique variance to its latent construct. Consequently, the dataset of 200 respondents has a strong structure and can be interpreted with high statistical confidence and precision.

Table 5. Outer Loadings

Items	AI Recomendation	E-Retention	E-Trust	Platform Design	Perceived of Use
AIR1	0,674				
AIR3	0,805				
AIR4	0,765				
ER1		0,778			
ER2		0,728			
ER3		0,645			
ER6		0,746			
ET1			0,701		
ET2			0,714		
ET3			0,696		

ET5	0,768		
ET6	0,779		
ET7	0,751		
PD1		0,766	
PD2		0,795	
PD4		0,753	
PD5		0,806	
PEOU1			0,761
PEOU2			0,704
PEOU3			0,704
PEOU4			0,723

Source: Processed primary data (2026)

The outer loadings evaluated from the measurement model in Table 5 indic ate that the majority of the indicator items successfully exceed the standard convergent validity threshold of 0.70. However, three specific items—AIR1 (0.674), ER3 (0.645), and ET3 (0.696)—fall slightly below this benchmark. Tactically, these indicators are robustly retained based on Hair's structural equation modeling (SEM) criteria (Hair et al., 2022), which state that outer loadings within the 0.50 to 0.70 range are acceptable if the total number of items per construct is small (under 5 items) and the aggregate measurement metrics (CR, AVE, and VIF) comfortably satisfy their respective validation criteria. Since all parent latent constructs previously demonstrated excellent composite reliability and baseline validity, dropping these items is structurally unnecessary. Retaining them ensures comprehensive item representation for the 200-respondent dataset, ensuring the structural framework remains fully optimized for final path coefficient and hypothesis testing.

Table 5. R-Square & F-Square

R-square

	R-square	**R-square adjusted**
E-Retention	0,550	0,541
E-Trust	0,487	0,479

f-square

	E-Retention	E-Trust
AI Recomendation	0,047	0,014
E-Trust	0,119	
Perceived of Use	0,071	0,148
Platform Design	0,062	0,166

Source: Processed primary data (2026)

He structural model's explanatory power and localized effect sizes derived from the 200 respondents are systematically evaluated in Table 6. The R-square value for E-Retention

stands at 0.550 (Adjusted R^2 = 0.541), demonstrating that 55.0% of the variance in user retention is robustly explained by the joint predictors within the model, establishing a moderate-to-strong predictive capacity. Meanwhile, E-Trust yields an R-square of 0.487 (Adjusted R^2 = 0.479), indicating that nearly half of the variance in digital trust is accounted for by the independent framework.

To break down the unique operational impact of each specific path, f-square effect sizes are evaluated against Cohen's criteria where values of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively. Tactically, Platform Design emerges as the most critical driver for generating institutional trust, yielding a medium effect size on E-Trust (0.166), followed closely by Perceived of Use (0.148). Conversely, AI Recommendation exhibits a negligible direct effect on E-Trust (0.014), suggesting that algorithmic automation alone cannot spark initial trust unless supported by interface quality and structural usability. When predicting long-term loyalty, E-Trust holds the strongest localized grip on E-Retention (0.119), proving that establishing deep-seated trust serves as the primary tactical bridge to secure structural retention in a fluid and volatile Gen-Z consumer landscape.

Table 6. Calculation of Goodness of Fit (GoF) Index

Metric Component	**Values**	**Average (Mean)**	**GoF Index**	**Evaluation Criteria**
AVE	0.562, 0.527, 0.541, 0.523, 0.609	**0.5524**		
R-Square (R^2)	0.550, 0.487	**0.5185**	**0.5352**	**Large / High Fit**

Source: Processed primary data (2026)

$$\text{GoF} = \sqrt{\overline{\text{AVE}} \times \overline{R^2}}$$

$GoF = \sqrt{0{,}5524 \; x \; 0{,}5185}$

$GoF = \sqrt{0{,}2864194}$

$GoF = \mathbf{0{,}53518165}$

To evaluate the global predictive power and overall quality of the integrated PLS-SEM structural framework, a Goodness of Fit (GoF) index was calculated based on the mathematical baseline proposed by Tenenhaus et al. (2005). The extraction yields an overall baseline average for AVE at 0.5524 and a collective endogenous R-square average at 0. 5185.By applying the structural formulation, the model achieves a global GoF score of 0.5352. According to established empirical thresholds, any GoF value exceeding 0.36 is categorized as a Large/High Fit, proving that the combined measurement and structural components perform exceptionally well. Tactically, this high fit index guarantees that the conceptualized paths—linking Platform Design, Perceived of Use, and AI Recommendation to E-Retention via the mediating mechanism of E-Trust—hold immense empirical validity and provide a powerful, highly reliable framework for explaining complex digital-native consumer behaviors.

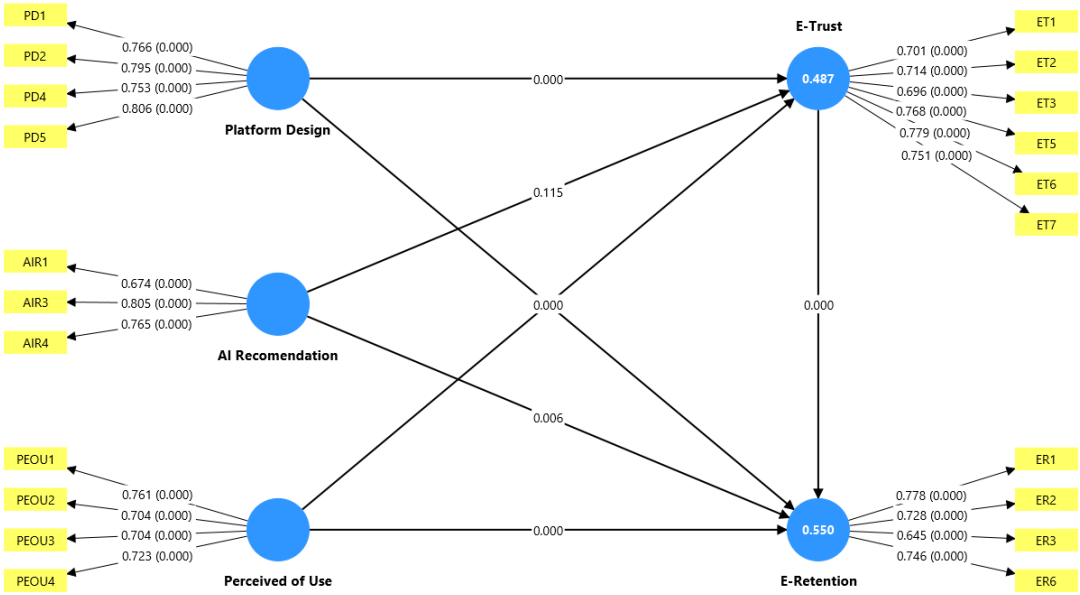

Figure 2. Graphical Result

Source: Processed primary data SEM PLS 4.0 (2026)

Table 7. Analysis results

Direct Effect

	T statistics (|O/STDEV|)	P values
AI Recomendation -> E-Retention	3,132	0,002
AI Recomendation -> E-Trust	1,577	0,115
E-Trust -> E-Retention	4,225	0,000
Perceived of Use -> E-Retention	5,076	0,000
Perceived of Use -> E-Trust	4,371	0,000
Platform Design -> E-Retention	4,600	0,000
Platform Design -> E-Trust	4,247	0,000

Indirect Effect

	T statistics (|O/STDEV|)	P values
Perceived of Use -> E-Trust -> E-Retention	2,766	0,006
Platform Design -> E-Trust -> E-Retention	3,469	0,001
AI Recomendation -> E-Trust -> E-Retention	1,383	0,167

Source: Processed primary data SEM PLS 4.0 *(2026)*

1. **H1a:** The estimation yields a t-statistics of 4.247 > 1.96 and a P-value of 0.000 < 0.05. Scientifically, H1a is accepted. This confirms that Platform Design exerts a positive and significant direct impact on E-Trust. From a managerial standpoint, a professional and highly functional interface design serves as a primary trust signal, heavily driving the initial security perceptions of digital users.
2. **H1b:** The path records a T-statistics of 4.600 (> 1.96) with a P-value of 0.000 (< 0.05), meaning H1b is accepted. A superior layout and visual framework directly secure user loyalty, giving digital consumers fewer structural reasons to churn or migrate to competing platforms.
3. **H2a:** This hypothesis registers a T-statistics of 4.371 (> 1.96) and a P-value of 0.000 (< 0.05), confirming that H2a is accepted. When a platform is perceived as smooth and frictionless, it naturally enhances institutional credibility and system-wide user confidence.
4. **H2b:** The path demonstrates a T-statistics of 5.076 (> 1.96) and a P-value of 0.000 (< 0.05). This represents the highest T\text{-stat} score among all direct effects, making H2b accepted. Eliminating operational complexity stands as the single most critical tactical driver for locking in long-term consumer retention.
5. **H3a:** The path analysis reveals a weak T-statistics of 1.577 (< 1.96) with a P-value climbing to 0.115 (> 0.05). Consequently, H3a is rejected. Automated AI personalization is evaluated as a baseline expectation by the market, meaning it does not distinctively translate into deeper institutional or digital trust.
6. **H3b:** E-Retention (ER)In sharp contrast to trust formation, this path achieves a significant T-statistics of 3.132 (> 1.96) and a P-value of 0.002 (< 0.05), meaning H3b is accepted. Precise algorithmic personalization successfully drives content stickiness, creating an immediate habit-loop that directly hooks users back to the platform.
7. **H4:** The core link of the inner model yields a T-statistics of 4.225 (> 1.96) with a P-value of 0.000 (< 0.05). Therefore, H4 is accepted. Cultivating a solid layer of digital trust remains an indispensable strategic asset to transform immediate user satisfaction into resilient platform loyalty.B. Indirect Effects Assessment (Mediation)
8. **H5:** The mediation path shows a T-statistics of 3.469 (> 1.96) and a P-value of 0.001 (< 0.05), meaning H5 is accepted. Since the direct path (H1b) remains highly significant, E-Trust acts as a Partial Mediator. This indicates that an optimized layout can retain users both immediately through visual appeal and indirectly by first reinforcing their baseline system trust.
9. **H6:** The indirect pathway captures a T-statistics of 2.766 (> 1.96) and a P-value of 0.006 (< 0.05), so H6 is accepted. E-Trust functions as a significant Partial Mediator. Seamless user experiences build a sense of platform safety, which structurally cushions the user base and lowers long-term churn rates.

10. **H7:** The bootstrapping estimation yields a weak T-statistics of 1.383 (< 1.96) and a P-value of 0.167 (> 0.05). Absolutely, H7 is rejected. Because automated recommendations fail to stimulate initial trust (H3a), the hypothesized indirect bridge to loyalty is structurally broken. The operational impact of automated algorithms is strictly confined to a direct consumption habit-loop (direct retention), completely bypassing emotional or institutional digital trust dynamics.

Discussion

Platform Design, E-Trust, and E-Retention

The results indicate that platform design substantially affects both e-trust and e-retention. The results suggest that users exhibit increased confidence in digital platforms when presented with appealing designs, uniform visual components, and user-friendly navigation systems. In the context of Tokopedia and TikTok Shop, platform design serves not only as an aesthetic element but also as a tool for fostering trust that mitigates uncertainty in online transactions. This discovery corroborates Nudge Theory, which posits that environmental stimuli can discreetly affect user decision-making without limiting personal options. An effectively designed interface serves as a digital prompt that directs users towards favourable assessments of the platform. This finding aligns with (Hasan et al., 2024; Majumder, 2025) who demonstrated that visual attractiveness and interface quality enhance user happiness and promote ongoing platform engagement. The notable direct impact on e-retention indicates that users are more inclined to stay active when the platform offers a pleasant and efficient interaction experience. Consequently, platform managers must perpetually enhance interface design, navigation systems, and visual coherence to bolster user trust and ensure long-term retention.

Perceived Ease of Use, E-Trust, and E-Retention

The research indicates that perceived simplicity of use significantly enhances both e-trust and e-retention. Among all direct links, perceived ease of use demonstrates the most significant impact on e-retention. This discovery indicates that consumers assign significant importance to efficiency and convenience in their interactions with digital commerce systems. Users who can efficiently seek for products, finalise transactions, and navigate platform functionalities are likely to cultivate enhanced trust and a heightened intention to persist in using the platform. These findings corroborate the Technology Acceptance Model posited by Davis (1989), which asserts that usability enhances technology acceptance and favourable behavioural intentions. Their conclusions correspond with those of Saoula et al. (2023), who indicated that usability enhances consumer trust and aids in client retention. Given that the majority of respondents are from Generation Z, a cohort noted for its advanced digital proficiency and minimal tolerance for complexity, user-friendliness emerges as a crucial factor in retention. Therefore, e-commerce providers must emphasise simplicity, efficiency, and user-friendly engagement in their platform development plans.

AI Recommendation and E-Trust

A noteworthy discovery arises from the correlation between AI recommendations and electronic trust. The findings suggest that AI recommendations do not substantially affect e-trust. This research indicates that customers can regard AI-based recommendations as a conventional attribute rather than a unique element that can augment confidence. As AI-driven personalisation proliferates across digital platforms, people may cease to link recommendation precision with platform reliability. This outcome contrasts with research indicating that AI-driven personalisation might enhance consumer confidence and engagement. A plausible explanation is that respondents, primarily Generation Z users, have developed a strong familiarity with algorithmic recommendation systems. As a result, personalised recommendations are perceived as standard platform features rather than indicators of platform dependability. Trust seems to be influenced more significantly by concrete characteristics such as usability, interface quality, transaction security, and the whole buying experience.

AI Recommendation and E-Retention

While AI recommendations do not substantially impact e-trust, they considerably effect e-retention. This outcome demonstrates that recommendation algorithms effectively promote user engagement with the platform, even in the absence of enhanced trust perceptions. Customised suggestions present customers with products and content aligned with their preferences, hence enhancing browsing time, engagement, and purchasing potential. This discovery corroborates the assertion of Kotler et al. (2022) that AI personalisation amplifies client engagement by providing highly pertinent experiences. In the context of Nudge Theory, AI recommendations function as intelligent nudges that steer consumers towards frequent engagement. The algorithm primarily establishes behavioural routines and habitual platform usage, hence immediately enhancing retention rather than fostering trust.

The Mediating Role of E-Trust

The mediation study indicates that e-trust partially mediates the links between platform design and e-retention, as well as between perceived ease of use and e-retention. The findings indicate that appealing design and user-friendly technologies affect retention via two methods. Initially, they enhance user experience immediately. Secondly, they indirectly enhance trust, hence augmenting retention. Nonetheless, e-trust does not facilitate the connection between AI recommendations and e-retention. This finding substantiates that AI recommendations influence retention via a direct behavioural mechanism rather than through the establishment of trust. Users persist in utilising the platform due to the utility and relevance of recommendation algorithms, rather than an enhancement of their confidence in the platform itself. The findings indicate that e-trust is a crucial strategy for maintaining long-term consumer retention in digital commerce. Although platform design and user-friendliness foster trust, AI recommendations primarily serve to enhance engagement and promote

recurring usage. Consequently, managers should not depend exclusively on personalisation technology but must concurrently enhance platform usability and trust-building strategies to ensure sustainable client retention.

CONCLUSION

This study shows that platform design and perceived usability are significant predictors of both e-trust and e-retention among users of Tokopedia and TikTok Shop. Users are likely to cultivate enhanced trust and a heightened intention to persist in utilising the platform when they encounter appealing interfaces, intuitive navigation, and fluid interactions. E-trust strongly affects e-retention and somewhat mediates the impact of platform design and perceived ease of use on e-retention. Conversely, AI suggestions markedly impact e-retention but do not substantially influence e-trust, suggesting that consumers regard personalised recommendations as a standard platform attribute rather than a trust-enhancing element. The findings indicate that although AI-driven personalisation may promote recurring platform engagement, sustained retention is most successfully attained through trust-building strategies bolstered by superior platform design and user-centric experiences. Consequently, e-commerce suppliers must prioritise usability, visual aesthetics, and trust-building techniques to bolster consumer retention in the increasingly competitive digital marketplace.

REFERENCES

Acharya, N., Sassenberg, A.-M., & Soar, J. (2023). Effects of cognitive absorption on continuous use intention of AI-driven recommender systems in e-commerce. *Foresight, 25*(2), 194–208. https://doi.org/10.1108/FS-10-2021-0200

Aliya Fatika, R. (2024, October 8). *10 Negara dengan Pengguna TikTok Terbesar, Indonesia Urutan Berapa?* GoodStats. https://data.goodstats.id/statistic/10-negara-dengan-pengguna-tiktok-terbesarindonesia-urutan-berapa-xFOgI

Ashiq, R., & Hussain, A. (2024). Exploring the effects of e-service quality and e-trust on consumers' e-satisfaction and e-loyalty: insights from online shoppers in Pakistan. *Journal of Electronic Business & Digital Economics*, *3*(2), 117–141. https://doi.org/10.1108/jebde-09-2023-0019

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173

Connolly, B. (2020). *Digital Trust: Social Media Strategies to Increase Trust and Engage Customers*. Bloomsbury Business.

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, *13*(3), 319–340. https://doi.org/10.2307/249008

Duong, N. T., Lin, H.-H., Wu, T.-L., & Wang, Y.-S. (2025). Understanding Consumer Trust Dynamics and Purchase Intentions in a Multichannel Live Streaming E-Commerce Context: A Trust Transfer Perspective. *International Journal of Human–Computer Interaction*, *41*(14), 9123–9136. https://doi.org/10.1080/10447318.2024.2423332

Fletcher, R., & Nielsen, R. (2024). *What does the public in six countries think of generative AI in news?*

Gao, Y., & Liang, J. (2025). The Impact of AI-Powered Try-On Technology on Online Consumers' Impulsive Buying Intention: The Moderating Role of Brand Trust. *Sustainability*, *17*(7), 2789. https://doi.org/10.3390/su17072789

Ghozali, I., & Kusumadewi, K. A. (2023). *Buku Partial Least Squares "Konsep, Teknik dan aplikasi Menggunakan Program SmartPLS 4.0" Edisi 1*. YOGA PRATAMA.

Ghozali, I., & Latan, H. (2020). *Partial least squares konsep, teknik dan aplikasi menggunakan program smartpls 3.0 untuk penelitian empiris* (2nd ed.). Badan Penerbit UNDIP.

Guo, J., Zhang, W., & Xia, T. (2023). Impact of Shopping Website Design on Customer Satisfaction and Loyalty: The Mediating Role of Usability and the Moderating Role of Trust. *Sustainability (Switzerland)*, *15*(8). https://doi.org/10.3390/su15086347

Hair, J., Hult, G. T. M., Ringle, C., Sarstedt, M., Danks, N., Ray, S., & St, C. (2022). *Book Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R*. https://doi.org/10.1007/978-3-030-80519-7

Halim, A., & Keni, K. (2023). Pengaruh trust, perceived ease of use, dan perceived usefulness terhadap repurchase intention dengan menggunakan e-commerce. *Jurnal Manajemen Bisnis Dan Kewirausahaan*, *7*(3), 650–662. https://doi.org/10.24912/jmbk.v7i3.23877

Hasan, T. I., Silalahi, C. I., Rumagit, R. Y., & Pratama, G. D. (2024). UI/UX design impact on E-Commerce attracting users. *Procedia Computer Science*, *245*, 1075–1082.

Jefferson, & Efrata, T. C. (2023). Personal Innovativeness, Perceived Usefulness, Perceived Ease of Use, and Trust Asdeterminants of Mobile Payment Utilization. *Review of Management and Entrepreneurship*, *7*(2), 251–270. https://doi.org/10.37715/rme.v7i2.4157

Jongmans, E., Jeannot, F., Liang, L., & Dampérat, M. (2022). Impact of website visual design on user experience and website evaluation: the sequential mediating roles of usability and pleasure. *Journal of Marketing Management*, *38*(17–18), 2078–2113. https://doi.org/10.1080/0267257X.2022.2085315

Judijanto, L., Lesmana, T., & Zulfikri, A. (2024). The effect of employee development policy, work environment, and transformational leadership on employee creativity in Indonesia's creative industries. *West Science Interdisciplinary Studies*, *2*(3), 541–551.

Kelly, S., Kaye, S.-A., & Oviedo-Trespalacios, O. (2023). What factors contribute to the acceptance of artificial intelligence? A systematic review. *Telematics and Informatics*, *77*, 101925. https://doi.org/10.1016/j.tele.2022.101925

Kelly, S., van der Werff, L., & Freeney, Y. (2026). Plain Sailing or Choppy Water? Maintaining Interpersonal Trusting Relationships in Times of Uncertainty. *Journal of Management*, *52*(3), 1255–1289. https://doi.org/10.1177/01492063241311234

Kim, J., & Yum, K. (2024). Enhancing Continuous Usage Intention in E-Commerce Marketplace Platforms: The Effects of Service Quality, Customer Satisfaction, and Trust. *Applied Sciences*, *14*(17), 7617. https://doi.org/10.3390/app14177617

Kotler, P., Keller, K. L., & Chernev, A. (2022). *Marketing Management* (16th ed.). Harlow : Pearson Education.

Laudon, K. C., & Traver, C. G. (2021). *E-Commerce 2021-2022: Business, Technology and Society, Global Edition*. Pearson Higher Ed.

Liputan 6. (2023, January 19). *Profil PT Tokopedia dan Perjalanan Bisnisnya, Perusahaan Perdagangan Elektronik di Indonesia*. Https://Www.Liputan6.Com/Hot/Read/5183788/Profil-Pt-Tokopedia-Dan-Perjalanan-Bisnisnya-Perusahaan-Perdagangan-Elektronik-Di-Indonesia?Page=3.

Liu, F., Xiao, B., Lim, E. T. K., & Tan, C.-W. (2017). The art of appeal in electronic commerce. *Internet Research*, *27*(4), 752–771. https://doi.org/10.1108/IntR-09-2016-0280

Majumder, A. S. (2025). The influence of UX design on user retention and conversion rates in mobile apps. *ArXiv Preprint ArXiv:2501.13407*.

Maqfiroh, R. N., Yuliansyah, G., Kurniawan, E. J., & Zulfikri, A. (2026). Analysis of Non-Financial Compensation in Improving Employee Work Motivation in the Hybrid Work Era. *ARMADA: Jurnal Penelitian Multidisiplin*, *4*(4), 196–204.

Marso. (2023). *The Effect of Perceived Ease of Use and Perceived Usefulness on Trust, Loyalty of E-Commerce Customers* (pp. 796–804). https://doi.org/10.2991/978-94-6463-008-4_100

McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). Developing and Validating Trust Measures for e-Commerce: An Integrative Typology. *Information Systems Research*, *13*(3), 334–359. https://doi.org/10.1287/isre.13.3.334.81

Mele, C., Russo Spena, T., Kaartemo, V., & Marzullo, M. L. (2021). Smart nudging: How cognitive technologies enable choice architectures for value co-creation. *Journal of Business Research*, *129*, 949–960. https://doi.org/10.1016/j.jbusres.2020.09.004

MOHAMMADIAN, B. (2025, March 27). *Smart Nudge Marketing: Ai-Driven Behavioural Interventions For Sustainable Tourism*. https://doi.org/10.24818/IMC/2024/05.06

Nuralam, I. P., Yudiono, N., Fahmi, M. R. A., Yuliaji, E. S., & Hidayat, T. (2024). Perceived ease of use, perceived usefulness, and customer satisfaction as driving factors on repurchase intention: the perspective of the e-commerce market in Indonesia. *Cogent Business & Management*, *11*(1). https://doi.org/10.1080/23311975.2024.2413376

Ologunebi, J. (2023). An analysis of customer retention strategies in e-commerce fashion business in the UK: A case study of Primark. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.4628521

Ologunebi, J., Taiwo, E. O., & Alli, K. (2024). Digital consumer behavior in e-commerce: A study of Amazon and Temu's customer purchase decision-making processes in the UK and the USA. *Available at SSRN 5071874*.

Pereira, M. de S., de Castro, B. S., Cordeiro, B. A., de Castro, B. S., Peixoto, M. G. M., da Silva, E. C. M., & Gonçalves, M. C. (2025a). Factors of Customer Loyalty and Retention in the Digital Environment. *Journal of Theoretical and Applied Electronic Commerce Research , 20*(2). https://doi.org/10.3390/jtaer20020071

Pereira, M. de S., de Castro, B. S., Cordeiro, B. A., de Castro, B. S., Peixoto, M. G. M., da Silva, E. C. M., & Gonçalves, M. C. (2025b). Factors of Customer Loyalty and Retention in the Digital Environment. *Journal of Theoretical and Applied Electronic Commerce Research*, *20*(2), 71. https://doi.org/10.3390/jtaer20020071

Pontoh, M. A. H., Worang, F. G., & Tumewu, F. J. (2022). The Influence of Perceived Ease of Use, Perceived Risk and Consumer Trust towards Merchant Intention in using QRIS as a Digital Payment Method. *Jurnal EMBA : Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, *10*(3), 904. https://doi.org/10.35794/emba.v10i3.42664

Pradnyadewi, L. P. A., & Giantari, IG. A. K. (2022). Effect of E-Service Quality on Customer Satisfaction and Customer Loyalty on Tokopedia Customers in Denpasar. *European Journal of Business and Management Research*, *7*(2), 200–204. https://doi.org/10.24018/ejbmr.2022.7.2.1297

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*(3), 879–891. https://doi.org/10.3758/BRM.40.3.879

Priscillia, M., Budiono, H., Wiyanto, H., & Widjaya, H. (2021). *The Effects of Website Design Quality and Service Quality on Repurchase Intention Among Shopee Customers in Jakarta, with Customer Trust as a Mediating Variable*.

Riswandi, D. I., & Zulfikri, A. (2024). Financial Inclusion, Ethical Investment, And Corporate Social Responsibility: A Comprehensive Analysis Of Factors Affecting Sustainable Finance In Indonesian MSMEs. *Journal of Economic, Bussines and Accounting (COSTING)*, *7*(4), 10853–10868.

Rohde, F., Wagner, J., Meyer, A., Reinhard, P., Voss, M., Petschow, U., & Mollen, A. (2024). Broadening the perspective for sustainable artificial intelligence: sustainability criteria and indicators for Artificial Intelligence systems. *Current Opinion in Environmental Sustainability*, *66*, 101411. https://doi.org/10.1016/j.cosust.2023.101411

S, S., Shrivastava, A., & Karmakar, S. (2025). Identifying interface design factors impacting user experience in digital learning platforms- A pilot study. *Social Sciences & Humanities Open*, *11*, 101662. https://doi.org/10.1016/j.ssaho.2025.101662

Saoula, O., Shamim, A., Mohd Suki, N., Ahmad, M. J., Abid, M. F., Patwary, A. K., & Abbasi, A. Z. (2023). Building e-trust and e-retention in online shopping: the role of website design, reliability and perceived ease of use. *Spanish Journal of Marketing - ESIC*, *27*(2), 178–201. https://doi.org/10.1108/SJME-07-2022-0159

Saygin, E. P. (2023). *The Essentials Of Today's Marketing 2*. Efe Academy Publishing.

Shorbaji, M. F., Alalwan, A. A., & Algharabat, R. (2025). AI-Enabled Mobile Food-Ordering Apps and Customer Experience: A Systematic Review and Future Research Agenda. *Journal of Theoretical and Applied Electronic Commerce Research*, *20*(3), 156. https://doi.org/10.3390/jtaer20030156

Sohail, H., Tariq, S., & Tariq, A. (2023). Evaluating Antecedents of Online Customer Retention. *Pakistan Journal of Humanities and Social Sciences*, *11*(2). https://doi.org/10.52131/pjhss.2023.1102.0438

Suriansha, R., Diposumarto, N. S., & Muharam, H. (2024). The Effect of Service Quality on Customer Retention and Customer Experience as Mediating Variable. *West Science Business and Management*, *2*(02), 519–524. https://doi.org/10.58812/wsbm.v2i02.948

Thaler, R. H. ., & Sunstein, C. R. . (2021). *Nudge : the final edition*. Yale University Press.

Tri Ratnawati, A., & Malik, A. (2024). The Effect of Perceived Ease of Use, Benefits, and Risks on Intention in Using the Quick Response Code Indonesian Standard. *GLOBAL BUSINESS FINANCE REVIEW*, *29*(7), 110–125. https://doi.org/10.17549/gbfr.2024.29.7.110

Turban, E., Outland, J., King, D., Lee, J. K., Liang, T.-P., & Turban, D. C. (2018). *Electronic commerce 2018: a managerial and social networks perspective* (Vol. 2017). Springer.

Utaminingsih, F., & Sumiyati. (2024). The Effect of Perceived Usefulness and Pereceived Ease of Use on Trust and Repeat Purchase Interest in Omnichannel Retailling. *INOVASI: Jurnal Ekonomi, Keuangan, Dan Manajemen*, *20*(4), 917–926. https://doi.org/10.30872/jinv.v20i4.2414

Vera, J. A., & Ghosh, S. (2025). "They've Over-Emphasized That One Search": Controlling Unwanted Content on TikTok's For You Page. *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems*, 1–8. https://doi.org/10.1145/3706598.3713666

Verma, S., Sharma, R., Deb, S., & Maitra, D. (2021). Artificial intelligence in marketing: Systematic review and future research direction. *International Journal of Information Management Data Insights*, *1*(1), 100002. https://doi.org/10.1016/j.jjimei.2020.100002

Wang, G., & Qing, X. (2023). Analyzing online and offline mixed teaching model for university students during and after COVID-19. *Interactive Learning Environments*, 1–16. https://doi.org/10.1080/10494820.2022.2127781

Yin, J., Qiu, X., & Wang, Y. (2025). The Impact of AI-Personalized Recommendations on Clicking Intentions: Evidence from Chinese E-Commerce. *Journal of Theoretical and*

Applied Electronic Commerce Research, *20*(1), 21. https://doi.org/10.3390/jtaer20010021

Yum, K., & Kim, J. (2024). The influence of perceived value, customer satisfaction, and trust on loyalty in entertainment platforms. *Applied Sciences*, *14*(13), 5763.

Zulfikri, A., & Hatammimi, J. (2025). Mapping the Contribution of Design Thinking to Market Innovation: A Bibliometric Analysis. *International Conference on Business and Technology*, 127–136.

Zulfikri, A., & Usman, A. (2026). Strategi Manajemen Sumber Daya Manusia dan Kinerja Organisasi: Model Struktural Bibliometrik. *Balance: Jurnal Akuntansi Dan Manajemen*, *5*(1), 468–483.