

Halal Fatigue, Distrust, and Perceived Risk in Muslim Minority Consumption Decisions: Evidence from the Philippines

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Abstract

Purpose – This study investigates how halal fatigue and distrust behavior influence perceived risk and, subsequently, decision-making among Muslim minority consumers in the Philippines, a pluralistic and institutionally fragmented halal market.

Design/Methodology/Approach – A quantitative survey was administered to 231 Muslim consumers. Data were analyzed using partial least squares structural equation modeling (PLS-SEM) to test direct and mediated effects within a cognitive–institutional framework.

Findings – Rational style and halal fatigue significantly increase perceived risk, while distrust behavior shows no significant effect. Perceived risk positively influences decision-making, and mediates the effects of both rational style and fatigue on decisions.

Originality/Value – The study reframes perceived risk as an active cognitive mediator rather than merely a barrier in ethically charged consumption, introducing halal fatigue as a key antecedent and distinguishing distrust behavior from generalized skepticism.

Research Limitations/Implications – Findings are context-specific to the Philippine Muslim minority; cross-national replication is recommended. Emotional and social moderators were not modeled.

Practical Implications – Policymakers and halal certifiers should reduce cognitive load through standardized, transparent verification systems to mitigate fatigue-driven risk escalation and support confident consumer engagement.

Keywords – Rational Style, Fatigue, Distrust Behavior, Perceived Risk, Decision-Making

1. Introduction

Contemporary Muslim consumers increasingly navigate complex decision environments characterized by abundant choices, digital saturation, and institutional ambiguity ([Ashton & Islam, 2025](#); [Cuevas et al., 2022](#)). In pluralistic, secular societies such as the Philippines, where Muslims constitute a growing yet religiously and culturally distinct minority, the process of making consumption decisions aligned with Islamic principles often entails additional cognitive and emotional labor ([Said et al., 2022](#); [Aji et al., 2021](#)). Consumers routinely assess product authenticity, institutional credibility, and moral compatibility, and these ongoing efforts may culminate in psychological exhaustion (halal fatigue), heightened skepticism toward market actors (distrust behavior), and elevated perceived risk ([Ashton & Islam, 2025](#); [Jia et al., 2022](#); [Min & Zickar, 2023](#)). This burden is particularly pronounced in domains where religious compliance intersects with everyday transactions, such as halal food, modest fashion, and Islamic financial services ([Ali et al., 2021](#); [Miftahuddin et al., 2022](#)).

While the Philippines has witnessed a steady expansion of halal-certified offerings and sharia-compliant financial platforms, several local studies indicate that consumer confidence in these markets remains uneven and context dependent, particularly due to fragmented certification practices and limited institutional standardization ([Cuevas et al., 2022](#); [Buenafe et al., 2025](#)). Confidence is influenced not only by objective product attributes but also by internal states such as cognitive fatigue and relational dynamics such as institutional distrust, both of which have received limited systematic attention in the literature ([Khalifa, 2025](#); [Hoffjann, 2025](#)).

The scholarly discourse on Islamic consumer behavior has evolved substantially over the past decade, with increasing emphasis on religiosity, trust, and ethical motivations as drivers of decision-making ([Abdelrazek et al., 2023](#); [Sholihin et al., 2023](#)). A significant body of work has established that religious identity serves as a strong predictor of consumption patterns, particularly in contexts where market offerings explicitly claim alignment with Islamic values ([Rahman et al., 2024](#)). More recently, researchers have turned to behavioral and cognitive perspectives, examining how emotions, biases, and situational factors modulate religiously informed choices ([Chen et al., 2025](#); [Garas, 2024](#)). However, most studies remain concentrated in majority-Muslim countries such as Indonesia, Malaysia, and Turkey, where institutional support for Islamic markets is robust and normative expectations are relatively homogeneous ([Azmar & Aghwan, 2025](#); [Aufi et al., 2024](#)). In contrast, research on Muslim minorities in Western liberal democracies and in Southeast Asian pluralistic societies such as the Philippines remains underdeveloped, particularly regarding the processes through which internal psychological states translate into behavioral outcomes ([Said et al., 2022](#); [Cuevas et al., 2022](#)).

Within this emerging stream, fatigue and distrust have begun to surface as relevant constructs. Fatigue, understood as a state of mental weariness resulting from sustained evaluative effort, has been linked to reduced engagement and decision avoidance in general consumer contexts ([Jia et al., 2022](#); [Van Der Schyff et al., 2023](#)). Distrust, defined as an active skepticism toward institutions, brands, or certification bodies ([Min & Zickar, 2023](#)), is increasingly recognized as distinct from the mere absence of trust and as a potent antecedent of risk perception ([Kim & Rim, 2024](#); [Richmond et al., 2024](#)). Yet, existing studies have largely examined fatigue and distrust in isolation or within broader trust-based frameworks, with limited empirical work explicitly modeling their joint influence on perceived risk appraisals among Muslim consumers in minority settings. Their role has also not been theorized within a cohesive framework that accounts for both rational deliberation and affective influences ([Obeidat & Obeidat, 2023](#); [Zamfir, 2024](#)).

This gap is both empirical and theoretical. Empirically, the literature lacks context-sensitive investigations that foreground the lived experiences of Muslim consumers operating in environments where halal or sharia-compliant options are available but not institutionalized ([Buenafe et al., 2025](#); [Cuevas et al., 2022](#)). The Philippine context offers a compelling case: it features a diverse, highly educated, and digitally connected Muslim population, alongside a fragmented halal governance landscape and evolving regulatory debates around certification legitimacy ([Cuevas et al., 2022](#); [Umar & Parakkasi, 2025](#)). These conditions foster an environment in which fatigue and distrust are likely to manifest with particular salience, yet their consequences for decision-making remain unexplored.

Theoretically, current models in Islamic consumer behavior tend to rely on rational choice assumptions or value–attitude–behavior paradigms ([Sholihin et al., 2023](#); [Zamfir, 2024](#)), often overlooking the role of cognitive depletion and negative relational schemas. While frameworks such as the Theory of Planned Behavior and Value-Belief-Norm Theory provide useful explanatory scaffolding, they are less equipped to capture dynamic, resource-dependent decision processes under uncertainty ([Obeidat & Obeidat, 2023](#); [Freling et al., 2024](#)).

Integrating insights from Cognitive Load Theory ([Sweller, 2011](#); [Goldart et al., 2024](#)) and Institutional Distrust Theory ([Kramer, 1999](#); [Lahusen, 2024](#)) enables a more nuanced understanding of how limited mental resources and weakened confidence in market intermediaries jointly elevate perceived risk. This mediator is critical yet remains undertheorized in Islamic decision-making contexts ([Hu et al., 2023](#); [Albuainain & Ashby, 2025](#)).

Accordingly, this study contributes to scholarship in three principal ways. First, it advances context-based knowledge by shifting the geographic and demographic focus to Muslim minority consumers in the Philippines, thereby enriching the global discourse on Islamic marketing with insights from understudied yet strategically important markets ([Said et al., 2022](#); [Cuevas et al., 2022](#)). Second, it proposes and tests an integrative framework that positions perceived risk as a mechanism through which psychological exhaustion and institutional skepticism influence consumption decisions, moving beyond static trait-based explanations toward process-oriented theorizing ([Garas, 2024](#); [Addo et al., 2025](#)). Third, it introduces and operationalizes distrust behavior as an active and measurable construct distinct from trust deficiency ([Min & Zickar, 2023](#)), and demonstrates its relevance alongside cognitive fatigue in shaping risk appraisal ([Jia et al., 2022](#); [Hannani et al., 2023](#)), thereby expanding the conceptual toolkit available to researchers in Islamic behavioral science.

By addressing these gaps, the study aligns with the expectations of leading journals in marketing and decision science, which increasingly prioritize theoretical innovation, methodological rigor, contextual originality, and practical relevance ([El Chaarani et al., 2024](#); [Waqas & Qadri, 2025](#)). It responds to recent calls for research that bridges micro-level psychological processes with macro-level institutional dynamics, particularly in ethically and religiously charged consumption domains ([Khan, 2025](#); [Yolanda Putra et al., 2024](#)). Ultimately, the findings aim to inform not only academic understanding but also practitioner strategies for designing trust-enhancing, fatigue-mitigating interventions in Islamic markets operating under conditions of institutional pluralism and consumer vigilance. Despite the increasing availability of halal-certified products and services, Muslim minority consumers continue to face cognitive uncertainty in their consumption decisions, particularly under fragmented institutional trust conditions. Accordingly, this study aims to examine how rational decision style, halal fatigue, and distrust behavior influence decision making through the mediating role of perceived risk among Muslim minority consumers in the Philippines.

2. Literature review

This study is anchored in an integrative theoretical framework that bridges cognitive psychology, behavioral decision theory, and institutional sociology. At its core, the model draws on Cognitive Load Theory ([Sweller, 2011](#)) to explain how mental resource constraints, manifested as fatigue, impair evaluative capacity and amplify sensitivity to potential threats ([Goldart et al., 2024](#)). Complementing this, Institutional Distrust Theory ([Kramer, 1999](#)) provides a lens for understanding how active skepticism toward market intermediaries shapes risk appraisals independently of generalized trust deficits ([Lahusen, 2024](#)). These perspectives are nested within the broader paradigm of Behavioral Decision Theory ([Einhorn & Hogarth, 1981](#)), which posits that decisions arise not from pure rational calculus but from dynamic interactions among cognitive, affective, and contextual inputs. In Islamic consumer contexts, this integration is especially salient because religious compliance requires ongoing vigilance, verification, and moral calibration ([Abdelrazek et al., 2023](#)), all of which tax cognitive resources and expose consumers to institutional ambiguities. The synthesis of these theories advances beyond dominant models in Islamic marketing (e.g., value–attitude–behavior or religiosity-based frameworks) by foregrounding process over disposition and strain over stability.

The proposed framework further resonates with emerging work in Islamic behavioral economics, which recognizes *taqwa* (God-consciousness) and *maslahah* (public interest) not as static traits but as enacted dispositions vulnerable to situational depletion and institutional erosion ([Khan, 2025](#)). When consumers operate in environments where halal assurance mechanisms are decentralized, as in Philippines where multiple certification bodies coexist without federal standardization, the cognitive and relational demands intensify ([Cuevas et al., 2022](#)). This context magnifies the relevance of fatigue and distrust as upstream antecedents of perceived risk, positioning risk not merely as a perception of product danger but as a meta-evaluation of systemic reliability. By theorizing perceived risk as a mediating mechanism shaped by both internal strain and external skepticism, this study contributes to a more dynamic and ecologically valid understanding of decision-making in morally charged markets.

2.1. The influence of rational style on perceived risk

Rational style, defined as the systematic evaluation of alternatives based on logical analysis and objective criteria ([Varga & Marschalko, 2024](#)). In classical decision models, high rationality is associated with reduced risk perception, as informed deliberation enhances predictability and control ([Fisher & Mandel, 2021](#)). However, recent behavioral scholarship suggests a more nuanced relationship. When decisions involve normative or identity-relevant criteria, as in sustainable consumption, rational processing may heighten rather than reduce risk awareness ([Chen et al., 2025](#)). Consumers who engage deeply in assessing sharia compliance, ingredient sourcing, or ethical alignment may detect ambiguities, inconsistencies, or latent contradictions that less vigilant individuals overlook ([Rahman et al., 2024](#)). This hyper-vigilance, while rational, can amplify perceived risk by revealing the limits of available information or the fragility of institutional assurances. In pluralistic settings like Philippines, where halal claims lack uniform oversight, rational scrutiny may thus increase sensitivity to potential violations, rendering risk perception a function not of ignorance, but of informed caution ([Umar & Parakkasi, 2025](#)). This study proposes the following hypothesis:

H1. Rational style positively influences perceived risk

2.2. The influence of fatigue on perceived risk

Fatigue, conceptualized as a state of mental exhaustion resulting from prolonged cognitive effort, significantly distorts risk appraisal ([Jia et al., 2022](#)). Cognitive Load Theory posits that when working memory resources are depleted, individuals rely more heavily on heuristic processing and threat-sensitive schemas ([Goldart et al., 2024](#)). In consumer contexts, fatigue reduces tolerance for ambiguity and increases reliance on negative affect as a risk signal ([Antonetti et al., 2025](#)). For Muslim consumers, fatigue often arises from the repetitive labor of verifying halal status, cross-referencing certification logos, or reconciling religious norms with mainstream market offerings ([Aji et al., 2021](#)). This halal vigilance fatigue has been noted anecdotally but remains undertheorized in empirical research. When fatigued, individuals interpret neutral or marginally ambiguous cues, such as unfamiliar certification marks or vague product descriptions, as indicators of potential noncompliance ([Pietro, 2023](#)). This tendency inflates perceived risk. Importantly, this effect is context contingent. In environments with low institutional clarity, the impact of fatigue on risk perception is likely magnified because corrective resources, such as trusted advisors or authoritative databases, are limited or inaccessible ([Xu et al., 2023](#)). This study proposes the following hypothesis:

H2. Fatigue positively influences perceived risk

2.3. The influence of distrust behavior on perceived risk

Distrust behavior represents an active and intentional stance of skepticism toward institutions, brands, or intermediaries ([Kim & Rim, 2024](#)). While trust lowers perceived risk by signaling reliability, distrust operates asymmetrically: it intensifies risk perception even in the presence of objective safeguards ([Richmond et al., 2024](#)). This is because distrust activates a precautionary mindset, wherein individuals anticipate deception, negligence, or misalignment of incentives ([Atkinson, 2025](#); [Stanczak & Ward, 2023](#)). In Islamic markets, distrust often stems from past exposure to certification scandals, inconsistent fatwa interpretations, or perceived commercialization of religious symbols ([Aufer et al., 2024](#)). Philippines Muslim consumers, operating in a market where halal certification is privatized and competitively fragmented, may develop institutional distrust as a protective adaptation ([Cuevas et al., 2022](#)). Once established, this behavioral orientation primes consumers to interpret institutional signals, such as halal logos or sharia board endorsements, as potentially strategic rather than substantive ([Noor, 2025](#)). This tendency elevates perceived risk independent of actual product attributes. This study proposes the following hypothesis:

H3. Distrust behavior positively influences perceived risk

2.4. The influence of rational style on decision-making

Rational style is conventionally expected to improve decision quality by aligning choices with long-term goals and value consistency ([Rhesa et al., 2025](#)). In Islamic contexts, rationality supports adherence to maqasid al-shariah (the higher objectives of Islamic law), enabling consumers to prioritize welfare, justice, and purity in their selections ([Zamfir, 2024](#)). However, excessive rational deliberation can lead to decision paralysis or avoidance, particularly when normative trade-offs are salient (e.g., affordability vs. certification rigor). Research in dual-process models shows that while System 2 thinking (analytical, effortful) aids complex evaluations, its prolonged engagement depletes self-regulatory resources, potentially undermining subsequent decisions ([Obeidat & Obeidat, 2023](#)). Thus, a rational style may yield high-integrity choices in low-complexity scenarios but become counterproductive in high-stakes and information-scarce environments ([Woldesenbet Beta & Gezahegn, 2025](#)). In such settings, perfect compliance is difficult to achieve and the opportunity costs are high. This study proposes the following hypothesis:

H4. Rational decision positively influences decision-making

2.5. The influence of perceived risk on decision-making

Perceived risk has long been recognized as a fundamental determinant of consumer decision-making, particularly reflecting the extent to which individuals anticipate potential negative outcomes associated with a choice ([Kenesei et al., 2022](#)). This multifaceted evaluation typically encompasses functional, financial, psychological, and social consequences of decisions ([Bernarto et al., 2022](#)). In consumer contexts, heightened perceived risk often leads individuals to adopt more cautious behaviors such as in-depth information seeking, avoidance, or reliance on trusted alternatives as protective mechanisms ([Jacobson et al., 2022](#)).

In digital and service-oriented environments, including online financial services and halal consumption, perceived risk becomes increasingly salient due to information asymmetry and the challenges consumers face in verifying product or service claims ([Ali et al., 2021](#); [Miftahuddin et al., 2022](#)). This issue is further amplified within Muslim minority populations who navigate consumption decisions under the dual pressures of religious compliance and balancing cultural integration, contributing to phenomena such as halal fatigue and distrust ([Said et al., 2022](#)).

Studies have consistently demonstrated that higher levels of perceived uncertainty or potential harm dampen consumers' willingness to adopt new products or engage with services,

particularly when long-term commitments are involved ([El Chaarani et al., 2024](#)). In ethically or religiously sensitive domains, perceived risk wields stronger influence, as consumers not only evaluate risks cognitively but also emotionally, with concerns over potential violations of moral, legal, or religious standards amplifying risk perception ([Garas, 2024](#)). Muslim minorities experience this dynamic especially acutely, interpreting ambiguous cues as potential signals of halal non-compliance, which intensifies distrust and leads to defensive consumption behaviors ([Ashton & Islam, 2025](#)).

Consequently, perceived risk in these contexts frequently results in delayed decision-making, restriction to trusted brands or vendors, or complete disengagement from specific consumption contexts ([Strueder et al., 2024](#)). Empirical evidence from Muslim consumer markets confirms that perceived risk functions as a mediating mechanism that translates cognitive evaluations and emotional responses into concrete behavioral intentions, filtering choices through the lens of religious identity and integrity preservation ([Garas, 2024](#); [Shahid et al., 2023](#)).

Overall, perceived risk acts as a pivotal psychological filter in Muslim minorities' halal consumption decisions, influencing whether consumers proceed, postpone, or withdraw from purchases amid concerns of halal fatigue and distrust. Accordingly, this study posits the following hypothesis:

H₅. Perceived risk positively influences decision-making

2.6. The role of perceived risk as a mediator

Perceived risk serves as a pivotal cognitive-affective mediator that translates antecedent states into behavioral intentions. Rooted in protection motivation theory, perceived risk captures the subjective expectation of loss, whether functional, financial, physical, social, or psychological, associated with a choice ([Hu et al., 2023](#); [Yagmur & Aksu, 2021](#)). In Islamic consumption, risk extends beyond traditional domains to include spiritual and moral ([Ali et al., 2021](#)). As such, perceived risk functions as an integrative appraisal mechanism that condenses complex inputs, including rational evaluations, affective exhaustion, and relational skepticism, into a unified readiness or reluctance to act ([Albuainain & Ashby, 2025](#)). Its mediating role is especially critical in contexts where outcomes are delayed or unverifiable, as in halal or sharia-compliant transactions ([Maulana & Fatmawati, 2023](#)), where consequences may be metaphysical rather than immediate.

2.6.1. The influence of rational style on decision-making through perceived risk

Although rational style may initially reduce uncertainty ([Kozyreva & Hertwig, 2021](#)), its exhaustive application in morally complex domains can heighten awareness of potential noncompliance, thereby increasing perceived risk. This elevated risk, in turn, may lead to hesitation, information seeking, or abstention, even when rational analysis favors action ([Li et al., 2025](#)). Thus, rationality may exert an indirect negative influence on decision-making via risk amplification ([Lu et al., 2022](#)). This pattern is likely pronounced among highly committed Muslims in non-Muslims countries, for whom even minor uncertainties carry significant normative weight ([Ashton & Islam, 2025](#)). The pathway underscores that rationality, while normatively desirable, is not inherently facilitative of action when embedded in high-stakes religious contexts. This study proposes the following hypothesis:

H₆. Rational style positively influences decision-making, mediated by perceived risk

2.6.2. The influence of fatigue on decision-making through perceived risk

Fatigue intensifies perceived risk by weakening top-down regulatory control and amplifying threat sensitivity. As mental resources diminish, ambiguous stimuli are interpreted more negatively, and the perceived cost of decision errors rises ([Freling et al., 2024](#)). This

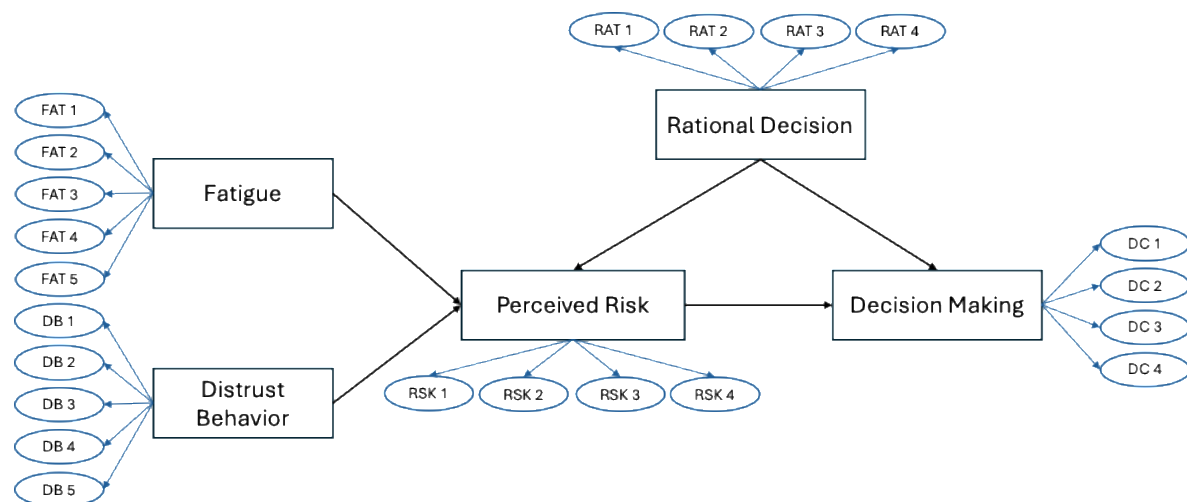
inflated risk appraisal then leads to risk-averse behaviors: postponement, simplification, or withdrawal (Geaves et al., 2024). In the halal context, fatigued consumers may avoid unfamiliar brands, limit their shopping to trusted retailers, or delay major purchases such as halal mortgages until their cognitive capacity is restored (Bakhshizadeh Borj et al., 2025). The mediated pathway thus reveals fatigue not as a direct inhibitor of action, but as a catalyst for risk inflation, which subsequently constrains behavioral latitude. This study proposes the following hypothesis:

H7. Fatigue positively influences decision-making, mediated by perceived risk

2.6.3. The influence of distrust behavior on decision-making through perceived risk

Distrust behavior systematically elevates perceived risk by framing institutional signals as unreliable or self-serving (Patent, 2022). This heightened risk perception, in turn, triggers protective decision strategies such as verification escalation, social validation seeking, or market exit (Flores Martinez, 2025). Crucially, because distrust is behavioral rather than merely attitudinal, it sustains risk vigilance over time and creates a recursive loop in which each new encounter reinforces skepticism (Schweizer et al., 2022). In a decentralized halal ecosystem, where certification bodies compete without a central authority, distrust may render perceived risk chronically elevated, even when product attributes are otherwise favorable (Dashti et al., 2024). The mediated effect therefore underscores that institutional credibility is not a passive background condition but an active determinant of risk calibration and, ultimately, consumer agency. This study proposes the following hypothesis (see Figure 1):

H8. Distrust behavior positively influences decision-making, mediated by perceived risk



Source: Authors' Own

Figure 1. Conceptual framework

3. Methodology

This study employed a quantitative survey design targeting Muslim consumers residing in Philippines. A total of 231 usable responses were collected through a stratified purposive sampling strategy to ensure representation across key demographic and consumption-related characteristics. Specifically, the stratification was based on age group (18–65 years), gender, education level, and frequency of engagement with halal or sharia-compliant products and services, rather than on specific Muslim ethnic subgroups or geographic regions. Participants were recruited through online channels such as community organizations, university networks, and verified Muslim social media groups. Screening questions were used to confirm religious identity and relevant consumption experience.

The instrument comprised adapted and validated scale items drawn from established literature. Rational style was measured with four items adapted from Varga and Marschalko (2024). Fatigue was captured with five items based on the Mental Fatigue Scale by Johansson et al. (2023). Distrust behavior was measured with five items developed from Min and Zickar (2023) and operationalized as active skepticism. Perceived risk was assessed with four items modified from Bao et al. (2024) to incorporate spiritual and moral risk dimensions. Decision-making was measured with four items reflecting purchase or adoption intention, adapted from Sholihin et al. (2023). All constructs were measured on a six-point Likert scale ranging from one for strongly disagree to six for strongly agree. This scale was selected to minimize central tendency bias and to enhance variance detection in culturally diverse samples (Taherdoost & Madanchian, 2021).

Data analysis was conducted using SmartPLS following the two-stage partial least squares structural equation modeling protocol recommended for theory development and complex mediation testing in behavioral research (Henseler et al., 2009). The measurement model was first assessed for internal consistency, with composite reliability values greater than 0.80, indicator reliability, with loadings greater than 0.70, convergent validity, with average variance extracted values greater than 0.50, and discriminant validity, with HTMT ratios lower than 0.85 (Hair et al., 2011). The structural model was then evaluated through bootstrapping with 5,000 resamples to generate bias-corrected confidence intervals and significance estimates for path coefficients and specific indirect effects. Model fit was examined using the standardized root mean square residual with values lower than 0.08 and the bootstrap-based overall model fit assessment. Following the guidelines of Hair et al. (2011), predictive relevance with Q square values greater than zero and effect sizes with f square values were reported to assess practical significance (Campus & Adyar, 2018).

4. Results

4.1. Descriptive of demographic

The demographic profile of the respondents is presented in Table 1. The sample consists of two gender groups, with females forming the majority. A total of 171 respondents, representing 74.03 percent, identified as female, while 60 respondents, representing 25.97 percent, identified as male. The education profile shows that most participants hold a diploma, accounting for 60.61 percent, followed by those with a bachelor's degree at 35.06 percent. Only a small proportion reported holding a master's degree or higher.

Employment characteristics indicate that students make up the largest segment of the sample, totaling 154 respondents or 66.67 percent. In terms of frequency of engagement, most respondents reported occasional or rare engagement, with 36.36 percent indicating occasional engagement and 34.63 percent indicating rare engagement. The generational composition is dominated by Generation Z, which comprises 198 respondents or 85.71 percent. This distribution suggests that the study primarily reflects the perspectives of younger and academically active individuals.

Table 1. Respondents' Demographic Characteristics

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	60	25.97
	Female	171	74.03
Education Level	High school or below	1	0.43
	Diploma	140	60.61
	Bachelor's degree	81	35.06
	Master's degree	6	2.60

Variable	Category	Frequency (n)	Percentage (%)
Work Status	Doctoral degree	3	1.30
	Student	154	66.67
	Unemployed	7	3.03
	Private-sector employee	55	23.81
	Government employee	15	6.49
Frequency of Engagement	Rarely	80	34.63
	Occasionally	84	36.36
	Frequently	49	21.21
	Very frequently	15	6.49
	Always	3	1.30
Generation	Baby Boomers	1	0.43
	Generation X	6	2.60
	Millennials	26	11.26
	Generation Z	198	85.71

Source: Processed Data 2025

4.2. Reliability and Validity Test

The reliability and validity assessment of the measurement model is summarized in [Table 2](#). All constructs demonstrate satisfactory internal consistency, as indicated by composite reliability values exceeding the recommended threshold. Distrust behavior shows a composite reliability of 0.915 and an AVE of 0.733, while fatigue records a composite reliability of 0.939 with an AVE of 0.756. Perceived risk also meets the accepted criterion with a composite reliability of 0.933 and an AVE of 0.776. Rational style and decision-making display composite reliability values of 0.888 and 0.903. These results indicate that each construct achieves strong reliability and convergent validity. Item loadings generally exceed the required level, with indicators such as FAT1 at 0.870, RISK3 at 0.914, and RAT4 at 0.848 confirming adequate indicator reliability.

The assessment of discriminant validity using the HTMT criterion also supports the distinctiveness of the constructs, as all HTMT values fall within acceptable ranges. In addition, the effect size values and R squared coefficients presented in Table 2 further demonstrate the structural strength of the model. Of note, the item DB5 was removed prior to analysis because its outer loading of 0.223 fell below the acceptable threshold. Additionally, variance inflation factor (VIF) values were examined and remained below the recommended threshold, further indicating the absence of severe common method bias ([Hair et al., 2011](#)). The final measurement model therefore reflects a refined set of indicators with strong psychometric properties, allowing for accurate interpretation of the structural relationships tested in this study.

Table 2. Measurement Model Assessment Results

Construct- Items	Outer Loading	HTMT				F ²		R ²
		DM	DB	FAT	RISK	DM	RISK	
Distrust Behavior $\alpha=0.892$, CR=0.915, AVE=0.733		0.479				0.059		
DB1	0.722							
DB2	0.947							
DB3	0.948							
DB4	0.784							

Construct- Items	Outer Loading	HTMT				F ²		R ²
		DM	DB	FAT	RISK	DM	RISK	
Fatigue $\alpha=0.920$, CR=0.939, AVE=0.756		0.336	0.107				0.933	
FAT1	0.870							
FAT2	0.864							
FAT3	0.856							
FAT4	0.875							
FAT5	0.884							
Perceived Risk $\alpha=0.904$, CR=0.933, AVE=0.776		0.277	0.108	0.750		0.059		0.520
RISK1	0.854							
RISK2	0.892							
RISK3	0.914							
RISK4	0.863							
Rational Style $\alpha=0.832$, CR=0.888, AVE=0.664		0.631	0.817	0.071	0.113	0.422	0.068	
RAT1	0.781							
RAT2	0.821							
RAT3	0.809							
RAT4	0.848							
Decision-Making $\alpha=0.858$, CR=0.903, AVE=0.700								0.340
DM1	0.810							
DM2	0.872							
DM3	0.816							
DM4	0.847							

Source: Processed Data 2025

The evaluation of the structural model presented in [Table 3](#) demonstrates that multicollinearity is not a concern, as all VIF values remain well below the commonly accepted threshold. Perceived risk and rational style each record VIF values close to 1.009, while Distrust behavior shows a higher but still acceptable value of 1.840. The effect size values provide additional insight into the relative contribution of each construct. Fatigue displays a substantial effect size of 0.933, indicating a strong influence within the model, whereas rational style and distrust behavior show smaller contributions with effect size values of 0.422 and 0.059. The predictive accuracy of the model is further supported by the Stone Geisser Q squared values, where decision-making reaches 0.493 and Perceived Risk reaches 0.612, both of which exceed zero and therefore confirm predictive relevance ([Campus & Adyar, 2018](#)).

In addition to these diagnostics, the assessment of model fit using the SRMR criterion confirms that the model achieves an acceptable level of fit. The saturated model produces an SRMR value of 0.061, while the estimated model yields an SRMR value of 0.072. Both values fall below the maximum recommended threshold, indicating that the discrepancy between the observed and predicted correlations is within an acceptable range. Collectively, the multicollinearity diagnostics, effect size values, predictive relevance indicators, and SRMR results confirm that the structural model is statistically sound and suitable for further interpretation of the relationships among the constructs ([Henseler et al., 2009](#)).

Table 3. Multicollinearity, Effect Size, and Predictive Relevance (PLS-SEM)

	VIF		F ²		Q ²	Stone–Geisser Q ²
	DM	RISK	DM	RISK	Communality	
Decision-Making					0.493	0.225
Distrust Behavior		1.840		0.059	0.548	
Fatigue		1.015		0.933	0.623	
Perceived Risk	1.009		0.059		0.612	0.391
Rational Style	1.009	1.825	0.422	0.068	0.436	

Source: Processed Data 2025

4.3. Testing hypotheses

The results of the hypothesis testing presented in [Table 4](#) indicate several statistically significant relationships within the structural model. Rational style shows a positive and significant effect on perceived risk, with a path coefficient of 0.244 and a t value of 3.078. The corresponding p value of 0.002 indicates strong statistical support for this relationship. This suggests that individuals who engage in more rational and analytical processing tend to report higher levels of perceived risk. Fatigue also demonstrates a substantial and statistically significant influence on perceived risk. The path coefficient of 0.674, supported by a t value of 13.379 and a p value of 0.000, indicates a strong and highly reliable effect. This finding confirms that higher levels of cognitive or mental fatigue significantly elevate individuals' perceptions of risk in decision contexts.

In contrast, distrust behavior does not exhibit a statistically significant relationship with perceived risk. Although the path coefficient is negative at -0.229, the t value of 1.771 and p value of 0.077 fall above the conventional significance threshold, indicating that the effect cannot be reliably confirmed. Regarding behavioral outcomes, rational style positively influences decision-making, as shown by the path coefficient of 0.530, the t value of 7.797, and the highly significant p value of 0.000. This indicates that individuals who adopt a more rational style approach are more likely to engage in clear and intentional decision behaviors. Perceived risk also shows a modest but statistically significant positive effect on decision making, with a coefficient of 0.198, a t value of 3.484, and a p value of 0.001.

Table 4. Direct effects

Path Coefficients	Original (O)	T Statistics	P Values
Rational Style → Perceived Risk	0.244	3.078	0.002
Fatigue → Perceived Risk	0.674	13.379	0.000
Distrust Behavior → Perceived Risk	-0.229	1.771	0.077
Rational Style → Decision Making	0.530	7.797	0.000
Perceived Risk → Decision Making	0.198	3.484	0.001

Source: Processed Data 2025

The mediation analysis presented in [Table 5](#) demonstrates that perceived risk functions as a significant mediating variable for two of the three examined pathways. The indirect effect of rational style on decision making through perceived risk is positive and statistically significant, with an indirect coefficient of 0.048, a t value of 2.418, and a p value of 0.016. This finding indicates that rational style contributes to decision outcomes not only directly but also indirectly by elevating risk perceptions, which subsequently influence decision-related

behaviors. Although the size of the indirect effect is modest, its statistical significance confirms the presence of a meaningful mediating relationship.

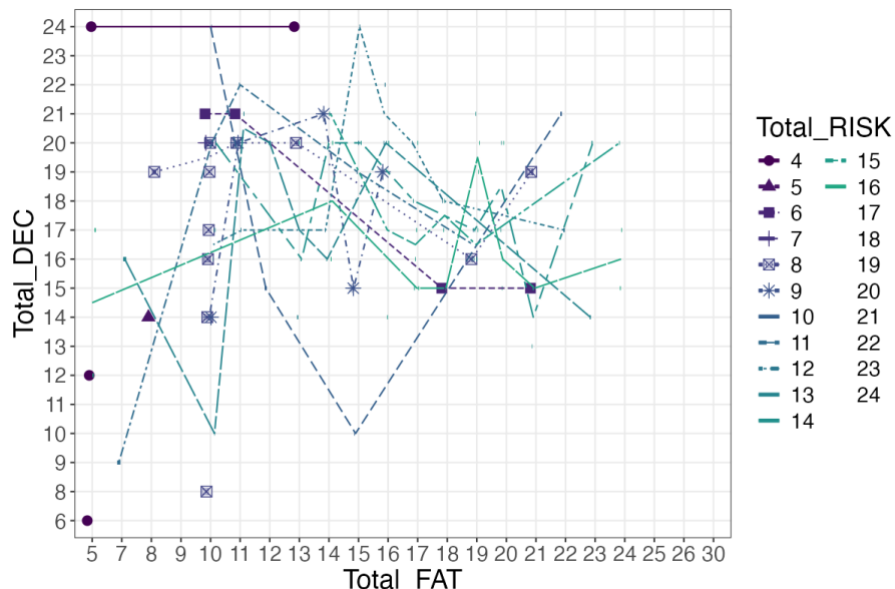
Fatigue also exhibits a significant mediated effect through perceived risk, with an indirect coefficient of 0.134, a *t* value of 3.198, and a *p* value of 0.001. This result provides strong evidence that perceived risk transmits the influence of fatigue onto decision making. The magnitude of this indirect effect is comparatively larger than that of rational style, highlighting the stronger role of fatigue in shaping risk perceptions that ultimately affect decision behavior. In contrast, the indirect effect of distrust behavior on decision making through perceived risk is not statistically significant. Although the coefficient is negative at -0.045, the *t* value of 1.750 and *p* value of 0.081 do not meet the conventional threshold for significance.

Table 5. Specific indirect effect

Path Coefficients	Original (O)	T Statistics	P Values
Rational Style → Perceived Risk → Decision Making	0.048	2.418	0.016
Fatigue → Perceived Risk → Decision Making	0.134	3.198	0.001
Distrust Behavior → Perceived Risk → Decision Making	-0.045	1.750	0.081

Source: Processed Data 2025

The flexplot in [Figure 2](#) illustrates the relationship between fatigue (Total_FAT) and decision making (Total_DEC) while grouping observations by different levels of perceived risk (Total_RISK). Across the visualized data points, the general pattern suggests that increases in fatigue tend to be associated with fluctuations in decision-making scores rather than a consistent upward or downward trend ([Fife et al., 2021](#)). This variability aligns with the PLS-SEM results, which identified fatigue as a strong predictor of perceived risk but only an indirect contributor to decision outcomes. The plot shows that decision making does not decrease sharply even at higher fatigue levels, indicating that fatigue may influence behavior through intermediate cognitive processes rather than through a direct linear mechanism.



Source: Processed data (2025)

Figure 2. Flexplot Jamovi

When interpreted alongside the color and line groupings representing levels of perceived risk, the plot reveals that perceived risk moderates the way fatigue relates to decision making. Individuals with higher perceived risk typically cluster around moderate decision-making

scores regardless of fatigue level, showing relatively stable patterns. Meanwhile, respondents with lower perceived risk show greater dispersion in their decision-making scores at comparable fatigue levels. This visual pattern reinforces the statistical findings that perceived risk is an active mediator. The mediating role is visible in the way risk levels form distinct trajectories within the plot, suggesting that fatigue affects decision making more consistently when perceived risk is high, whereas the effect becomes more erratic when perceived risk is low.

5. Discussion

This study provides valuable insights into how Muslim minority consumers in Philippines make consumption decisions under cognitively demanding and institutionally ambiguous conditions. The structural model results show that rational style and fatigue significantly increase perceived risk, whereas distrust behavior does not have a statistically significant impact.

The positive relationship between rational style and perceived risk suggests that consumers who engage in systematic evaluation of halal compliance, ingredient details, and certification legitimacy become more aware of inconsistencies and gaps. This finding aligns with recent research showing that analytical thinking heightens sensitivity to ambiguous or weak signals, especially in morally or identity-relevant contexts, thereby elevating risk perception ([El Chaarani et al., 2024](#); [Garas, 2024](#)). Given the decentralized certification standards and fragmented verification processes in Philippines's halal market, this heightened scrutiny likely uncovers uncertainties, amplifying perceived risks ([Azmar & Aghwan, 2025](#)).

Fatigue shows the strongest direct effect on perceived risk, confirming cognitive load theory and behavioral decision research that mental exhaustion reduces tolerance for ambiguity and increases reliance on threat-sensitive heuristics ([Tolner & Pogatsnik, 2024](#)). For Muslim minority consumers, repeated mental effort to verify halal status, referred to as halal vigilance fatigue, significantly shapes risk assessments ([Ashton & Islam, 2025](#)). Importantly, fatigue also influences decision making indirectly through perceived risk. This aligns with [Jia et al. \(2022\)](#) and [Hannani et al. \(2023\)](#), who indicate that mental exhaustion does not necessarily degrade decision quality but increases caution and awareness of potential negative outcomes. This corresponds with recent moral decision research highlighting that cognitive depletion can amplify protective behaviors rather than compliance reduction ([Petherick et al., 2021](#)). Figure 2 corroborates these findings visually. Fatigue linearly suppress decision making but operates indirectly through perceived risk. Notably, respondents with high perceived risk exhibit relatively stable decision-making scores across fatigue levels, whereas those with low perceived risk display greater variability. This pattern further supports the mediating role of perceived risk in the relationship between fatigue and decision making.

Contrary to expectations from institutional trust theory, distrust behavior does not significantly predict perceived risk or mediate decision outcomes. The study demonstrates that distrust tends to become behaviorally salient primarily in high-stakes or high-consequence contexts, whereas in routine or low-to-moderate risk consumption environments it may remain a latent cognitive orientation rather than an active decision driver ([Min & Zickar, 2023](#); [Khalifa, 2025](#)). When halal certification systems are universally viewed as inconsistent, distrust becomes a dispositional trait factored into the consumer's overall cognitive framework ([Butt et al., 2021](#)), reducing its incremental effect on risk perception. Similar patterns have been observed in other contexts where institutional ambiguity leads to normalized skepticism ([Feront & Bertels, 2021](#); [Hoffjann, 2025](#)).

The strong direct positive effect of rational style on decision making confirms classical theories that rational, analytical processing supports clearer, more intentional choices aligned with values and long-term goals ([Martins, 2025](#)). The concurrent indirect effect through

perceived risk, however, nuances this relationship: rational consumers are both more decisive and more cautious ([Obeidat & Obeidat, 2023](#); [Zamfir, 2024](#)). This dual effect is consistent with religious and ethical consumption literature, where consumers deliberately weigh choices while maintaining vigilance to avoid moral breaches ([Waqas & Qadri, 2025](#)).

Further, the positive effect of perceived risk on decision making differs from mainstream consumer behavior literature, which often associates elevated risk with avoidance. In morally sensitive contexts, increased risk perception may instead motivate protective or corrective actions, such as selecting trusted certified brands or vendors to mitigate threats ([Jain et al., 2023](#)). This finding extends understanding of risk as a mobilizing factor for assertive consumer behavior in ethical consumption domains.

The mediation analysis shows three key indirect effects. First, rational style positively influences decision making through perceived risk. This means that consumers who carefully analyze halal compliance and product details tend to heighten their sensitivity to potential risks, which in turn affects their behavioral choices, making them more deliberate yet cautious ([El Chaarani et al., 2024](#)).

Second, fatigue significantly increases perceived risk, which then influences decision making. This aligns with Zhang et al. ([2024](#)) and Yuk et al. ([2025](#)), who indicate that mental exhaustion reduces cognitive resources, making consumers more prone to perceive threats. As a result, consumers display greater cautiousness and protective behaviors during purchases ([Van Der Schyff et al., 2023](#)). Third, distrust behavior's indirect effect on decision making through perceived risk is not statistically significant. This suggests distrust functions more as a stable background attitude rather than an active factor dynamically shaping risk perception and consequent decisions in contexts of institutional ambiguity ([Lehtonen et al., 2022](#)).

In conclusion, this study enriches understanding of decision-making processes among Muslim minority consumers navigating complex halal markets characterized by cognitive and institutional challenges. The significant mediating role of perceived risk highlights the crucial impact that cognitive factors such as rational deliberation and fatigue have in shaping consumer vigilance and protective behaviors ([Addo et al., 2025](#); [Yolanda Putra et al., 2024](#)). Meanwhile, distrust emerges as a more stable and less dynamically influential attitude in contexts of fragmented halal certification governance ([Buenafe et al., 2025](#)).

These findings emphasize the need to address cognitive fatigue and to enhance transparency and standardization in halal certification to support informed and confident consumption decisions. Ultimately, the study contributes to both theory and practice by underscoring perceived risk as a pivotal psychological mechanism in halal consumption among Muslim minorities in pluralistic societies like Philippines, where institutional clarity is still evolving ([Ashton & Islam, 2025](#); [Buenafe et al., 2025](#); [Khalifa, 2025](#)).

6. Conclusions and Future Research

This study provides new insights into how Muslim minority consumers navigate complex consumption environments characterized by institutional ambiguity and cognitive demands. The findings show that perceived risk functions as a central psychological mechanism linking rational information processing and fatigue to decision outcomes. Rather than emerging primarily from distrust in institutions, perceived risk is shaped by the extent to which consumers must engage in sustained evaluative effort and manage cognitive load in their halal verification practices. This illuminates a form of cognitive vigilance that extends beyond traditional models of trust and compliance, suggesting that halal-related decision making among minority Muslims is influenced more by mental resource demands than by institutional skepticism alone. The study therefore contributes to a more nuanced understanding of consumer cognition within ethically sensitive markets and highlights the need to consider cognitive strain as a key component of religious consumption behavior.

Despite the strength of these contributions, several limitations should be acknowledged. The sample is drawn from one national minority context, which may limit generalizability to other Muslim minority populations operating under different institutional, cultural, or regulatory conditions. Comparative studies across countries with varying halal governance structures would strengthen external validity. The model focuses on cognitive drivers and does not include potential emotional or social mechanisms such as moral anxiety, community identity pressure, or social verification cues that may also shape risk and decision patterns.

Future research could build on these findings by exploring how consumers adapt to halal-related cognitive burdens over time and whether coping strategies moderate the influence of fatigue on perceived risk. Experimental approaches could assess how variations in certification clarity, information quality, or technological support tools reduce cognitive load and alter decision pathways. There is also potential for expanding theoretical models to incorporate emotional regulation, trust repair mechanisms, and social learning dynamics to better capture the multilayered nature of religious consumption under ambiguity. Finally, further investigation into halal fatigue as a distinct psychological construct may open new avenues for understanding decision resilience, adaptive vigilance, and consumer well-being among Muslim minorities. By addressing these directions, future scholarship can advance a more comprehensive and contextually grounded knowledge base on ethical decision making within diverse consumer populations

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Ethical Statement

The authors confirm that they have read and understood the Ethical Guidelines for publication and have complied with all relevant ethical standards. This manuscript is original, has not been published previously, and is not under consideration for publication elsewhere. The authors also disclose that AI-assisted technologies were used solely to improve the clarity and readability of the language and did not replace any core scholarly activities such as data analysis, interpretation, or conclusion development.

Data Availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request

AI Assistance Statement

The authors confirm that no generative AI or automated tools were used in the conceptualization, data collection, or analysis of this study. ChatGPT was used exclusively for language refinement, and all intellectual content was generated, reviewed, and verified by the authors.

Appendix

Table 6. Research instruments

Construct	Items	Sources
Rational Style		(Varga & Marschalko, 2024)
RAT1	I prefer to analyze halal certification details thoroughly rather than rely on brand reputation alone.	
RAT2	When choosing halal products, I systematically compare multiple sources of information (e.g., logos, fatwas, ingredient lists) before deciding.	
RAT3	I feel more confident in my purchase decisions when I've carefully verified the religious compliance of a product.	
RAT4	I tend to break down complex halal-related decisions into step-by-step evaluations to ensure alignment with my religious values.	
Fatigue		

Halal Fatigue, Distrust, and Perceived Risk in Muslim Minority Consumption Decisions:
Evidence from the Philippines

Construct	Items	Sources
FAT1	Verifying halal certification and ingredient lists drains my mental energy.	(Johansson et al., 2023)
FAT2	After checking several halal products, I need significant time to mentally recover.	
FAT3	I often feel mentally exhausted just thinking about shopping for halal food.	
FAT4	My concentration wanes when I repeatedly need to assess whether a product is truly halal.	
FAT5	Everyday decisions about food or personal care become tiring due to the need to maintain religious compliance.	
Distrust behavior		(Min & Zickar, 2023)
DB1	I actively question the motives behind a halal certification logo, even when it appears official.	
DB2	When a product claims to be halal, I assume it may not fully comply unless I verify it myself.	
DB3	I feel uneasy trusting halal claims from brands that have never been independently audited by my trusted authority.	
DB4	I deliberately seek out alternative opinions (e.g., community reviews, religious scholars) before accepting a halal certification.	
DB5	I avoid purchasing from new halal-certified brands until I have confirmed their legitimacy through multiple sources.	(Bao et al., 2024)
Perceived Risk		
RISK1	I worry that consuming a product with uncertain halal status may unintentionally violate my religious obligations.	
RISK2	The thought of relying on an unverified halal certification makes me feel uneasy about my spiritual accountability.	
RISK3	I fear that trusting a halal claim without full verification could damage my standing in the eyes of my religious community.	
RISK4	Using products from brands with ambiguous halal practices may cause inner conflict with my Islamic values.	(Sholihin et al., 2023)
RISK5	I am concerned that repeated exposure to questionable halal claims may weaken my religious vigilance over time.	
Decision making		
DM1	I intend to consistently consume halal-certified food in the future.	
DM2	I plan to consistently use products that are verified as halal-compliant.	
DM3	In the future, I will continue to check for halal certification before purchasing a product.	
DM4	I prefer to buy only those products whose ingredients have a clearly verifiable halal status.	