The Influence of Artificial Intelligence on Customer Retention in the Asian E-Commerce Market

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ARTICLE INFORMATION

ABSTRACT

Artificial intelligence (AI) has become a key driver in enhancing customer retention in e-commerce. This study examines the influence of AI-driven personalization, efficiency and convenience, and customer trust and loyalty on customer retention in Lazada's Asian market. A quantitative research approach was employed, with data collected through an online survey of 150 Lazada users using convenience sampling. The survey measured key constructs using a five-point Likert scale, and IBM SPSS Statistics 27 was used for analysis. The regression results indicate that customer trust and loyalty ($\beta = 0.694$, $p < 0.001$) have the strongest impact on customer retention, followed by personalization ($\beta = 0.166$), while efficiency and convenience ($\beta = 0.062$) have a minimal effect. The model explains 82.5% of the variance in customer retention ($R^2 = 0.825$), demonstrating strong predictive power. These findings highlight the importance of fostering trust and personalized experiences in AI-driven e-commerce strategies. While efficiency and convenience enhance the shopping experience, they play a lesser role in long-term retention. The study suggests that businesses should prioritize AI-driven trust-building strategies and culturally adapted personalization techniques to strengthen customer loyalty and sustain retention in competitive e-commerce environments.

Keywords: Artificial Intelligence (AI); Asia Market; Customer Loyalty; Customer Retention; E-Commerce; Lazada.

INTRODUCTION

In this era, the integration of artificial intelligence (AI) is at the forefront, which allows the e-commerce sector to rapidly grow steadily (Yusof et al., 2024). Its growth as a new business has significantly changed consumer behavior and made commerce more convenient. Lazada Group, founded in 2012, stands as the leading e-commerce platform in Southeast Asia. A subsidiary of Alibaba, the world's largest online retailer, Lazada utilizes robust technology, logistics, and payment capabilities to connect a vast and diverse region spanning six countries such as Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam. With a vision to reach 300 million people by 2030, Lazada currently offers the broadest range of brands and merchants in the region. Lazada was one of the first companies to offer free shipping on goods and services for customers to return goods. The platform also employs a range of strategies, including generous vouchers and promotions, to attract and retain a growing base of consumers. By utilizing AI technologies, Lazada has become a significant player in the Asian e-commerce market. These developments guarantee the platform's continued leadership in this rapidly changing industry by assisting it in being flexible and competitive in a dynamic and varied market (Lazada, 2024a).

AI is a field of computer science that aims to work and think like a person. It makes it possible for computers and other devices to support human learning, comprehension, creativity, autonomy, problem-solving, and decision-making (Stryker & Kavlakoglu, 2024). AI is becoming a vital component of the technology sector and has a significant impact on almost every field. Whether we are aware of it or not, AI is present everywhere. We use AI in a variety of devices, including our electric automobiles, televisions, mobile phones, and other electronic devices. Next, AI is also widely utilized in fields including gaming, entertainment, healthcare, and education. Aside from these sectors, AI has a substantial impact on e-commerce. E-commerce portals utilize AI to deliver personalized responses to consumer inquiries, registry reminders, and notifications regarding sales and discounts. This approach enables organizations to expand their clientele, comprehend their requirements, and provide product recommendations (Kumar et al., 2023).

Customer retention in e-commerce refers to a brand's ability to retain customers and prevent them from churning, defecting to a competitor brand, or becoming inactive. Customer retention is an important measure for any online company because it reveals the effectiveness of its marketing strategies, the value of its products to customers, and the loyalty of its customer base. Retaining existing customers not only reduces acquisition costs and increases customer lifetime value but also builds a loyal customer base that advocates for the brand (Ejjami & Rahim, 2024). AI-powered solutions such as chatbots, predictive analysis, and intelligent visual search help e-commerce businesses drive customer satisfaction and retention. For example, Lazada leverages ChatGPT technology in LazzieChat, an AI chatbot powered by Microsoft Azure OpenAI, to improve the speed and convenience of product information retrieval and purchase for customers.

Despite the increasing use of AI in e-commerce, there is limited knowledge of its impact on customer engagement in the Asian market. This is related to the broader issue of our incomplete understanding of Asian consumer behavior (Schütte & Ciarlante, 1998). There are significant concerns about the long-term ability of AI technologies, such as those used by Lazada, to cultivate customer trust in Asia, where cultural and economic contexts are markedly different such as criticisms of Western-centric marketing theories, AI applications in Asian markets often rely on untested assumptions about consumer behavior that overlook regional dynamics (Schütte & Ciarlante, 1998). Asian markets are constantly evolving, with individuals exhibiting different purchasing behaviors, different

levels of technology usage, and different patterns of behavior. This complicates the formulation of effective engagement techniques. To effectively understand and address these differences, it is essential to develop theories and models tailored to each domain (Schütte & Ciarlante, 1998). AI-driven technologies, such as tailored recommendations and automated customer support, need to be adapted to the preferences and behaviors of Asian consumers to effectively influence retention rates.

This study aims to address this gap by investigating how AI-driven solutions can predict customer preferences, improve service efficiency, and enhance customer satisfaction in the Asian market. By examining the distinct roles of personalization, efficiency, and trust in customer retention, this research offers a novel contribution to the existing literature on AI-driven e-commerce strategies. Unlike prior studies that primarily focus on Western markets, this study highlights the unique characteristics of Asian consumers, who exhibit diverse shopping behaviors and technological adaptability. The findings provide significant theoretical contributions by expanding the understanding of AI's impact on consumer behavior within culturally distinct e-commerce ecosystems. Practically, the study offers valuable insights for businesses seeking to refine AI strategies to foster long-term customer loyalty in a highly competitive digital marketplace. By demonstrating the critical role of trust and personalization in sustaining customer retention, this research provides actionable recommendations for e-commerce platforms like Lazada to tailor AI solutions that align with regional consumer expectations, ultimately strengthening their market position in Asia.

LITERATURE REVIEW

An Overview of AI and E-Commerce
E-commerce has become an integral component of our lives as the internet and AI have expanded throughout this era. AI provides intelligence and decision-making capabilities for machines that look like humans (Chen et al., 2023). AI might have a substantial impact on areas such as banking, healthcare, manufacturing, retail, supply chain, logistics, and utilities (Chaturvedi & Verma, 2023). The purchasing and selling of products and services over the internet is referred to as electronic commerce (e-commerce) (Bloomenthal, 2024). The term "e-commerce" refers to the exchange of products and services on any digital platform or device, including smartphones, online marketplaces, online stores, and social media platforms (Madanchian, 2024). A variety of e-commerce platforms are available to online consumers, such as Shopee, Lazada, Zalora, and TikTok shop (Yo et al., 2021).

The Role of AI in E-Commerce
AI is rapidly becoming a part of e-commerce. It brings numerous potential and opportunities for e-commerce by automating processes and increasing efficiency. AI-powered tools such as chatbots, personalized product recommendations, and smart search have helped the business to improve the shopping experience, driving revenue growth and building long-term loyalty. The degree of personalization has revolutionized users' discovery of products and services, facilitating more informed purchasing decisions (Singh et al., 2021). According to Statista (2024), AI assists online retailers in every aspect of the value chain, including inventory administration, customer service, fraud detection, and dynamic pricing. AI adoption in the e-commerce sector is projected to grow by 45% annually (Envision International, 2024). 80% of companies report that they have either implemented AI in their websites or they are planning to do so (Envision International, 2024). According to the report from Lazada (2024b), 63% of shoppers believe that AI is highly adopted in e-commerce, 47% of the AI chatbots, and 40% of visual product research and translations have been used during online shopping.

AI and Customer Retention in Asia

The growth of AI adoption brings benefits and convenience, which also helps to attain customer retention in various industries. Statista (2024) stated that AI tools profile online customers better than before; AI-powered recommendations displayed on e-commerce sites and predicted customers' preferences can be based on more variables such as purchase history and rating and review. While the chatbot handles standardized and easily categorized requests from customers. AI tools provide immediate assistance, which allows customers to feel supported. According to Lazada (2024b), 90 percent of shoppers are confident that the product summary provided by AI accurately represents the attributes and advantages of the product, while 92% of shoppers believe that an AI-powered platform can offer personalized recommendations that match their requirements and preferences. The most common applications of AI chatbots are the following: 73% for product availability inquiries, 70% for status updates, and 66% for learning about rewards and memberships. The data also shows that personalized recommendations are deemed to be a time saver for online shoppers and making smarter choices. AI-powered tools can analyze customer data and create offers; AI-powered chatbots help businesses provide outstanding customer service and resolve their issue. This helps businesses build customers' trust and improve customer retention.

Hypotheses Development

AI has emerged as a transformative force in e-commerce, reshaping how businesses retain customers by enhancing personalization, efficiency, and convenience, as well as customer trust and loyalty. This section explores the role of AI in driving customer retention through these three critical dimensions.

Personalization

The idea of personalization is broad and has been used in many marketing research studies, such as those that concentrate on data mining, machine learning, human-computer interaction, and other topics (Zanker et al., 2019). As e-commerce continues to expand, personalization has been identified as a key driver of consumer engagement and satisfaction (Kumar et al., 2023).

Research by Bleier et al. (2019) explores strategies for enhancing online customer interactions to build satisfaction and loyalty. It particularly emphasizes the significance of personalization in making online offerings more relevant to consumers. This approach helps boost customer satisfaction, encourages loyalty, and builds stronger relationships between consumers and brands. Vesanen (2007) has noted that personalization is likely to be as old as trade itself. In an offline personalization context, the sales representative typically approaches customers and adjusts their behavior to the customers' characteristics, such as introducing them by their names.

AI has significantly impacted the personalization landscape in the digital era, particularly in the e-commerce sector. Lazada and other platforms using AI technologies, such as machine learning algorithms and natural language processing, can provide highly personalized experiences that are influenced by users' browsing patterns, preferences, and prior behaviors. This technological shift has allowed companies to retain customers more effectively, as AI can predict consumer needs and suggest products in real-time. In the marketing literature, numerous definitions of personalization exist (Strycharz et al., 2019), with Vesanen (2007) offering a summary that highlights its diverse aspects, including the individualized web experience. Therefore, we hypothesize that:

H1: Personalization is positively related to customer retention.

Efficiency and Convenience

The use of AI in customer service has become a crucial strategy for e-commerce platforms like Lazada in the Asia market, where customer retention is a key factor for success. The term "convenience" is used to describe the satisfaction or benefit that the consumer experiences. Nevertheless, this does not exclusively refer to the product's inherent characteristics. It encompasses the effortless purchasing of a product (Kee et al., 2022). According to George and George (2023), AI-driven chatbots and virtual assistants provide round-the-clock support, addressing common customer inquiries and freeing human agents to manage more complex issues. Lazada, as one of the leading e-commerce platforms in Southeast Asia, leverages AI to predict consumer behavior based on historical data and purchasing patterns, enabling the platform to offer personalized product recommendations and targeted promotions (Rygielski et al., 2002). This seamless interaction leads to higher customer satisfaction and greater loyalty, as AI ensures quick resolutions, reducing waiting times and increasing the efficiency of service. Lazada utilizes AI to anticipate customer behavior and tailor services, such as personalized product recommendations, which can increase the likelihood of repeat purchases.

However, research by Nicolescu and Tudorache (2022) highlights that while AI is effective in handling straightforward tasks, customers still prefer human intervention for more complex issues, underscoring the need for a balanced approach. Additionally, research indicates that AI-driven marketing tools significantly enhance customer engagement, acquisition, and retention metrics for e-commerce platforms. AI tools, such as personalized recommendations and predictive analytics, enable businesses to better understand consumer behavior, leading to tailored marketing strategies that foster loyalty and drive sales (Madanchian, 2024).

However, AI's effectiveness is not without its limitations. While AI excels in handling simple tasks, consumers still prefer human agents for more complex issues, which could lead to dissatisfaction if not addressed (Song et al., 2022). Additionally, the adoption of AI must be managed carefully to avoid concerns related to privacy and the erosion of personal connections, which could harm customer trust and retention (Chaturvedi & Verma, 2023). As such, the following hypothesis is developed:

H2: Efficiency and convenience are positively related to customer retention.

Customer Trust and Loyalty
The potential of AI-driven technologies to improve consumer trust and loyalty within e-commerce platforms has been extensively investigated in recent research, with numerous studies emphasizing the impact of AI on customer retention. Customer loyalty is determined by the frequency of purchases and the quantity of money spent on a particular brand (Oh et al., 2023). One of the most recent studies within this context is Chen et al. (2023), where the authors found that AI-powered chatbots positively influence customer loyalty by enhancing service quality through cognitive trust, perceived value, and satisfaction. In another study, Prentice et al. (2020) explored how AI influences customer satisfaction and loyalty within the hotel industry in Portugal, finding that AI technologies and employee service quality both play crucial roles in shaping customer retention.

While AI and employee service quality both contributed positively, the impact of AI on customer loyalty diminished when combined with traditional human services. In a Forbes leadership report, Hanifin (2019) explored the broader impact of AI on customer loyalty, specifically emphasizing its role in enhancing customer experience.

According to Hanifin (2019), a significant proportion of enterprises, around 80%, had integrated AI technologies like deep learning and machine learning into their systems by 2017, with another 30% planning to expand these investments. The primary motivation for such investments, as reported in the study, was the improvement of customer experiences, with 62% of businesses viewing AI as a tool to enhance customer engagement and satisfaction. Hanifin (2019) argued that AI enables businesses to deliver more personalized, efficient, and seamless customer interactions, which are key drivers of customer loyalty. McKnight et al. (2023) discussed the role of trust in e-commerce, noting that personalized experiences powered by AI build consumer trust by reflecting an understanding of individual preferences. Verhagen et al. (2014) also highlighted that personalized communication facilitated by AI positively influences consumer trust and increases purchase likelihood. According to McClain et al. (2023), a significant number of consumers express concerns about how their personal data is being used and the potential for misuse. Additionally, Bansal et al. (2015) have demonstrated that privacy concerns can reduce the effectiveness of personalized experiences when consumers perceive that their data is being exploited in an intrusive or manipulative manner. In view of the above, it is hypothesized that:

H3: Customer trust and loyalty are positively related to customer retention.

Conceptual Framework
The study framework model is depicted in Figure 1.

Figure 1. Research Framework
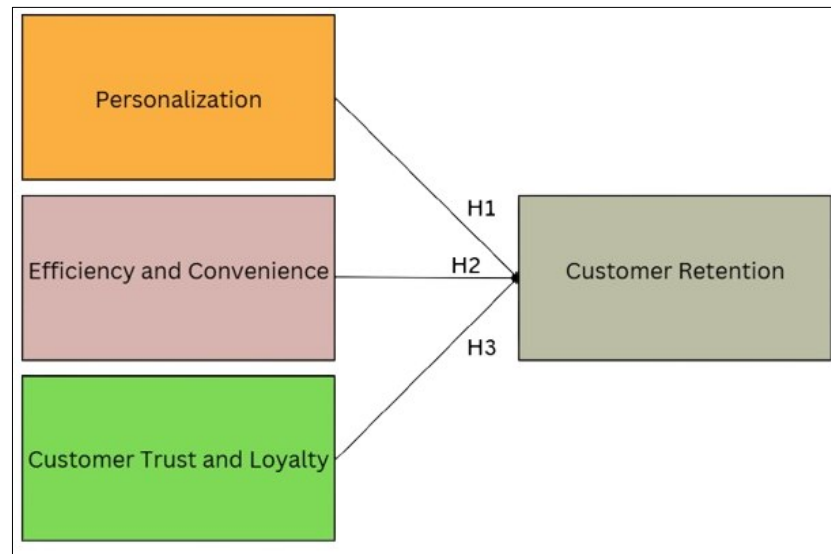
RESEARCH METHOD

Research Approach
This study uses a quantitative research approach to examine the influence of AI on customer retention rates for Lazada in the Asia market. When measuring relationships between variables, quantitative approaches are especially well-suited since they offer statistical support and conclusions that may be applied broadly. In this method, structured data is gathered and analyzed to find patterns and insights on how AI affects customer retention (Creswell & Creswell, 2017).

Sample and Procedure
The survey focused on those who had previously shopped online at Lazada. The sample size was 150 respondents selected using convenience sampling, which is a popular

method for getting responses from a wide range of participants. The data was collected via an online Google Forms questionnaire that was distributed across multiple digital media. This method allowed the research team to collect data efficiently and effectively, resulting in a wide sample of consumers across demographics (Soo, 2022). Additionally, IBM SPSS Statistics 27 was employed to analyze the survey findings to provide comprehensive statistical analyses.

Questionnaire Development
The survey questionnaire was created by adopting and adapting validated items from established scales in previous studies (Soo, 2022). This method ensured the contextual relevance and reliability of Lazada's platform in the Asian market. The items were designed to evaluate the following important constructs: personalization, efficiency & convenience, customer trust, and customer retention. The adaptation process allowed for the customization of the questions to reflect Lazada's AI features, aligning with the study's objectives (Nagy & Hajdú, 2021).

Measures
The questionnaire includes three main sections that were used to gather respondents' feedback on the various aspects of the impact of AI on customer retention: (1) demographic profile, (2) customer perception, and (3) customer behavior. The five-point Likert scale was employed to assess the perception and behavior of customers, with a score of 1 indicating a strong disagreement and a score of 5 indicating a strong agreement. The items for each key variable are available in the Appendix. Demographic and personal data were collected using single-statement items to provide insights into the respondents' backgrounds. This section surveyed age, gender, ethnicity, monthly income, frequency of online shopping on Lazada, and occupation. The 5-item scale was adopted to measure the independent variable and dependent variable, independent variables Personalization, Efficiency & Convenience, and Customer Trust. The items included "The recommendations I receive on Lazada are tailored to my shopping preferences" (Personalization); "Lazada makes the shopping process quick and straightforward" (Efficiency & Convenience); "I trust Lazada's AI-driven product recommendations" (Customer Trust). The dependent variable is customer retention. A sample item included "I plan to continue shopping on Lazada in the future." This section provided insights into long-term customer loyalty and shopping behavior.

Data Analysis
The data analysis includes both descriptive and inferential analysis. The descriptive analysis was used to investigate the respondents' demographics, including their gender, age, occupation, monthly income, and frequency of online buying on Lazada. This step ensures a thorough understanding of the sample characteristics. Next, a descriptive statistic was analyzed to determine the mean and standard deviation of key variables such as personalization, efficiency and convenience, customer trust and loyalty, and customer retention. Finally, a regression analysis was carried out to determine the most relevant aspects of the link between AI-driven features (independent variables) and customer retention (dependent variable). In short, these analytical approaches provide a comprehensive understanding of the data and support the study's objectives.

RESULTS

Respondent Demographics
Table 1. Demographic Profile of Respondents (N =150)

Response	Frequency	Percentage (%)
Gender		
Female	58	38.7

Male	92	61.3
Age		
20 - 29 years old	102	68.0
30 - 39 years old	21	14.0
40 years old and above	10	6.7
Below 20 years old	17	11.3
Ethnicity		
Malay	25	16.7
Chinese	106	70.7
Indian	19	12.7
Occupation		
Government Sector	26	17.3
Private Sector	38	25.3
Self Employed	21	14.0
Student	65	43.3
Frequency of Online Shopping on Lazada		
Very Frequently	178	79.5
Frequently	27	12.1
Occasionally	7	3.1
Rarely	5	2.2
Monthly Income		
RM 1,000 and below	60	40.0
RM 1,001 – RM 3,000	27	18.0
RM 3,001 – RM 5,000	36	24.0
RM 5,001 and above	27	18.0

Based on the data in Table 1, the demographic profile of the respondents provides a clear overview of the sample population. The majority are female, accounting for 61.3% of the total, while males make up 38.7%. Most respondents (68%) fall within the 20-29 age range, indicating that the sample primarily consists of millennials. In terms of ethnicity, Chinese respondents form the largest group at 70.7%, followed by Malay (16.7%) and Indian (12.7%), suggesting that while the survey captures a diverse range of ethnic backgrounds, there is a clear Chinese majority. Regarding occupation, students constitute the largest segment at 43.3%, followed by private sector employees (25.3%), government employees (17.3%), and self-employed individuals (14%), providing a broad perspective for the study. When it comes to Lazada shopping habits, the sample is relatively balanced between frequent users (31.3%) and infrequent users (33.3%), with the remaining respondents falling somewhere in between, which is likely to yield valuable insights. In terms of income, 40% of respondents earn RM 1,000 or less, 18% fall within the RM 1,001-RM 3,000 range, 24% earn RM 3,001-RM 5,000, and 18% make RM 5,001 or more, capturing a range of socioeconomic backgrounds that could influence shopping behaviors and perceptions. Overall, the demographic profile suggests that the sample is predominantly young, female, and Chinese, with a diverse mix of students, private sector employees, government workers, and self-employed individuals. Their varying levels of engagement with Lazada, along with differences in income levels, should provide a robust dataset for this study.

Descriptive Statistics
Table 2. Descriptive Analysis, Cronbach's Alpha, and Correlations of All Study Variables

	Variables entered	Personalization	Efficiency and Convenience	Customer Trust and Loyalty	Customer Retention
1	Personalization	0.773			

2	Efficiency and Convenience	0.915**	0.856		
3	Customer Trust and Loyalty	0.919**	0.916**	0.927	
4	Customer Retention	0.862**	0.851**	0.905**	0.893
Mean		3.8280	3.8560	3.8240	3.7987
Std. Deviation		0.67755	0.68468	0.70963	0.71812

Note. N=150; **p < 0.01; Correlations is significant at the 0.01 level (2-tailed)

Table 2 presents descriptive statistics, including Cronbach's alpha values and correlation coefficients among key variables. The reliability scores indicate strong internal consistency across all constructs: personalization (0.773), efficiency and convenience (0.856), customer trust and loyalty (0.927), and customer retention (0.893), all exceeding the acceptable threshold of 0.7. This validates the reliability of the survey instrument in analyzing customer retention behaviors within Lazada's AI-driven services. Among these constructs, customer trust and loyalty are identified as the most critical factors for maintaining long-term customer relationships

The mean values for all variables range from 3.7987 (customer retention) to 3.8560 (efficiency and convenience), suggesting that respondents generally agree with the statements measured on a 5-point Likert scale. Standard deviations between 0.67755 and 0.71812 indicate low variability and consistent responses. The sample size of 150 respondents provides a robust sample for reliable statistical analysis. Furthermore, all variables exhibit positive and significant correlations ($p < 0.01$) with Sig. (2-tailed) values below 0.001, supporting strong interrelationships among the constructs.

The correlation analysis reveals several key insights regarding the relationships between variables. The strong correlation between personalization and efficiency and convenience (0.915) suggests that higher personalization is linked to improved efficiency and convenience. Similarly, the correlation between personalization and customer trust and loyalty (0.919) implies that personalized services significantly enhance customer trust and loyalty. Moreover, customer trust and loyalty play a crucial role in customer retention, as indicated by a high correlation of 0.905, emphasizing that trust and loyalty are fundamental in maintaining long-term customer relationships. Additionally, efficiency and convenience are positively associated with customer trust and loyalty (0.916), suggesting that a seamless and efficient user experience fosters greater customer confidence and commitment. The correlation between personalization and customer retention (0.862) further highlights the importance of tailored services in encouraging customer loyalty, while efficiency and convenience also contribute to retention with a correlation of 0.851, indicating that enhanced usability and ease of access play a key role in customer satisfaction.

These findings emphasize the interdependence among personalization, efficiency, trust, and retention. Businesses should focus on enhancing personalization, optimizing user experience, and building trust to drive customer loyalty and long-term retention

Regression Analysis
Table 3. Regression Analysis of All Study Variables

	Variables entered	Customer Retention
1	Personalization	0.166
2	Efficiency and Convenience	0.062
3	Customer Trust and Loyalty	0.694***
F value		228.906
R Square		0.825

Adjusted R Square	0.821

Note. N = 150; *p < 0.05, **p < 0.01, ***p < 0.001.

As shown in Table 3, the model explains 82.5% of the variance in customer retention, as indicated by the R-squared value (0.825). The adjusted R-squared (0.821) further supports the model's reliability and robustness.

The F-statistic (228.906, p < 0.001) confirms the overall statistical significance of the model, suggesting that the predictors collectively account for a substantial portion of the variation in customer retention. The standardized coefficients (β) reveal the relative importance of each predictor, with customer trust and loyalty (β = 0.694, p < 0.001) emerging as the strongest determinant of customer retention. In contrast, personalization (β = 0.166) and efficiency and convenience (β = 0.062) exhibit relatively small effects.

Overall, the regression model provides a strong explanation of customer retention, with customer trust and loyalty playing the most influential role. Personalization also contributes, though to a lesser extent, while efficiency and convenience have a minimal effect. The high R-squared value (0.825) further supports the model's robustness in predicting customer retention.

DISCUSSION

The findings of this study indicate that customer trust and loyalty and the personalization of AI have a significant impact on customer retention rates. AI applications, in whatever form, from text and video analysis to voice assistance, have become the most critical aspect of customer relationship management and personalization. AI and machine learning empower organizations to personalize email content and deliver unprecedentedly accurate mobile advertisements. AI-powered personalization can quickly and effectively tackle complex retail problems using extensive datasets to anticipate and cater to client preferences. This capability helps to improve consumer satisfaction, loyalty, and the overall purchasing experience through customized recommendations and personalized interactions (Ejjami & Rahim, 2024). The current machine learning-based customer personalization literature emphasizes its ability to enhance decision-making by providing deeper insights into customer behavior and preferences. This has led to improved customer involvement and decreased customer attrition rates (Ejjami & Rahim, 2024). By using AI to deliver highly personalized services, companies can significantly boost customer retention.

Convenience and efficiency are critical components of the consumer experience. However, they have a lesser influence on retention than personalization and trust. The use of predictive analytics facilitates the fulfillment of customer requirements, while AI-powered applications are capable of promptly and effectively responding to customer inquiries. Companies can offer services that are more convenient and fast by utilizing AI (Srivastava, 2021). The AI chatbots can provide prompt responses to common consumer inquiries, including product or service information, order processes, and complaints (Kumar et al., 2023). Besides, AI can identify customer patterns and offer product or service recommendations that are consistent with their needs (Srivastava, 2021). Although it is crucial to offer a seamless and easy shopping experience, it is not as critical to consumer loyalty as factors such as trust and the personalization of services. The significance of efficiency and convenience in fostering a positive consumer experience becomes less important when it comes to long-term retention. Businesses that concentrate on the development of trust, loyalty, and personalization will be more well-positioned to maintain customer loyalty and establish enduring relationships as the competitive landscape continues to change.

Customer retention is a critical aspect of business success, and various factors influence a customer's decision to remain loyal to a brand. Among the most significant factors, customer trust and loyalty are widely acknowledged as primary drivers of customer retention. These factors are essential, especially in online shopping environments, where customers do not have the ability to physically interact with the products they are purchasing. The absence of face-to-face interactions makes trust even more vital, as customers must rely on the brand's reputation, product descriptions, and user experiences shared online. In the context of online shopping, where physical interaction with products is absent, consumers' trust in the brand and the platform's ability to deliver on promises becomes even more crucial (Morgan & Hunt, 1994). Trust allows customers to feel secure in their purchasing decisions and is a key factor in repeat purchases, as it establishes a sense of reliability and integrity in the brand. Doney et al. (1998) found that when customers perceive a brand as trustworthy, they feel more comfortable committing to long-term relationships, which increases loyalty and decreases the likelihood of churning. This foundation of trust is a key driver of customer loyalty, a concept central to long-term retention. Gefen (2002) explains that trust reduces perceived risk and uncertainty in online transactions, enabling customers to feel secure and confident in their purchasing decisions. The presence of trust in an online platform not only facilitates initial purchases but also ensures repeat transactions, contributing to sustained customer retention. Similarly, Jarvenpaa et al. (1999) posit that trust in e-commerce platforms is a crucial determinant of a customer's willingness to engage in online transactions, particularly in competitive markets where alternative options are readily available.

Several scholars have argued that trust leads to customer loyalty, a concept defined by Oliver (1999) as a deep commitment to repurchase from a brand, often regardless of competitive forces or situational factors. This loyalty not only leads to continued transactions but also fosters positive word-of-mouth, enhancing the brand's reputation and encouraging new customer acquisitions. Dick and Basu (1994) conceptualize loyalty as a blend of favorable attitudes and consistent behaviors toward a brand. This dual aspect of loyalty underscores its importance in securing both short-term sales and long-term customer engagement. Trust acts as the foundation for this loyalty, as it ensures that customers perceive the brand as reliable, transparent, and capable of consistently meeting their expectations. Furthermore, Reichheld and Sasser (1990) emphasize that customer loyalty is a critical predictor of profitability. Loyal customers not only make frequent purchases but also exhibit a higher willingness to spend, making them less sensitive to price fluctuations. Moreover, these customers often act as brand ambassadors, spreading positive word-of-mouth and influencing potential buyers, which further reinforces the brand's market position. Reichheld (2003) highlights that even a small improvement in retention rates can significantly boost profitability, as loyal customers are more likely to purchase premium products or services, resulting in higher customer lifetime value.

CONCLUSION

In conclusion, this study highlights the transformative role of AI in shaping customer retention within e-commerce and focusing on Lazada in the Asian market. Through the analysis of three crucial variables, such as personalization, efficiency and convenience, and customer trust and loyalty, the study has shown how AI-powered solutions improve customer satisfaction and affect retention rates. the results and discussion lead to the conclusion that the respondents have different views on the impact of e-commerce on customer retention in Lazada (Singh et al., 2021). The results indicate that consumer trust and loyalty have the greatest influence on customer retention, as this variable

emphasizes the significance of fostering secure and reliable AI-driven interactions. Besides, AI-powered personalization, such as chatbots and machine learning, is also essential since it allows experiences to be tailored to each user's preferences, which increases customer loyalty. Next, efficiency and convenience improve and enhance the entire shopping experience, but their direct impact on long-term retention is less significant compared to consumer trust, loyalty, and personalization. According to the respondents' demographic profile, the majority of Lazada users are young, proficient with technology, and have a diverse population. The regression analysis showed a robust predictive model and validated the significant impact of these AI-driven parameters on customer retention with an adjusted R^2 of 82.1%. Hence, the results' credibility is further supported by the robustness of the statistical analysis and the excellent reliability of the constructs.

In a nutshell, businesses aiming to increase customer retention must place a high priority on establishing credibility and providing personalized experiences while maintaining productivity. Therefore, adapting AI techniques to the distinct cultural and behavioral traits of the Asian market will be crucial for Lazada and similar platforms to gain a competitive advantage and foster long-term loyalty. These findings not only enhance theoretical understanding but also provide helpful strategies for applying AI in dynamic e-commerce environments.

LIMITATION
Although this research offers insightful information on how AI affects Lazada's customer retention, several limitations need to be acknowledged to contextualize the findings.

First and foremost, a sample size of 150 respondents might not accurately reflect the diverse range of Lazada users in Southeast Asia. This is because a more comprehensive understanding of customer retention dynamics may be obtained by analyzing larger samples of more diverse demographic subgroups, such as elderly adults or rural consumers. In addition, the investigation is limited to Southeast Asia, where consumers' conduct is significantly affected by cultural, economic, and technological disparities. Consequently, the results may not be applicable to other countries, such as Western markets or developing economies, where consumer preferences and e-commerce adoption rates are substantially different. Additionally, the potential biases that may arise from the reliance on self-reported data acquired through an online survey are a concern. The accuracy of the responses may be compromised by respondents' misinterpretation of specific AI-related terms or their overestimation of their loyalty or trust due to social desirability bias. The 5-point Likert scale provides a systematic assessment approach. However, its granularity may lead to the oversimplification of complex customer impressions, potentially complicating the identification of subtle behaviors or attitudes. Another limitation is the omission of key influential elements such as privacy concerns or the function of AI-powered visual search, which have the potential to greatly effect customer trust and retention. Lastly, the study's limited emphasis on Lazada also limits the opportunity to draw comparisons with other significant e-commerce sites like Shopee or Zalora, which may use AI in different ways.

Building on these insights, future research should address the study's limitations to provide more thorough insights. Firstly, the results' validity would be improved by increasing the sample size to encompass a bigger and more varied group of respondents. Furthermore, comparing various e-commerce platforms and sectors may aid in determining how AI affects client retention differently, depending on the situation. Additionally, future research could investigate other relevant aspects, such as user satisfaction with AI-powered visual search tools, privacy concerns, or regional cultural differences. Next, longitudinal research that tracks customer retention over time would

help to validate the findings and provide a better understanding of the long-term influence of AI on consumer behavior. Hence, future studies may strengthen and expand our understanding of AI's role in e-commerce by tackling these issues and providing practical advice on how companies can better use AI in competitive and dynamic marketplaces.

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