Big Data Analytics Capability, AI-Driven Personalisation, and Trust in Artificial Intelligence as Determinants of Purchase Intention

[1] German Zambrano Verdesoto
[1] Universidad Bolivariana del Ecuador; [1] Instituto Superior Universitario Bolivariana de Tecnología

Abstract– ***This study examines the influence of Big Data Analytics Capability on Purchase Intention in e-commerce by considering the mediating roles of AI-Driven Personalisation and Trust in Artificial Intelligence. A quantitative explanatory approach was adopted using Partial Least Squares Structural Equation Modelling (PLS-SEM) with data collected from 343 Ecuadorian consumers who had recently purchased through e-commerce platforms using artificial intelligence tools. The findings reveal that Big Data Analytics Capability positively influences AI-Driven Personalisation and Trust in Artificial Intelligence, while AI-Driven Personalisation also strengthens Trust in Artificial Intelligence. Furthermore, Trust in Artificial Intelligence has a positive effect on Purchase Intention. These results demonstrate that the strategic value of Big Data lies not only in data management but also in its ability to generate actionable knowledge that enables personalised experiences and strengthens consumer trust. The study contributes to the literature by providing empirical evidence from an emerging Latin American market and offers practical implications for firms adopting artificial intelligence in e-commerce.***

Keywords-- ***Big Data; Personalisation; Trust in Artificial Intelligence; Purchase Intention.***

I. Introduction

E-commerce has become one of the main drivers of the global digital economy, transforming how consumers search for information, evaluate alternatives, and make purchasing decisions [1]. According to [2], global e-commerce market revenues are projected to reach USD 3.88 trillion in 2026, growing at an annual rate of 6.84%, surpassing USD 5.05 trillion by 2030 and exceeding 4.1 billion users. This expansion has intensified competition among firms, which increasingly rely on data-driven technologies to better understand consumer behaviour and deliver more efficient and personalised shopping experiences [3].

Machine learning algorithms, recommender systems, and generative artificial intelligence enable firms to analyze vast amounts of data and transform them into personalised recommendations, dynamic promotions, and shopping experiences tailored to individual consumer preferences [4]. Consequently, companies no longer compete solely with their ability to collect data but on their capability to develop analytical competencies that transform Big Data into intelligent decisions capable of creating customer value and strengthening customer relationships [5].

In Latin America, this digital transformation is progressing even faster than the global average. According to [6], e-commerce in the region is growing at a rate 1.5 times higher than the global average, while approximately 84% of online purchases are completed through smartphones. This environment has encouraged the expansion of international platforms such as Amazon, SHEIN, and Walmart, while also strengthening domestic companies that incorporate artificial intelligence solutions to enhance the customer experience [7]. However, rapid technological development also raises an important challenge: understanding the mechanisms through which Big Data analytics capability translates into higher consumer purchase intention [8].

Although Big Data analytics capability has become a strategic resource for improving business competitiveness, empirical evidence remains limited [9]. Most existing studies have focused on technological, organisational, or data management issues, whereas relatively few have examined how these capabilities are perceived by consumers and how they influence purchasing decisions [10]. Likewise, although AI-driven personalisation has attracted growing attention in digital marketing research, limited evidence explains the mechanism through which it strengthens consumers' trust in artificial intelligence and subsequently influences purchase intention, particularly within emerging Latin American markets [11].

The Ecuadorian context provides a particularly relevant setting for addressing this research problem. The rapid growth of e-commerce, widespread internet penetration, and extensive use of social media have accelerated the adoption of artificial intelligence technologies in the retail sector [12]. According to [13], approximately 32% of Ecuadorian consumers have used artificial intelligence tools, such as virtual assistants or chatbots, to receive recommendations during online shopping. Likewise, Ecuador records more than 17.3 million TikTok users, 7.4 million Instagram users, and 7.3 million Facebook users, primarily concentrated in Guayaquil and Quito, reflecting an environment characterised by extensive data generation and increasing interaction between consumers and digital platforms [14].

Against this background, the objective of this study is to examine the influence of Big Data Analytics Capability on Purchase Intention in e-commerce by considering the roles of AI-Driven Personalisation and Trust in Artificial Intelligence as explanatory mechanisms of consumer behaviour.

This study contributes to the literature in three ways. First, it integrates Big Data Analytics Capability, AI-Driven Personalisation, and Trust in Artificial Intelligence into a single explanatory model of consumer behaviour in e-

commerce. Second, it provides empirical evidence from the consumer perspective in an emerging Latin American market, helping to address the limited evidence available in this context. Finally, it offers practical implications for firms by demonstrating that the strategic value of Big Data depends not only on data availability but also on the capability to transform it, through artificial intelligence, into personalised experiences that strengthen consumer trust and increase purchase intention.

II. Literature Review

A. Big Data Analytics Capability as an Antecedent of AI-Driven Personalisation and Trust in Artificial Intelligence

Big Data Analytics Capability has emerged as one of the most important strategic capabilities for organisations operating in digital environments, enabling them to collect, integrate, and interpret large volumes of data generated across multiple consumer touchpoints [15]. Beyond data availability, this capability reflects a firm's ability to transform data into actionable knowledge that supports decision-making and creates customer value [16]. In e-commerce, these capabilities facilitate a deeper understanding of consumers' behavioural patterns, preferences, and needs, thereby providing the foundation for the development of advanced artificial intelligence strategies [17].

In this context, artificial intelligence has significantly increased the strategic value of Big Data by employing algorithms capable of processing information in real time to deliver personalised recommendations, content, and experiences tailored to individual consumers [18]. Consequently, AI-driven personalisation largely depends on the quality of organisational data and the analytical capability with which firms manage them [19]. According to [20], organisations with stronger analytical capabilities develop more accurate, relevant, and dynamic personalisation systems, thereby improving user experience and enhancing business competitiveness. From the consumer perspective, such personalisation increases the perception that firms understand individual needs, leading to more efficient and satisfying interactions throughout the purchasing process [21].

Furthermore, Big Data Analytics Capability may directly strengthen consumers' trust in artificial intelligence [22]. When intelligent systems generate recommendations that are consistent, timely, and aligned with individual preferences, consumers perceive automated decisions as more accurate and trustworthy, thereby reducing the uncertainty associated with intelligent technologies [23]. In this sense, trust is not developed solely through the existence of artificial intelligence algorithms but also through the perception that these algorithms effectively utilise available information to deliver useful and reliable outcomes [24]. Therefore, stronger Big Data Analytics Capability represents an important antecedent of both AI-driven personalisation and trust in artificial intelligence.

Based on these arguments, the following hypotheses are proposed:

H1. Big Data Analytics Capability positively and significantly influences AI-Driven Personalisation.

H2. Big Data Analytics Capability positively and significantly influences Trust in Artificial Intelligence.

B. The Influence of AI-Driven Personalisation on Trust in Artificial Intelligence

AI-driven personalisation has transformed the way firms interact with consumers in digital environments [25]. Unlike traditional segmentation strategies, artificial intelligence systems continuously analyze users' behaviour, preferences, and browsing history to adapt recommendations, promotions, and content in real time for each individual [26]. This continuous learning capability enables firms to deliver more relevant and efficient experiences, thereby increasing consumers' perceived value throughout the purchasing process [27].

According to [28], personalisation is one of the primary mechanisms through which consumers develop trust in intelligent systems. When AI-generated recommendations are perceived as accurate, useful, and aligned with individual needs, consumers experience lower uncertainty regarding automated decisions and become more willing to accept technology-generated recommendations [29]. In this regard, trust depends not merely on the use of artificial intelligence but on the perception that it consistently delivers relevant and beneficial outcomes for users [30].

Recent empirical studies demonstrate that effective personalisation strengthens perceptions of competence, reliability, and credibility in intelligent systems, all of which represent essential dimensions in the development of trust in artificial intelligence [31]. Consequently, when consumers perceive that recommendations effectively match their preferences and needs, they develop greater confidence in artificial intelligence as a reliable assistant during the purchasing process, thereby fostering a stronger relationship between consumers and digital platforms [32].

Based on these arguments, the following hypothesis is proposed:

H3. AI-Driven Personalisation positively and significantly influences Trust in Artificial Intelligence.

C. The Influence of Trust in Artificial Intelligence on Purchase Intention

Trust has long been recognised as one of the key determinants of consumer behaviour in digital environments because it reduces the uncertainty inherent in transactions conducted through technological platforms [33]. In the context of artificial intelligence, trust becomes even more critical, as consumers delegate part of their decision-making process to algorithms capable of recommending products, responding to enquiries, and personalising shopping experiences [34]. Consequently, the acceptance of these technologies depends on consumers' perceptions that intelligent systems operate in a reliable, competent, and user-oriented manner [30].

Recent empirical evidence indicates that higher levels of trust in artificial intelligence increase consumers' willingness to follow AI-generated recommendations and use them as

decision-support tools throughout the purchasing process [35]. When consumers perceive that artificial intelligence provides accurate, objective, and useful information, perceived risk decreases while the likelihood of purchasing through digital platforms increases [36]. Conversely, low levels of trust constrain the adoption of intelligent technologies, thereby limiting their ability to influence purchasing decisions [37].

From this perspective, trust in artificial intelligence represents a psychological mechanism linking firms' technological capabilities with consumers' behavioural responses [38]. Therefore, the greater the trust consumers place in the artificial intelligence systems employed by e-commerce platforms, the stronger their purchase intention will be [39].

Based on the theoretical and empirical evidence presented above, the following hypothesis is proposed:

H4. Trust in Artificial Intelligence positively and significantly influences Purchase Intention.

III. Methodology

This study adopted a quantitative explanatory research design to examine the influence of Big Data Analytics Capability on Purchase Intention by considering the roles of AI-Driven Personalisation and Trust in Artificial Intelligence within the e-commerce context. To test the proposed hypotheses, Partial Least Squares Structural Equation Modelling (PLS-SEM) was employed using SmartPLS 4 software [40]. This technique is particularly appropriate for prediction-oriented research and the analysis of causal relationships among latent variables, while simultaneously assessing both the measurement and structural models [41].

The target population comprised Ecuadorian consumers aged 18 years or older who had purchased products through e-commerce platforms during the previous six months and had used websites or mobile applications incorporating artificial intelligence tools, such as personalised product recommendations, virtual assistants, or chatbots. The final sample consisted of 343 consumers selected through non-probability convenience sampling because of the accessibility of participants with recent digital shopping experience. Data were collected between March and May 2026 using an online questionnaire distributed through various digital platforms.

The questionnaire consisted of 23 questions. Two were screening questions to verify that respondents had purchased through e-commerce platforms and interacted with artificial intelligence tools during the six months preceding the study, four collected socio-demographic information, and 17 items measured the four constructs examined: Big Data Analytics Capability (5 items) [15; 18], AI-Driven Personalisation (4 items) [30; 26], Trust in Artificial Intelligence (4 items) [35], and Purchase Intention (4 items) [39]. All items were measured using a five-point Likert scale ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"). Before data collection, a pre-test was conducted to assess the clarity and comprehensibility of the questionnaire. The measurement scales were adapted from previous studies on Big Data analytics, artificial intelligence, and consumer behaviour.

Furthermore, data analysis followed the PLS-SEM guidelines proposed by [40] and [41]. First, the measurement model was assessed by examining internal consistency (Cronbach's Alpha and Composite Reliability), convergent validity (Average Variance Extracted [AVE]), and discriminant validity (Fornell–Larcker criterion and the Heterotrait–Monotrait ratio [HTMT]). Subsequently, the structural model was evaluated by assessing collinearity (Variance Inflation Factor [VIF]), bootstrapping with 5,000 resamples, the coefficient of determination (R^2), and predictive relevance (Q^2).

A. Sample Characteristics

Sample characterisation represents a fundamental stage in quantitative research, as it describes the participants' profile and verifies the suitability of the data for addressing the research objective. Accordingly, Table 1 presents the socio-demographic profile and purchasing behaviour of the 343 consumers included in this study. The results indicate a predominance of male respondents (56.3%), participants aged between 26 and 35 years (35.9%), and consumers with a university degree (50.4%). In addition, most respondents reported purchasing through e-commerce platforms two or three times per month (34.7%), confirming their recent experience in digital shopping environments.

TABLE 1
SAMPLE CHARACTERIZATION

Gender	**N**	**%**
Male	193	56.3
Female	150	43.7
Age	**N**	**%**
18–25 years	82	23.9
26–35 years	123	35.9
36–45 years	76	22.2
46–55 years	42	12.2
56 years or older	20	5.8
Educational Level	**N**	**%**
Secondary education	51	14.9
Technical/Technological education	68	19.8
University degree	173	50.4
Postgraduate degree	51	14.9
Purchase Frequency on E-commerce Platforms	**N**	**%**
Less than once a month	67	19.5
Once a month	98	28.6
Two or three times a month	119	34.7
More than three times a month	59	17.2

Note. Authors' own elaboration based on data collected through the administered questionnaire.

B. Measurement Model Assessment: Reliability and Validity of the Constructs

The measurement model was assessed following the guidelines proposed by [40], examining indicator reliability, internal consistency, convergent validity, and discriminant validity. During this stage, indicator PI4, corresponding to the Purchase Intention construct, was removed because its factor loading was below the recommended threshold of 0.70, which could have compromised the reliability and convergent validity of the model. After removing this indicator, the measurement model was re-estimated.

As shown in Table 2, the standardised factor loadings ranged from 0.702 to 0.885, exceeding the recommended minimum threshold of 0.70, thereby demonstrating satisfactory indicator reliability [42]. Likewise, Cronbach's Alpha coefficients ranged from 0.739 to 0.886, whereas Composite Reliability (ρC) values ranged from 0.836 to 0.917, confirming adequate internal consistency across all constructs. Regarding convergent validity, the Average Variance Extracted (AVE) ranged from 0.560 to 0.693, exceeding the recommended threshold of 0.50, indicating that each construct explained more than 50% of the variance of its corresponding indicators [40].

Overall, these findings demonstrate that the measurement model exhibits satisfactory reliability and convergent validity, supporting the subsequent assessment of discriminant validity and, ultimately, the evaluation of the structural model.

TABLE 2
MEASUREMENT MODEL ASSESSMENT: INDICATOR RELIABILITY, INTERNAL CONSISTENCY, AND CONVERGENT VALIDITY

Constructs	Factor Loading	Cronbach's Alpha	Composite Reliability (ρA)	Composite Reliability (ρC)	Average Variance Extracted (AVE)
Big Data Analytics Capability	BD10. 819	0.886	0.886	0.917	0.68 8
	BD2 0.843				
	BD3 0.853				
	BD4 0.860				
	BD5 0.767				
AI-Driven Personalisation	PER1 0.786	0.739	0.742	0.836	0.56 0
	PER2 0.702				
	PER3 0.743				
	PER4 0.761				
Trust in Artificial Intelligence	TRU1 0.814	0.831	0.833	0.887	0.66 3
	TRU2 0.836				
	TRU3 0.818				
	TRU4 0.789				
Purchase Intention	PI 0.881	0.774	0.789	0.871	0.69 3
	PI2 0.885				
	PI3 0.722				

Note. α = Cronbach's Alpha; ρA and ρC = Composite Reliability; AVE = Average Variance Extracted.

As the next stage of the measurement model assessment, discriminant validity was evaluated using the Fornell–Larcker criterion [43] and the Heterotrait–Monotrait Ratio (HTMT) proposed by [44]. These complementary procedures are widely recommended to assess discriminant validity in PLS-SEM models. As presented in Table 3, the square root of the Average Variance Extracted (AVE), reported along the diagonal, exceeded the inter-construct correlations in every case. Likewise, all HTMT values, reported above the diagonal, ranged from 0.080 to 0.735, remaining below the recommended threshold of 0.85. Taken together, these findings confirm that the measurement model demonstrates satisfactory discriminant validity.

TABLE 3
DISCRIMINANT VALIDITY ASSESSMENT USING THE FORNELL–LARCKER CRITERION AND HTMT

Constructs	Big Data Analytics Capability	AI-Driven Personalisation	Trust in Artificial Intelligence	Purchase Intention
Big Data Analytics Capability	**0.829**	0.336	0.735	0.194
AI-Driven Personalisation	0.280	**0.749**	0.440	0.080
Trust in Artificial Intelligence	0.632	0.349	**0.814**	0.163
Purchase Intention	0.160	0.005	0.132	**0.833**

Note . Diagonal values represent √AVE; lower and upper diagonal values indicate Fornell–Larcker correlations and HTMT ratios, respectively.

C. Hypothesis Testing

After confirming the absence of collinearity issues, the hypotheses were tested following the recommendations of [40] and [41] using a bootstrapping procedure with 5,000 subsamples. As shown in Table 4, all the proposed structural relationships were statistically significant ($p < 0.05$); therefore, the four hypotheses were supported.

Specifically, Big Data Analytics Capability had a positive and significant effect on AI-Driven Personalisation ($\beta = 0.280$; $t = 5.283$; $p < 0.001$), supporting H1. Likewise, this construct exhibited the strongest direct effect in the model on Trust in Artificial Intelligence ($\beta = 0.580$; $t = 13.423$; $p < 0.001$), supporting H2.

AI-Driven Personalisation also had a positive and significant influence on Trust in Artificial Intelligence (β = 0.186; t = 3.904; p < 0.001), providing support for H3. Finally, Trust in Artificial Intelligence had a positive and significant effect on Purchase Intention (β = 0.132; t = 2.642; p = 0.008), supporting H4. Overall, these findings provide empirical support for the proposed conceptual model and indicate that trust plays an important role in explaining purchase intention in AI-enabled e-commerce contexts.

TABLE 4
HYPOTHESIS TESTING OF THE STRUCTURAL MODEL

Hypothesis	β	M	SD	t	p	VIF
H1. Big Data Analytics Capability → AI-Driven Personalisation	0.280	0.285	0.053	5.283	< 0.001	1.000
H2. Big Data Analytics Capability → Trust in Artificial Intelligence	0.580	0.581	0.043	13.423	< 0.001	1.085
H3. AI-Driven Personalisation → Trust in Artificial Intelligence	0.186	0.186	0.048	3.904	< 0.001	1.085
H4. Trust in Artificial Intelligence → Purchase Intention	0.132	0.144	0.050	2.642	0.008	1.000

Note. β = standardised path coefficient; M = sample mean; SD = standard deviation; VIF = Variance Inflation Factor. R^2: PER = 0.078; TRU = 0.432; PI = 0.017. Q^2predict: PER = 0.068; TRU = 0.392; PI = 0.017.

Additionally, Figure 1 graphically presents the estimated structural model, showing the proposed structural relationships, standardised path coefficients (β), indicator loadings, and the explanatory power (R^2) of the endogenous constructs.

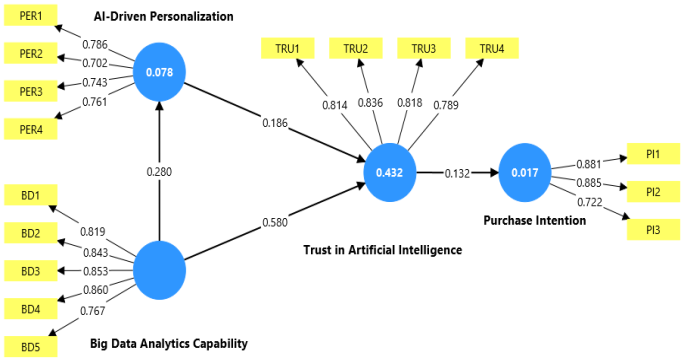


Fig 1. Estimated PLS-SEM Structural Model
Note. The figure presents the standardised path coefficients (β), indicator loadings, and R^2 values for the endogenous constructs.

IV. Discussion

This study examined how Big Data Analytics Capability influences Purchase Intention by considering the roles of AI-Driven Personalisation and Trust in Artificial Intelligence within the e-commerce context. Overall, the findings support the proposed conceptual model and demonstrate that the ability to transform data into actionable knowledge provides the foundation for developing personalised experiences that strengthen consumer trust and encourage purchasing behaviour. These findings extend the existing literature on consumer behaviour in emerging markets by providing an integrated explanation of the strategic value generated by Big Data and artificial intelligence in Ecuadorian e-commerce.

First, the results supporting H1 confirm that Big Data Analytics Capability enhances AI-Driven Personalisation. This finding is consistent with [15], who argue that the value of Big Data depends on its ability to generate actionable knowledge, and with [8], who identify advanced analytics as the foundation for intelligent recommendation systems. Likewise, [20] demonstrate that organisations with stronger analytical capabilities implement more accurate marketing strategies. These findings suggest that effective personalisation depends not only on artificial intelligence itself but also on the quality of the information supporting its algorithms. Therefore, this study demonstrates that Big Data Analytics Capability represents the strategic resource enabling personalised experiences and constitutes the starting point of the proposed model.

Second, the findings for H2 indicate that Big Data Analytics Capability directly strengthens Trust in Artificial Intelligence. This result is consistent with [22], who argue that trust increases when algorithms provide accurate and useful recommendations, and with [23], who highlight the importance of response consistency in promoting the acceptance of intelligent systems. Similarly, [24] show that transparency in data processing enhances the credibility of artificial intelligence. From a theoretical perspective, these findings suggest that trust develops when consumers perceive that data are transformed into reliable decisions. Consequently, this study extends previous research by demonstrating that Big Data Analytics Capability is a direct antecedent of trust rather than merely an antecedent of personalisation.

Third, the results supporting H3 show that AI-Driven Personalisation increases Trust in Artificial Intelligence. This finding agrees with, [28] who argue that personalised recommendations reduce consumer uncertainty, and with [26], who demonstrate that personalisation improves customer experience through more relevant interactions. Likewise, [31] identify perceived reliability as a key factor in strengthening trust in intelligent systems. These findings suggest that personalisation creates value when consumers perceive that recommendations genuinely reflect their preferences and needs. Therefore, this study provides evidence that AI-driven personalisation represents a psychological mechanism linking

technological capabilities with the development of trust in artificial intelligence.

Finally, the findings for H4 confirm that Trust in Artificial Intelligence positively influences Purchase Intention in e-commerce platforms. This result is consistent with [34], who identify trust as a determinant of intelligent technology adoption, as well as with [35], who demonstrate that trust reduces perceived risk during decision-making. Similarly, [39] argue that trust enables AI-based experiences to translate into purchasing behaviour. From a theoretical perspective, these findings indicate that trust represents the mechanism through which technological capabilities generate favourable behavioural responses. Therefore, this study confirms that strengthening consumer trust is essential for increasing purchase intention in digital environments.

Taken together, the findings indicate that Big Data Analytics Capability is the strategic resource driving the proposed model by enabling personalised experiences and strengthening consumer trust in artificial intelligence. This perspective complements previous studies that examined these relationships independently by integrating them into a causal sequence that explains consumer behaviour in e-commerce. Accordingly, the strategic value of Big Data lies not merely in data availability but in an organisation's capability to transform data into actionable knowledge that strengthens trust and increases purchase intention. Consequently, this study extends the digital marketing and artificial intelligence literature by providing empirical evidence from Ecuadorian consumers and contributing to a better understanding of consumer behaviour in emerging Latin American markets.

V. Conclusions

This study examined the influence of Big Data Analytics Capability on Purchase Intention in e-commerce by considering the roles of AI-Driven Personalisation and Trust in Artificial Intelligence. The findings confirm that the ability to transform data into actionable knowledge represents a strategic resource for developing personalised experiences that strengthen consumer trust and enhance purchase intention. Overall, the study demonstrates that the strategic value of Big Data extends beyond data management, becoming a key capability for creating competitive advantages through artificial intelligence applications in emerging digital markets.

This research makes three contributions to the literature. First, it integrates Big Data Analytics Capability, AI-Driven Personalisation, Trust in Artificial Intelligence, and Purchase Intention into a single explanatory model. Second, it provides empirical evidence from the consumer perspective, complementing previous studies that have primarily focused on organisational and technological capabilities. Finally, it extends the understanding of artificial intelligence adoption in e-commerce by providing evidence from Ecuador, thereby enriching the literature on digital marketing and consumer behaviour in emerging Latin American markets.

The findings suggest that organisations should regard Big Data as a strategic capability for generating knowledge rather than merely as a mechanism for storing information. Accordingly, firms should invest in analytical infrastructures that enable the development of artificial intelligence systems capable of delivering accurate and personalised recommendations. Furthermore, organisations should strengthen transparency regarding data usage and algorithmic processes to enhance consumer trust. These actions can improve the acceptance of intelligent technologies, strengthen the shopping experience, and generate sustainable competitive advantages in e-commerce environments.

Future research could extend the proposed model by incorporating variables related to algorithmic transparency, privacy, perceived risk, and digital literacy to provide a deeper understanding of artificial intelligence adoption in e-commerce. Comparative studies across different Latin American countries would also help identify potential cultural differences in consumer behaviour. Finally, future research could evaluate more comprehensive models incorporating moderating variables, such as age, digital experience, and purchase frequency, to further explain the factors influencing the adoption of artificial intelligence systems in e-commerce.

ACKNOWLEDGMENTS

This study was conducted within the framework of the research project PROY-INV-UBE-015 of the Universidad Bolivariana del Ecuador, entitled “Analysis of Consumer-Perceived Sustainability in the Latin American Retail Sector.”

References

[1] G. Kostopoulos, A. Stefani, V. Vasiliadis, and S. Kotsiantis, “Deep learning for e-commerce: Recent developments in prediction, personalization and decision intelligence,” Applied Sciences, vol. 16, no. 5, Art. no. 2263, 2026. https://doi.org/10.3390/app16052263

[2] Statista, “eCommerce—Worldwide,” 2026. https://www.statista.com/outlook/emo/ecommerce/worldwide

[3] K. J. Liu, S. L. Chen, H. C. Huang, and M. L. Gan, “The trust paradox: An exploration of consumer psychology and behavior in cross-border shopping using e-commerce mobile applications,” Acta Psychologica, vol. 254, Art. no. 104778, 2025. https://doi.org/10.1016/j.actpsy.2025.104778

[4] Y. Deldjoo et al., “Recommendation with generative models,” Foundations and Trends in Information Retrieval, vol. 20, nos. 1–2, pp. 1–176, 2026. https://doi.org/10.1108/FTINR-06-2025-0109

[5] K. Pauwels and Z. Aksehirli, “Big data analytics democratized with clean collaboration and customer privacy choice,” Journal of Business Research, vol. 188, Art. no. 115112, 2025. https://doi.org/10.1016/j.jbusres.2024.115112

[6] Forbes, “Comercio electrónico en Latinoamérica acelera y México apunta a superar a EE. UU. en 2026,” Jan. 28, 2026. https://forbescentroamerica.com/2026/01/28/comercio-electronico-en-latinoamerica-acelera-y-mexico-apunta-a-superar-a-ee-uu-en-2026/

[7] Cámara Ecuatoriana de Comercio Electrónico, Estudio de transacciones no presenciales en Ecuador, 2024. https://cece.ec/wp-content/uploads/estudios-ecommerce-ec/Estudio-Ecommerce-2025-VII-Medicion.pdf

[8] L. Theodorakopoulos, A. Theodoropoulou, and C. Klavdianos, “Interactive viral marketing through big data analytics, influencer networks, AI integration, and ethical dimensions,” Journal of Theoretical

and Applied Electronic Commerce Research, vol. 20, no. 2, Art. no. 115, 2025. https://doi.org/10.3390/jtaer20020115
[9] H. Turki, "AI-powered personalization in e-commerce: Governance, consumer behavior, and explanatory insights from big data analytics," Technology in Society, Art. no. 103033, 2025. https://doi.org/10.1016/j.techsoc.2025.103033
[10] C. Berrío-Meneses, V. Sanguino-García, and J. Isaza-Álvarez, "Artificial intelligence, data analytics and big data in marketing and customer and consumer segmentations: Systematic literature review," Revista Galega de Economía, vol. 34, no. 3, Art. no. 10108, 2025. https://doi.org/10.15304/rge.34.3.10108
[11] F. Ehsani and M. Hosseini, "Consumer segmentation based on location and timing dimensions using big data from business-to-customer retailing marketplaces," Big Data, vol. 13, no. 2, pp. 111–126, 2025. https://doi.org/10.1089/big.2022.0307
[12] N. E. Murillo-Verdezoto and M. F. Villavicencio-Rodas, "El auge de los marketplaces en comercio electrónico y su influencia en el comportamiento de compra de los consumidores," Revista Metropolitana de Ciencias Aplicadas, vol. 9, no. 1, pp. 352–361, 2026. https://doi.org/10.62452/jhrz1q83
[13] Payments and Commerce Market Intelligence, "Datos clave sobre el comercio electrónico en Ecuador," 2026. https://paymentscmi.com/insights/ecuador-datos-mercado-comercio-electronico/
[14] J. del Alcázar, Informe Estado Digital Ecuador 2025. Mentinno Insights, Nov. 2025. https://www.mentinno.com/informesdigitales-ecuador/
[15] Z. Zong and Y. Guan, "AI-driven intelligent data analytics and predictive analysis in Industry 4.0: Transforming knowledge, innovation, and efficiency," Journal of the Knowledge Economy, vol. 16, no. 1, pp. 864–903, 2025. https://doi.org/10.1007/s13132-024-02001-z
[16] P. Das, K. Uditaa, and K. Hariprasad, "Unlocking the promise of AI in personalized marketing: Mapping the hidden barriers to adoption," International Journal of Quality and Service Sciences, vol. 18, no. 1, pp. 122–145, 2026. https://doi.org/10.1108/IJQSS-08-2025-0193
[17] A. Pagliaro, "Artificial intelligence vs. efficient markets: A critical reassessment of predictive models in the big data era," Electronics, vol. 14, no. 9, Art. no. 1721, 2025. https://doi.org/10.3390/electronics14091721
[18] L. Theodorakopoulos, A. Theodoropoulou, and C. Klavdianos, "Big data analytics and AI for consumer behavior in digital marketing: Applications, synthetic and dark data, and future directions," Big Data and Cognitive Computing, vol. 10, no. 2, Art. no. 46, 2026. https://doi.org/10.3390/bdcc10020046
[19] Z. Zhang, C. Li, and H. Zhang, "Digital confusion: Comprehending the impact mechanisms of artificial intelligence-generated content and user-generated content on tourism decision making," Tourism Management, vol. 112, Art. no. 105269, 2026. https://doi.org/10.1016/j.tourman.2025.105269
[20] M. Faruk et al., "How artificial intelligence brought a paradigm shift in the digital marketing landscape: A scientometric mapping and future research directions," International Review of Management and Marketing, vol. 16, no. 1, Art. no. 446, 2026. https://doi.org/10.32479/irmm.21571
[21] E. Alsaffarini and B. S. Awwad, "Artificial intelligence in sustainable marketing: How AI personalization impacts consumer purchase decisions," Sustainability, vol. 18, no. 2, Art. no. 1123, 2026. https://doi.org/10.3390/su18021123
[22] C. Nie, X. Zhao, and Y. Cheng, "Trust in artificial intelligence: An empirical investigation in the organic food market," British Food Journal, pp. 1–15, 2026. https://doi.org/10.1108/BFJ-03-2025-0349
[23] J. Lohani Harjani and I. Batra, "Antecedents of artificial intelligence in the food service industry: A meta-analytic review," Journal of Foodservice Business Research, vol. 29, no. 2, pp. 320–345, 2026. https://doi.org/10.1080/15378020.2025.2491861
[24] S. K. Dharmaputri, G. Nyilasy, A. Nagpal, and J. Lei, "The effects of human training data explanation on purchase intention for artificial intelligence technologies," PLOS ONE, vol. 21, no. 2, Art. no. e0339482, 2026. https://doi.org/10.1371/journal.pone.0339482
[25] C. Dey, "Understanding the influence of AI-driven personalized recommendations on consumer buying behavior in halal marketing," Journal of Islamic Marketing, pp. 1–21, 2026. https://doi.org/10.1108/JIMA-05-2025-0311
[26] S. Ahmed and N. A. Aziz, "Impact of AI on customer experience in video streaming services: A focus on personalization and trust," International Journal of Human–Computer Interaction, vol. 41, no. 12, pp. 7726–7745, 2025. https://doi.org/10.1080/10447318.2024.2400395
[27] K. Hardcastle, L. Vorster, and D. M. Brown, "Understanding customer responses to AI-driven personalized journeys: Impacts on the customer experience," Journal of Advertising, vol. 54, no. 2, pp. 176–195, 2025. https://doi.org/10.1080/00913367.2025.2460985
[28] S. Lim and M. Kim, "AI-powered personalized recommendations and pricing: Moderating effects of ethical AI and consumer empowerment," International Journal of Hospitality Management, vol. 130, Art. no. 104259, 2025. https://doi.org/10.1016/j.ijhm.2025.104259
[29] H. Beyari and T. Hashem, "The role of artificial intelligence in personalizing social media marketing strategies for enhanced customer experience," Behavioral Sciences, vol. 15, no. 5, Art. no. 700, 2025. https://doi.org/10.3390/bs15050700
[30] G. Malhotra and M. Ramalingam, "Perceived anthropomorphism and purchase intention using artificial intelligence technology: Examining the moderated effect of trust," Journal of Enterprise Information Management, vol. 38, no. 2, pp. 401–423, 2025. https://doi.org/10.1108/JEIM-09-2022-0316
[31] S. Wang, N. Fatima, M. Shahbaz, and M. Asif, "Building user trust in AI chatbots for customer service through human-like cues and perceived reliability," Scientific Reports, vol. 16, no. 1, Art. no. 7860, 2026. https://doi.org/10.1038/s41598-026-38179-2
[32] J. Jayapal, "Unveiling the impact of AI-driven personalization on customer loyalty in online shopping: The moderating effects of privacy concerns," Journal of Promotion Management, vol. 31, no. 5, pp. 865–894, 2025. https://doi.org/10.1080/10496491.2025.2525099
[33] S. Aydin, "Brand trust in AI-driven e-commerce personalization: The well-being–privacy trade-off," Sustainability, vol. 18, no. 2, Art. no. 1073, 2026. https://doi.org/10.3390/su18021073
[34] M. T. Huynh and T. Aichner, "In generative artificial intelligence we trust: Unpacking determinants and outcomes for cognitive trust," AI & Society, vol. 40, no. 8, pp. 5849–5869, 2025. https://doi.org/10.1007/s00146-025-02378-8
[35] Z. Bashir, S. Farooq, M. S. Iqbal, and M. Aamir, "The role of trust in financial robo-advisory adoption: A case of young retail investors in Pakistan," Sustainable Futures, vol. 9, Art. no. 100538, 2025. https://doi.org/10.1016/j.sftr.2025.100538
[36] S. Ratner, S. Revinova, S. Balashova, and A. B. Ersoy, "Artificial intelligence and consumer loyalty in e-commerce," Procedia Computer Science, vol. 253, pp. 435–444, 2025. https://doi.org/10.1016/j.procs.2025.01.105
[37] W. Rahman, "Ethical AI personalization in digital retail: The roles of transparency, privacy, and consumer trust," Strategic Business Research, Art. no. 100020, 2025. https://doi.org/10.1016/j.sbr.2025.100020
[38] G. ElSayad and H. Mamdouh, "The power of AI in retail e-commerce: What drives online customer word-of-mouth intention toward AI-powered shopping applications?" International Journal of Human–Computer Interaction, vol. 42, no. 1, pp. 567–579, 2026. https://doi.org/10.1080/10447318.2025.2508910
[39] J. Hu and E. T. Lee, "The impact of integrated AI and AR in e-commerce: The roles of personalization, immersion, and trust in influencing continued use," Journal of Theoretical and Applied Electronic Commerce Research, vol. 21, no. 1, Art. no. 33, 2026. https://doi.org/10.3390/jtaer21010033
[40] J. F. Hair, G. T. M. Hult, C. M. Ringle, and M. Sarstedt, A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), 3rd ed. Thousand Oaks, CA, USA: Sage, 2022. https://doi.org/10.1007/978-3-030-80519-7
[41] C. M. Ringle, S. Wende, and J.-M. Becker, SmartPLS 4. Bönningstedt, Germany: SmartPLS GmbH, 2024. https://www.smartpls.com/documentation/algorithms-and-techniques/blindfolding
[42] S. P. Gudergan, O. I. Moisescu, L. Radomir, C. M. Ringle, and M. Sarstedt, "Special issue editorial: Advanced partial least squares structural equation modeling applications in business research," Journal of Business

Research, vol. 188, Art. no. 115087, 2025. https://doi.org/10.1016/j.jbusres.2024.115087
[43] C. Fornell and D. F. Larcker, "Structural equation models with unobservable variables and measurement error: Algebra and statistics," Journal of Marketing Research, vol. 18, no. 3, pp. 382–388, 1981. https://doi.org/10.1177/002224378101800313
[44] J. Henseler, C. M. Ringle, and M. Sarstedt, "A new criterion for assessing discriminant validity in variance-based structural equation modeling," Journal of the Academy of Marketing Science, vol. 43, no. 1, pp. 115–135, 2015. https://doi.org/10.1007/s11747-014-0403-8