

Trust As A Bridge: Digital Marketing Capability, Product Certification, And Repurchase Intention In E-Commerce

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Abstract

Not every online seller competes on equal terms. A home-scale food producer with a good product but a neglected storefront is, in effect, competing against sellers with better photographs. This study asks whether two very different kinds of seller signal - competence, expressed through digital marketing capability, and safety, expressed through product legal certification - reach the consumer by the same route.

We survey 100 consumers of Kacang Tore Kawangkoan, a traditional fried snack from Minahasa Regency, North Sulawesi, and estimate a partial least squares model on 17 reflective indicators. The two signals turn out to work on trust at comparable strength: digital marketing capability raises customer trust ($\beta = 0.470$) and product legal certification does almost as much ($\beta = 0.401$), both significant at $p < 0.001$. Past that point they diverge. Trust is by a wide margin the strongest predictor of repurchase intention ($\beta = 0.541$, $R^2 = 0.568$). Digital marketing capability still reaches repurchase intention on its own ($\beta = 0.230$, $p = 0.005$), so trust only partly carries it. Product legal certification does not ($\beta = 0.074$, $p = 0.365$, CI [-0.081, 0.236]); its entire contribution travels through trust, which accounts for 74.7% of the total effect. Signals that improve the transaction itself can bypass belief; signals that merely describe the product cannot. We discuss what this implies for certification policy among micro, small and medium enterprises, and why displaying a certificate is not the same as communicating one.

Keywords: Digital marketing capability; product legal certification; customer trust; repurchase intention; PLS-SEM; local food products

INTRODUCTION

Trading online is unremarkable in Indonesia now. Being trusted online is not - particularly when the seller is a home-scale food producer whose name most buyers have never heard.



That distinction matters in Minahasa Regency, on the northern arm of Sulawesi, where Kacang Tore Kawangkoan has been fried, salted and sold for generations. The product is good. Its colour, its aroma and its place in Minahasa identity are not easy to copy, and the households that make it know it. What they generally lack is a storefront that says any of this. On the national marketplaces, listings for the snack typically show a flat photograph, two or three words of description, and a price, and they do not move: the sellers we spoke to reported volumes low enough that they cannot compete with snack producers elsewhere in Indonesia selling several thousand units a month. The gap is not culinary. It is structural, and much of it sits in how the business is presented rather than in what it makes.

The province's digital audience is large enough for that presentation problem to have commercial consequences. Statistics Indonesia reports that 46.47% of residents aged five and above in Sulawesi Utara accessed the internet at least once in the three months to 2024 (BPS Provinsi Sulawesi Utara, 2024). A number below one half is sometimes read as a constraint. We read it as an opportunity with an edge: a substantial and still-growing addressable audience, concentrated in the same age band that buys most packaged snacks online, and a market whose incumbents have not yet professionalised their digital operations.

The research on why micro, small and medium enterprises (MSMEs) fail to convert that audience is reasonably settled on one point. Al Bahri and Murtadho (2025), studying a cluster of home-based food businesses in Pasuruan, found that digital marketing predicted repurchase intention directly, while customer trust did not reach significance in their model. Competence, in other words, travelled under its own power. The finding is instructive precisely because it departs from the trust-centred orthodoxy, and we return to it in Section 5.

Signalling theory gives the same problem a cleaner vocabulary. Where buyers cannot inspect goods before paying for them, sellers do something to make themselves legible: they spend resources on things buyers can see, and buyers read those expenditures as evidence (Spence, 1973). A marketplace makes this sharper than an ordinary retail counter. Not only is the product unseen, but so is the seller, and so is any institution that might otherwise vouch for either.

Two families of signal matter most for the food MSMEs we study. The first is the *competence signal* - the quality of a seller's digital operation, taken together as visual content, description completeness, search visibility, responsiveness and use of promotional features. This is discretionary and visible. A seller chooses to invest in it, which is what makes it informative rather than decorative. The second is the *safety signal* - the presence and legibility of product legal attributes: BPOM MD registration for processed food, halal certification issued by the Halal Product Assurance Agency



(BPJPH), and home-industry food permits (SPP-IRT). This is institutional. The seller does not manufacture it; an agency does, and its value lies in being independent of the seller. The two are not interchangeable, and the literature rarely treats them as such. Work on digital marketing and trust has concentrated on the first; work on halal certification and trust on the second. Where both appear, one is usually treated as context and the other as the real predictor. Brach, Walsh and Shaw (2018) came closest to the idea we pursue, showing that third-party certification labels shift consumer response by reducing perceived risk - but conditionally, and only where consumers regard the certifying body as credible. That contingency is worth holding on to, because it suggests a certification can be legally present and psychologically inert.

Institutional actors make the same point from the policy side. The BPJPH has stated publicly that halal certification raises consumer confidence and turnover, and treats certification as an instrument for moving MSMEs up the value chain rather than as a mere formality (BPJPH, 2025). For the firms in this study, the difficulty lies less in obtaining certificates than in making them legible on a phone screen.

Why should trust be the variable that carries both? Because trust is where a signal stops being an attribute and becomes a belief. Mayer, Davis and Schoorman (1995) define trust in terms of ability, integrity and benevolence; McKnight, Choudhury and Kacmar (2002) adapt the construct to e-commerce and add perceived security. Once a consumer has formed that belief, the cost of the next transaction falls - less search, less perceived risk, less anticipated disappointment - and what remains is a disposition to come back (Morgan & Hunt, 1994; Hellier et al., 2003; Chiu et al., 2009). That disposition is what we call repurchase intention here: the wish to buy again, to treat the marketplace as a regular channel, to recommend the seller, and to buy on a routine rather than a one-off basis.

The question this leaves open is empirical. If competence and safety are both signals, does trust absorb them equally? Or does one reach loyalty directly while the other can only be routed through belief? Existing work does not answer it, because no study has placed both signal types in one model, and because the studies that come closest examine either platform-specific marketing activity or halal certification in isolation.

This study fills that gap on a deliberately small object. We model repurchase intention among buyers of Kacang Tore Kawangkoan purchased through Shopee or Tokopedia in North Sulawesi, with customer trust as the mechanism connecting digital marketing capability and product legal certification to the outcome. We pursue three aims. First, to test whether the two signals operate as the theory predicts. Second, to determine whether their pathways into loyalty differ, and if so how. Third, to report the result from a regional context - a traditional food product in Eastern Indonesia - that has received



almost no attention in this literature, and to say plainly what such a context does and does not allow us to claim.

LITERATURE REVIEW

2.1 Theoretical foundations

Signalling theory. Spence (1973) established that where information is distributed unevenly, the better-informed party can profit by communicating credibly to the worse-informed one. The logic depends on signals being costly enough to be credible; a cheap signal separates nobody. Applied to online markets, this yields the distinction that organises our model. Digital marketing capability is a *costly* signal in the relevant sense: effort spent photographing, copywriting, responding and advertising is effort a seller with nothing to sell would not spend. Product legal certification is *certifying* rather than self-generated - its informational value comes from an agency's independence, and it would be worthless if any seller could simply assert it. Spence's framework also implies that signals should be read against an absence of contrary evidence, which is why an untidy storefront is informative: it is hard to explain as an accident.

Technology acceptance. Davis (1989) holds that perceived usefulness and perceived ease of use produce an intention to use. Gefen, Karahanna and Straub (2003) and Pavlou (2003) adapt the model to online buying and add trust as both a determinant of acceptance and an independent driver of intention. The relevance for us is that a well-run store is not merely attractive; it is easier to use, and ease of use has a route to return behaviour that does not pass through any belief about the seller. This is the theoretical reason to expect a direct effect of digital marketing capability on repurchase intention, and it is why we do not treat a non-significant direct effect as an obvious result.

Commitment-trust theory. Morgan and Hunt (1994) treat trust as the binding agent in a marketing relationship, mediating between attributes and the costly, stable behaviours that characterise it. Chiu et al. (2009) and Hellier et al. (2003) apply the logic to repeat purchase in e-commerce. Here the proposition is nearly the mirror image of the previous one: trust does not just facilitate; it commits. If Morgan and Hunt are right, a consumer who trusts a seller should be more willing to return even in the presence of switching costs and abundant alternatives.

Read together, the three theories make a differentiated prediction rather than a uniform one. Digital marketing capability is expected to reach repurchase intention through at least two routes - a functional route via ease of use, and a cognitive route via competence and integrity beliefs. Product legal certification has no comparable functional route. It is a claim about the product, not an improvement to the transaction, and consumers have no direct experience with it that would confirm or disconfirm the claim. We therefore expect its effect on repurchase intention to be mediated by trust and not to survive as a



direct path. The presence or absence of that asymmetry is the empirical question of this study.

2.2 Empirical precedents and research position

Five studies come close enough to require comment.

Lufiati and Suparna (2023) examined perceived website design quality and e-service quality as antecedents of e-trust and repurchase intention among 100 Shopee users in Denpasar, finding positive and significant relationships. The study is a useful comparator for our digital marketing construct, but it deliberately excludes legal attributes, leaving half of the signalling environment unmodelled.

Nurharis and Erpurini (2026) tested social media marketing and electronic word of mouth against brand trust and repurchase intention among 165 Tokopedia users in Bandung. Brand trust proved decisive, with a standardised coefficient of 0.733 on repurchase intention - larger than the 0.541 we report. The two constructs, however, are not interchangeable: we measure seller-level capability across the whole storefront operation, where they measure specific social media activities, and we treat trust as including perceived product safety, where theirs is brand trust.

Bachtiar (2026) provides the closest counterpart on the certification side, examining halal certification among MSME actors and consumers in Boyolali. Its setting is offline, and repurchase intention is not among its outcomes, which leaves the question of whether certification retains value *after* a first purchase open.

Wenintias, Asmin and Andari (2025) show that trust mediates the effects of online reviews, ratings and viral marketing on repurchase intention among Tiktok Shop users in Sukabumi. Their result is close to ours in structure, though they note a small but significant direct effect of viral marketing, indicating that not every digital signal is absorbed by trust.

The remaining evidence is more equivocal and deserves stating plainly rather than burying. Fachrurrozie et al. (2023) modelled halal food purchase decisions among GoFood and ShopeeFood users using the theory of planned behaviour extended with UTAUT2. Attitude and subjective norm predicted intention; perceived behavioural control, halal literacy and religious commitment did not. Notably, they did not include trust, and their results imply that literacy about halal attributes - the cognitive input a certification signal would require - was not itself decisive. Putri, Zusrony and Andriana (2026) found that halal awareness, BPOM labelling and e-WOM each predicted purchase intention among Generation Z skincare buyers in Semarang, again without a trust mechanism. Utami et al. (2025), by contrast, is a systematic literature review rather than a primary study, and is treated here as a synthesis of the halal-cosmetics literature rather than as evidence.

Two Indonesian studies complicate the trust pathway itself. Al Bahri and Murtadho (2025) found customer trust did not significantly affect repurchase intention, while Wijayanthi and Goca (2022) reached the same result for credibility in a Tokopedia sample, where product quality and satisfaction carried the effect. Both contradict a strong trust-loyalty link. We do not dismiss them; Section 5.4 argues that their trust measures were platform- or brand-level, whereas ours is seller-integrity and product-safety trust, and that the distinction is not cosmetic.

Our study sits at the intersection of these streams. It integrates a competence signal and a safety signal in a single trust-mediated model, tests whether their mediation pathways differ, and does so on a traditional food product in a region that has not appeared in this literature.

2.3 Hypothesis development

The preceding arguments yield seven hypotheses.

H1: Digital marketing capability has a positive and significant effect on customer trust.

H2: Product legal certification has a positive and significant effect on customer trust.

H3: Digital marketing capability has a positive and significant direct effect on repurchase intention.

H4: Product legal certification has a positive and significant direct effect on repurchase intention.

H5: Customer trust has a positive and significant effect on repurchase intention.

H6: Customer trust mediates the effect of digital marketing capability on repurchase intention.

H7: Customer trust mediates the effect of product legal certification on repurchase intention.

H1 and H2 follow from the general effectiveness of credible signals in reducing information asymmetry. H3 and H4 are deliberately stated as competing predictions from two different theoretical traditions: the functional route of technology acceptance makes H3 plausible, the absence of any functional route for certification makes H4 doubtful. H5 follows from commitment-trust theory. H6 and H7, stated in parallel, allow the data to determine whether the two signals are routed alike.

METHOD

3.1 Design and data

We used a quantitative explanatory survey with a single cross-section of data, and analysed it with partial least squares structural equation modelling. The choice of PLS-SEM reflects three features of this study rather than a general preference for the technique. It estimates measurement and structural models simultaneously, which suits



a model in which customer trust is both an endogenous construct and a measurement vehicle. It remains stable with the sample sizes that regional survey research typically secures. And it makes no normality assumption, which matters for Likert-scale constructs in a sample of this kind (Hair et al., 2021).

Primary data were gathered through an online questionnaire built in Google Forms, comprising 17 Likert statements on a five-point scale from *strongly disagree* to *strongly agree*, plus five demographic items. Secondary data were drawn from peer-reviewed journals, Statistics Indonesia publications, BPJPH releases and food-certification regulations.

3.2 Sampling

The population of interest is unbounded: all residents of North Sulawesi who shop on Shopee and/or Tokopedia and have eaten Kacang Tore Kawangkoan. Applying the Rao and Purba formula with $z = 1.96$, $p = 0.5$ and a 10% margin of error gives 96.04, rounded up to 100. This also exceeds the ten-observations-per-parameter guidance for variance-based estimation; the construct receiving the most structural arrows, repurchase intention, has three, so the threshold of 30 is comfortably met.

Sampling was purposive against four criteria: residence in North Sulawesi; age of at least 17 years; at least one online purchase per month; and prior consumption of Kacang Tore Kawangkoan. We accept that purposive sampling buys analytical depth at the cost of statistical representativeness, and Section 6 returns to what that costs the argument.

3.3 Instrument

All constructs were modelled as reflective (Mode A), following the established measurement tradition for trust (McKnight et al., 2002) and repurchase intention (Hellier et al., 2003). Items were generated from the literature, assessed by two marketing scholars, and pilot tested on 30 respondents outside the research sample. All items cleared the validity threshold ($r > 0.361$) and the reliability threshold (Cronbach's alpha > 0.70). The questionnaire opened with two screening questions, distributed through WhatsApp groups, social media and direct collaboration with Kacang Tore Kawangkoan store owners to reach buyers rather than only the sellers' networks.

Table 1. Operational definitions and indicators

Variable	Indicators	Items
Digital marketing capability (X1)	Visual content quality; description completeness; visibility optimisation; seller	5

	responsiveness; promotion feature utilisation	
Product legal certification (X2)	BPOM MD clarity; halal certification clarity; legality transparency; perceived professionalism	4
Customer trust (M)	Seller ability; integrity; benevolence; product safety assurance	4
Repurchase intention (Y)	Repurchase desire; marketplace as primary channel; word-of-mouth recommendation; routine purchase	4

Note. Adapted by the authors from Mayer et al. (1995), McKnight et al. (2002), Hellier et al. (2003) and Kim et al. (2008). All seventeen indicators are reflective (Mode A). Pilot test: 30 respondents, $r > 0.361$, Cronbach's alpha > 0.70 .

3.4 Analysis

The model joins signalling theory, technology acceptance and commitment-trust theory, positioning customer trust as the mechanism between two antecedent signals and repurchase intention. Estimation used the path weighting scheme with 5,000 bootstrap resamples, two-tailed at $\alpha = 0.05$, in SmartPLS 4.

The outer model was assessed in four stages (Hair et al., 2021): convergent validity through outer loadings above 0.70 and average variance extracted above 0.50; internal consistency reliability through Cronbach's alpha, ρ_a and composite reliability, each above 0.70; discriminant validity through the Fornell-Larcker criterion (Fornell & Larcker, 1981) and, as the stricter of the two, the heterotrait-monotrait ratio (Henseler et al., 2015; Voorhees et al., 2016); and indicator-level collinearity through outer VIF below 5.0. The inner model was assessed on R^2 and adjusted R^2 , effect size (f^2 ; Cohen, 1988), predictive relevance (Q^2 and ρ^2 ; Hair et al., 2021), structural collinearity through inner VIF, path significance by bootstrapping, and overall model fit through the standardised root mean square residual (Hu & Bentler, 1999). Mediation type follows the direct-and-indirect effect classification of Zhao, Lynch and Chen (2010), with the variance accounted for (VAF) computed as the indirect effect over the total effect.

Credibility was addressed through instrument validation, respondent screening and verification of completed responses.

RESULTS

4.1 Descriptive profile

Of the 100 respondents, 62% were female and 80% were aged 17-35 - the most active segment of marketplace traffic - split between 46% aged 17-25 and 34% aged 26-35. Just over half (52%) lived in Manado city, with the remainder spread across Minahasa (18%), North Minahasa (12%), Bitung (10%) and Tomohon and other regencies (8%). Fifty-eight percent used Shopee as their primary marketplace and 32% used Tokopedia, with 10% using other platforms, while 52% shopped online at least three times a month.

Table 2. Descriptive statistics of the research constructs (1 = strongly disagree, 5 = strongly agree)

Construct	Mean	Std. deviation	Category
Digital marketing capability (DMC)	3.73	0.72	High
Product legal certification (PLC)	3.42	0.81	Moderate
Customer trust (CT)	3.60	0.74	High
Repurchase intention (RI)	3.64	0.77	High

Product legal certification returned the lowest mean of the four constructs and, more tellingly, the largest standard deviation. We are cautious about how much this can bear. A mean of 3.42 on a five-point scale indicates that respondents were broadly inclined to agree that legal attributes were clearly presented; it does not indicate that they were dissatisfied. What the item-level distribution shows is sharper. The lowest-scoring of all seventeen items is legality transparency in the digital storefront (mean 3.36, SD 0.96), and three of the four largest standard deviations in the instrument belong to certification items (0.98, 0.96 and 0.96). Buyers of this snack do not agree with one another about whether the product's legal status is visible. That disagreement, rather than the modest mean, is the finding we carry into Section 5.

4.2 Outer model

All seventeen indicators returned outer loadings between 0.801 and 0.883, all well above the 0.70 threshold and all significant at $p < 0.001$ with t-statistics above 20.6. The measurement model therefore satisfies the requirements of convergent validity.

Table 3. Outer loadings, construct reliability and convergent validity

Construct	Outer loadings	Cronbach's alpha	rho_a	Composite reliability (rho_c)	AVE
Digital marketing capability (DMC)	DMC1 = 0.844; DMC2 = 0.844; DMC3 = 0.819; DMC4 = 0.808; DMC5 = 0.801	0.881	0.882	0.913	0.678
Product legal certification (PLC)	PLC1 = 0.821; PLC2 = 0.883; PLC3 = 0.849; PLC4 = 0.838	0.870	0.872	0.911	0.719
Customer trust (CT)	CT1 = 0.834; CT2 = 0.811; CT3 = 0.836; CT4 = 0.862	0.856	0.857	0.903	0.699
Repurchase intention (RI)	RI1 = 0.858; RI2 = 0.860; RI3 = 0.871; RI4 = 0.848	0.882	0.883	0.919	0.738

Note. All loadings exceed 0.70 and are significant at $p < 0.001$ with t-statistics above 20.6. All reliability coefficients exceed 0.70 and all AVE values exceed 0.50. Outer VIF values range from 1.792 to 2.550, below the 5.0 collinearity threshold. Source: SmartPLS 4 output on primary data, 2026.

Table 4. Discriminant validity: Fornell-Larcker criterion and heterotrait-monotrait ratio

	DMC	PLC	CT	RI
Digital marketing capability (DMC)	0.823			
Product legal certification (PLC)	0.395 (0.452)	0.848		
Customer trust (CT)	0.629 (0.724)	0.587 (0.677)	0.836	
Repurchase intention (RI)	0.600 (0.679)	0.482 (0.550)	0.729 (0.838)	0.859

Note. Diagonal values are square roots of AVE; each exceeds every inter-construct correlation, satisfying the Fornell-Larcker criterion. HTMT values appear in parentheses. The highest HTMT in the model is 0.838 between customer trust and repurchase intention, below the 0.85 threshold recommended by Voorhees et al. (2016). Cross-loadings were also examined: every indicator loaded highest on its intended construct. Source: SmartPLS 4 output on primary data, 2026.

The trust-repurchase HTMT deserves a word. At 0.838 it sits just inside the threshold, and it is the only pair in the model that comes close. This is not a measurement failure so much as a reflection of what the two constructs are: an intention to return and the belief that makes returning reasonable are genuinely adjacent, and a respondent who intends to repurchase is predisposed to trust. We would rather report the proximity and name its cause than quietly present a set of comfortably separated numbers. It does, however, place a ceiling on how much variance in repurchase intention can be attributed to trust alone, and we return to that in Section 5.4.

4.3 Inner model

Table 5. Variance explained, predictive relevance and model fit

Endogenous construct	R2	Adjusted R2	SSO	SSE	Q2	rho2
Customer trust	0.532	0.522	400.000	254.961	0.363	0.776



Repurchase intention	0.568	0.554	400.000	240.388	0.399	0.924
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Note. $Q^2 = 1 - SSE/SSO$; $\rho^2 = Q^2 / (1 - R^2)$. Both Q^2 values fall in the large predictive relevance range (Hair et al., 2021). Model fit: SRMR = 0.059, within the 0.08 criterion (Hu & Bentler, 1999); NFI = 0.831; model chi-square = 188.372. Source: SmartPLS 4 output on primary data, 2026.

The model explains 53.2% of the variance in customer trust and 56.8% of the variance in repurchase intention, and predictive relevance is large for both. Overall fit is acceptable on the standardised root mean square residual. The normed fit index of 0.831 falls below the conventional 0.90 benchmark of Bentler and Bonett (1980); in variance-based estimation NFI is known to be conservative and penalises models of this complexity, and PLS-SEM practice treats SRMR as the primary fit index, so we do not treat this as disqualifying - but we report it rather than omit it.

The ρ^2 for repurchase intention deserves more caution than its Q^2 . At 0.924, the model's predictions for this construct sit very close to the observed values in this particular sample. That is a genuinely strong result on its own terms, and it is also a warning: a model that fits this closely may be tuned to the characteristics of a self-selected group of online shoppers, and we would expect out-of-sample performance to be lower.

4.4 Hypothesis testing

Table 6. Direct effect testing (5,000 bootstrap resamples)

Hypothesis	Relationship	beta	Std. dev.	t-statistic	p-value	95% CI	f2	Inner VIF	Decision
H1	DMC -> CT	0.470	0.070	6.727	< 0.001	[0.325; 0.598]	0.399	1.185	Supported
H2	PLC -> CT	0.401	0.074	5.435	< 0.001	[0.260; 0.548]	0.290	1.185	Supported
H3	DMC -> RI	0.230	0.082	2.819	0.005	[0.069; 0.394]	0.074	1.657	Supported
H4	PLC -> RI	0.074	0.081	0.906	0.365	[-0.081; 0.236]	0.008	1.529	Not supported
H5	CT -> RI	0.541	0.094	5.771	< 0.001	[0.347; 0.715]	0.317	2.135	Supported

Note. f^2 bands: large (≥ 0.35), medium-large (0.15-0.35), small (0.02-0.15), negligible (< 0.02). All inner VIF values fall below the 5.0 collinearity threshold. Source: SmartPLS 4 bootstrapping output on primary data, 2026.

Four of the five direct-effect hypotheses were supported. All inner VIF values are well below the collinearity threshold, so no path is distorted by shared variance among its predictors. Customer trust was the strongest predictor of repurchase intention on both coefficient and effect size. Product legal certification exerted no significant direct effect, and its confidence interval (-0.081 to 0.236) comfortably spans zero, which is as clean a null as this literature usually produces.

Table 7. Mediation testing: specific indirect and total effects

Hypothesis	Path	Indirect effect	Std. dev.	t-statistic	p-value	Direct beta	Total beta	Total t-stat.	VAF	Mediation type
H6	DMC -> CT - > RI	0.254	0.060	4.238	< 0.001	0.230 (sig.)	0.485	7.469	52.5%	Partial
H7	PLC -> CT - > RI	0.217	0.053	4.066	< 0.001	0.074 (n.s.)	0.291	3.838	74.7%	Full

Note. VAF = indirect effect / total effect. The total effect of digital marketing capability on repurchase intention is significant at $t = 7.469$ ($p < 0.001$), as is the total effect of product legal certification at $t = 3.838$ ($p < 0.001$). Source: SmartPLS 4 indirect effect output on primary data, 2026.

Both indirect effects were significant. Trust partially mediated the digital marketing capability pathway: the direct path remained significant once trust was included. Trust fully absorbed the product legal certification pathway: the residual direct path was both non-significant and negligible in size ($f^2 = 0.008$). The VAF of 74.7% for H7 should be read with some care. Zhao, Lynch and Chen (2010) note that a variance-based classification labels a relationship fully mediated whenever the direct path is non-significant, regardless of its point estimate; the remaining 25.3% of the total effect is not absent but statistically indistinguishable from zero in a sample of this size, and we would not want it read as evidence of a small genuine effect.

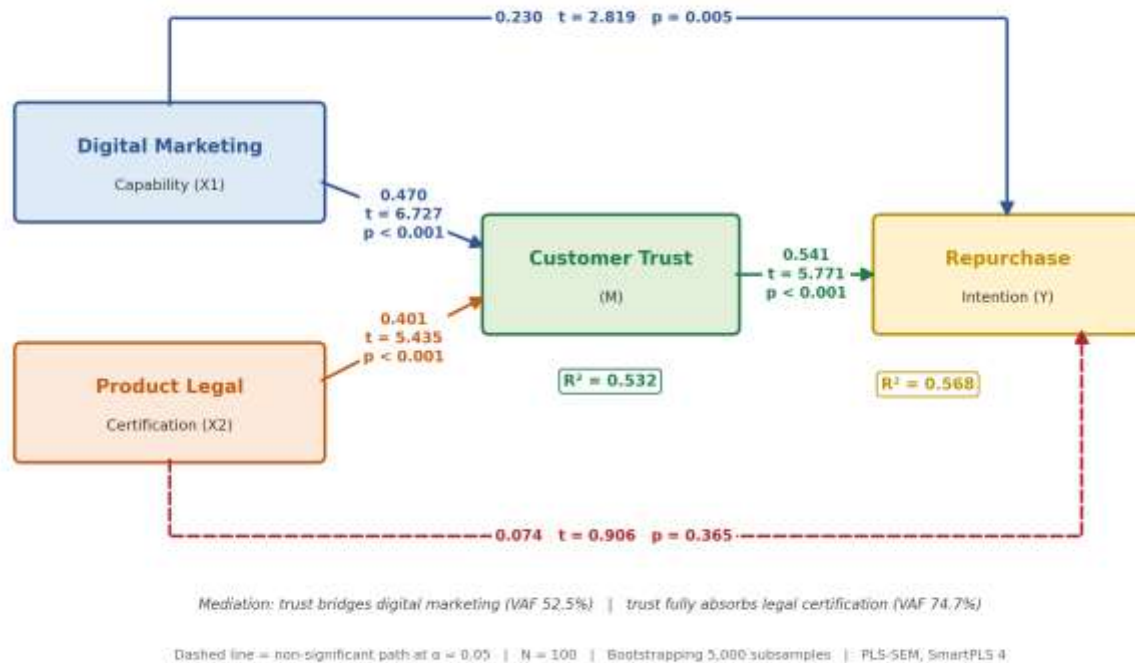


Figure 1. Structural model and hypothesis test results. Solid blue arrows indicate paths significant at $\alpha = .05$; the dashed red arrow indicates the single non-significant path (H4). Coefficients are standardised betas with bootstrap t -statistics and p -values from 5,000 resamples. R^2 is reported for each endogenous construct. Trust partially mediated the effect of digital marketing capability on repurchase intention (VAF = 52.5%) and fully absorbed the effect of product legal certification (VAF = 74.7%). $N = 100$; PLS-SEM estimated in SmartPLS 4.

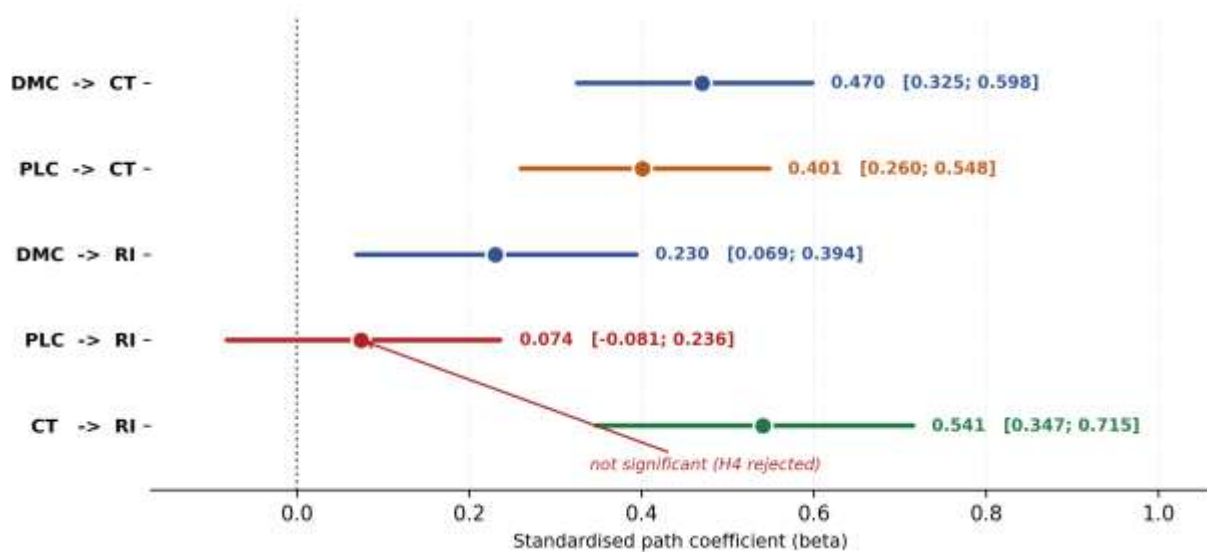


Figure 2. Direct effects with 95% bootstrap confidence intervals. Only the product legal certification path to repurchase intention (H4) has an interval that crosses zero.

DISCUSSION

Six of the seven hypotheses were supported, and the pattern among them is more interesting than the count. The two signals worked on trust at comparable strength - and then parted company. That divergence is the substance of this study, and we take it up in the order the results present it.

5.1 Digital marketing capability and trust (H1)

Digital marketing capability raised customer trust (beta = 0.470, $p < 0.001$, $f^2 = 0.399$). The effect size is large by any standard, and the result follows from signalling theory in a fairly direct way: a storefront with careful photographs, complete descriptions and prompt replies is expensive to fake, so it separates sellers who are serious from sellers who are not.

The context sharpens the point. Kacang Tore Kawangkoan has no established brand reputation to fall back on, and buyers have no prior experience with most of the sellers carrying it. Where a recognised brand can afford to be vague about its own competence, an unknown seller cannot; every element of the storefront is doing the work a brand name would otherwise do. This is why we regard the digital channel as a leveler in principle and an obstacle in practice for these firms. The same medium that removes the need for a physical shopfront also removes the reputational buffer a shopfront provided.

5.2 Product legal certification and trust (H2)

Product legal certification also raised customer trust ($\beta = 0.401$, $p < 0.001$, $f^2 = 0.290$), and this is the result that initially surprised us. We had expected a clear gap between a seller's own effort and an agency's document. The data show a gap, but a modest one: the two coefficients are 0.470 and 0.401, and their confidence intervals overlap substantially. Both signals build trust about equally well.

The explanation we favour is that registration and certification are issued by institutions with no commercial interest in the individual seller, which is exactly the condition under which a signal carries information in Spence's sense. A BPOM MD number from a government agency, or a halal certificate from BPJPH, is not something a dishonest seller can produce, and North Sulawesi consumers of packaged food evidently treat it as such. What the comparison also tells us is that the difference between these signals is not in the first stage. Both work as trust builders. It lies entirely in what happens afterwards.

Two qualifications belong here. First, the effect of certification is conditional on the certification being regarded as credible, a contingency Brach et al. (2018) demonstrate for third-party labels generally. A BPOM MD number that is illegible, or a halal certificate displayed without an expiry date, does not discharge this condition. Second, the institutional position has shifted. The BPJPH has publicly framed halal certification as an instrument for raising MSME competitiveness and consumer confidence rather than as a compliance formality (BPJPH, 2025). Where the regulator itself treats certification as a market instrument, consumers are more likely to read it as one.

5.3 Why certification did not reach loyalty directly (H4)

The rejection of H4 is the most consequential result in this study, and it deserves more argument than a hypothesis-rejection paragraph usually receives. The null is unusually clean - $\beta = 0.074$, $p = 0.365$, an effect size of 0.008 that Hair et al. (2021) would class as negligible, and a confidence interval running from -0.081 to 0.236. Three explanations are plausible, and our data do not discriminate fully among them.

The first is the credence-attribute account. A buyer can taste Kacang Tore Kawangkoan and know whether it is good. A buyer cannot taste halal status or verify a BPOM registration. The benefit of certification is never experienced directly, at the point of purchase or afterwards, and must be interpreted before it can do any work. Brach et al. (2018) make the same observation about third-party labels, noting that consumers frequently struggle to evaluate them. On this account, a direct effect should not be expected, and our result is the theoretically appropriate outcome rather than an anomaly. The second is a distributional explanation specific to this market. If most sellers in a category hold comparable legal documentation, certification carries little discriminating

information - it is table stakes rather than a differentiator. We did not collect seller-side data and cannot test this directly.

The third explanation is a measurement problem, and it is the one that should most constrain our claims. What our instrument measures is the *perceived clarity and professionalism* of legal attributes as presented, not whether the sellers in fact hold BPOM MD registration or halal certification. Respondents who bought from certified sellers but saw no evidence of it would answer as our items require; respondents who bought from uncertified sellers displaying confident claims might answer as though they were certified. Our finding is therefore properly stated as being about the communication of legal status rather than the possession of it.

The item-level evidence favours the third reading over the second. The lowest-scoring item in the entire instrument is legality transparency in the digital storefront, and three of the four largest standard deviations belong to certification items. If certification were uniformly visible and uniformly present, we would expect tight distributions. What we see instead is buyers sharply divided about whether the legal attributes are on display at all - which is a communication problem, not a supply problem. Communication is also the part the seller controls.

This result also explains why it diverges from Bachtiar (2026), who found a direct effect of halal certification on purchase decisions among Boyolali consumers. The most obvious reason is the outcome: a first purchase can be moved by a safety claim, whereas a second purchase is evaluated against an experience already had. An offline setting, where a certificate may be inspected at the point of sale, is a second reason. We would not generalise our null result to initial purchase decisions, and we would not expect readers to.

5.4 Trust as the dominant pathway (H5)

Customer trust was the strongest predictor of repurchase intention in the model ($\beta = 0.541$, $p < 0.001$, $f^2 = 0.317$), accounting for 56.8% of its variance. The mechanism is the one commitment-trust theory specifies: trust lowers the cost of a subsequent transaction and produces a relational commitment that expresses itself as return visits, recommendations and habitual purchase (Morgan & Hunt, 1994; Hellier et al., 2003; Chiu et al., 2009).

That coefficient should be read with the measurement caveat from Section 4.2 in view. The HTMT between trust and repurchase intention was 0.838, inside the threshold but not comfortably so, and the correlation between them was 0.729. Some of what our model reports as trust explaining repurchase intention may instead reflect a single underlying disposition toward the seller, measured from both angles. We would not want



a reader to treat 56.8% as a clean estimate of how much distinct variance trust contributes.

Here we return to the contrary evidence, because it bears directly on the study's central claim. Al Bahri and Murtadho (2025) found customer trust non-significant for repurchase intention; Wijayanthi and Goca (2022) found the same for credibility in a Tokopedia sample, where quality and satisfaction carried the effect instead. We think the difference lies in what was measured rather than in whether trust matters. Their trust constructs are closer to trust in the *platform* or in a *brand* - confidence in Tokopedia as an institution. Ours is seller-level integrity and benevolence plus perceived product safety, which is the object a consumer is actually forming a judgement about when deciding whether to buy the same snack from the same unknown seller a second time. A platform that reliably enforces its rules can be trusted while a particular seller is not, and only the latter kind of trust should predict where a buyer returns.

Nurharis and Erpurini (2026) report a larger trust-to-repurchase coefficient than we do (0.733 against 0.541), which is worth noting as a boundary on our estimate. Their platform was Tokopedia alone and their antecedents were specific social media activities; the difference in coefficient plausibly reflects both the narrower antecedent set and the different construct of trust.

5.5 Differential mediation (H6 and H7) and what follows

Taken together, H6 and H7 give the study its name. Trust partially mediated digital marketing capability (indirect effect 0.254, VAF 52.5%; the direct path survived at $\beta = 0.230$, $p = 0.005$). Trust fully absorbed product legal certification (indirect effect 0.217, VAF 74.7%; the direct path was non-significant and negligible). A signal that makes the transaction itself better - faster to understand, easier to complete, more pleasant to deal with - retains a route to loyalty that does not run through any belief about the seller. A signal that merely describes the product has no such route. It can only be believed, and belief is the mediator.

The comparison that makes this striking is that the two signals entered trust at nearly the same strength, 0.470 and 0.401. Whatever distinguishes them does not show up in how much trust each generates. It shows up entirely in what trust, once formed, is able to do on their behalf. A competence signal arrives already attached to something the buyer experiences - a storefront that works. A safety signal arrives attached to nothing the buyer can experience, only to something they must take on report, and so it can influence loyalty only by first becoming a belief.

This is, as far as we can tell, the theoretical contribution of the paper. Prior work has generally treated trust as a mediator without asking what varies across the antecedents it mediates. Treating the two signals as distinct objects with distinct



pathways extends signalling theory by distinguishing signal types according to whether they carry a functional benefit alongside their informational one, and predicting mediation behaviour accordingly. It also explains why studies that model only one signal at a time produce results that appear to conflict.

The practical implications follow directly, and they are not the ones usually offered. Merely displaying certification is not sufficient - Brach et al. (2018) show the effect of a label depends on the credibility consumers assign to it, and our own H2 suggests that credibility is doing the mediating work. Sellers of Kacang Tore Kawangkoan would gain more from making certification legible - stating the BPOM MD registration number in the product description, showing a legible image of the halal certificate with its validity period, explaining what home-industry status means for the consumer - than from acquiring further certificates. The descriptive evidence in Section 4.1 points the same way: the certificate is apparently there and still goes unread.

The policy implication follows too. The BPJPH and BPOM already operate subsidised certification schemes for MSMEs, and BPJPH has publicly committed to accompanying small businesses through the process (BPJPH, 2025). Our results suggest that certification assistance without communication support will produce certificates that do little work. If a subsidised certificate cannot be seen or understood by the buyer, the subsidy buys regulatory compliance rather than consumer trust.

We should be explicit about what this study cannot establish. The data are cross-sectional and self-reported, so the causal ordering of the model is assumed rather than demonstrated; a plausible alternative reading is that consumers who already intend to repurchase rate both their seller's storefront and its documentation more favourably. All four constructs were measured on the same instrument in a single sitting, which invites common method bias, and the trust-repurchase HTMT of 0.838 suggests that part of what we measure as trust is a general disposition. The rho2 of 0.924 for repurchase intention indicates a model that fits this sample very closely, which is a further argument against reading the coefficients as population values. The sample is purposive, weighted towards women and towards the 17-35 band, and drawn entirely from online shoppers in a single province; since only 46.47% of residents aged five and above in Sulawesi Utara accessed the internet in 2024, our respondents are a self-selected group of the more digitally engaged, and our results should not be generalised to the province's population as a whole. Finally, our certification construct captures perceived communication of legal status rather than verified status, a limitation discussed in Section 5.3 which we regard as the most consequential of the set.



CONCLUSION

We asked whether two kinds of seller signal - competence and safety - reach consumer loyalty by the same route. They do not, and the reason is not what we expected. Among North Sulawesi buyers of Kacang Tore Kawangkoan, both signals built trust at comparable strength: digital marketing capability at $\beta = 0.470$, product legal certification at 0.401. The divergence comes afterwards. Trust was the strongest single determinant of repurchase intention, accounting for 56.8% of its variance, and it carried both signals the rest of the way - but only one of them had anywhere else to go. Digital marketing capability kept a direct effect of its own ($\beta = 0.230$), because a better storefront is itself something the buyer experiences. Product legal certification had none ($\beta = 0.074$, $p = 0.365$): 74.7% of its total effect on repurchase intention ran through trust, and the remainder was indistinguishable from zero.

The practical implication is about sequence rather than effort. Building a competent digital storefront is worth doing in its own right, not only as an investment in trust. Certification is worth obtaining, and on our evidence it is worth nearly as much for trust as any amount of good photography. But obtaining it is the beginning of the work rather than the end: a BPOM MD number, a halal certificate and a home-industry permit have to be made visible and intelligible on the platform, where buyers will actually encounter them, before they can do anything for loyalty. For regulators, this argues that subsidised certification should be paired with communication support - the two are complements, and delivering only the first leaves the signal unread.

The study's limits are substantial and are set out at the end of Section 5: a purposive, regionally bounded, cross-sectional sample; common method variance, and a trust-repurchase HTMT close enough to the discriminant validity threshold to warrant caution; a certification construct that captures perceived communication rather than verified status; and out-of-sample performance that we have no way to assess. Testing whether certification's direct effect appears in first-time purchase decisions, whether trust remains the dominant pathway once these limitations are addressed, and whether the asymmetry between functional and informational signals holds for other product categories, are the questions we would put to subsequent research.

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Conflict of Interest

The authors declare no financial or substantive conflict of interest that might be construed to have influenced the results or interpretation of this manuscript. All authors have read and approved the final version and agree to its submission. The manuscript is not under consideration elsewhere and has not been published previously.

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