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Determinants of halal awareness: The roles of *Qana'ah* and locus of control among Indonesian Muslim students

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ABSTRACT
Indonesia made halal certification compulsory for food and beverage products in stages between October 2024 and October 2026, yet the psychological dispositions that lead Muslim consumers to attend to certification remain poorly understood. This study examined whether *qana'ah*, the disposition to feel sufficient with what God has provided, and locus of control predict halal awareness among Indonesian Muslim university students. We used a cross-sectional convergent mixed-methods design with a dominant quantitative strand (QUAN + qual). Seven hundred students at Islamic State University Sultan Syarif Kasim Riau were recruited through purposive sampling and completed a questionnaire containing the Halal Awareness Scale, a 36-item *qana'ah* instrument, the Locus of Control of Behaviour scale, and four open-ended questions. We analysed the data with multiple regression and directed content analysis. The Halal Awareness Scale and the *qana'ah* instrument met the reliability criterion of $\alpha \geq .70$ ($\alpha = .957$ and $\alpha = .911$), whereas the Locus of Control of Behaviour scale did not ($\alpha = .623$). *Qana'ah* ($\beta = .173$, $p < .001$) and internality ($\beta = .169$, $p < .001$) each predicted halal awareness, $F(2, 697) = 16.41$, $p < .001$, $R^2 = .045$, and neither age nor sex contributed. Open-ended responses showed that students describe *qana'ah* mainly through gratitude rather than restraint, and that 13.4 per cent attribute their halal decisions to God, a position the internal-external distinction cannot represent. *Qana'ah* contributes to halal awareness, but modestly, and agency measures developed in Western settings need conceptual revision before use with Muslim samples.

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INTRODUCTION

Indonesia has enforced mandatory halal certification for food and beverage products in two stages: for large and medium enterprises from October 2024, and for micro and small enterprises from October 2026 (Badan Penyelenggara Jaminan Produk Halal, 2025b; Presiden Republik Indonesia, 2024). The regulation shifted the burden of verification from consumers to producers, but it did not remove the consumer from the equation. A shopper who ignores the logo, or who cannot distinguish a certified product from an uncertified one, remains exposed to the risk the law was written to address, so halal awareness continues to matter as a psychological variable.

By October 2025, BPJPH had certified more than 9.8 million products (Badan Penyelenggara Jaminan Produk Halal, 2025a), yet many uncertified food products remain on sale and are still bought by Muslim consumers (Wiyono et al., 2022). Micro and small enterprises, the last group to enter the obligation, include many of the food stalls, home producers, and online sellers from whom students buy their daily meals. Certification signals food safety and quality (Ab Talib, 2017), but that signal protects

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only consumers who look for it. University students deserve attention because many of them buy food on their own for the first time, and the habits they form at university may carry into adult consumption.

Research on the antecedents of halal awareness draws mostly on marketing theory. Religiosity, subjective norms, perceived behavioural control and brand trust appear repeatedly as antecedents of halal purchase intention (Bashir, 2019; Nurhayati & Hendar, 2020; Vizano et al., 2021). Usman et al. (2023) showed that awareness of halal products and awareness of halal certification are separable constructs, and Jaiyeoba et al. (2019) traced how the certification mark shapes perceived brand quality. The pattern has been extended to halal vaccines (Sudarsono, Ikawati, Kurnia, et al., 2024), Generation Z consumers (Febriandika et al., 2023; Sudarsono, Ikawati, Azizah, et al., 2024), halal cosmetics (Hasan et al., 2024), willingness to pay for certification (Khan et al., 2019; Yaumidin et al., 2025), and Muslim consumers in majority and minority settings (Mursid, 2024; Razzaque & Chaudhry, 2013). Across this literature, the predictors come from consumer psychology, and dispositions grounded in Islamic scholarship remain largely untested. Mathras et al. (2016) noted the same limitation in research on religion and consumer behaviour more broadly: religiosity predicts consumption, but the psychological mechanisms that carry the effect are rarely identified.

Qana'ah belongs to that untested vocabulary. Classical scholarship treats it as contentment with divine provision, distinct from passivity because it coexists with effort; Al-Ghazali located it among the stations that discipline desire, and Hamka rendered it for a modern Indonesian readership as gratitude combined with sustained striving. Saifuddin et al. (2023) operationalised the construct through five aspects: accepting things as they are, seeking what one deserves through effort, patience, trust in God, and resistance to worldly temptation. The theoretical link to halal consumption runs through restraint: a student who feels sufficient with what is lawful has less reason to pursue what is doubtful, whether the temptation comes from price, novelty or peer pressure. Empirical work has so far concentrated on how much people consume; among female students at an Islamic university, higher *qana'ah* accompanied lower consumptive behaviour (Muawaliyah & Saifuddin, 2023). None of the studies we located asks whether *qana'ah* also shapes the quality of consumption, that is, whether students who feel sufficient attend more closely to the halal status of what they buy.

Locus of control provides a second candidate; Rotter (1966) distinguished people who attribute outcomes to their own action from those who attribute them to fate, luck or powerful others, and Craig et al. (1984) adapted the distinction into a seventeen-item measure of control over one's own behaviour. Students who see food choice as their own responsibility should attend more closely to certification than students who treat it as determined by family habit or circumstance, and internal locus of control has been shown to carry ethical sensitivity into ethical purchasing (Toti et al., 2021). The dichotomy is less straightforward in religious populations, however, since a Muslim who attributes a food choice to divine command describes neither an external constraint in Rotter's sense nor a purely internal one (Olufadi, 2017).

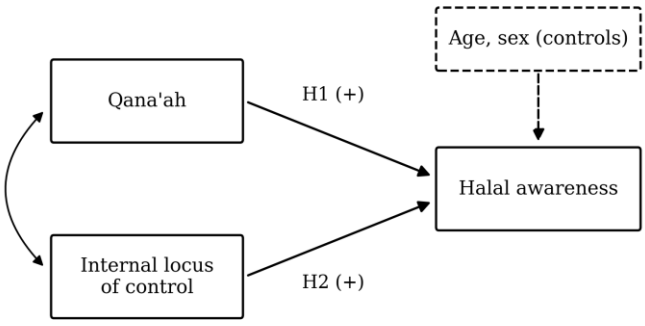


Figure 1. Conceptual model of the study.

Two gaps therefore remain. The antecedents of halal awareness have been mapped almost entirely with constructs borrowed from consumer research (Mathras et al., 2016), and agency measures developed in Western settings are routinely used in Indonesia without testing whether their assumed

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structure survives the transfer (Olufadi, 2017; Wallston et al., 1999). This study tests whether *qana'ah* and locus of control predict halal awareness among Indonesian Muslim university students, examines how the two instruments behave in this population, and uses students' written accounts to interpret the results. We hypothesised that *qana'ah* positively predicts halal awareness (H1) and that internal locus of control positively predicts halal awareness (H2), with age and sex as control variables. Figure 1 presents the conceptual model.

RESEARCH METHOD

Methods

We used a cross-sectional convergent parallel mixed methods design with a dominant quantitative strand (QUAN + qual) (Creswell & Clark, 2018). Quantitative and qualitative data were gathered in a single questionnaire, analysed separately, and merged at interpretation. The quantitative strand tested H1 and H2 through multiple regression; the qualitative strand drew on four open-ended items rather than interviews and served to interpret the quantitative pattern.

Instruments

A printed, self-administered questionnaire contained three scales and four open-ended questions. All scales used a four-point response format (1 = strongly disagree, 4 = strongly agree); items were administered in Indonesian, and the complete item sets are available as supplementary material.

Halal awareness. We used the thirty-six-item scale of Kurniawati & Savitri (2019), covering awareness criteria, religious belief, health reasons, logo certification, and exposure (e.g., "I always consume halal food products"). All items are favourably worded. The original five-point format was reduced to four points to discourage non-committal responding.

Qana'ah. We used the thirty-six-item instrument of Saifuddin et al. (2023), which covers the five aspects described above. Odd-numbered items are favourable (e.g., "I am grateful for everything I already have") and even-numbered items are unfavourable (e.g., "I feel envious of other people's achievements").

Locus of control. We used the seventeen-item Locus of Control of Behaviour scale (Craig et al., 1984) in Indonesian translation. Items 1, 5, 7, 8, 13, 15 and 16 indicate internality, and the remaining ten indicate externality. The original six-point format was adapted to four points for consistency across measures.

Open-ended items. Four questions asked what makes students attend to the halal status of a product, whether and how *qana'ah* affects their halal awareness, whether their halal decisions are shaped more by themselves or by external factors, and how *qana'ah* and locus of control jointly shape their purchases. Responses were brief, with a median of seven to nine words.

Participants and sampling

We recruited participants through purposive sampling. Inclusion criteria were identifying as Muslim, active enrolment as an undergraduate at a participating university, age of at least seventeen years, and purchasing packaged food independently, so that halal awareness carried behavioural relevance. Students who declined consent, withdrew before completion, or left any closed-ended item unanswered were excluded.

Seven hundred students met the criteria and provided usable data, collected at Universitas Islam Negeri Sultan Syarif Kasim Riau. Ages ranged from 17 to 25 years (M = 19.83, SD = 1.13; two cases missing); 454 participants (64.9%) were women and 246 (35.1%) men, and most were in their second (36.4%), fourth (42.9%) or sixth (19.1%) semester.

Procedure and ethical considerations

Students completed the questionnaire in printed form during scheduled class sessions after reading the study information and signing a written consent statement. Participation was voluntary, confidential, and uncompensated; participants could stop at any point, and no identifying information was retained. Formal review by an institutional ethics committee was not sought because the faculty had no standing review board for minimal-risk survey research, and the study involved no intervention,

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deception, vulnerable population, or sensitive personal data. We followed the Declaration of Helsinki and the Indonesian Psychological Association code of ethics regarding informed consent, voluntary participation, confidentiality, and the right to withdraw.

Scoring

Item valence was verified against each source instrument before scoring. Following the blueprint of Saifuddin et al. (2023), the eighteen unfavourable *qana'ah* items were rescored as 5 minus the raw value, so that higher totals indicate greater *qana'ah*; one out-of-range value was replaced with the item median. This step matters because summing oppositely worded items without rescoring distorts both reliability and factor structure (Weijters & Baumgartner, 2012; Woods, 2006). For locus of control, the scale manual scores the total in the direction of externality, whereas our hypothesis concerns internality; we therefore computed an internality index as the mean of the seven internally worded items minus the mean of the ten externally worded items, with higher values indicating a stronger tendency to locate control within oneself. The halal awareness scale required no rescoring. All scale scores were analysed as continuous variables, because categorising continuous scores discards individual differences and lowers statistical power (MacCallum et al., 2002).

Data Analysis

We conducted all quantitative analyses in JASP 0.16.1. Item validity was evaluated through corrected item-total correlations (adequate at .30 or above), and reliability through Cronbach's alpha and McDonald's omega (acceptable at .70 or above), the latter because alpha assumes equal factor loadings (Goodboy & Martin, 2020). H1 and H2 were tested through multiple regression with *qana'ah* and internality entered simultaneously, followed by a second step adding age and sex. We examined variance inflation factors, Cook's distance, and heteroscedasticity-consistent standard errors.

We analysed the open-ended responses through directed content analysis (Hsieh & Shannon, 2005) using a fixed indicator dictionary: each category had a label, an operational definition, and a set of Indonesian indicator expressions, and a response received every code whose expressions it contained. Non-substantive responses were excluded from frequency counts. Because the dictionary is applied mechanically, any analyst obtains identical codes, so we report no intercoder agreement coefficient; the dictionary is available as supplementary material. Integration followed the merging strategy of (Fetters et al., 2013).

RESULT AND DISCUSSION

Validity and Reliability of the Instruments

Table 1 reports corrected item-total correlations and reliability coefficients for the three scales.

Table 1. Validity and reliability of the instruments (N = 700).

Instrument	Items	Corrected item-total correlation	Items below .30	Cronbach's α	McDonald's ω
Halal Awareness Scale	36	.52 – .66	0	.957	.960
Qana'ah Instrument	36	.26 – .62	2	.911	.836
Locus of Control of Behaviour Scale	17	-.26 – .59	7	.623	.477

*Note: Corrected item-total correlations were computed after rescoring the unfavourable *qana'ah* items and the internally worded locus of control items.

The Halal Awareness Scale performed well: every item correlated at least .52 with the remainder of the scale, and reliability (α = .957, ω = .960) matched the values Kurniawati & Savitri (2019) reported. The *qana'ah* instrument performed acceptably (α = .911), with two of its thirty-six items below .30; the gap between alpha and omega (.836) indicates unequal loadings, which is expected for an instrument built around five conceptual aspects.

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The Locus of Control of Behaviour scale did not perform adequately. Seven of its seventeen items fell below .30, one correlated negatively with the remainder, and reliability reached only $\alpha = .623$ and $\omega = .477$. The scale assumes that internally and externally worded items correlate negatively before rescoring, but in our data they correlated positively ($r = .50$). Findings involving this variable should therefore be read as provisional; the qualitative section explains.

Item wording and scoring shape these coefficients. Uniformly positive wording, as in the Halal Awareness Scale, raises reliability partly artificially because it removes the opportunity for inconsistent responding to reveal itself (Ebesutani et al., 2012; Kam & Fan, 2020), whereas balanced instruments such as the *qana'ah* measure trade some internal consistency for the ability to detect indiscriminate agreement (Böckenholt, 2019; Kam & Sun, 2022). Rescoring also mattered: summing the *qana'ah* items without attending to their valence would raise the explained variance in the regression reported below from .045 to .167, a distortion that Dodeen (2023) and Zhang et al. (2016) have both warned against.

Descriptive Statistics, Correlations and Hypothesis Testing

Halal awareness ($M = 125.94$, $SD = 13.42$) correlated positively with both *qana'ah* ($M = 95.47$, $SD = 16.13$; $r = .133$, $p < .001$) and internality ($M = 0.46$, $SD = 0.50$; $r = .129$, $p < .001$); internality is a difference score and is therefore centred near zero by construction. *Qana'ah* and internality correlated negatively with each other ($r = -.233$, $p < .001$), close enough to independence to enter the same model without collinearity concerns and far enough apart to represent distinct dispositions.

Table 2 reports the multiple regression that tested H1 and H2. The model explained a significant share of variance in halal awareness, $F(2, 697) = 16.41$, $p < .001$, $R^2 = .045$, adjusted $R^2 = .042$. *Qana'ah* predicted halal awareness positively ($B = 0.14$, $SE = 0.03$, $\beta = .173$, $t = 4.53$, $p < .001$), supporting H1, and so did internality ($B = 4.54$, $SE = 1.02$, $\beta = .169$, $t = 4.44$, $p < .001$), supporting H2. Both variance inflation factors were 1.06.

Table 2. Multiple regression of halal awareness on *qana'ah* and internality (N = 700).

Predictor	B	SE	β	t	p	VIF
(Constant)	110.16	3.21	—	34.37	< .001	—
Qana'ah	0.14	0.03	.173	4.53	< .001	1.06
Internality	4.54	1.02	.169	4.44	< .001	1.06

*Note: Criterion: halal awareness. B = unstandardised coefficient; SE = standard error; β = standardised coefficient; VIF = variance inflation factor. $F(2, 697) = 16.41$, $p < .001$; $R^2 = .045$; adjusted $R^2 = .042$; $f^2 = .047$. Adding age ($\beta = -.008$, $p = .824$) and sex ($\beta = -.007$, $p = .854$) in a second step did not improve the model.

With $R^2 = .045$ and $F^2 = .047$, the two dispositions together account for about four and a half per cent of the variance in halal awareness, a small effect by Cohen's criteria, and adding age and sex did not improve the model. *Qana'ah* and internality therefore matter for halal awareness but are far from its principal determinants. Marketing-derived predictors such as logo exposure, religiosity and product familiarity show much stronger associations (Bashir, 2019; Usman et al., 2023; Vizano et al., 2021), which suggests that dispositional traits shape a general orientation toward restraint and responsibility without translating directly into vigilance about certification.

Qualitative Findings

Response rates for the four open-ended questions ranged from 87.7 to 95.1 per cent. For the question on how *qana'ah* affects halal awareness, 225 of 650 responses consisted of bare assent without elaboration, suggesting that students treat the connection as self-evident rather than as something they have reasoned about.

Among the 425 interpretable responses about *qana'ah*, gratitude appeared most often (27.1%), followed by contentment with the halal option (22.1%) and religious or health justifications unrelated to contentment (14.6%). Only 13.6 per cent described the restraint mechanism the construct implies: "*qana'ah* keeps me from being tempted to buy food whose halal status is unclear, even when it is popular." Another 11.1 per cent rejected or qualified the link, most often because halal consumption is

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obligatory regardless of disposition: "not really, because choosing halal products is obligatory for Muslims." For these students, *qana'ah* has little work to do, which helps explain the small effect size.

The third question, which restates the locus of control construct in students' own terms, asked whether their halal decisions come more from themselves or from external factors. Table 3 groups the answers into five attribution themes. Internal and external attributions correspond to the two poles of Rotter (1966) framework. The religious theme, which places the decision with God, corresponds to the trust-in-God (tawakkal) aspect of the *qana'ah* instrument (Saifuddin et al., 2023) and has no position on the internal–external continuum. Contingent answers combine both poles, and knowledge-based answers ground the decision in the student's understanding of halal rules.

Table 3. Attribution themes in students' accounts of halal decisions (n = 523).

Attribution theme	n	%	Illustrative response
Internal	375	71.7	"From myself, because I am the one who makes the choice"
External	165	31.5	"My family would certainly be angry if I ate something haram"
Contingent or situational	109	20.8	"Internal, but in some cases I am influenced by external factors"
Religious	70	13.4	"Because of Allah SWT"
Knowledge-based	30	5.7	"It is influenced by each person's own understanding"

Note: Percentages exceed 100 because responses could receive more than one code; n = 523 analysable responses out of 647 returned. Responses were translated from Indonesian by the authors.

Internal attribution predominated, but 13.4 per cent located the decision neither in themselves nor in their surroundings but in God. One student wrote, "internal, because I am a Muslim who obeys the commands on halal and haram," labelling the attribution internal while grounding it in an external religious authority, and 20.8 per cent refused the dichotomy outright, describing internal conviction as itself the product of family upbringing.

These accounts explain what the reliability analysis could only report. For a student who experiences submission to divine command as an exercise of agency rather than a surrender of it, internality and externality are not opposites, and items measuring them need not correlate negatively, which is what we observed ($r = .50$; $\alpha = .623$). The scale did not fail because students answered carelessly; it failed because the construct it encodes does not partition religious agency the way the instrument assumes, a conclusion Olufadi (2017) also reached when developing a religiosity measure specifically for Muslim samples.

Discussion

The findings support both hypotheses. The *qana'ah* result extends earlier work in which the same disposition restrained how much students consumed (Muawaliyah & Saifuddin, 2023): *qana'ah* also bears on what students consume, although far more weakly than the joint contribution of *qana'ah* and hedonic lifestyle to consumptive behaviour in that study ($R^2 = .51$). The qualitative strand suggests why. Students described *qana'ah* through gratitude about twice as often as through restraint, and restraint is the aspect that ties sufficiency to the avoidance of doubtful products.

The internality result agrees with consumer ethics research in which internal locus of control carried ethical sensitivity into ethical purchasing (Toti et al., 2021). A student may accept the religious norm without reservation and still has to decide, product by product, whether to check the label, and students who regard that decision as their own responsibility check more often. Because measurement error attenuates observed associations, the true link may be stronger than $\beta = .169$.

The measurement anomaly has a precedent in health psychology: Wallston et al. (1999) developed a God Locus of Health Control scale because the internal, chance, and powerful-others dimensions left belief in divine control unmeasured. The 13.4 per cent of our students who attributed their halal decisions to God reveal the same gap in the consumption domain, and, read together with the qualitative evidence, the low reliability of the scale reflects a mismatch between construct and population more than careless responding.

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Implications

Three implications follow. For Islamic psychology, *qana'ah* earns a modest place among the dispositional correlates of halal consumption, responding to calls to identify the mechanisms through which religion shapes consumer behaviour (Mathras et al., 2016); instrument developers may wish to sharpen the restraint aspect, which students articulated far less often than gratitude. For measurement practice, agency constructs developed in Western settings require conceptual revision rather than translation alone before use with Muslim samples; for instance, a third category for attributions to God (Olufadi, 2017; Wallston et al., 1999). For halal policy, dispositions that together explain under five per cent of the variance offer limited leverage; efforts directed at certification literacy, logo visibility and information access are likely to yield more (Jaiyeoba et al., 2019; Usman et al., 2023).

Limitations

Several limitations bound these conclusions. The Locus of Control of Behaviour scale did not achieve adequate internal consistency, so findings involving internality are provisional pending replication with an instrument validated for Indonesian Muslim respondents. The halal awareness measure consists solely of positively worded items, which leaves its scores vulnerable to acquiescence, a stable individual difference that balanced item sets allow to be estimated and removed (Soto et al., 2008; Wetzel et al., 2016). Adapting all instruments to a four-point format may have contributed to the ceiling effect we observed, with seventy-one respondents reaching the maximum score. The qualitative strand consists of brief written responses coded with a fixed dictionary, which guarantees reproducibility but captures only meanings expressed through anticipated vocabulary. Finally, the cross-sectional, purposive design rules out causal inference and limits generalisation beyond comparable institutions.

CONCLUSION

Qana'ah ($\beta = .173$, $p < .001$) and internal locus of control ($\beta = .169$, $p < .001$) each predicted halal awareness among Indonesian Muslim university students, supporting both hypotheses, but together they explained only 4.5 per cent of its variance. Students' written accounts clarify why the effects were small: most described *qana'ah* as gratitude rather than restraint, and 13.4 per cent attributed their halal decisions to God, a position the internal–external distinction cannot represent. The same finding explains the poor reliability of the Locus of Control of Behaviour scale ($\alpha = .623$). Dispositions rooted in Islamic scholarship therefore deserve a place in halal consumer research as modest contributors, and agency measures developed in Western settings need conceptual revision before use with Muslim samples.

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