UNDERSTANDING CONSUMERS' ATTITUDE AND PURCHASE INTENTION TOWARDS HALAL PHARMACEUTICAL PRODUCTS

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Abstract. Growing awareness of halal consumption has extended beyond the food sector to the pharmaceutical industry, increasing interest in halal pharmaceutical products. This study examines the factors influencing consumers' attitudes and intentions toward halal pharmaceuticals by extending the Theory of Planned Behavior (TPB). Specifically, religious values, ethics, halal perception, quality, and health consciousness were examined as antecedents of attitude, while attitude, subjective norms, and perceived behavioral control were assessed as predictors of intention. Data were collected from 372 respondents and analyzed using Structural Equation Modeling with SmartPLS 4. The findings indicate that religious values and halal perception significantly influence attitudes toward halal pharmaceutical products, whereas subjective norms and perceived behavioral control significantly predict intention. In contrast, health consciousness, ethics, and quality showed no significant effects on attitude. The study extends TPB by demonstrating the importance of religious and halal-related factors in shaping consumer behavior toward halal pharmaceuticals. The findings provide practical insights for pharmaceutical manufacturers, policymakers, and halal certification bodies seeking to strengthen consumer trust and promote halal pharmaceutical products.
Keywords: *halal, pharmaceutical, extended theory, planned behavior*

Introduction

The pharmaceutical industry has experienced significant growth, driven by the expanding Muslim population, increasing health awareness, and greater concern for product safety and ethical compliance (Jaber et al., 2026). In line with the growth of the global halal economy, demand for halal and tayyib-compliant pharmaceutical products has intensified (Nordin et al., 2024). Consumers are increasingly attentive to product ingredients, manufacturing processes, and ethical integrity, particularly in the post-pandemic era (Kaiser et al., 2021). Malaysia has certainly strengthened its halal pharmaceutical sector through the implementation of MS 2424:2012, which ensures compliance with safety, hygiene, and Shariah requirements (Halim et al., 2014). Consequently, halal certification has become a trusted indicator of product quality, safety, and reliability (Mokhtar et al., 2021). Given the growing demand for halal pharmaceuticals, understanding consumers' purchase intentions is essential, not only to the Muslims, but also the general public at large. Apparently, the Theory of Planned Behavior (Ajzen, 1991), which explains intention through attitude, subjective norms, and perceived behavioural control, provides a suitable theoretical foundation for examining consumers' intention to purchase halal pharmaceutical products.

Undeniably, the Theory of Planned Behavior (TPB) remains one of the most widely applied frameworks for explaining consumer intention and decision-making (Mohd Zahari and Mohammed Zain, 2024; Ajzen, 2018). However, scholars argue that TPB does not adequately capture the value-based and context-specific factors underlying halal consumption behaviour (Zafar and Jafar, 2026). In the context of halal pharmaceuticals, factors such as health consciousness, perceived quality, ethical considerations, religious values, and halal perception play important roles in shaping purchase intentions (Kasri et al., 2023; Ahmadova and Aliyev, 2021). Although halal pharmaceuticals primarily serve Muslim consumers by fulfilling Shariah requirements, they are increasingly preferred by non-Muslim consumers who associate halal certification with higher standards of safety, quality, hygiene, and ethical manufacturing practices (Wilson and Liu, 2010). Therefore, the Extended Theory of Planned Behavior (ETPB), which incorporates moral and religious dimensions, provides a more comprehensive framework for explaining halal pharmaceutical purchase intentions across diverse consumer groups (Jumani, 2026; Zafar and Jafar, 2026; Suleman et al., 2021; Fatmi et al., 2020; Vanany et al., 2020).

This paper is organized into six sections. Section 2 reviews the relevant literature on the Theory of Planned Behavior (TPB) and its extensions in halal consumer behavior research. Section 3 describes the research methodology, including the research design, sampling procedure, data collection, measurement development, and analytical techniques. Section 4 presents the empirical findings and hypothesis testing results. Section 5 discusses the theoretical and practical implications of the findings. Finally, the study concludes by outlining its limitations and providing recommendations for future research.

Literature review

Proposed by Ajzen (1991), the Theory of Planned Behavior (TPB) has become one of the most influential theoretical frameworks for predicting and explaining individuals' behavioral intentions and subsequent behavior (Bošnjak et al., 2020). Extending the Theory of Reasoned Action, TPB incorporates Perceived Behavioral Control (PBC) to account for behaviors influenced by external constraints and facilitating conditions (Ohnmacht et al., 2022). The theory posits that behavioral intention is determined by three core constructs: attitude, subjective norms, and perceived behavioral control, with intention serving as the immediate antecedent of behavior (Ajzen and Fishbein, 2000). Firstly, attitude refers to an individual's positive or negative evaluation of performing a particular behavior (Ajzen and Fishbein, 2000). In the context of halal pharmaceuticals, consumers are more likely to develop favorable attitudes when products are perceived as safe, hygienic, ethically produced, and compliant with Islamic principles (Koc et al., 2025; Herdiana et al., 2024). Previous studies have consistently demonstrated that positive attitudes significantly influence consumers' intentions to purchase halal products (Nawang et al., 2023). Consequently, (H1): Attitude positively influences purchase intention to consume halal pharmaceutical products.

Secondly, subjective norms refer to perceived social pressure from important referent groups such as family members, friends, religious authorities, and healthcare professionals (Ngah et al., 2021). In halal pharmaceutical consumption, these social influences play a significant role in shaping consumer decisions, particularly in Muslim-majority societies where halal awareness is deeply embedded in social and cultural norms (Al Maslul and Priantina, 2024; Nawang et al., 2023). Therefore, (H2):

Subjective norms positively influence purchase intention to consume halal pharmaceutical products. Thirdly, perceived behavioral control reflects consumers' perceptions regarding their ability to perform a behavior, including access to resources and opportunities (Suleman et al., 2021). In halal pharmaceuticals, factors such as product availability, affordability, transparent labeling, and access to reliable information enhance consumers' confidence in purchasing halal-certified medicines (Al Maslul and Priantina, 2024; Herdiana et al., 2024). Thus, (H3): Perceived behavioral control positively influences purchase intention to consume halal pharmaceutical products. Consecutively, this study extends the Theory of Planned Behavior by incorporating five antecedents of attitude-health consciousness, religious values, perceived quality, halal perception, and ethics. These constructs reflect consumers' cognitive evaluations and value-based beliefs regarding halal pharmaceutical products and are expected to positively influence attitudes towards purchasing such products. Firstly, health consciousness reflects an individual's concern for maintaining and improving personal health through informed consumption decisions (Huang et al., 2022). It refers to consumers' concern for maintaining and improving their health through informed consumption decisions (Tedjakusuma et al., 2023). Halal pharmaceuticals are often associated with safety, hygiene, and the concept of tayyib, which emphasizes wholesomeness and quality. Consequently, health-conscious consumers are more likely to develop favorable attitudes toward halal pharmaceutical products (Fatmi et al., 2024; Wiyono et al., 2022). Hence, (H4): Health consciousness positively influences consumers' attitude toward halal pharmaceutical products.

Secondly, the application of halal principles has expanded beyond the food and beverage sector to include the pharmaceutical industry, reflecting the growing demand for Shariah-compliant healthcare products among consumers (Herdiana et al., 2024). Halal pharmaceuticals are increasingly perceived as indicators of ethical manufacturing, product safety, and transparency, consistent with the Islamic principle of halalan tayyiban (Jaber et al., 2024; Kasri et al., 2023). As a result, halal-certified pharmaceutical products allow consumers to fulfil their healthcare needs while maintaining compliance with their religious and ethical values (Kasri et al., 2023). Perceived halal value reflects consumers' assessment of both the functional and spiritual benefits of halal pharmaceutical products (Fatmi et al., 2024). Grounded in the concept of tayyib, halal value encompasses product quality, ethical integrity, safety, and compliance with Islamic principles (Kasri et al., 2023). Undoubtedly, higher perceived halal value strengthens favorable attitudes toward halal pharmaceuticals (Tedjakusuma et al., 2023). Eventually, (H5): Perceived halal value positively influences consumers' attitude toward halal pharmaceutical products. Third, religious values shape consumers' cognitive evaluation of products by influencing beliefs regarding what is permissible (halal) and ethically acceptable under Islamic law. Consequently, consumers with stronger religious commitment are more likely to develop favourable attitudes towards halal pharmaceutical products (Mukhtar and Butt, 2012). Religious values represent the extent to which individuals integrate Islamic teachings into their daily lives and consumption decisions (Rafiki et al., 2024). Strong religious commitment encourages consumers to prefer halal-certified pharmaceuticals and avoid doubtful ingredients or manufacturing processes (Koc et al., 2025; Jaber et al., 2024), ensuring that even their medical treatments align perfectly with their deeply held ethical and spiritual values (Al Maslul and Priantina, 2024). Therefore, (H6): Religious values positively influence consumers' attitude toward halal pharmaceutical products.

Forth, ethical concern refers to consumers' awareness of issues related to fairness, transparency, safety, and social responsibility in product manufacturing and distribution (Koc et al., 2025). In halal pharmaceuticals, ethical considerations are closely linked to ingredient sourcing, manufacturing integrity, and compliance with Islamic ethical principles (Jaber et al., 2024; Kasri et al., 2023). Nonetheless, consumers with stronger ethical concerns are more likely to evaluate halal pharmaceutical products positively. This finding is consistent with evidence suggesting that halal-certified products increasingly attract non-Muslim consumers due to their perceived quality, safety, and ethical standards (Ahmadova and Aliyev, 2021; Ali et al., 2021). Consequently, (H7): Ethical concern positively influences consumers' attitude toward halal pharmaceutical products. Fifth, perceived quality refers to consumers' evaluation of a product's excellence, reliability, and effectiveness in meeting health expectations (Koc et al., 2025). In the pharmaceutical context, quality is strongly associated with safety, clinical effectiveness, and treatment outcomes, which shape consumers' trust and positive evaluations of medicines (Al Maslul and Priantina, 2024; Kasri et al., 2023). For halal pharmaceuticals, perceived quality extends beyond clinical performance to include ingredient integrity, hygienic manufacturing, and compliance with Islamic standards (Herdiana et al., 2024). In Malaysia, halal-certified pharmaceuticals are increasingly linked to quality assurance, transparency, and the concept of tayyib, which emphasizes safety, purity, and wholesomeness (Herdiana et al., 2024; Tedjakusuma et al., 2023). Consequently, consumers who perceive halal pharmaceutical products as high quality are more likely to develop favorable attitudes toward their use (Koc et al., 2025; Kasri et al., 2023;). Thus, (H8): Perceived quality positively influences consumers' attitude toward halal pharmaceutical products.

Materials and Methods

Research design

This study adopts a quantitative, cross-sectional research design to empirically investigate the determinants of consumers' purchase intention toward halal pharmaceutical products in Malaysia. This methodological approach was deliberately chosen for its effectiveness in objectively testing theoretical hypotheses and examining the relationships among multiple constructs—such as attitude, perceived behavioral control, perceived halal value, and health consciousness—through rigorous statistical analysis. To facilitate broad and efficient data collection, the study utilizes a structured online survey questionnaire. Administering the survey digitally allows for a wider geographical reach across Malaysia, enabling a more inclusive representation of the general public. Furthermore, this design provides a standardized framework that ensures data accuracy, promotes respondent anonymity, and minimizes researcher bias during the data collection process.

Sample selection and data collection

The target population for this study comprised the general adult population in Malaysia, including both Muslim and non-Muslim consumers. Given that pharmaceutical consumption is a universal healthcare necessity, surveying the public provides valuable insights into consumer perceptions and purchase intentions towards halal-certified medicines. Although halal pharmaceuticals are primarily intended to

meet the needs of Muslim consumers, they are also increasingly accepted by non-Muslim consumers, who often associate halal certification with higher standards of product safety, quality, hygiene, and ethical manufacturing practices (Wilson and Liu, 2010). Therefore, including respondents from both religious groups provides a more comprehensive understanding of consumer behaviour in the Malaysian pharmaceutical market. Data were collected through an online questionnaire distributed via digital communication channels and social media platforms. A convenience sampling approach was employed to efficiently reach a broad and accessible audience. The final sample consisted of 372 respondents representing diverse demographic, educational, and income backgrounds. Based on the guidelines of Hair et al. (2022), the sample size is considered adequate for multivariate analyses, including structural equation modeling, thereby supporting the reliability and validity of the study findings.

Measures

To establish robust survey measures, this study adopts validated scales from authoritative sources in consumer behavior and Islamic marketing. The foundational constructs of the Theory of Planned Behavior (attitude, subjective norms, perceived behavioral control, and behavioral intention) were adapted from halal pharmaceutical studies grounded in Ajzen's framework (Kasri et al., 2023). Health consciousness was measured using scales assessing consumers' awareness and prioritization of personal well-being in healthcare decisions (Tedjakusuma et al., 2023). Perceived quality and ethical concerns were evaluated through measures of medicine reliability, safety, and responsible manufacturing practices (Koc et al., 2025; Jaber et al., 2024). Additionally, perceived halal value and religious values were assessed to capture consumers' perceptions of Shariah compliance, halal assurance, and religious commitment in pharmaceutical consumption (Fatmi et al., 2024; Rafiki et al., 2024). All items were measured using a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Results and Discussion

Table 1 shows the demographic characteristics of the 372 respondents of this research study. The sample was mainly made up of female respondents (57.8%, n = 215), and 42.2% (n = 157) were male respondents. In terms of education, most respondents held a Bachelor's Degree (41.4%, n = 154), followed by High School education or less (32.8%, n = 121), Master's Degree (16.6%, n = 62), and Doctorate degree or above (9.5%, n = 35). Overall, the sample was relatively well educated, with the majority possessing tertiary qualifications. Regarding age, the largest proportion of respondents were aged 26–35 years (35.5%, n = 132), followed by those aged 36–45 years (24.0%, n = 89), 46–55 years (17.2%, n = 64), below 25 years (14.5%, n = 54), and 56 years and above (8.8%, n = 33). This indicates that the sample was predominantly composed of working-age adults. In terms of religion, Muslims represented the largest group (58.0%, n = 218), followed by Others (17.2%, n = 64), Buddhists (14.8%, n = 55), Christians (6.0%, n = 22), and Hindus (4.0%, n = 13), reflecting Malaysia's multi-religious society. For monthly income, 33.3% (n = 124) earned below RM2,000, 32.5% (n = 121) earned RM2,001–RM4,000, 24.0% (n = 89) earned RM4,001–RM6,000, 7.3% (n = 27) earned RM6,001–RM8,000, and 2.9% (n =

11) earned above RM8,000. Overall, 65.8% of respondents fell within the lower- and middle-income categories.

Table 1. *Demographics characteristics*.

Category	Frequency (N)	Percentage (%)
Gender		
Male	157	42.2
Female	215	57.8
Education Level		
High School or Lower	121	32.5
Bachelor's Degree	154	41.4
Master's Degree	62	16.6
Doctorate or Higher	35	9.5
Age		
Under 25	54	14.5
26-35	132	35.5
36-45	89	24
46-55	64	17.2
56 and above	33	8.8
Income		
Below RM2000	124	33.3
RM2001- RM4000	121	32.5
RM4001- RM6000	89	24
RM6001- RM8000	27	7.3
Above RM8000	11	2.9
Religion		
Islam	218	58
Buddha	22	6
Hindu	13	4
Christian	55	14.8
Others	64	17.2

Measurement model

The study examined nine latent constructs—religious values, health consciousness, perceived quality, ethical considerations, halal perception, attitude, perceived behavioral control, subjective norms, and intention to use halal pharmaceutical products, measured using 45 items. It assessed the effects of religious values, health consciousness, perceived quality, ethical considerations, and halal perception on attitude, as well as the influence of attitude, perceived behavioral control, and subjective norms on intention. Following the guidelines of Hair et al. (2022), reliability and validity analyses were conducted to evaluate the measurement model (*Table 2*). The results showed that all constructs exceeded the recommended threshold of 0.70, demonstrating satisfactory reliability (Hair et al., 2022). The results indicated that all AVE values surpassed the recommended threshold, thereby confirming adequate convergent validity among the constructs. In addition, discriminant validity was established as the square root of the AVE for each construct exceeded the inter-construct correlations. These findings suggest that each construct is empirically distinct and measures different conceptual dimensions within the proposed model. Discriminant validity (*Table 3*) was assessed using the Heterotrait-Monotrait Ratio (HTMT) criterion to determine the distinctiveness among the latent constructs included in the study. According to Hair et al. (2022), HTMT values below the recommended threshold of 0.90 indicate satisfactory discriminant validity. As presented in *Table 3*, all HTMT values were below the threshold level, ranging from 0.038 to 0.827. This indicates that each construct is empirically distinct from one another and measures different conceptual dimensions within the proposed framework.

Table 2. *Convergent validity.*

Category	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
att	0.860	0.866	0.934	0.877
ethics	0.819	0.831	0.892	0.733
halal	0.815	0.824	0.878	0.643
health	0.854	0.905	0.910	0.773
intention	0.916	0.919	0.935	0.705
pbc	0.829	0.837	0.921	0.854
quality	0.908	0.919	0.935	0.782
religious values	0.843	0.864	0.905	0.760
sub norm	0.900	0.905	0.937	0.833

***Table 3**. Discriminant validity.*

Category	1	2	3	4	5	6	7	8
attitude								
ethics	0.566							
halal values	0.644	0.687						
health	0.077	0.065	0.078					
intention	0.512	0.613	0.626	0.071				
pbc	0.604	0.751	0.618	0.080	0.587			
quality	0.381	0.374	0.728	0.044	0.564	0.400		
religious values	0.604	0.720	0.632	0.081	0.553	0.827	0.397	
subjective norm	0.624	0.515	0.808	0.038	0.557	0.470	0.620	0.476

Hypothesis testing

Before testing the proposed hypotheses, multicollinearity among the predictor constructs was assessed using the Variance Inflation Factor (VIF). As shown in *Table 4*, all VIF values ranged from 1.49 to 1.92, which are well below the recommended threshold of below 5.0 (Hair et al., 2022). Therefore, multicollinearity was not a concern, indicating that the structural model was suitable for hypothesis testing. The hypothesis testing results revealed that religious values and halal values significantly influenced consumers' attitudes toward halal pharmaceutical products. Specifically, religious values demonstrated a significant positive relationship with attitude ($\beta = 0.265$, $t = 3.399$, $p = 0.001$), while halal perception also exerted a significant positive effect on attitude ($\beta = 0.316$, $t = 3.921$, $p = 0.000$). Therefore, both hypotheses H6 and H5 were supported. In contrast, health consciousness ($\beta = 0.071$, $t = 1.378$, $p = 0.168$), ethical considerations ($\beta = 0.141$, $t = 1.777$, $p = 0.076$), and perceived quality ($\beta = 0.007$, $t = 0.106$, $p = 0.915$) did not significantly influence attitude, indicating that hypotheses H4, H7, and H8 were not supported. Furthermore, the findings showed that attitude did not significantly affect consumers' intention to use halal pharmaceutical products ($\beta = 0.124$, $t = 1.866$, $p = 0.062$), meaning hypothesis H1 was not supported. However, perceived behavioral control significantly influenced intention ($\beta = 0.327$, $t = 5.257$, $p = 0.000$), supporting hypothesis H3 and suggesting that consumers who perceived greater control were more likely to use halal pharmaceutical products. Similarly, subjective norms demonstrated a significant positive effect on intention ($\beta = 0.312$, $t = 4.996$, $p = 0.000$), indicating that social influence (H2) plays an important role in shaping consumers' behavioral intentions, thus supporting this hypothesis. The structural model demonstrated moderate explanatory power, explaining 38.4% of the variance in attitude ($R^2 = 0.384$) and 38.7% of the variance in purchase intention ($R^2 = 0.387$). The effect size (f^2) analysis further revealed that religiosity ($f^2 = 0.18$) and halal perception ($f^2 = 0.29$) exerted moderate effects on attitude, whereas ethics ($f^2 = 0.06$), perceived quality ($f^2 = 0.01$), and health consciousness ($f^2 = 0.02$) exhibited small effects. With respect to purchase intention, attitude ($f^2 = 0.19$), subjective norms ($f^2 = 0.17$), and perceived behavioural control ($f^2 = 0.19$) demonstrated small to moderate effect sizes, indicating

that each construct contributed meaningfully to explaining consumers' purchase intention towards halal pharmaceutical products (*Figure 1*).

Table 4. *Hypothesis testing.*

Hypo.	Path	Original sample (O)	Sample mean (M)	Standard deviation	T stat	P values	f - square	VIF	Result
H1	attitude -> intention	0.124	0.122	0.066	1.866	0.062	0.19	1.492	Not supported
H2	sub norm -> intention	0.312	0.313	0.062	4.996	0.000	0.17	1.607	Support
H3	pbc -> intention	0.327	0.326	0.062	5.257	0.000	0.19	1.573	Support
H4	health -> attitude	0.071	0.074	0.052	1.378	0.168	0.02	1.534	Not supported
H5	halal -> attitude	0.316	0.318	0.081	3.921	0.000	0.29	1.918	Support
H6	religious values -> attitude	0.265	0.265	0.078	3.399	0.001	0.18	1.682	Support
H7	ethics -> attitude	0.141	0.138	0.079	1.777	0.076	0.06	1.751	Not supported
H8	Perceived quality -> attitude	0.007	0.005	0.062	0.106	0.915	0.01	1.624	Not supported

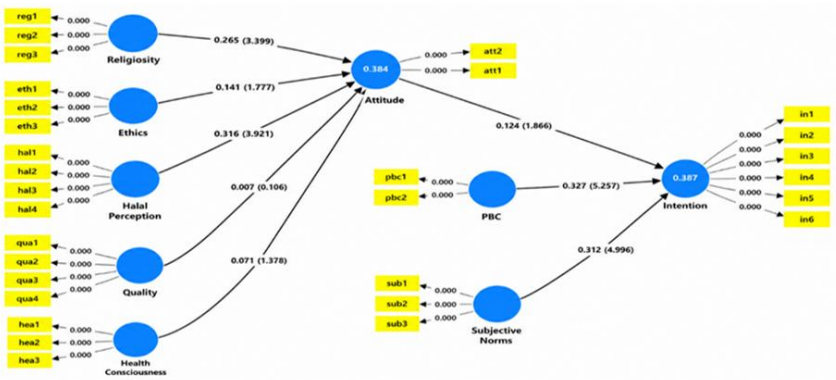


Figure 1. *Structural model.*

The specification of the extended TPB model was guided by the conceptual distinction among behavioural, normative, and control beliefs proposed by Ajzen (1991). The five constructs were conceptualised as product evaluation factors rather than normative or resource-related factors. Religious values, ethics, halal perception, perceived quality, and health consciousness were believed to influence consumers' personal assessment of whether halal pharmaceutical products are desirable, beneficial, and consistent with their beliefs. These evaluations form favourable or unfavourable attitudes towards purchasing halal pharmaceuticals. Subjective norms, however, capture perceived expectations from family, friends, healthcare professionals, and religious leaders, whereas perceived behavioural control reflects consumers' perceptions of affordability, accessibility, product availability, and their ability to purchase halal pharmaceutical products. Since the five constructs do not directly measure these dimensions, they were not hypothesised to influence subjective norms or perceived behavioural control.

Although Malaysia has a well-established halal ecosystem, the halal status of pharmaceutical products remains a unique and complex issue. Unlike halal food products, pharmaceutical products often contain ingredients such as gelatin, enzymes,

alcohol-based excipients, and other animal-derived substances whose halal status is not readily apparent to consumers. As a result, consumers continue to rely on their perception of halal compliance when evaluating pharmaceutical products. According to Ajzen (1991, 2020), the Theory of Planned Behavior (TPB) may be extended by incorporating context-specific behavioural beliefs that enhance its explanatory power. Accordingly, halal perception is conceptualised as a behavioural belief that shapes consumers' attitudes towards halal pharmaceutical products, while attitude, subjective norms, and perceived behavioural control remain the core determinants of purchase intention. Therefore, the inclusion of halal perception complements rather than replaces the original TPB framework, providing a more comprehensive understanding of consumers' purchase intentions in the halal pharmaceutical context.

Hence, this study examines eight hypotheses relating to attitudes and behavioral intentions toward halal pharmaceutical products. The findings revealed that subjective norms and perceived behavioral control were the strongest predictors of behavioral intention, supporting the Extended Theory of Planned Behavior and prior studies in Islamic marketing contexts. In Malaysia's collectivist society, healthcare decisions are often influenced by family members, religious authorities, and healthcare professionals, while product accessibility and affordability further facilitate the adoption of halal pharmaceuticals (Kasri et al., 2023; Nawang et al., 2023). The results also showed that attitudes toward halal pharmaceutical products were significantly influenced by perceived halal value and religious values. This suggests that consumers primarily evaluate halal pharmaceuticals through religious and halal assurance considerations, with trust in halal certification and Shariah compliance contributing to favorable attitudes (Koc et al., 2025). These findings further reflect the importance of the halalan tayyiban concept in shaping consumer evaluations.

More importantly, contrary to the conventional TPB framework, attitude did not significantly influence behavioral intention, indicating the presence of an attitude–behavior gap. This finding suggests that favourable evaluations alone may not be sufficient to drive consumers' intention to purchase halal pharmaceutical products (Al Maslul and Priantina, 2024; Fatmi et al., 2024). Instead, the significant effects of subjective norms and perceived behavioural control indicate that consumers are more likely to rely on recommendations from family members, healthcare professionals, and religious authorities, as well as on the availability and accessibility of halal pharmaceutical products. This suggests that social influence and perceived control are more influential than personal attitudes in shaping purchase intentions within the halal pharmaceutical context. Furthermore, health consciousness, ethical concern, and perceived quality did not significantly affect attitudes. One possible explanation is that consumers regard safety, effectiveness, and quality as baseline expectations for pharmaceutical products. The findings also suggest a halo effect of halal certification, whereby halal-certified pharmaceuticals are perceived as inherently safe, ethical, hygienic, and of high quality. As a result, consumers may rely on halal status as an overarching indicator of product integrity rather than evaluating these attributes separately (Herdiana et al., 2024; Jaber et al., 2024).

Implications of study

The findings offer important theoretical implications for halal consumer behavior research. First, the non-significant relationship between attitude and intention suggests the presence of an attitude–behavior gap in halal pharmaceutical consumption,

indicating that favorable attitudes alone may not be sufficient to predict behavioral intention. Moreover, the significant influence of perceived halal value alongside religious values suggests that halal may function as a broader quality cue rather than merely a religious attribute. Although religious values are expected to be particularly salient among Muslim consumers, halal certification may also appeal to non-Muslim consumers who associate halal products with higher standards of safety, cleanliness, transparency, and quality assurance. Consequently, halal appears to operate as a multidimensional value proposition that transcends religious boundaries and serves as a trusted signal of product integrity. This extends halal marketing theory by positioning halal as both a religious and universal quality assurance mechanism. From a practical perspective, pharmaceutical manufacturers and policymakers should emphasize halal assurance and religious compliance in their communication strategies, as these factors appear to be more influential than conventional product attributes in shaping consumer evaluations. Strengthening halal certification visibility and consumer education initiatives may therefore enhance acceptance and adoption of halal pharmaceutical products.

Conclusion

This research extends the Theory of Planned Behavior by incorporating religious values, perceived halal value, ethical concern, perceived quality, and health consciousness to examine consumers' purchase intention toward halal pharmaceutical products. The findings reveal that religious values, perceived halal value, subjective norms, and perceived behavioral control are key determinants of consumer attitudes and intentions, highlighting the central role of religious and behavioral factors in halal healthcare consumption. Nonetheless, this research has limitations. The cross-sectional nature of the study confines the determination of certain relationships to the context of the study itself and the participants. Future research may aim for an improved sampling framework and incorporate longitudinal designs. The explanatory capacity of the models may improve with the addition of trust, halal certification knowledge, perceived risk, and digital health, among other factors.

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Conflict of interest

The authors confirm that there is no conflict of interest involve with any parties in this research study.

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