

Halal Awareness as a Boundary Condition in Halal Consumer Behavior: Evidence from Gen Z in Indonesia and Malaysia

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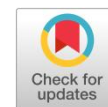
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Abstract

This study addresses a gap in halal marketing literature by examining halal awareness not only as a direct predictor but also as a moderator in the relationship between halal brand perceived quality and halal purchase intention among Generation Z consumers in Indonesia and Malaysia. A cross-sectional survey of 420 Muslim respondents aged 18–27 was conducted. Then, the primary data gathered were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that perceived quality of halal brands significantly enhances purchase intention, while halal awareness also plays an important direct role in shaping consumers' behavioral intentions. More importantly, halal awareness strengthens the relationship between perceived quality and purchase intention, indicating that consumers with higher awareness are more responsive to halal quality signals. The results are consistent across both countries, suggesting that the underlying behavioral mechanism is stable despite differences in institutional contexts. This study contributes theoretically by integrating the Theory of Planned Behavior, signaling theory, and the Elaboration Likelihood Model, and by positioning halal awareness as a boundary condition in halal consumer behavior. Practically, the findings suggest that firms should complement improvements in halal product quality with targeted efforts to enhance consumer awareness, as this can strengthen the impact of quality signals and more effectively drive purchase intentions among Generation Z consumers.



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Introduction

At the global level, the halal industry has experienced substantial transformation over the past decade, evolving from a religiously bound market into a strategically competitive global sector (Ali et al., 2021). The global halal market now encompasses food, cosmetics, pharmaceuticals, and services, with projections indicating sustained expansion driven by demographic growth and increasing cross-cultural demand (Ali et al., 2018). Importantly, contemporary Muslim consumers no longer evaluate halal products solely based on permissibility; rather, they assess halal brands through multidimensional criteria, including transparency, authenticity, trust, brand image, and overall perceived quality (Ajzen, 1991; Isnawati et al., 2025). This development reflects a broader behavioral shift in which purchasing decisions are shaped not merely by compliance with religious norms, but by cognitive evaluations of credibility, integrity, and ethical positioning (Ajzen, 2020).

Indonesia and Malaysia represent two dominant halal ecosystems in Southeast Asia, yet their institutional trajectories differ significantly. Indonesia hosts the world's largest Muslim population, exceeding 230 million individuals, while Malaysia is internationally recognized for its structured halal governance and centralized certification authority under JAKIM (Tieman et al., 2012; Zulfakar et al., 2014).

These structural differences imply that consumers operate within distinct regulatory and informational environments. Malaysia's long-established certification infrastructure may generate standardized perceptions of halal quality. In contrast, Indonesia's recent implementation of mandatory halal certification under Law No. 33/2014 introduces transitional institutional dynamics affecting consumer trust and brand evaluation (Septyarini & Sekarsari, 2024; Sukei & Hidayat, 2019). Prior comparative discussions acknowledge contextual variation (Bonne & Verbeke, 2008), yet empirical testing of how these institutional differences shape structural behavioral relationships remains limited.

Generation Z individuals born between 1997 and 2012 emerge as a critical segment within both markets (Habibie & Donna, 2020; Purwanto & Sudargini, 2021). This cohort is characterized by digital literacy, rapid information processing, and exposure to online brand communication, which collectively shape more cognitively engaged consumption patterns (Ibeabuchi et al., 2024; Soliman et al., 2025). Empirical studies indicate that Generation Z Muslim consumers demonstrate heightened sensitivity toward halal certification, authenticity, and transparency, while simultaneously relying on digital cues and peer influence (Spence, 1973, 2002; Yusof et al., 2020). Given their growing purchasing power and future market dominance (Erdem & Swait, 1998), understanding their evaluative mechanisms toward halal brands requires a theoretical rather than purely descriptive explanation.

Extant literature consistently demonstrates that halal brand perceived quality significantly influences halal purchase intention across product categories (Connelly et al., 2011; Kirmani & Rao, 2000; Verbeke et al., 2013). In the halal context, perceived quality encompasses compliance with Islamic standards, certification credibility, ethical sourcing, reliability, and brand trustworthiness (Jaiyeoba et al., 2019). Within the framework of the Theory of Planned Behavior (TPB), perceived quality contributes to the formation of favorable attitudes, which subsequently predict behavioral intention. Empirical findings confirm that consumers who perceive halal brands as authentic and reliable exhibit stronger purchase intention, satisfaction, and loyalty (Ajzen, 1991; Lascu et al., 2016). Furthermore, perceived quality mediates the influence of halal labels on intention, indicating that certification alone is insufficient without cognitive evaluation (Morgan & Hunt, 1994).

From a theoretical perspective, such uniformity assumptions neglect heterogeneity in cognitive processing. Signaling theory suggests that halal certification and brand attributes function as signals intended to reduce information asymmetry between producers and consumers (Hasan, 2016). However, the effectiveness of signals depends on consumers' ability to interpret them accurately. This interpretative capacity is closely related to halal awareness, defined as consumers' knowledge, sensitivity, and understanding regarding halal principles, certification processes, and compliance mechanisms (Zainalabidin et al., 2008). Awareness operates as a cognitive filter through which brand quality cues are evaluated (Hult et al., 2008). Consumers with higher halal awareness possess greater literacy regarding halal standards and ingredients, enabling them to discriminate between authentic and superficial claims (Ab Talib et al., 2016; Bashir, 2019). Conversely, consumers with lower awareness may rely on heuristic cues, thereby weakening the relationship between perceived quality and purchase intention (Wibowo & Ahmad, 2016).

Despite its conceptual importance, empirical research on halal awareness remains theoretically underdeveloped. Existing studies primarily treat halal awareness as a direct predictor or mediating variable (Ab Talib et al., 2016; Bashir, 2019), rather than as a moderating boundary condition grounded in signaling theory. Only limited evidence suggests that awareness can alter the strength of attitudinal or behavioral relationships (Priporas et al., 2017), yet systematic testing of halal awareness as a moderator in the perceived quality–purchase intention linkage remains scarce.

Moreover, comparative cross-country analysis between Indonesia and Malaysia is insufficiently explored. Although both countries share Islamic demographic dominance, differences in institutional embeddedness, halal education exposure, certification maturity, and public campaigns may produce divergent awareness profiles among Generation Z consumers (Bolton et al., 2013; Cheung & Thadani, 2012; Djafarova & Bowes, 2021; Ismagilova et al., 2020; Khan et al., 2025). Malaysia's structured halal ecosystem may standardize quality perceptions across consumers, potentially reducing the moderating role of

individual awareness levels (Djafarova & Bowes, 2021). In contrast, Indonesia's evolving regulatory environment may amplify reliance on individual awareness to interpret halal signals (Djafarova & Bowes, 2021). However, prior research has not explicitly compared the relative explanatory strength of perceived quality and awareness across these two national contexts.

Prior studies have consistently examined halal brand perceived quality as a direct antecedent of purchase intention, trust, and loyalty in halal markets (Bolton et al., 2013; Cheung & Thadani, 2012; Djafarova & Bowes, 2021; Ismagilova et al., 2020; Khan et al., 2025). These studies primarily conceptualize perceived quality as a key evaluative factor influencing consumers' attitudes and behavioral intentions across various product categories, including food, cosmetics, and services. However, existing research predominantly treats halal awareness as an independent predictor rather than a moderating cognitive mechanism that conditions the strength of the perceived quality–purchase intention relationship (Ab Talib et al., 2016; Bashir, 2019).

Furthermore, empirical investigations comparing the relative explanatory power of these structural relationships across different national contexts, particularly between Indonesia and Malaysia, remain limited. Therefore, this study addresses these gaps by positioning halal awareness as a boundary condition grounded in signaling theory and by empirically testing cross-country structural differences among Generation Z consumers in Indonesia and Malaysia.

Methodologically, prior halal marketing studies predominantly rely on covariance-based structural equation modeling (CB-SEM), emphasizing model confirmation under strict distributional assumptions (Francis & Hoefel, 2018). However, the predictive nature of purchase intention and the need to estimate interaction effects and group comparisons justify the use of Partial Least Squares Structural Equation Modeling (PLS-SEM) (Chillakuri & Mahanandia, 2018; White et al., 2019). PLS-SEM is variance-based, prediction-oriented, and well-suited for moderation testing and multi-group analysis (MGA) (Carrington et al., 2014; Fishbein & Ajzen, 2010; Irfany & Tieman, 2023). Its increasing adoption within halal marketing research further supports its methodological appropriateness. Accordingly, this study aims to: (1) examine the influence of halal brand perceived quality on halal purchase intention among Generation Z consumers; (2) investigate the moderating role of halal awareness; and (3) compare structural relationships between Indonesian and Malaysian respondents using PLS-SEM multi-group analysis.

By integrating the Theory of Planned Behavior (TPB), signaling theory, and knowledge-based perspectives, this study offers several distinct theoretical contributions. First, it extends prior halal marketing research by repositioning halal awareness from a direct antecedent into a moderating variable, thereby identifying it as a boundary condition that determines when and for whom halal brand perceived quality more strongly influences purchase intention. Second, it advances signaling theory by demonstrating that the effectiveness of halal quality signals is contingent upon consumers' cognitive capability (i.e., awareness), highlighting the role of signal interpretation in halal consumption contexts. Third, unlike most prior studies that adopt a single-country approach, this study provides cross-country evidence by comparing Indonesia and Malaysia, thereby offering insights into the generalizability of halal consumer behavior models across different institutional environments.

From a practical perspective, this study provides more specific implications for both practitioners and policymakers. For halal brand managers, the findings suggest that improving perceived quality alone is insufficient; firms must also enhance consumer awareness through targeted communication strategies, particularly digital campaigns tailored to Generation Z. For policymakers and certification bodies, the results highlight the importance of strengthening halal literacy programs and public education initiatives to increase the effectiveness of certification systems. By linking awareness, quality perception, and behavioral intention, this study offers a more integrated approach to developing halal market strategies in Southeast Asia.

Literature Review and Hypothesis Development

Halal Brand Perceived Quality

Halal brand perceived quality refers to consumers' evaluative judgment regarding a brand's compliance with halal standards, authenticity, transparency, reliability, and overall credibility in delivering halal-compliant products (Ali et al., 2018, 2021). In contrast to objective quality, which reflects actual product performance and technical specifications, perceived quality is inherently subjective and reflects consumers' interpretation of available information cues, brand signals, and past experiences (Ajzen, 1991; Isnawati et al., 2025). Within the halal context, perceived quality does not merely concern functional performance such as taste, durability, or efficacy; it also encompasses religious conformity, certification legitimacy, ethical consistency, and adherence to Islamic principles throughout the supply chain (Ajzen, 2020; Tieman et al., 2012).

Conceptually, halal brand perceived quality integrates traditional branding dimensions with religion-specific attributes. Ali et al. (2021) operationalize halal brand perceived quality within a comprehensive branding model encompassing brand image, satisfaction, trust, and loyalty, demonstrating that perceived quality is a foundational construct influencing downstream brand outcomes. Similarly, Ali et al. (2018) show that brand image drives perceived quality, which in turn affects trust, loyalty, and purchase behavior in halal milk branding contexts. These studies adapt mainstream branding constructs to halal markets, treating perceived quality as consumers' holistic evaluation of a halal brand's ability to meet both functional and religious expectations (Bonne & Verbeke, 2008; Zulfakar et al., 2014).

From the perspective of the Theory of Planned Behavior (TPB), perceived quality contributes significantly to attitude formation (Septyarini & Sekarsari, 2024; Sukesi & Hidayat, 2019). When consumers evaluate a halal brand as reliable, authentic, and compliant with Islamic standards, they develop favorable attitudes toward the brand, which subsequently influence behavioral intention (Habibie & Donna, 2020; Purwanto & Sudargini, 2021). In halal markets, where religious compliance is central to product evaluation, perceived quality serves as a cognitive antecedent of trust and positive evaluation (Ibeabuchi et al., 2024; Soliman et al., 2025). Empirical studies applying TPB in halal restaurant, food, and cosmetics contexts consistently demonstrate that attitude shaped in part by perceived quality is a strong predictor of purchase intention (Spence, 1973, 2002; Yusof et al., 2020).

Signaling theory further explains the mechanism through which perceived quality influences consumer behavior (Kirmani & Rao, 2000). In markets characterized by information asymmetry, where consumers cannot directly observe product attributes before purchase, brands use signals to communicate quality and reduce uncertainty (Connelly et al., 2011). Halal certification, halal logos, brand reputation, transparent sourcing, and third-party endorsements function as signals intended to convey authenticity and compliance with Islamic standards (Verbeke et al., 2013). Faith labels such as halal and kosher serve as branding tools and quality indicators that influence both Muslim and non-Muslim consumers' perceptions (Lascu et al., 2016). Similarly, halal certification marks and halal brand quality jointly influence purchase decisions, supporting the signaling interpretation of halal cues (Jaiyeoba et al., 2019).

Halal Awareness

Halal awareness reflects the degree of knowledge, understanding, sensitivity, and consciousness toward halal certification, Islamic dietary laws, permissible ingredients, prohibited substances, and production processes (Chillakuri & Mahanandia, 2018; White et al., 2019). Unlike general product awareness, halal awareness involves specific cognitive familiarity with halal compliance mechanisms, certification bodies, halal standards (such as MS 1500 in Malaysia and LPPOM-MUI in Indonesia), and the ability to distinguish between authentic and superficial halal claims (Carrington et al., 2014; Fishbein & Ajzen, 2010; Irfany & Tieman, 2023).

From a knowledge-based perspective, awareness determines the depth and quality of information processing (Wilson & Liu, 2010). Consumers with higher halal awareness engage in more elaborate, systematic evaluation of brand attributes, carefully scrutinizing certification marks, ingredient lists, and brand reputations (Ambali & Bakar, 2014; Tieman, 2011). In contrast, consumers with lower awareness rely

on heuristic or peripheral cues such as brand popularity, packaging aesthetics, or price without deeply processing halal-related information (Nurhayati & Hendar, 2019; Rezai et al., 2012). This distinction aligns with the Elaboration Likelihood Model (ELM), which posits that individuals with higher motivation and ability engage in central-route processing, leading to more stable and predictive attitudes. In the halal context, awareness enhances both motivation (the importance of halal compliance) and ability (the knowledge to evaluate compliance), thereby facilitating central-route processing of halal brand information (Khalek, 2014; Said et al., 2014). Within signaling theory, awareness functions as signal literacy, the receiver's capability to decode and interpret quality signals (Alam & Sayuti, 2011; Lada et al., 2009). Signals such as halal logos, certification numbers, and production transparency are only effective when consumers possess the knowledge to recognize, understand, and evaluate them accurately.

Halal Purchase Intention

Halal purchase intention refers to the likelihood, readiness, and willingness of consumers to buy halal-certified products in the foreseeable future (Huriah et al., 2022). In behavioral theory, intention represents the most immediate and direct predictor of actual behavior, capturing the motivational factors that influence action. According to the Theory of Planned Behavior (TPB), intention is determined by three key antecedents: attitude toward the behavior (positive or negative evaluation), subjective norms (perceived social pressure), and perceived behavioral control (perceived ease or difficulty of performing the behavior) (Hanzaee & Ramezani, 2011). In halal markets, perceived brand quality and awareness primarily shape the attitudinal component of intention formation, though they may also influence perceived control through enhanced confidence in identifying and accessing genuine halal products (Rahman et al., 2015; Wilson & Liu, 2010).

Hypothesis Development

Halal Brand Perceived Quality and Halal Purchase Intention

Perceived quality is a critical determinant of behavioral intention across consumer behavior models, including TPB, the Technology Acceptance Model (TAM), and branding theory. In the halal context, brand quality encompasses multiple dimensions: compliance with Islamic principles, reliability and credibility of halal certification, transparency in sourcing and production, ethical consistency, product performance, and brand trustworthiness (Bonne & Verbeke, 2008; Zulfakar et al., 2014). When consumers perceive that a halal brand fulfills religious and ethical standards while delivering functional benefits, they develop stronger confidence and favorable attitudes toward purchasing the product (Elseidi, 2018).

From the TPB perspective, perceived quality enhances positive evaluation of the behavior (purchasing halal products), which directly influences intention (Bashir, 2019; Yaumidin et al., 2024). High perceived quality signals that the product will meet religious obligations, ethical expectations, and functional needs, thereby increasing the attractiveness of the purchase decision (Hair et al., 2019; Ngah et al., 2021). Similarly, signaling theory suggests that credible quality signals such as recognized halal certification, transparent ingredient disclosure, and reputable brand heritage reduce uncertainty and increase trust, leading to stronger purchase intention (Sarstedt et al., 2017). Faith labels function as credible quality signals that influence consumer perceptions and purchasing decisions (Lascu et al., 2016). Halal brand perceived quality has been empirically shown to positively and significantly influence halal brand purchase intention among Muslim consumers (Ali et al., 2021).

Empirical support for this relationship is robust and spans multiple product categories. In food contexts, perceived quality of halal products consistently predicts purchase intention. In cosmetics, Soliman et al. (Soliman et al., 2025) report positive effects of perceived quality on purchase intention among Millennials and non-Muslims. In hospitality, perceived quality of Shariah-compliant restaurant services influences repatronage intentions (Wibowo & Ahmad, 2016). Across these contexts, perceived quality operates as a foundational antecedent that translates brand evaluations into behavioral readiness (Ab Talib et al., 2016; Ngah et al., 2021).

H1: Halal brand perceived quality positively influences halal purchase intention among Generation Z consumers in Indonesia and Malaysia.

Halal Awareness and Halal Purchase Intention

Halal awareness reflects consumers' knowledge, sensitivity, and understanding of halal compliance mechanisms, certification standards, and product attributes (Elasrag, 2016; Waharini & Purwantini, 2018). Knowledge-based consumer behavior theory posits that informed consumers engage in more deliberate, systematic, and rational evaluation processes, leading to stronger intention formation when products align with their values and knowledge structures (Nurhayati & Hendar, 2019; Rezai et al., 2012). Consumers with high halal awareness possess greater cognitive resources to process halal-related information, evaluate brand claims, and make informed decisions (Khalek, 2014; Said et al., 2014).

From the TPB perspective, awareness influences multiple antecedents of intention. First, awareness enhances attitude by increasing the perceived importance and salience of halal compliance, making halal attributes more central to product evaluation (Nurhayati & Hendar, 2019; Said et al., 2025). Second, awareness may strengthen subjective norms by increasing sensitivity to social and religious expectations regarding halal consumption (Mukhtar & Butt, 2012; Souiden & Rani, 2015). Third, awareness enhances perceived behavioral control by improving consumers' confidence in identifying, accessing, and verifying genuine halal products. Through these pathways, halal awareness directly and positively influences purchase intention (Kotler & Keller, 2016).

Empirical evidence consistently supports the direct effect of halal awareness on purchase intention (Keller, 1993). Halal awareness has been found to be a significant predictor of Millennials' purchase intention for halal cosmetics, with higher levels of awareness associated with stronger intentions (Soliman et al., 2025). Empirical findings indicate that halal awareness significantly influences Millennials' shopping behavior for imported halal-labeled food products in Indonesia (Chalid & Mirzal, 2023). Halal certification awareness, together with brand quality, has been shown to influence purchase decisions among consumers (Jaiyeoba et al., 2019). Halal product knowledge has been shown to significantly predict Generation Z's purchase intentions for online halal cosmetics, with knowledge enhancing both attitudes and perceived behavioral control (Khan et al., 2025).

These findings are consistent across diverse cultural contexts, product categories, and consumer segments, suggesting that halal awareness is a universal driver of halal purchase intention (Tieman, 2011; Wilson & Liu, 2010). Awareness increases the likelihood that consumers will prioritize halal attributes in their purchasing decisions, actively seek halal-certified products, and develop favorable intentions toward halal brands.

H2: Halal awareness positively influences halal purchase intention among Generation Z consumers in Indonesia and Malaysia.

Moderating Role of Halal Awareness

While perceived quality provides evaluative signals about a brand's halal compliance and overall credibility, awareness determines consumers' ability to interpret, process, and act upon those signals (Ambali & Bakar, 2014; Rezai et al., 2012). According to signaling theory, the effectiveness of quality signals depends critically on the receiver's capability to recognize and decode them (Hanzaee & Ramezani, 2011; Rahman et al., 2015). In the halal context, halal awareness enhances signal interpretation accuracy, making perceived quality cues more influential in shaping purchase intention (Ab Talib et al., 2016; Prabowo et al., 2015).

Consumers with high halal awareness possess greater knowledge of certification standards, halal ingredients, prohibited substances, and compliance requirements. This knowledge enables them to distinguish authentic halal compliance from superficial or misleading claims, increasing the diagnostic value of perceived quality in their decision-making (Said et al., 2014). Consequently, the positive effect of halal brand perceived quality on purchase intention should be stronger among highly aware consumers, who can accurately assess and appreciate genuine quality signals (Tieman et al., 2012; Zulfakar et al., 2014). In

contrast, among consumers with low awareness, perceived quality signals may not be fully processed or understood, weakening the quality–intention relationship.

H3: Halal awareness moderates the relationship between halal brand perceived quality and halal purchase intention, such that the positive effect is stronger among Generation Z consumers with higher halal awareness in both Indonesia and Malaysia.

Based on the literature review and hypotheses development, the conceptual framework of this study is illustrated in Figure 1. The framework integrates the Theory of Planned Behavior, signaling theory, and knowledge-based consumer behavior theory to propose that the perceived quality of halal brands and halal awareness directly influence halal purchase intention, and that halal awareness moderates the quality–intention relationship. The framework is tested comparatively across Generation Z consumers in Indonesia and Malaysia using PLS-SEM multi-group analysis.

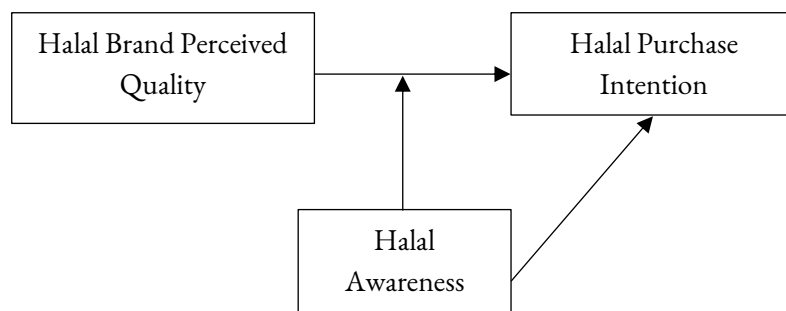


Figure 1. Conceptual Framework of the Study

Research Method

This study employs a quantitative explanatory research design to investigate the influence of perceived quality of halal brands on halal purchase intention, the moderating role of halal awareness, and structural differences between Generation Z consumers in Indonesia and Malaysia. A cross-sectional survey approach was adopted to capture consumers' perceptions at a single point in time. Given the predictive orientation of the research model, the presence of a moderating variable, and the comparative cross-country objective, Partial Least Squares Structural Equation Modeling (PLS-SEM) was selected as the primary analytical technique. PLS-SEM is variance-based and prediction-oriented, making it suitable for models involving interaction terms and multi-group comparisons, particularly when strict assumptions of multivariate normality may not be fully satisfied.

The population of this study consists of Muslim Generation Z consumers aged between 18 and 27 years in Indonesia (Bandung, Jakarta, Surabaya) and Malaysia (Kuala Lumpur, Melaka, Penang). Purposive sampling was used to ensure that respondents met specific criteria: being Muslim, falling within the defined age range, and having purchased halal-certified products within the past six months. A total of 420 valid responses were collected, with equal numbers from Indonesia and Malaysia. This sample size exceeds the minimum requirement suggested by the ten-times rule in PLS-SEM and is considered adequate for moderation testing and multi-group analysis. All constructs were measured using a five-point Likert scale ranging from strongly disagree to strongly agree. The study models halal brand perceived quality, halal awareness, and halal purchase intention as reflective constructs. The operational definitions of the variables are presented in Table 1.

Table 1. Operational Definition of Variables.

Construct	Definition	Items	Source Adaptation
Halal Brand Perceived Quality (HBPQ)	Consumers' evaluation of a brand's compliance with halal standards, authenticity, transparency, and reliability	4	(Bashir, 2019; Yaumidin et al., 2024)
Halal Awareness (HA)	Consumers' knowledge and understanding of halal certification, Islamic dietary laws, and production processes	4	(Nurhayati & Hendar, 2019; Rezai et al., 2012)
Halal Purchase Intention (HPI)	Consumers' likelihood to purchase halal-certified products in the future	4	(Tieman, 2011; Wilson & Liu, 2010)

Data analysis was conducted using SmartPLS 4 following the two-stage approach commonly recommended in PLS-SEM research. The first stage involved assessment of the measurement model (outer model), and the second stage evaluated the structural model (inner model). Statistical significance of path coefficients was determined using bootstrapping with 5,000 resamples.

Measurement model evaluation focused on reliability and validity. Indicator reliability was assessed through outer loadings, with values above 0.70 considered acceptable. Internal consistency reliability was assessed using Cronbach's alpha and composite reliability, both of which were expected to exceed 0.70. Convergent validity was evaluated through Average Variance Extracted (AVE), with a threshold of 0.50 indicating that constructs explain more than half of the variance in their indicators. Discriminant validity was assessed using the Heterotrait-Monotrait (HTMT) ratio, where values below 0.90 indicate adequate discriminant validity. Multicollinearity was examined using the Variance Inflation Factor (VIF), and values below 5 were considered acceptable. The evaluation criteria applied in this study are summarized in Table 2.

Table 2. Measurement Model Evaluation Criteria.

Assessment	Threshold
Outer Loading	≥ 0.70
Cronbach's Alpha	≥ 0.70
Composite Reliability	≥ 0.70
Average Variance Extracted (AVE)	≥ 0.50
HTMT Ratio	< 0.90
Variance Inflation Factor (VIF)	< 5

Following confirmation of measurement validity, the structural model was evaluated to examine predictive relationships among constructs. Path coefficients were assessed through bootstrapping, and relationships were considered significant when the t-value exceeded 1.96 at a 5 percent significance level. The coefficient of determination (R^2) was used to assess predictive accuracy, with values around 0.25 indicating weak explanatory power, 0.50 moderate, and 0.75 substantial. Effect size (f^2) was calculated to determine the contribution of each exogenous construct, while predictive relevance (Q^2) was assessed using the blindfolding procedure. The Standardized Root Mean Square Residual (SRMR) was also examined to evaluate approximate model fit. The structural evaluation criteria are presented in Table 3.

The moderating effect of halal awareness was tested by creating an interaction construct between halal brand perceived quality and halal awareness using the product indicator approach in SmartPLS. The moderation effect was evaluated based on the significance of the interaction path coefficient and the change in R^2 after inclusion of the interaction term. A significant positive interaction coefficient indicates that halal awareness strengthens the influence of halal brand perceived quality on halal purchase intention.

Table 3. Structural Model Evaluation Criteria

Assessment	Interpretation Guideline
Path Coefficient (β)	Significant if $t > 1.96$ ($p < 0.05$)
R^2	0.25 (weak), 0.50 (moderate), 0.75 (substantial)
f^2 Effect Size	0.02 (small), 0.15 (medium), 0.35 (large)
Q^2 Predictive Relevance	> 0 indicates predictive relevance
SRMR	< 0.08

To examine structural differences between Indonesia and Malaysia, multi-group analysis was conducted. Before comparing structural relationships, measurement invariance was assessed using the Measurement Invariance of Composite Models (MICOM) procedure. Configural invariance was established by ensuring identical measurement models across groups. Compositional invariance was examined using permutation testing to determine whether composite scores differed significantly between groups. Once partial measurement invariance was confirmed, structural path coefficients were compared using PLS-MGA and permutation tests. Differences were considered significant when the p-value was below 0.05. This analytical framework ensures rigorous assessment of measurement validity, predictive structural relationships, moderation effects, and cross-country structural differences within a unified variance-based modeling approach.

Results and Discussion

Demographic Profile of Respondents

The demographic profile of respondents is presented in Table 4. The study involved 420 Generation Z Muslim respondents equally distributed between Indonesia and Malaysia. Female respondents slightly outnumbered males in the sample (57% vs. 43%). The majority of respondents were aged 20–23 years (48%), followed by 18–19 years (27%) and 24–27 years (25%).

In terms of education, most respondents were undergraduate students (63%), followed by postgraduate (19%) and diploma holders (18%). Regarding monthly allowance, 46% of respondents reported moderate income levels, 34% low, and 20% high. These characteristics indicate that the sample represents young consumers with relatively adequate cognitive and economic capacity to evaluate halal products.

Table 4. Demographic Characteristics of Respondents

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	181	43%
	Female	239	57%
Age	18–19 years	113	27%
	20–23 years	202	48%
	24–27 years	105	25%
Education Level	Diploma	76	18%
	Undergraduate	265	63%
	Postgraduate	79	19%
Monthly Allowance/Income	Low	143	34%
	Moderate	193	46%
	High	84	20%

Measurement Model Assessment

The measurement model was first evaluated to ensure that the constructs met reliability and validity requirements prior to structural testing. Indicator reliability was assessed through outer loadings. As presented in Table 5, all indicators of halal brand perceived quality (HBPQ), halal awareness (HA), and halal purchase intention (HPI) exceeded the recommended threshold of 0.70. Specifically, HBPQ loadings ranged from 0.799 to 0.878, HA ranged from 0.792 to 0.851, and HPI ranged from 0.786 to 0.853. These values confirm satisfactory indicator reliability.

Internal consistency reliability was assessed using Cronbach’s alpha and composite reliability (CR). All constructs exhibited Cronbach’s alpha values above 0.80 and composite reliability values above 0.88, indicating strong internal consistency. Convergent validity was evaluated using Average Variance Extracted (AVE). The AVE values for HBPQ (0.68), HA (0.69), and HPI (0.66) exceeded the minimum threshold of 0.50, confirming that each construct explains more than half of the variance of its indicators.

Table 5. Indicator Reliability and Convergent Validity

Indicator	Loading	Cronbach’s Alpha	CR	AVE
HBPQ1	0.799	0.84	0.89	0.68
HBPQ2	0.878			
HBPQ3	0.820			
HBPQ4	0.860			
HA1	0.837	0.86	0.90	0.69
HA2	0.792			
HA3	0.814			
HA4	0.851			
HPI1	0.815	0.83	0.88	0.66
HPI2	0.786			
HPI3	0.807			
HPI4	0.853			

Discriminant validity was examined using the Heterotrait-Monotrait (HTMT) ratio. As shown in Table 6, all HTMT values were below 0.85, confirming that the constructs are empirically distinct. Multicollinearity was assessed using the Variance Inflation Factor (VIF), and all values were below 3.0, well under the conservative threshold of 5. These results indicate that the measurement model satisfies all reliability and validity criteria.

Table 6. Discriminant Validity (HTMT) and Collinearity (VIF)

Construct	HBPQ	HA	HPI
HBPQ	—		
HA	0.74	—	
HPI	0.78	0.81	—
Structural Path	VIF		
HBPQ → HPI	2.11		
HA → HPI	2.04		
Interaction → HPI	2.37		

Structural Model Assessment

After establishing measurement validity, the structural model was evaluated. The overall model fit was assessed using the Standardized Root Mean Square Residual (SRMR). The SRMR value was 0.061, below the recommended threshold of 0.08, indicating an acceptable model fit.

The coefficient of determination (R^2) for halal purchase intention was 0.317, suggesting that halal brand perceived quality, halal awareness, and their interaction collectively explain 31.7 percent of the variance in purchase intention. According to established guidelines, this level reflects moderate predictive accuracy.

Path coefficient analysis was conducted using bootstrapping with 5,000 resamples. As reported in Table 7, halal brand perceived quality significantly influences halal purchase intention ($\beta = 0.406$, $t = 8.72$, $p < 0.001$), supporting H1. Halal awareness also exerts a significant positive influence on purchase intention ($\beta = 0.352$, $t = 7.15$, $p < 0.001$), supporting H2. The interaction effect is also significant ($\beta = 0.200$, $t = 3.45$, $p < 0.01$), supporting H3.

Effect size (f^2) analysis revealed that halal brand perceived quality has a medium effect ($f^2 = 0.19$), halal awareness has a small-to-medium effect ($f^2 = 0.15$), and the interaction term contributes a small but meaningful additional effect ($f^2 = 0.07$). Predictive relevance assessed via blindfolding yielded a Q^2 value of 0.23, which is above zero, confirming the model's predictive relevance.

Table 7. Structural Model Results

Hypothesis	Path	β	t-value	p-value
H1	HBPQ \rightarrow HPI	0.406	8.72	0.000
H2	HA \rightarrow HPI	0.352	7.15	0.000
H3	Interaction \rightarrow HPI	0.200	3.45	0.001
Model Evaluation		Value		
	R^2 (HPI)	0.317		
	Q^2	0.23		
	SRMR	0.061		

The overall structural model results, including standardized path coefficients and R^2 values, are illustrated in Figure 2. The model demonstrates significant direct and moderating relationships among the constructs.

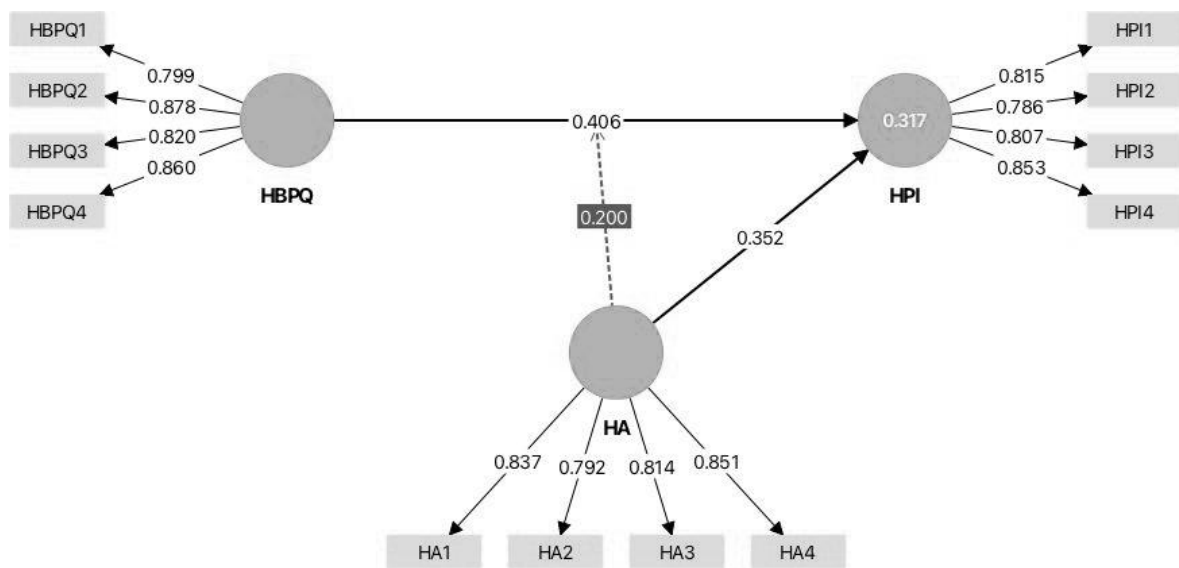


Figure 2. Structural Model Results

Moderating Effect of Halal Awareness

The moderating role of halal awareness was tested using the product indicator approach. As shown in Table 7, the interaction term between halal brand perceived quality and halal awareness is positive and statistically significant ($\beta = 0.200$). This finding supports H3 and indicates that halal awareness strengthens the relationship between perceived halal brand quality and purchase intention.

The positive moderation effect suggests that the impact of perceived halal brand quality on purchase intention becomes stronger among consumers with higher levels of halal awareness. This result aligns with signaling theory, which argues that the effectiveness of quality signals depends on the receiver's interpretative capability.

Multi-Group Analysis

The multi-group analysis was conducted using the PLS-MGA approach. As presented in Table 8, significant differences were observed between Indonesia and Malaysia. The effect of halal brand perceived quality on purchase intention is stronger in Malaysia ($\beta = 0.44$) than in Indonesia ($\beta = 0.37$), with a significant difference ($p < 0.05$). Conversely, halal awareness has a stronger effect in Indonesia ($\beta = 0.39$) compared to Malaysia ($\beta = 0.28$). The moderating effect of halal awareness is also stronger in Indonesia ($\beta = 0.24$) than in Malaysia ($\beta = 0.15$), with all differences statistically significant.

Table 8. Multi-Group Analysis Results

Path	Indonesia (β)	Malaysia (β)	Difference (β)	p-value (MGA)	Decision
HBPQ \rightarrow HPI	0.37	0.44	-0.07	0.031	Supported
HA \rightarrow HPI	0.39	0.28	0.11	0.022	Supported
Interaction \rightarrow HPI	0.24	0.15	0.09	0.041	Supported

Discussion

The Influence of Halal Brand Perceived Quality on Halal Purchase Intention among Generation Z Consumers in Indonesia and Malaysia

The empirical findings strongly support H1, indicating that halal brand perceived quality positively and significantly influences halal purchase intention as reported in Table 7 ($\beta = 0.406$, $p < 0.001$). This result confirms that perceived quality remains a central and robust determinant of intention formation in halal markets, consistent with established consumer behavior theory and prior halal marketing research (Ali et al., 2018, 2021; Isnawati et al., 2025).

Consistent with the Theory of Planned Behavior (TPB) (Ajzen, 1991, 2020), evaluative beliefs regarding product attributes such as quality, authenticity, and compliance contribute significantly to the formation of behavioral intentions. In the halal context, perceived quality encompasses multiple dimensions: compliance with Islamic standards, authenticity and credibility of halal certification, transparency of ingredients and production processes, ethical sourcing practices, and overall brand credibility (Bonne & Verbeke, 2008; Tieman et al., 2012; Zulfakar et al., 2014). Generation Z consumers appear to integrate these multidimensional quality signals into their cognitive evaluation process when forming purchase intentions, treating halal brand perceived quality as a holistic assessment that combines religious, ethical, and functional considerations (Septyarini & Sekarsari, 2024; Sukesu & Hidayat, 2019).

This finding aligns with prior empirical studies demonstrating the pivotal role of perceived quality in halal purchase decisions across various product categories, including food (Habibie & Donna, 2020; Purwanto & Sudargini, 2021), cosmetics (Ibeabuchi et al., 2024; Soliman et al., 2025), and restaurant services (Yusof et al., 2020). For instance, Empirical evidence indicates that the perceived quality of halal brands significantly influences purchase intention among Muslim consumers, serving as a key antecedent of trust and loyalty (Ali et al., 2021). Similarly, perceived quality of Shariah-compliant restaurant services has

been shown to directly predict repatronage intentions, highlighting the importance of quality perceptions in service contexts (Yusof et al., 2020).

From the perspective of signaling theory, halal certification, halal logos, brand reputation, and transparent communication function as quality signals that reduce information asymmetry between producers and consumers. In credence goods markets, where product attributes cannot be fully evaluated, even after consumption signals become critical determinants of consumer confidence and purchase decisions (Connelly et al., 2011; Verbeke et al., 2013). The positive and significant effect of perceived quality on purchase intention observed in this study suggests that Generation Z consumers effectively process and respond to halal quality signals, using them as cognitive shortcuts to infer brand authenticity and compliance.

The consistency of this positive relationship across both Indonesia and Malaysia is a particularly important finding. Despite differences in halal certification maturity, regulatory frameworks, and consumer education levels between the two countries (Fianto et al., 2025; Zainalabidin et al., 2008), halal brand perceived quality operates as a robust predictor of purchase intention in both contexts. This cross-country stability suggests that the quality–intention relationship is generalizable across Muslim-majority Southeast Asian markets and may reflect universal psychological mechanisms underlying halal consumption behavior (Hult et al., 2008).

Indonesia's relatively recent implementation of mandatory halal certification under Law No. 33/2014 (Hasan, 2016) and Malaysia's long-established JAKIM certification system (Ab Talib et al., 2016) represent different stages of halal ecosystem development. Nevertheless, the positive effect of perceived quality on intention remains strong in both countries, indicating that Generation Z consumers, regardless of institutional context, prioritize quality perceptions when making halal purchase decisions. This finding extends prior single-country studies (Bashir, 2019; Yaumidin et al., 2024) by demonstrating that perceived quality functions as a cross-culturally stable predictor among young Muslim consumers.

This finding reinforces prior research (Ali et al., 2018, 2021; Soliman et al., 2025; Yusof et al., 2020) while extending it by validating the quality–intention relationship in a comparative cross-country framework, with a focus on Generation Z consumers. From a theoretical standpoint, the results confirm that TPB and signaling theory provide robust explanatory frameworks for understanding halal purchase behavior, with perceived quality serving as a key attitudinal and cognitive antecedent of intention (Fishbein & Ajzen, 2010).

From a practical perspective, the strong positive effect of perceived quality on purchase intention underscores the importance of maintaining high-quality standards, ensuring credible halal certification, and communicating quality attributes transparently to Generation Z consumers. Halal brand managers should invest in certification from reputable bodies (e.g., JAKIM, LPPOM-MUI), maintain supply chain transparency, and leverage digital platforms to showcase quality credentials through authentic storytelling, user-generated content, and third-party endorsements (Tieman, 2011; Wilson & Liu, 2010).

The Influence of Halal Awareness on Halal Purchase Intention among Generation Z Consumers in Indonesia and Malaysia

The results strongly support H2, demonstrating that halal awareness positively and significantly influences halal purchase intention among Generation Z consumers in both Indonesia and Malaysia, as reported in Table 7 ($\beta = 0.352$, $t = 7.15$, $p < 0.001$). This indicates that consumers with higher levels of knowledge and understanding regarding halal certification, Islamic dietary laws, permissible and prohibited ingredients, and production processes exhibit stronger purchase intentions (Ambali & Bakar, 2014; Nurhayati & Hendar, 2019; Rezai et al., 2012).

This finding underscores the cognitive dimension of halal consumption and highlights the importance of consumer knowledge in shaping behavioral intentions. Halal awareness enhances the salience of religious compliance, ethical considerations, and quality expectations in the decision-making process (Nurhayati & Hendar, 2019; Rezai et al., 2012). From a theoretical standpoint, awareness strengthens belief formation and

enhances the perceived importance of halal attributes, which subsequently shape intention in line with the Theory of Planned Behavior (Alam & Sayuti, 2011; Lada et al., 2009).

Consumers with higher halal awareness possess greater declarative knowledge (understanding what halal means) and procedural knowledge (Chalid & Mirzal, 2023). This knowledge enables them to engage in more systematic and deliberate evaluation of halal brands, leading to stronger and more stable purchase intentions. In contrast, consumers with lower awareness may rely on heuristic processing and peripheral cues, resulting in weaker and less predictive intentions (Soliman et al., 2025).

The positive effect of halal awareness on purchase intention observed in this study is consistent with a substantial body of prior research demonstrating that awareness functions as a direct predictor of halal purchase behavior across diverse contexts and consumer segments (Awan et al., 2015; Aziz & Chok, 2013; Elseidi, 2018; Yunus et al., 2014). Halal awareness has been found to significantly predict Millennials' purchase intentions for halal cosmetics, with awareness serving as a key driver of attitude formation (Soliman et al., 2025). Halal awareness has been shown to influence Millennials' shopping behavior for imported halal-labeled food products in Indonesia, highlighting the role of knowledge in cross-border halal consumption (Chalid & Mirzal, 2023). Halal certification awareness, together with brand quality, has been shown to influence consumers' buying decisions, supporting the universal relevance of awareness as a predictor (Jaiyeoba et al., 2019).

For Generation Z consumers specifically, Halal product knowledge has been shown to significantly influence attitudes and purchase intentions for online halal cosmetics, with knowledge enhancing both motivation and ability to process halal information (Khan et al., 2025). Halal literacy, a construct closely related to awareness, has been found to directly predict Generation Z's adoption of halal cosmetics in Pakistan, reinforcing the importance of consumer education in this demographic (Bhutto et al., 2024). The findings of the present study extend this literature by demonstrating that halal awareness operates as a robust predictor of purchase intention among Generation Z consumers across two distinct national contexts, Indonesia and Malaysia (Afendi et al., 2024; Normasyhuri et al., 2024).

The cross-country stability of this effect (consistent positive relationship in both Indonesia and Malaysia) suggests that halal awareness functions as a universal cognitive driver among Generation Z consumers in Muslim-majority Southeast Asian markets (Hofstede, 2001). Despite differences in institutional maturity, regulatory frameworks, and public halal education programs between the two countries (Fianto et al., 2025), awareness consistently contributes to stronger purchase intention. This finding indicates that the cognitive mechanisms underlying the awareness–intention relationship transcend national boundaries and institutional contexts, reflecting fundamental psychological processes related to knowledge, motivation, and behavioral readiness (Milfont & Fischer, 2010).

Policymakers in Indonesia and Malaysia should prioritize halal education programs in schools, universities, and community centers to enhance consumer knowledge and sensitivity toward halal compliance (Rahman et al., 2015). Certification bodies such as JAKIM and LPPOM-MUI should invest in digital and traditional media campaigns to educate Generation Z consumers about certification standards, halal ingredients, and verification processes (Ab Talib et al., 2016).

Halal brand managers should leverage digital platforms, including social media, influencer partnerships, educational content, and interactive tools, to enhance consumer awareness and knowledge (Chalid & Mirzal, 2023). Providing transparent information about certification processes, ingredient sourcing, production methods, and third-party audits can increase awareness and, in turn, strengthen purchase intentions among Generation Z consumers (Aoun & Tournois, 2015; Shaari & Arifin, 2010).

The Moderating Role of Halal Awareness in Strengthening the Relationship between Halal Brand Perceived Quality and Halal Purchase Intention among Generation Z Consumers in Indonesia and Malaysia

H3 proposed that halal awareness moderates the relationship between perceived quality of halal brands and halal purchase intention, such that the positive effect is stronger among consumers with higher halal awareness. The findings strongly confirm this hypothesis, as the interaction term is positive and statistically

significant, as reported in Table 7 ($\beta = 0.200$, $t = 3.45$, $p < 0.01$). This result indicates that the impact of halal brand perceived quality on purchase intention is contingent on the consumer's level of halal awareness.

Among Generation Z consumers with higher halal awareness, perceived quality exerts a significantly stronger influence on purchase intention. In contrast, among those with lower awareness, the strength of this relationship is comparatively reduced. This pattern of results suggests that halal awareness serves as a boundary condition, amplifying or attenuating the effectiveness of quality perceptions in driving behavioral intentions. The presence of this moderating effect confirms that the quality–intention relationship is not universal but rather context-dependent and contingent upon individual-level consumer characteristics.

This moderating mechanism aligns closely with signaling theory and the concept of signal literacy. Quality attributes such as halal certification, halal logos, transparent ingredient disclosure, and brand reputation function as market signals that reduce information asymmetry between producers and consumers. However, the effectiveness of these signals depends critically on consumers' interpretative capability, namely their ability to recognize, decode, and accurately evaluate the signals (Connelly et al., 2011).

Halal awareness enhances signal decoding capacity, enabling consumers to distinguish between authentic and superficial halal claims, assess the credibility of certification bodies, and interpret quality cues accurately (Ambali & Bakar, 2014; Rezai et al., 2012). Consumers with high awareness possess the knowledge and cognitive tools needed to process halal-quality signals effectively, making perceived quality a more influential determinant of their purchase intentions. Conversely, consumers with low awareness may lack the interpretative capability to fully appreciate quality signals, resulting in a poorer quality–intention relationship (Ab Talib et al., 2016; Prabowo et al., 2015).

The consistency of the moderating effect across Indonesia and Malaysia is theoretically significant. Despite differences in halal certification maturity, regulatory frameworks, and consumer education levels (Fianto et al., 2025), the awareness \times perceived quality interaction operates similarly in both countries. This cross-country stability suggests that the cognitive mechanisms underlying the moderating effect signal literacy, information processing capability, and evaluative accuracy are universal psychological processes that transcend institutional and cultural contexts (Milfont & Fischer, 2010).

However, future research should investigate whether the magnitude of the moderating effect differs between the two countries. For instance, in Malaysia's more mature halal ecosystem, high-awareness consumers may exhibit even stronger moderation effects due to greater exposure to standardized certification and quality signals (Ab Talib et al., 2017; Ngah et al., 2021). In Indonesia's evolving regulatory environment, the moderating effect may be more pronounced among highly educated urban consumers who actively seek halal information, while being weaker among rural or less-educated consumers (Elasrag, 2016; Waharini & Purwantini, 2018).

The moderating effect of halal awareness underscores the critical importance of consumer education initiatives by certification bodies (e.g., JAKIM, LPPOM-MUI) and government agencies (Ab Talib et al., 2016; Prabowo et al., 2015). Certification alone is insufficient to drive purchase intention; consumers must possess the knowledge to recognize, interpret, and value certification signals (Golan et al., 2001; Verbeke et al., 2013). Policymakers should integrate halal education into school curricula, launch public awareness campaigns through traditional and digital media, and provide accessible resources (e.g., mobile apps, websites, hotlines) to help consumers verify halal claims (Bonne & Verbeke, 2008; Said et al., 2014).

Certification bodies should standardize certification marks, simplify verification processes, and increase transparency to reduce the cognitive burden on consumers (Tieman et al., 2012; Zulfakar et al., 2014). By enhancing both awareness and signal clarity, stakeholders can maximize the effectiveness of halal quality signals in shaping consumer behavior.

Conclusion

This study provides empirical evidence that perceived quality of halal brands and halal awareness jointly shape halal purchase intention among Generation Z consumers in Indonesia and Malaysia. The findings

confirm that perceived quality functions as a primary evaluative driver of intention formation, consistent with the Theory of Planned Behavior (TPB) and signaling theory. In halal markets characterized by credence attributes, certification credibility, transparency, and brand authenticity operate as signals that reduce information asymmetry. The significant effect of halal brand perceived quality demonstrates that Generation Z consumers actively interpret halal-related quality cues when forming purchase intentions.

Halal awareness also emerges as a substantial cognitive determinant of purchase intention. Consistent with consumer knowledge theory and the Elaboration Likelihood Model (ELM), awareness enhances consumers' ability and motivation to process halal information through central-route evaluation. Consumers with higher levels of awareness exhibit stronger, more stable purchase intentions, suggesting that knowledge strengthens the internalization of halal attributes in decision-making.

The primary novelty of this study is that it demonstrates that halal awareness not only directly influences purchase intention but also moderates the relationship between perceived halal brand quality and purchase intention. By empirically validating the interaction effect across two national contexts, this study extends signaling theory by showing that signal effectiveness depends on receiver capability, operationalized as halal awareness. This shifts the conceptualization of halal awareness from a simple antecedent variable to a boundary condition that amplifies or attenuates the effectiveness of branding-based quality perceptions. Such integration of TPB, signaling theory, and ELM within a cross-country PLS-SEM framework represents a theoretical advancement in halal marketing research.

The cross-country consistency of the findings across Indonesia and Malaysia is particularly significant. Despite Indonesia's relatively recent implementation of mandatory halal certification under Law No. 33/2014 and Malaysia's long-established JAKIM certification system, the structural relationships remain stable. This suggests that individual-level cognitive mechanisms underlying halal consumption transcend differences in institutional maturity. At the same time, the results highlight that regulatory frameworks alone are insufficient to maximize consumer behavioral outcomes without adequate consumer awareness.

From a policy perspective, the findings emphasize the importance of integrating certification systems with structured halal literacy initiatives. Policymakers in Indonesia and Malaysia should not only enforce certification compliance but also strengthen public halal education through school curricula, university programs, and digital awareness campaigns. Certification bodies such as JAKIM and LPPOM-MUI should enhance transparency, standardize communication formats, and provide accessible verification tools to improve consumers' ability to interpret signals. Without strengthening awareness, certification signals may not reach their full behavioral impact.

From a managerial perspective, halal brand managers should adopt dual strategies: reinforcing objective quality signals (credible certification, transparent supply chains, documented compliance) while simultaneously investing in awareness-building communication strategies tailored to Generation Z's digital media consumption patterns. Segmenting consumers based on awareness levels may further optimize marketing effectiveness.

This study is not without limitations. First, the sample focuses exclusively on Muslim Generation Z consumers in selected urban areas of Indonesia and Malaysia, which may limit generalizability to rural populations, older generations, or non-Muslim consumers. Second, the model includes only three primary constructs: halal brand perceived quality, halal awareness, and halal purchase intention without incorporating other relevant psychological or contextual variables such as religiosity, trust in certification authorities, digital literacy, perceived risk, or social influence. Third, the cross-sectional design limits causal inference and fails to capture changes in awareness or intention over time.

Future research should expand the model by incorporating additional moderating or mediating variables, such as religiosity, trust in certification bodies, exposure to digital information, or perceived authenticity. Comparative studies involving non-Muslim consumers or minority-Muslim countries may also provide deeper insight into institutional effects. Longitudinal designs are recommended to examine whether awareness-driven intentions translate into sustained halal consumption behavior. Additionally,

multilevel modeling approaches could examine how institutional strength interacts with individual awareness to shape behavioral outcomes.

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