

Examining the Influence of AI Chatbot Attributes on Customer Purchase Intention in Online Apparel Retail

Ellisya Iryana Faizal Redzuan¹, Mohd Syafiq Md. Taib^{2*}, Haslinda Musa³, Mohd Fazli Mohd Sam⁴, Asniyani Nur Haidar Abdullah⁵, Mohammad Syah'izzat Md. Taib⁶

^{1,2,3,4}Fakulti Pengurusan Teknologi dan Teknousahawanan, Universiti Teknikal Malaysia Melaka, Malaysia

⁵Fakulti Teknologi Maklumat dan Komunikasi, Universiti Teknikal Malaysia Melaka, Malaysia

⁶Kuliyyah of Sustainable Tourism and Contemporary Languages, International Islamic University Malaysia, Malaysia

¹ellisyaaryana2001@gmail.com, ²syafiq.taib@utem.edu.my, ³haslindamusa@utem.edu.my, ⁴mohd.fazli@utem.edu.my,

⁵asniyani@utem.edu.my, ⁶syahizzat@iiu.edu.my

¹ <https://orcid.org/0009-0006-2003-6264>; ² <https://orcid.org/0009-0009-6686-0349>; ³ <https://orcid.org/0009-0007-2177-7141>; ⁴ <https://orcid.org/0009-0001-0855-9437>; ⁵ <https://orcid.org/0009-0008-5148-2341>; ⁶ <https://orcid.org/0009-0004-0822-0005>.

*Corresponding Author: syafiq.taib@utem.edu.my

Abstract: - Artificial Intelligence (AI) has been changing the landscape of e-commerce customer service, making it a more personalized and efficient experience. AI chatbots have become one of the crucial technologies enabling automated customer interactions and efficient service delivery in this context. Although a number of studies have previously examined chatbot adoption and customer satisfaction, few have studied the effect of certain of the attributes of the service provided by the chatbot on customers' purchase intention, especially in the context of online apparel retail. Hence this research aims to examine how essential characteristics of AI Chatbots affect consumer intentions to purchase apparel products online.

This study used a quantitative research and survey was conducted among 370 online consumers with some experience in buying on-line apparel products. The three key attributes of the chatbot that were studied were the availability of the chatbots, their response consistency, and their personalized responses. The relationships between these attributes of chatbots and customer purchase intention were assessed by performing statistical analysis.

The results show that the service attributes of the chatbot plays a significant role in customer's purchase intention in online apparel retail. On the theoretical side, this study adds to the growing body of research on AI-powered customer service by providing insights into how the attributes of chatbots affect consumer purchasing choices in the digital retail context.

Keywords: Artificial Intelligence Chatbots, Customer Purchase Intention, Online Apparel Retail, Chatbot Service Attributes, E-commerce Consumer Behavior.

1. INTRODUCTION

Digital technology has made a very impactful contribution to how businesses communicate and interact with customers, especially in the e-commerce industry. In such an environment, consumers are increasingly expecting quick, reliable, personalized responses when looking for product information or when they need help when buying products (Pebrianti, Dewi and Ahmadi, 2025). To meet these evolving customer needs, various online retailers have started to implement Artificial Intelligence (AI) technologies, specifically Artificial Intelligence Chatbots that empower customers to communicate with the online brand through Natural Language Processing and Machine Learning (Alrawad et al., 2025; Syarifudin, Yulianto and Nugroho, 2024).

AI chatbots are now viewed as one of the vital instruments for enhancing the customer engagement in online retail stores. This is because chatbots are able to respond instantly, all day long without any time restrictions, and can handle multiple customer queries in parallel (Chen et al., 2023; Hamedani et al., 2025). This has led to the growing adoption of chatbots by online retailers who want to ensure they have efficient customer communication, lower costs



of operation and help customers through the buying decision process (Jennah and Hartono, 2025; Nguyen and Nguyen, 2025).

In particular, the fashion apparel retail sector in the online industry uses chatbots highly. People in this product category are likely to need more information than others before shopping, such as availability, sizing advice and styling tips that are based on their personal tastes (Azman et al., 2025; Jha, 2025). A chatbot can help enhance the customer experience for online shopping, create strong customer engagement with online retailers, and provide immediate, accurate, and personalized responses (Azman et al., 2025; Xiaofei et al., 2023).

There are several necessary characteristics that have been emphasized in previous studies that can enhance the chatbot service. These include 24 hours availability, responsiveness, and customized interaction. These capabilities allow Chatbots to provide timely information and tailor their responses based on customer preferences and needs (Hamedani et al., 2025; Syarifudin, Yulianto and Nugroho, 2024). However, while AI chatbots are increasingly adopted in digital commerce, its studies on how these attributes of AI chatbots affect customer purchase intent are still limited, particularly in the fashion sector and in the newly emerging digital economies (Azman et al., 2025; Nguyen and Nguyen, 2025).

With the advent of e-commerce, the rapid growth of the Internet has led to greater online shopping. In Malaysia, the development of e-commerce has helped to boost online shopping activities. This progress has additionally motivated companies to implement chatbot technology extensively, to help their customer support and marketing communication efforts (Hamedani et al., 2025). The impact of attributes of the chatbot on the purchase intention of consumers in the online fashion apparel retail industry, however, is still under-researched (Azman et al., 2025).

Hence, the present study proposes to explore the role of significant characteristics of AI chatbots on customer purchase intention in online apparel retail. The results will be published in academic research and will provide knowledge to online retailers on how to improve their purchasing decisions and create more effective chatbot systems to increase customer engagement (Azman et al., 2025; Syarifudin, Yulianto and Nugroho, 2024).

2. LITERATURE REVIEW

A. AI Chatbots in Online Retail

In an increasingly digital world, businesses are turning to artificial intelligence (AI) chatbots to improve customer interactions. AI chatbots are computer programs that use natural language processing and machine learning to mimic human dialogue. They are used in different industries such as ecommerce for automated customer service, answering questions and assisting consumers in their buying process (Myin & Watchravesringkan, 2025). AI chatbots can be used in a variety of ways in the retail industry, especially in online fashion, such as customizing product recommendations or providing round-the-clock customer support, which can enhance the shopping experience (Trần, 2025).

AI chatbots are an integral part of online retail, playing a significant role in customer engagement and streamlining service operations. These systems can communicate with customers without human intervention, respond to queries and offer information. Unlike the traditional methods of customer service that involve human agents, chatbots can handle several interactions concurrently and reply immediately to customer inquiries. This is an improved feature that enables scalable use of customer service operations, resulting in lesser waiting time for customers and improved overall transactional throughput as well, which can be beneficial in high-volume retail applications (Baabdullah et al., 2022). The technological integration will not only help streamline operational processes but also foster a more dynamic and responsive paradigm of interaction with the consumer, which can have a positive effect on the consumer's perception and purchase decisions (Azman et al., 2025).

In the field of e-commerce, AI chatbots have taken on significant importance as customers grow more impatient for immediate assistance when seeking product details or making a purchase. Chatbots can help customers with inquiries regarding product specifications, stock availability, pricing, and shipping information. Furthermore, chatbots can lead customers through the buying journey, offering suggestions and pertinent information as they go, which can significantly enhance the customer experience. They can simulate human sales agents by providing tailored recommendations and handling transactions, assisting in making sales (Fu et al., 2023; Rathore, 2023).

AI-powered chatbots are particularly beneficial in the e-commerce clothing industry, where consumers may need more details before buying. When buying clothes, there are a lot of questions you can ask, such as about size, availability, style advice, and shipping. AI chatbots can respond to these queries instantly, helping customers to get

their answers quickly and easily. In addition, AI algorithms can be used to make product recommendations based on customer behavior, which can be customized to each individual to improve the customer's experience and drive sales and customer satisfaction (Mungoli, 2023).

With these features, AI chatbots have emerged as a crucial digital asset in the online retail landscape for enhancing customer engagement and service. Major brands have already embraced them and the academic community is increasingly studying their use, highlighting the significant impact they can have in the e-commerce space (Gao et al., 2025). This integration is aligned with the changing expectations of the online consumers for more efficient, personalized and seamless purchasing experience, thus putting e-commerce businesses strategically in a dynamic and ever changing business environment (Istiqomah & Alfansi, 2023, p. 2; Rahevar & Darji, 2024).

But the efficacy of chatbot interaction can rely on certain attributes of the services provided that affect customers' perception and reactions to chatbot communication. This study explores these particular qualities such as being available for 24 hours, responding consistently, and being responsive enough to provide personalized responses and how they affect the customer purchase intention (Chan & Leung, 2021; Fu et al., 2023; Trần, 2025).

Therefore, it is crucial to understand these attributes in order to understand the impact of chatbot technology on customers' purchasing intentions. In particular, the ability of chatbots to provide real-time, accurate customer support and product recommendations, based on user-specific information, can improve the customer interaction and decision-making experience (Liu & Chen, 2025; Rahevar & Darji, 2024).

B. Chatbot Availability and Purchase Intention

Chatbot availability is the ability of AI chatbots to be available at all times without time restrictions. This 24/7 support is there to cater for the modern day consumer's need for immediate support and information, irrespective of geographical and temporal boundaries (Martínez et al., 2024). Customer support is crucial in online retail, where customers can shop anytime. This constant availability of chatbots means that customer inquiries can be addressed promptly, whether it's regarding product information, order status, or anything in between, and it goes beyond regular business hours. Whether it's about product information, order status, or anything else, the chatbot can be your customer's lifesaver, even outside of business hours. AI chatbots can also run around the clock, providing customers with information and help whenever they need it, unlike human representatives.

In e-commerce, the ability to provide instant and ongoing assistance is especially crucial when customers are making shopping decisions, as they might need to have their questions answered promptly. This availability will help to increase the convenience and satisfaction of the customers, which is one crucial aspect contributing to purchase intention (Morsi, 2023). Some studies have shown that timely and excellent customer service, which can be provided by chatbots available around the clock, can positively influence customer attitudes and trust, enhancing the likelihood of purchase (Kim, 2025; Soares et al., 2022). When people don't respond or help quickly enough, they might become frustrated and may not make a purchase. Conversely, 24/7 response chatbots can improve customer convenience and alleviate uncertainty in the decision-making process.

In the online apparel retail sector, chatbot availability comes even more into the picture as a result of the attributes of apparel products. There are often important questions, such as sizing, fit, material, and styling, that may have to be answered quickly or consumers will leave without making a purchase or put off making one until later. These dangers can be reduced by the continuous availability of AI chatbots, which can provide instant clarification, creating a more smooth shopping journey that leads to conversion (Nichifor et al., 2021). Chatbots can respond immediately, anytime, helping customers easily find the right info at the right time, which helps create smoother and efficient shopping experiences.

Past research has indicated that the timely relationship with customers and customer availability are important factors that affect customer satisfaction and willingness to engage in a digital environment. A major benefit of chatbots is that they can be available 24/7, which can cut down the waiting period for customers to get information or resolve their queries, thereby improving their buying behavior (Chen et al., 2025). Having support that is available on a constant basis, can enhance the sense of convenience and confidence customers have when dealing with online retail stores. Thus, customers' intent to make a purchase decision might be boosted by higher availability of chatbots.

Given the above discussion, the availability of chatbot is likely to be an important factor influencing the customers' purchase intention in e-commerce for apparel products. Thus, the hypothesis is put forward that:

H1: The availability of the chatbot positively impacts the purchase intention of the customers in online apparel retail.

C. Response Consistency and Purchase Intention

The consistency of AI chatbots' responses across multiple interactions with customers is also known as response consistency. Consistency indicates that an AI chatbot can deliver uniform, precise, and reliable responses across multiple interactions with customers, maintaining trust and credibility (Lee & Chan, 2023).

For online retailers, the messages that customers receive should be the same, whether they are visiting the website, checking out a pop-up ad, or following a link in an email. AI chatbots are built to respond to queries in a consistent manner, following a set of rules and data, while human agents might be tired, confused, or lack experience. A lack of consistency in the responses can cause confusion, reduce the customer's trust in the chatbot, and make them feel that the chatbot is not useful and the retailer's service is not good (Gharib et al., 2025).

It is important that the responses are consistent between the customer and the online retailer to build the level of trust between the two. If customers get mixed or incorrect messages, it might result in confusion, dissatisfaction, and a loss of faith in the platform. Conversely, when chatbots consistently and correctly provide information, the reliability of the information is reinforced and the information affects purchase intention in a positive way (Guo & Cai, 2024). This is important to customers when purchasing, particularly in situations where it is not possible to evaluate the physical product.

When looking at ecommerce fashion, consistency of the answer is crucial as customers will need to know a lot more. Customers frequently call to ask for product information like size, material, availability and return policy. Poor information about these aspects can cause high levels of frustration and actually affect a customer's ability to make a purchase, making the reliability of a chatbot an important aspect of a smooth transaction process (Presti et al., 2021). It's important, then, that customers have access to the same correct information at every stage of the customer journey, as this is a key part in providing them a positive shopping experience.

Previous research has shown that service consistency plays an important role in customer satisfaction and customer trust regarding digital platforms. When the service is delivered consistently, there is less ambiguity and the impression of professionalism is increased. Therefore, if chatbots can deliver accurate and dependable information consistently, they can build customers' confidence, ultimately resulting in increased intentions to buy (Yun & Park, 2022; Zhang et al., 2024). Since trust and satisfaction are the two major factors that affect customer behaviour, it is expected that response consistency will have a direct effect on customer purchase intention.

From the above discussion, it can be predicted that response consistency will have positive implications on customer purchase intention in online apparel retail. The hypothesis is therefore that:

H2: Response consistency positively affects the customer purchase intention in online apparel retail.

D. Personalized Response and Purchase Intention

Personalized responses are characterized by the ability of AI chatbots to adapt their interactions to each customer's preferences, actions, and previous interactions. This personalization goes beyond simple responses to provide the customer with specific product suggestions, style recommendations, and tailored customer service, thus increasing the value and connection of the customer experience (Abdullah et al., 2024).

The advent of artificial intelligence and data analytics has led to chatbots becoming more adept at providing personalized responses to meet individual customer needs, improving the overall customer experience. These optimized interactions use past data and live information to offer highly specific advice, which is comparable to an expert salesperson providing advice (Liu & Chen, 2025).

Several factors contribute to personalization to drive customer engagement in digital spaces. When customers feel that the service is catered to them, they will buy it more readily because they will appreciate it. This personalized service is not only more engaging to the customer, but it also gives the impression of the chatbot being more responsive (Baabdullah et al., 2022). Making customers feel understood and valued by the platform, with a sense of relevance and connection, is possible thanks to personalized interactions. This emotional and mental involvement can have a profound impact on their buying decisions.

For online clothing sales, customization is critical because everyone has their own tastes for clothes. There are different styles, sizes, colors and brands that customers prefer. Chatbots that can provide personalized styling

recommendations, make product suggestions based on previous purchases, or recommend sizing for a user based on their preferences for fit and style can greatly enrich the shopping experience and increase the likelihood of conversion (Malik et al., 2025; Singh, 2025). This not only makes things easier for the customer, but it also increases the chances of them finding a product that they are looking for.

Furthermore, tailored replies can minimize information overload by screening the important information for the customers. In contrast to the plethora of available products, users can use the chatbots' suggestions to narrow down the choices and make decisions. This personalized flow of information that is tailored to each consumer's preferences and browsing history will enable a consumer to make more informed decisions, thus easing the purchase process (Misra et al., 2024). This makes the process more efficient and decreases the cognitive effort which plays an important role in purchase intention.

The value of personalization in online shopping settings has been demonstrated in previous studies to improve customer satisfaction, engagement, and perceived value. In particular, AI-powered personalization, such as through chatbots, has proven to boost conversion rates and engagement rates, as well as fostering brand trust, particularly among younger audiences such as Gen Z (Chandrakumar, 2024). Providing personalized experiences can help build customer relationships and boost conversion rates. Thus, personalization of chatbots is expected to be one of the key factors that influence customer purchase intention.

From the above discussion, it could be inferred that personalized responses would have a positive impact on that purchase intention in an online apparel business. The following hypothesis is put forward:

H3: Personalized responses positively affect customers' purchase intention in online apparel retail.

3. CONCEPTUAL FRAMEWORK

This study aims to present a conceptual framework to explore the effect of attributes of AI chatbots on customer purchase intention in the online apparel retail domain. In particular, three independent variables are determined: chatbot accessibility, consistency of responses and personalised responses. The variables that are hypothesized to directly impact the dependent variable, customer purchase intention, are these.

The conceptual framework is based on the idea that the performance of a customer service attribute in digital environments has a significant impact on customer behavior. For AI-driven chatbots, this capability ensures that the chatbot can be available 24 hours a day, have consistent responses, and offer personalized interactions, which improves the customer experience. These factors lower the uncertainty, add convenience and enhance trust, all of which have an impact on customers' decision making process.

24/7 chatbots make it easier for customers to get help when they need it, and cut down on waiting time. When response consistency is maintained, it helps to develop trust and reliability, as customers receive the same information in every interaction. At the same time, personalized answers can boost interaction since they adjust the communication to the specific requirements and tastes of the buyer.

This study is designed to examine the multifaceted impact of these three attributes together, to provide a more holistic perspective on their influence on customer purchase intention related to AI chatbots. The main assumption of the framework is that if the customer feels that the services provided by the chatbot are reliable, accessible and personalized, then the customer is more likely to develop a positive attitude towards the platform and they are more likely to purchase.

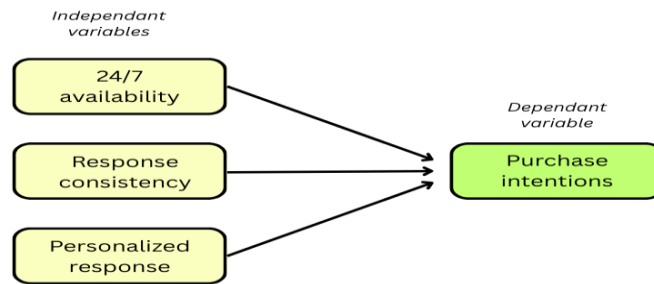


Figure 1: Conceptual framework

4. METHODOLOGY

This study employs a quantitative research approach to investigate the influence of AI chatbot attributes on customer purchase intention within the context of online apparel retail. A structured survey design was adopted as it enables the systematic collection of standardized data from a relatively large sample, facilitating statistical analysis of relationships among the variables under investigation.

The target population comprises Malaysian online consumers who have prior experience purchasing apparel products and interacting with AI-powered chatbot systems. To ensure that respondents possess relevant exposure to the research context, a purposive sampling technique was utilized. This approach allows for the selection of participants who meet predefined criteria, thereby enhancing the relevance and validity of the data collected. A total of 370 valid responses were obtained and deemed suitable for subsequent analysis.

The research instrument was developed based on established constructs derived from prior empirical studies. It consists of four primary constructs, namely 24/7 availability, response consistency, personalized responses, and customer purchase intention. Each construct was operationalized using multiple measurement items to ensure adequate representation of the underlying concept. All items were measured using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), allowing respondents to indicate the extent of their agreement with each statement.

To ensure the reliability of the instrument, a pilot study was conducted prior to the main data collection. The internal consistency of each construct was assessed using Cronbach's alpha coefficient, with a threshold value of 0.70 indicating acceptable reliability. The results of the pilot test demonstrate that all constructs exceeded this benchmark, indicating a high level of internal consistency and confirming that the measurement items are suitable for use in the main study.

Cronbach's Alpha Coefficient Range	Strength of Association
0.9 and above	Excellent
$0.70 \leq \text{to} < 0.90$	Good
$0.50 \leq \text{to} < 0.70$	Questionable
$0.30 \leq \text{to} < 0.50$	Poor
< 0.30	Unacceptable

Table 1: Cronbach's Alpha coefficient and reliability level

	Variable	Cronbach's Alpha	Number (N) of Items	Results
	24/7 Availability	0.915	5	Excellent

Independent Variable	Response Consistency	0.912	5	Excellent
	Personalized Responses	0.905	5	Excellent
Dependent Variable	Purchase Intention	0.876	5	Good

Table 2: Result of Reliability Test for pilot test

Following the confirmation of reliability, the data collection process was carried out using a structured questionnaire distributed to the selected respondents. The collected data were then analyzed using appropriate statistical techniques.

Descriptive analysis was first conducted to summarize the demographic characteristics of respondents and to provide an overview of their perceptions toward the constructs under study. Subsequently, inferential analysis, specifically multiple regression analysis, was employed to examine the relationships between the independent variables (AI chatbot attributes) and the dependent variable (customer purchase intention).

The regression model allows for the assessment of the relative contribution of each independent variable in predicting purchase intention while controlling for the effects of other variables. The significance of the relationships was evaluated based on the standardized beta coefficients (β) and p-values, with a significance level set at $p < 0.05$.

Overall, the methodological approach adopted in this study ensures a rigorous and systematic examination of the proposed relationships, providing a reliable basis for interpreting the influence of AI chatbot attributes on customer purchase intention in the Malaysian online apparel retail context

5. RESULTS

A. Demographic Profile of Respondents

A total of 370 valid responses were obtained and included in the analysis. The demographic distribution provides an overview of the respondent characteristics and ensures that the sample is appropriate for examining consumer behavior in the Malaysian online apparel retail context.

Variable	Category	Frequency	Percentage (%)
Gender	Male	206	55.7
	Female	164	44.3
Age	18–24	155	41.9
	25–34	102	27.6
	35–44	51	13.8
	45 and above	62	16.7

Table 3: Demographic Profile of Respondents (n = 370)

The sample demonstrates a relatively balanced gender distribution, with a slightly higher proportion of male respondents. More importantly, the age distribution indicates that approximately 69.5% of respondents fall within the 18–34 age group, representing digitally active consumers who are more likely to engage with AI-powered technologies. This demographic profile strengthens the relevance of the findings, as the study specifically targets users who are familiar with online shopping and chatbot interactions.

B. Descriptive Analysis

Descriptive statistics were conducted to assess respondents' perceptions of AI chatbot attributes and customer purchase intention. The results indicate that all variables recorded mean values within the moderate range, suggesting an overall positive yet cautious perception toward AI chatbot functionalities.

Variable	Mean	Interpretation
Personalized Responses	3.4065	Moderate
Response Consistency	3.3778	Moderate

24/7 Availability	3.3665	Moderate
Customer Purchase Intention	3.3584	Moderate

Table 4: Descriptive Statistics of Variables

Among the variables, personalized responses recorded the highest mean value ($M = 3.4065$), indicating that respondents place relatively greater importance on tailored interactions. Although all values remain within the moderate range, they are positioned close to the upper threshold, suggesting that respondents generally perceive AI chatbot features as beneficial but not yet fully optimized. This highlights a potential gap between current chatbot capabilities and user expectations.

C. Hypothesis Testing

To examine the relationships between AI chatbot attributes and customer purchase intention, multiple regression analysis was conducted. The results reveal that all three independent variables have a statistically significant positive effect on the dependent variable.

Hypothesis	Relationship	Beta (β)	p-value	Result
H1	24/7 Availability $\rightarrow$ Purchase Intention	0.273	< 0.001	Supported
H2	Response Consistency $\rightarrow$ Purchase Intention	0.242	< 0.001	Supported
H3	Personalized Responses $\rightarrow$ Purchase Intention	0.449	< 0.001	Supported

Table 5: Hypothesis Testing Results

All hypotheses are supported at a significance level of $p < 0.05$, confirming that each chatbot attribute contributes meaningfully to customer purchase intention.

Among the predictors, personalized responses demonstrate the strongest influence ($\beta = 0.449$), indicating that personalization plays a dominant role in shaping consumer behavior. This is followed by 24/7 availability ($\beta = 0.273$) and response consistency ($\beta = 0.242$), both of which also exhibit significant effects.

The results suggest that while all chatbot attributes are important, the quality of interaction (personalization) has a greater impact compared to functional attributes such as availability and consistency. This highlights the increasing importance of user-centric AI design in digital retail environments

6. DISCUSSION

The findings of this study provide robust empirical evidence supporting the significant role of AI chatbot attributes in influencing customer purchase intention within the online apparel retail context. Specifically, 24/7 availability, response consistency, and personalized responses were all found to exert a positive and statistically significant impact on consumer behavior.

First, the significance of 24/7 availability underscores the importance of continuous service accessibility in digital commerce. In an environment where consumers expect instant responses, the ability of AI chatbots to provide real-time assistance reduces waiting time and enhances convenience. This constant accessibility also contributes to a heightened sense of trust and reliability in the e-commerce platform, which can significantly influence purchasing behavior (Lee et al., 2025, p. 6). Furthermore, the elimination of temporal constraints through 24/7 availability directly addresses the utilitarian motivation for efficiency, reducing friction in the customer journey and fostering a seamless shopping experience (Hsiao et al., 2026). This constant availability enhances customer loyalty and satisfaction by ensuring that assistance and information are always within reach (Khana et al., 2023, p. 6). Immediate responsiveness reduces hesitation in decision-making and creates a more seamless purchasing experience, thereby increasing the likelihood of completing a transaction.

Second, response consistency was identified as a significant determinant of purchase intention. Consistent and reliable responses contribute to the reduction of information ambiguity, which is a critical factor in online purchasing contexts where physical interaction is absent. When chatbots deliver uniform and accurate information, they foster trust and minimize perceived risks associated with online transactions, thereby positively influencing purchasing decisions (Azman et al., 2025). This consistency in communication strengthens the perceived credibility of the AI

assistant, which is crucial for fostering customer loyalty and encouraging repeat purchases (Kim, 2025, p. 7). By delivering standardized and accurate information across multiple touchpoints, AI chatbots enhance perceived trustworthiness and reduce perceived risk, both of which are essential in influencing consumer decision-making.

Third, personalized responses emerged as the most influential factor affecting customer purchase intention. This finding highlights the growing importance of personalization in AI-driven customer interactions. Personalized responses enable chatbots to deliver relevant recommendations, tailored information, and context-aware communication, thereby enhancing user engagement and perceived value. Such individualized interactions foster a stronger connection between the customer and the brand, which is critical for driving behavioral intention to purchase (Meng et al., 2025; Muliansyah & Nurhidayah, 2024). This aligns with previous research indicating that AI-powered personalization, including through chatbots, can significantly increase conversion rates and foster customer loyalty by anticipating user needs and providing tailored content (Raji et al., 2024, p. 70). The strong effect of personalization suggests that consumers are no longer satisfied with generic automated responses but instead expect intelligent systems that can adapt to their individual preferences and needs.

From a theoretical perspective, this study extends the existing literature by shifting the focus from general chatbot adoption and satisfaction toward specific functional attributes and their direct impact on behavioral outcomes, particularly purchase intention. Specifically, it demonstrates how perceived empathy and trust, fostered by these attributes, mediate the relationship between chatbot interaction and consumer purchase behavior (Muliansyah & Nurhidayah, 2024). This contributes to a more nuanced understanding of how AI-enabled service quality influences consumer behavior in digital retail environments.

From a practical standpoint, the findings provide actionable insights for businesses, particularly Malaysian apparel SMEs, seeking to leverage AI chatbot technologies. By optimizing chatbot design for 24-hour availability, response consistency, and personalized interactions, companies can enhance customer experience, build trust, and ultimately drive higher conversion rates and sales. These strategic improvements can lead to enhanced customer engagement and satisfaction, thereby fostering long-term customer relationships and increasing market share in the highly competitive online apparel sector (Gomes et al., 2025).

Organizations should prioritize the development of chatbot systems that not only ensure continuous availability and consistent information delivery but also incorporate advanced personalization capabilities. This involves leveraging machine learning algorithms to analyze customer data and interaction history, thereby enabling chatbots to offer highly relevant product recommendations and tailored assistance (Le et al., 2024). Such initiatives can significantly improve customer trust and satisfaction, ultimately mediating a stronger purchase intent (Sipos, 2025). Investing in these attributes can enhance customer experience, strengthen engagement, and ultimately improve conversion rates.

Despite the positive findings, the moderate mean scores observed across all variables suggest that there remains room for improvement in current chatbot implementations. This indicates that while AI chatbots are perceived as beneficial, their full potential has yet to be realized. Future research should, therefore, focus on identifying additional factors that might further enhance the effectiveness of AI chatbots in driving customer purchase intention, beyond the attributes investigated in this study (Nguyen et al., 2023, p. 4). Exploring how attributes like "humanness" (Dwivedi et al., 2023) and immersive experiences (Oktaviani et al., 2024, p. 784) influence consumer trust and perceived value could provide a more comprehensive understanding of their mediating roles in shaping purchase intentions. Additionally, investigating consumer trust as a key mediating factor in the relationship between chatbot attributes and purchase intentions could yield valuable insights (Ltifi, 2023, p. 10).

In conclusion, this study demonstrates that AI chatbot attributes play a critical role in shaping customer purchase intention, with personalization emerging as the most influential factor. The findings reinforce the importance of designing user-centric AI systems that go beyond functional efficiency to deliver meaningful and engaging customer experiences.

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