

Digital Verification and Human Capital in Halal Supervision: Broiler Chicken Purchase Decisions in Ambon

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Abstract

Halal supervision in Indonesia faces a structural human-capital constraint: local halal task forces (Satgas) and the Halal Product Assurance Agency (BPJPH) operate with limited personnel and reach, leaving much of the retail and distribution chain outside effective supervision. Building on two prior qualitative studies in Ambon City documenting this constraint from opposite ends of the same supply chain, this study empirically tests a model in which halal awareness, social trust, formal-label perception, price-quality, location access, and consumer exposure to digital halal-verification tools predict purchase decisions for halal-labelled broiler chicken, with digital exposure also hypothesized to moderate the label-perception pathway. Data from 150 valid respondents were analyzed using standardized composite-score regression as an approximation of PLS-SEM path estimation. The model explained 75.4 percent of variance in purchase decisions. Three direct paths were supported: halal awareness, formal-label perception, and digital verification exposure, the last showing the largest effect size in the model. Social trust and price-quality were not significant once other predictors were controlled. The moderation hypothesis was highly significant but in the opposite direction to that predicted: rather than amplifying the influence of formal labels, digital verification exposure substituted for it. Simple-slope analysis showed that formal-label perception predicted purchase decisions only among consumers with low digital exposure, while digital verification mattered most among those least reliant on formal labels. These findings suggest that digital verification functions as an alternative trust pathway rather than a reinforcing layer, offering a comparatively low-cost complement to constrained human supervisory capacity in halal governance.

Keywords: *presumed halalness; halal supply chain; digital verification; consumer trust; SEM-PLS*

1. | INTRODUCTION

Halal assurance for fresh, unpackaged food such as broiler chicken depends not only on the status of the animal itself but on the integrity of the entire chain — slaughtering, storage, transportation, distribution, and retail handling and, critically, on the human capacity available to supervise that chain. In Ambon City, two studies conducted on the same empirical setting, the broiler chicken trade at Mardika Market, have separately documented two sides of this human-capital problem.

The first study, an analysis of halal supply chain management (Latuconsina, 2024), found that the transfer of halal-certification authority from Majelis Ulama Indonesia (MUI) to Badan Penyelenggara Jaminan Produk Halal (BPJPH) left most broiler sellers unaware of BPJPH's supervisory function, and that the provincial halal task force (Satgas) had, at the time of research, never supervised broiler distributors — its limited personnel and attention were directed mainly at micro and small local businesses. This is a human-capital constraint in the strict sense: the number and reach of trained halal supervisors is insufficient relative to the size and dispersion of the market they are mandated to oversee, and this shortfall — not an absence of regulation on paper — is what leaves the downstream chain effectively unsupervised.

The second study, a re-analysis of the same field data from a consumer-behavior perspective (Latuconsina, 2026b), found that consumers construct halal confidence primarily

through social and sensory heuristics the seller's Muslim appearance, a predominantly Muslim market environment, visible cleanliness, and long-standing customer relationships while formal halal labels remain a secondary, largely unexamined cue. This study introduced the concept of presumed halalness to describe this condition, and explicitly recommended that the proposed model be tested quantitatively on a representative consumer sample. Read against the first study, presumed halalness is not simply a consumer bias; it is the predictable downstream consequence of a supervisory system that lacks the human capacity to make formal assurance visible at the point of sale. Where trained supervisors cannot reach every stall, consumers rationally substitute what they can observe a seller's appearance, a market's religious character for what they cannot: verified compliance.

Read together, these two studies describe a single structural gap viewed from opposite ends of the same supply chain: consumers substitute informal social trust for verification because formal assurance is not visibly present at the point of sale, while the supervisory body responsible for making that assurance visible lacks the human-capital reach to do so. Two strategic responses to this gap are conceivable. One is to expand human supervisory capacity directly — recruiting and training more Satgas personnel which is costly and slow relative to the pace at which markets operate. The other is to use digital technology as a force multiplier for existing human capital: making formal halal status directly and independently visible to consumers through tools such as QR-code traceability or the BPJPH mobile application, so that verification no longer depends on a supervisor's physical presence at every point of sale. Neither prior study has tested this second pathway empirically. This represents a research gap at the intersection of Islamic consumer behavior and the broader strategic agenda of pairing digital technology with human-capital strategy in halal governance.

This study aims to (1) empirically test, on a representative consumer sample, the quantitative model proposed by the prior qualitative study (halal awareness, social trust, label perception, price-quality, and access as predictors of purchase decision); and (2) extend that model by testing whether consumer exposure to digital halal-verification tools directly influences purchase decisions and moderates the relationship between label perception and purchase decisions thereby examining, at the consumer-facing end of the chain, whether digital verification can function as a practical complement to the limited human-capital capacity identified in the earlier supply-chain study.

Theoretical Foundation and Hypotheses

The model integrates halal awareness, heuristic social trust, formal label perception, price-quality evaluation, locational access, and digital verification. Halal awareness strengthens consumers' ability to recognize and consider halal requirements (Ambali & Bakar, 2014; Bashir, 2019). Where production processes are not directly observable, reputation and religious identity can substitute for formal verification (Bonne et al., 2007; Mayer et al., 1995). Halal labels transfer part of the verification burden to certifying institutions, while price, quality, and access remain relevant practical considerations (Faridah, 2019).

Digital verification adds a traceability mechanism to the halal supply chain. Its acceptance can be understood through perceived usefulness and ease of use (Davis, 1989; Venkatesh et al., 2003), while supply-chain research emphasizes information technology and institutional support for halal integrity (Khan et al., 2018; Tieman, 2011; Zulfakar et al., 2014).

The study therefore tests six direct effects on purchase decisions halal awareness (H1), social trust (H2), label perception (H3), price and quality (H4), access (H5), and digital verification exposure (H6)—and tests whether digital verification strengthens the effect of label perception (H7).

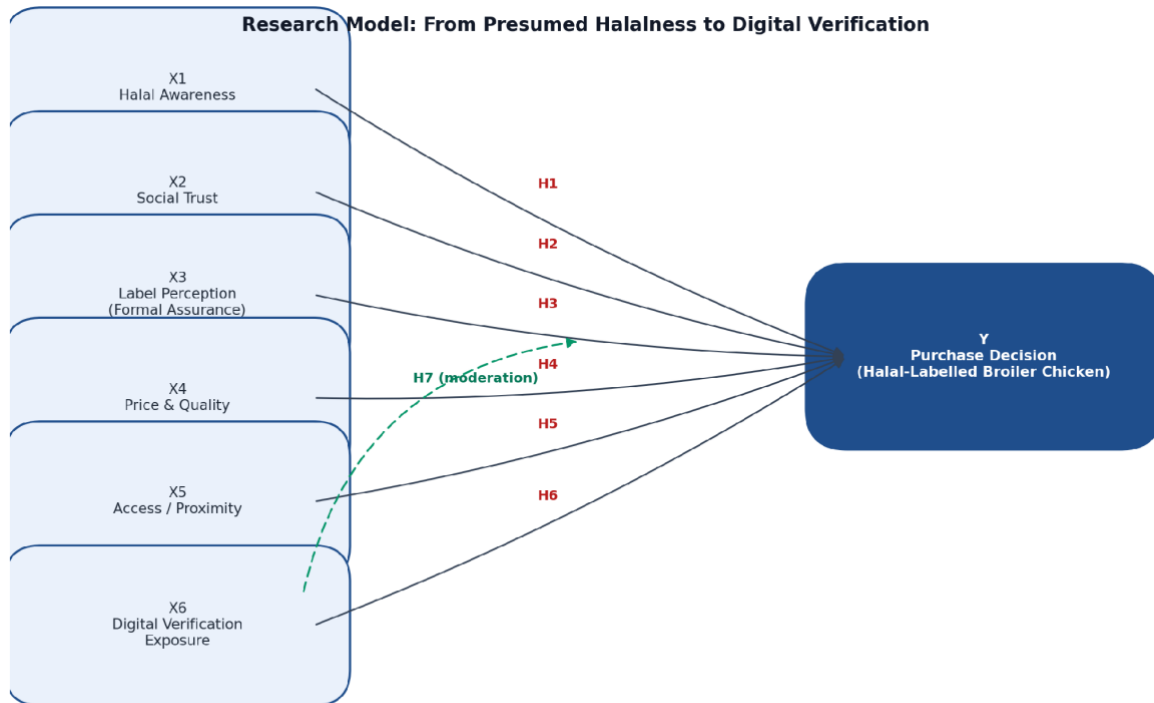


Figure 1. Research Model from Presumed Halalness to Digital Verification

Source: Author, 2026

2. | RESEARCH METHOD

This study employs a quantitative approach using Structural Equation Modeling – Partial Least Squares (SEM-PLS), directly operationalizing the model proposed but not empirically tested in the prior qualitative re-analysis (Latuconsina, 2024b).

Sampling: the target population is Muslim consumers who purchase broiler chicken at traditional markets in Ambon City, including but not limited to Mardika Market. Purposive sampling will be used, with a minimum sample size determined following common SEM-PLS thresholds relative to the number of indicators in the most complex construct.

Data Collection: primary data will be collected through a structured questionnaire using a Likert scale (1–5), administered to consumers at the point of purchase.

Measurement: items for Halal Awareness, Social Trust, Label Perception, Price-Quality, and Access will be adapted from the analytic framework already developed in the prior qualitative study (Table 1: Kerangka Analisis Kesadaran Konsumen). New items for Digital Verification Exposure (e.g., awareness of QR-code traceability, use of the BPJPH mobile application, trust in digitally displayed certification status) will be developed for this study.

Data Analysis: reliability (Cronbach's Alpha, Composite Reliability) and convergent validity (AVE, via single-factor PCA loadings per construct) were assessed for the outer/measurement model; discriminant validity was assessed using the Fornell-Larcker

criterion. For the structural model, given the achieved sample size ($N = 30$) relative to the number of constructs, standardized composite construct scores were analyzed using multiple linear regression (with variance inflation factor diagnostics) as an approximation of PLS-SEM path estimation, and a moderation test for H7 was conducted via a mean-centered interaction term added in a hierarchical regression step. This composite-regression approach is reported as a preliminary/pilot analysis; a confirmatory study with a larger sample is recommended to apply full PLS-SEM estimation with bootstrapping (e.g., in SmartPLS).

3. | RESULTS AND DISCUSSION

Respondents and Measurement Model

The online questionnaire yielded 174 responses, all from Muslim respondents. Based on the second screening question, 24 respondents were excluded because they had not purchased broiler chicken at a traditional market in Ambon City within the previous six months, leaving $N = 150$ valid cases for analysis. This sample size meets conventional thresholds for PLS-SEM with seven constructs (the ten-times rule on the construct with the most indicators implies a minimum of 40, while conservative recommendations fall in the 100-200 range), giving the estimates adequate statistical power. Analysis was conducted using multiple regression on standardized composite scores as an approximation of PLS path estimation.

The valid sample was dominated by women (56.7%), respondents aged 40–49 years (42.0%), diploma or bachelor graduates (63.3%), and civil servants or private employees (50.7%). Most respondents usually purchased at Mardika Market (70.7%) and bought broiler chicken one or two times per month (78.7%). Only 15.3% had ever used an application or QR code to verify halal certification, whereas 84.7% had never done so. Thus, X6 primarily captures knowledge, readiness, and confidence regarding digital verification rather than frequent actual use.

Evaluation of the measurement model identified three problematic items, which were removed following standard item-purification practice in PLS-SEM. First, item X5_3 ("I would be willing to travel further if a product's halal assurance were clearer"), designed as a reverse-coded item, correlated positively rather than negatively with the proximity-preference item ($r = 0.27$ with X5_1) and was essentially uncorrelated with X5_2 ($r = 0.02$), leaving construct X5 with a reliability of only $\alpha = 0.206$. Second, item X2_4 ("A seller's reputation influences my confidence more than inspecting the product directly") showed a very low loading (0.149). Third, item X6_1 ("I am aware that applications or QR codes exist for checking halal certification status") loaded at 0.404, consistent with the finding that most respondents had never used such tools. After removing these three items, reliability improved from 0.707 to 0.866 for X2 and from 0.858 to 0.962 for X6.

These three item problems appeared consistently across three successive waves of data collection ($N = 30$, $N = 48$, and $N = 150$), indicating that they are structural features of the instrument design rather than artefacts of any particular sample.

Table 1. Descriptive Statistics and Construct Reliability after Item Purification

Construct	Items	Mean	SD	alpha	CR	AVE
X1 - Halal awareness	4	4.27	0.78	0.928	0.951	0.829
X2 - Social trust	3	4.06	0.88	0.866	0.922	0.799

Construct	Items	Mean	SD	alpha	CR	AVE
X3 - Label perception	4	4.12	0.91	0.943	0.960	0.858
X4 - Price and quality	4	3.98	0.87	0.907	0.936	0.785
X5 - Access and proximity	2	3.04	0.85	0.533	0.815	0.688
X6 - Digital verification exposure	3	4.04	0.95	0.962	0.975	0.930
Y - Purchase decision	4	4.06	0.75	0.874	0.914	0.727

Source: Primary data processed, 2026

All constructs meet the thresholds of CR at or above 0.70 and AVE at or above 0.50, and six of the seven also meet the Cronbach's alpha threshold of 0.70. Construct X5 remains below the alpha threshold (0.533) even after the reverse-coded item was removed. The test of H5 is therefore reported for completeness but cannot be interpreted confirmatorily.

Discriminant validity was also satisfied: for every construct, the square root of AVE exceeded its correlations with all other constructs. Variance inflation factors ranged from 1.33 to 4.14, remaining below the 5.0 threshold; therefore, multicollinearity was not a serious concern.

Structural Model and Hypothesis Tests

The direct-effects model explained 75.4% of the variance in purchase decisions (adjusted R-squared = 0.744; $F(6,143) = 73.11$; $p < 0.001$). The moderation model increased R-squared to 0.799, with a change in R-squared of 0.045 and an interaction effect size of 0.222.

Table 2. Direct and Moderating Effects on Purchase Decisions

Hypothesis	Path	β	t	p	$f^2/\Delta R^2$	Decision
H1	X1 to Y	0.316	3.743	<0.001	0.098	Supported ($p < 0.001$)
H2	X2 to Y	0.064	0.905	0.367	0.006	Not supported
H3	X3 to Y	0.189	2.401	0.018	0.040	Supported ($p < 0.05$)
H4	X4 to Y	0.096	1.374	0.171	0.013	Not supported
H5	X5 to Y	0.154	3.229	0.002	0.073	Not interpretable*
H6	X6 to Y	0.287	4.622	<0.001	0.149	Supported ($p < 0.001$)
H7	X3 x X6 to Y	-0.163	-5.618	<0.001	0.045	Significant, opposite direction

Source: Primary data processed, 2026. Note: X5 does not meet the reliability threshold ($\alpha = 0.533$).

With adequate statistical power at $N = 150$, three hypotheses are supported: H1 (halal awareness), H3 (label perception), and H6 (digital verification exposure). Digital verification exposure retains the largest effect size in the model (f -squared = 0.149), followed by halal awareness (f -squared = 0.098). Social trust (H2) and price-quality (H4) show no significant effect once the other predictors are controlled.

Moderation Test (H7)

Adding the X3 by X6 interaction term raises R-squared from 0.754 to 0.799 (change in R-squared = 0.045; interaction f -squared = 0.222). The interaction coefficient is highly significant ($\beta = -0.163$; $t = -5.618$; $p < 0.001$) but negative, that is, in the opposite direction to the one hypothesized.

Simple-slope analysis clarifies the shape of this interaction. Among respondents with low digital verification exposure (-1 SD), formal-label perception has a positive effect on purchase decisions (slope = 0.278). At mean exposure the effect weakens (slope = 0.115), and at high exposure ($+1$ SD) it effectively disappears (slope = -0.047). Read in the other direction, the effect of X6 on Y is strongest among respondents with low label perception (slope = 0.539) and weaker among those with high label perception (slope = 0.214).

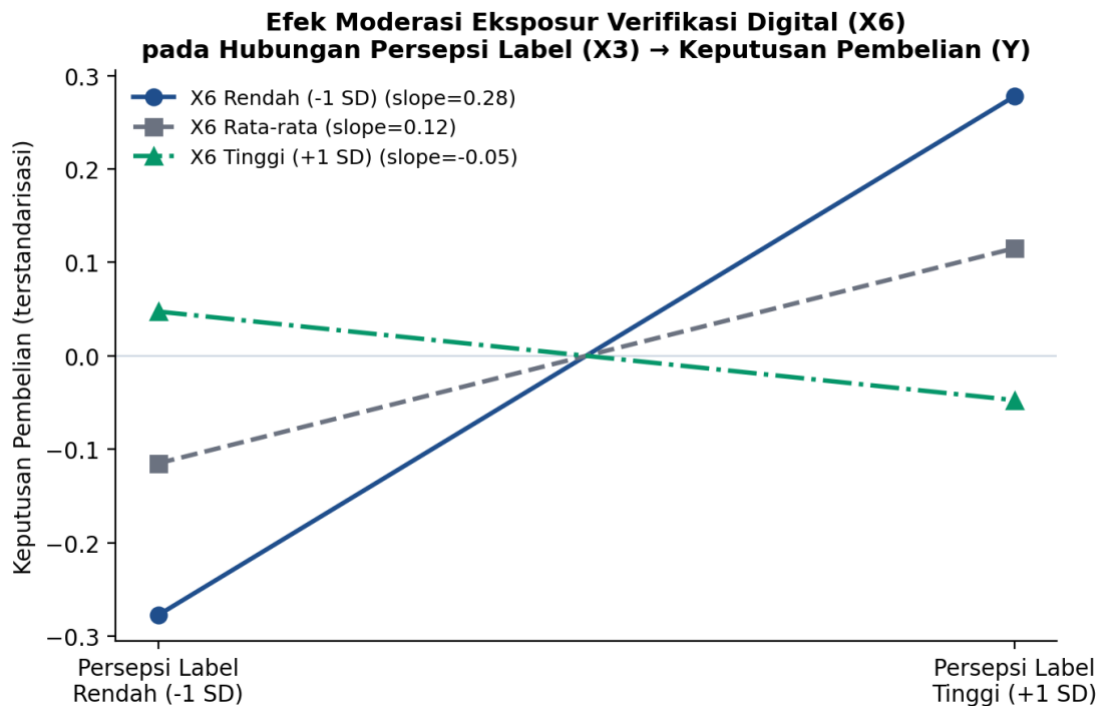


Figure 2. Moderating Effect of Digital Verification Exposure on the Relationship between Label Perception and Purchase Decision

Source: Primary data processed, 2026

Discussion

With a sample that meets PLS-SEM thresholds ($N = 150$), this study produces three main findings. First, digital verification exposure (X6) is the strongest direct predictor of purchase decisions (beta = 0.287; $p < 0.001$; f -squared = 0.149), ahead of halal awareness, social trust, formal-label perception, price-quality, and location access. This finding held across all three waves of data collection and supports the article's central argument: where human supervisory capacity is constrained, as documented in the earlier supply-chain study (Latuconsina, 2024a), consumers' readiness to use digital verification becomes the strongest influence on their purchase decisions for halal-labelled products.

Second, halal awareness (X1; beta = 0.316; $p < 0.001$) and label perception (X3; beta = 0.189; $p = 0.018$) are now significant, in contrast to the smaller-sample analyses in which neither reached significance. This confirms that the earlier non-significance reflected limited statistical power rather than an absence of effect. Social trust (H2) and price-quality (H4), by contrast, remain non-significant even at $N = 150$, indicating that their unique contribution is small once halal awareness and label perception are controlled; all four constructs are strongly

intercorrelated ($r = 0.60$ to 0.75). Substantively, this suggests that the social trust at the heart of the presumed halalness concept (Latuconsina, 2024b) operates through, rather than separately from, consumers' halal awareness and label perception.

Third, and unanticipated but now confirmed with considerable strength ($p < 0.001$), the moderation effect in H7 is significant but runs opposite to the hypothesis. Rather than amplifying the influence of formal labels, digital verification exposure substitutes for it. The simple-slope pattern shows that formal-label perception predicts purchase decisions only among consumers with low digital exposure; among those with high digital exposure, the effect of formal labels effectively disappears. Conversely, digital verification matters most precisely among consumers who rely least on formal labels.

The most plausible reading of this pattern is that consumers treat physical halal labels and digital verification as two alternative routes to the same confidence, rather than as two reinforcing layers. Where consumers are ready to use digital verification, they appear to anchor their confidence there and reduce their reliance on the physical label, which, as the earlier study found, is not backed by adequate field supervision. Read this way, the finding sharpens rather than weakens the article's human-capital argument: digital verification is not merely a supplement that reinforces the label, but an alternative pathway capable of standing on its own where the human supervisory capacity behind the formal label is limited.

This interpretation nonetheless requires an important caveat. Because only 15.3% of respondents had ever actually used a halal verification application or QR code, construct X6 is better read as readiness and attitude toward digital verification than as usage experience. The finding therefore shows that consumers who are attitudinally more open to digital verification tend to rely less on formal labels - a finding about consumer orientation, which is not necessarily the same as the effect of actually using the technology. Follow-up research in populations with higher actual adoption is needed to test whether this substitution pattern holds.

Construct X5 (access and proximity) exhibited the same psychometric problem consistently across all three waves of data collection: the reverse-coded item did not behave as theorized, and even after its removal the two remaining items reached only $\alpha = 0.533$. This consistency points to a conceptual rather than a sampling problem. Most likely, proximity preference and willingness to travel further for clearer halal assurance are not perceived by respondents as two ends of a single dimension, but as two separate considerations that can coexist. The construct requires redevelopment, possibly by splitting it into two distinct constructs, before use in confirmatory research.

Two practical implications follow. For BPJPH and regional halal task forces: because digital verification matters most among consumers who rely least on formal labels, investing in the visibility of digital verification tools may reach precisely the segment that conventional labelling mechanisms serve least well, at a cost well below that of expanding supervisory personnel. For businesses and distributors: providing digital verification at the point of sale offers potential competitive differentiation, particularly among consumers sceptical of physical labels.

4. | CONCLUSION

This study tested seven hypotheses concerning the determinants of purchase decisions for halal-labelled broiler chicken in Ambon City among 150 valid respondents. Of the six direct

paths tested, three are statistically supported: halal awareness (H1; $\beta = 0.316$; $p < 0.001$), label perception (H3; $\beta = 0.189$; $p = 0.018$), and digital verification exposure (H6; $\beta = 0.287$; $p < 0.001$), with H6 showing the largest effect size in the model ($f\text{-squared} = 0.149$). Social trust (H2) and price-quality (H4) have no significant effect once other predictors are controlled. The model as a whole explains 75.4% of the variance in purchase decisions.

The moderation hypothesis H7 produced a strongly significant effect ($\beta = -0.163$; $p < 0.001$; change in $R\text{-squared} = 0.045$) that nonetheless runs opposite to the hypothesized direction: digital verification exposure does not amplify but substitutes for the role of formal-label perception in purchase decisions. H7 is therefore not supported as formulated, but yields a new substantive finding, namely a substitution pattern between the digital verification pathway and the formal labelling pathway - a finding that strengthens rather than weakens the argument that verification technology can serve as an alternative pathway where the human supervisory capacity behind formal labels is constrained.

This study has several limitations. First, non-probability sampling through an online form may have introduced self-selection bias toward more digitally literate respondents, reflected in the predominance of respondents with a diploma-level education or higher (67.3%). Second, the low rate of actual digital verification use in the sample (15.3%) means that construct X6 captures attitudinal readiness rather than lived experience. Third, construct X5 failed to meet the reliability threshold across all three waves of data collection, so H5 cannot be interpreted. Fourth, 70.7% of respondents were concentrated at a single market (Mardika Market), which limits generalization to other traditional markets. Fifth, the analysis used composite-score regression as an approximation of PLS-SEM rather than full PLS estimation with bootstrapping. Sixth, the cross-sectional design does not permit causal inference.

Future research is recommended to re-estimate the model using full PLS-SEM with bootstrapping (for example in SmartPLS) to obtain more precise confidence intervals for the path coefficients; to redevelop construct X5 conceptually by separating proximity preference from willingness to trade convenience for halal assurance; to retest the X3-X6 substitution pattern in populations with higher actual adoption of digital verification; to extend coverage to other traditional markets in Ambon City using probability sampling; and to consider experimental or longitudinal designs to test causally whether introducing digital verification at the point of sale genuinely shifts consumer reliance away from formal labels.

REFERENCES

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Sage Publications.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Ambali, A. R., & Bakar, A. N. (2014). People's awareness on halal foods and products: Potential issues for policy-makers. *Procedia - Social and Behavioral Sciences*, 121, 3-25. <https://doi.org/10.1016/j.sbspro.2014.01.1104>
- Amir, A. M. N. A., Sapa, N., & Muthiadin, C. (2025). Geopolitik, Ekonomi, dan Digitalisasi dalam Sistem Halal Global: Tantangan Interoperabilitas dan Kepercayaan Konsumen. *BISEI: Jurnal Bisnis dan Ekonomi Islam*, 10(2). <https://doi.org/10.33752/bisei.v10i2.10730>
- Aziz, Y. A., & Chok, N. V. (2013). The role of halal awareness, halal certification, and marketing components in determining halal purchase intention among non-Muslims in Malaysia. *Journal of International Food & Agribusiness Marketing*, 25(1), 1-23. <https://doi.org/10.1080/08974438.2013.723997>

- Bashir, A. M. (2019). Effect of halal awareness, halal logo and attitude on foreign consumers' purchase intention. *British Food Journal*, 121(9), 1998–2015. <https://doi.org/10.1108/BFJ-01-2019-0011>
- Bonne, K., Vermeir, I., Bergeaud-Blackler, F., & Verbeke, W. (2007). Determinants of halal meat consumption in France. *British Food Journal*, 109(5), 367–386. <https://doi.org/10.1108/0070700710746786>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340. <https://doi.org/10.2307/249008>
- Faridah, H. D. (2019). Sertifikasi halal di Indonesia: Sejarah, perkembangan, dan implementasi. *Journal of Halal Product and Research*, 2(2), 68–78.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.1177/002224378101800104>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hayati, S. N. S., Rusdiana, & Malihah, L. (2023). Pengaruh Digital Payment dan Promosi Terhadap Perilaku Konsumtif Mahasiswa FEBI IAI Darussalam Martapura. *BISEI: Jurnal Bisnis dan Ekonomi Islam*, 8(2), 123–134. <https://doi.org/10.33752/bisei.v8i2.5152>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135. <https://doi.org/10.1007/s11747-014-0403-8>
- Khan, M. I., Haleem, A., & Khan, S. (2018). Defining halal supply chain management. *Supply Chain Forum: An International Journal*, 19(2), 122–131. <https://doi.org/10.1080/16258312.2018.1476776>
- Latuconsina, N. (2024a). Analisis halal supply chain management ayam broiler di Kota Ambon. *Tahkim*, 20(1), 152–172.
- Latuconsina, N. (2024b). Heuristik kehalalan dan keputusan pembelian ayam broiler: Analisis kesadaran konsumen Muslim di Kota Ambon. [Manuskrip tidak diterbitkan].
- Ma'wa, P. N. J., & Alim, M. N. (2024). Analisis Prosedur dan Biaya Pelaksanaan Audit Halal di Lembaga Pemeriksa Halal. *BISEI: Jurnal Bisnis dan Ekonomi Islam*, 9(1), 1–11. <https://doi.org/10.33752/bisei.v9i1.5238>
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20(3), 709-734. <https://doi.org/10.2307/258792>
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.
- Nurhayati, T., & Hendar, H. (2020). Personal intrinsic religiosity and product knowledge on halal product purchase intention. *Journal of Islamic Marketing*, 11(3), 603–620. <https://doi.org/10.1108/JIMA-11-2018-0220>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research. *Journal of Applied Psychology*, 88(5), 879-903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Rahayu, I. F., Oktafiah, Y., & Rachmawati, D. L. (2024). Pengaruh Harga dan Kualitas Pelayanan Terhadap Keputusan Pembelian Pengguna Shopee Melalui Online Customer Review Sebagai Variabel Moderating di Kota Pasuruan. *BISEI: Jurnal Bisnis dan Ekonomi Islam*, 9(2), 119–127. <https://doi.org/10.33752/bisei.v9i2.6977>
- Tieman, M. (2011). The application of halal in supply chain management: In-depth interviews. *Journal of Islamic Marketing*, 2(2), 186–195. <https://doi.org/10.1108/17590831111139893>
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124-1131. <https://doi.org/10.1126/science.185.4157.1124>
- Undang-Undang Republik Indonesia Nomor 33 Tahun 2014 tentang Jaminan Produk Halal.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478. <https://doi.org/10.2307/30036540>
- Zulfakar, M. H., Anuar, M. M., & Ab Talib, M. S. (2014). Conceptual framework on halal food supply chain integrity enhancement. *Procedia - Social and Behavioral Sciences*, 121, 58–67. <https://doi.org/10.1016/j.sbspro.2014.01.1108>