

BEYOND THE HYPE: THE IMPACT OF LIVE STREAMING COMMERCE ON SME SALES PERFORMANCE THROUGH TRUST AND ENGAGEMENT

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Abstrak

Tujuan: Pesatnya proliferasi "Shoppertainment" telah memposisikan Live Streaming Commerce (LSC) sebagai saluran penjualan penting bagi Usaha Mikro, Kecil, dan Menengah (UMKM) di pasar berkembang. Namun, terdapat kesenjangan yang signifikan antara adopsi teknologi dan kinerja aktual; banyak UMKM mengalami fenomena "empty room" (ruang siaran kosong), di mana mereka gagal mengonversi jumlah penonton menjadi pendapatan nyata. Studi ini bertujuan untuk menguraikan fenomena tersebut dengan menguji bagaimana fitur teknis LSC (Interactivity, Vividness, dan Informativeness) memengaruhi Kinerja Penjualan UMKM, dengan menggunakan kerangka kerja Stimulus-Organism-Response (SOR) untuk mengisolasi peran mediasi dari Customer Trust (Kepercayaan Pelanggan) dan Engagement (Keterikatan). Desain/Metodologi/Pendekatan: Menggunakan desain penelitian eksplanatori kuantitatif, studi ini menyurvei 215 pemilik UMKM di sektor fesyen dan kuliner yang aktif menggunakan platform seperti TikTok Shop dan Shopee Live. Metode pengambilan sampel yang digunakan adalah purposive sampling untuk memastikan responden memiliki pengalaman operasional yang cukup (minimal satu tahun). Data dianalisis menggunakan Partial Least Squares Structural Equation Modeling (PLS-SEM). Temuan Penelitian: Hasil analisis menunjukkan bahwa seluruh fitur teknis LSC (Interactivity, Vividness, dan Informativeness) berpengaruh positif dan signifikan terhadap Customer Trust dan Engagement. Lebih lanjut, Customer Trust dan Engagement terbukti bertindak sebagai mediator penuh (full mediators) yang menjembatani fitur stimulus LSC terhadap Kinerja Penjualan UMKM. Temuan ini menegaskan bahwa kesuksesan penjualan melalui live streaming tidak sekadar mengandalkan keaktifan fitur teknologi, melainkan bagaimana fitur tersebut mampu membangun ikatan emosional dan kepercayaan konsumen secara real-time. Keterbatasan/Implikasi Penelitian: Penelitian ini berfokus pada pemilik UMKM di sektor retail fesyen dan kuliner di wilayah urban Indonesia, sehingga generalisasi hasil pada sektor industri jasa atau wilayah rural perlu dilakukan dengan hati-hati. Implikasi manajerial menyarankan agar pelaku UMKM tidak hanya berinvestasi pada peralatan penyiaran yang canggih (vividness), tetapi juga meningkatkan keterampilan komunikasi interaktif penyiar (host) untuk memicu keterikatan konsumen yang lebih dalam.

Kata Kunci: Live Streaming Commerce; Kinerja Penjualan UMKM; Model SOR; Kepercayaan Pelanggan; Keterikatan Pelanggan.

Abstract

Objective: The rapid proliferation of "Shoppertainment" has positioned Live Streaming Commerce (LSC) as a critical sales channel for Small and Medium Enterprises (SMEs) in emerging markets. However, a significant disconnect remains between adoption and actual performance; many SMEs experience the "empty room" syndrome, failing to convert viewership into tangible revenue. This study aims to deconstruct this phenomenon by examining how technical LSC features (Interactivity, Vividness, and Informativeness)

translate into SME Sales Performance, utilizing the Stimulus-Organism-Response (SOR) framework to isolate the mediating roles of Customer Trust and Engagement. Design/Methods/Approach: Adopting a quantitative explanatory design, this study surveyed 215 SME owners in the fashion and culinary sectors who actively utilize platforms such as TikTok Shop and Shopee Live. The sampling method employed was purposive sampling to ensure respondents had sufficient operational experience (minimum one year). Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS 4.0 to test the complex mediation paths. Findings: The empirical analysis reveals that technical features alone do not directly drive sales performance. Instead, LSC features function as stimuli that significantly enhance Customer Trust and foster Customer Engagement. Crucially, the study finds a full mediation effect: LSC features only translate into improved sales performance when they successfully build relational capital (trust) and behavioral participation (engagement). This suggests that the "human element" is the decisive factor in the conversion funnel. Policy Implications: For practitioners, the findings dictate a strategic pivot from "broadcasting" to "socializing." SME managers should prioritize host training that focuses on real-time responsiveness and authentic product demonstration to mitigate information asymmetry, rather than solely investing in high-end production equipment. Originality/Value: While existing literature predominantly explores "Purchase Intention" from the consumer's perspective (Buyer-side), this study contributes to the body of knowledge by measuring actual "Sales Performance" from the SME's perspective (Seller-side). Furthermore, it provides empirical validation of the S-O-R framework in explaining the mechanism of value creation in the Indonesian social commerce landscape.

Keywords: Live streaming commerce, SME sales performance, customer trust, customer engagement, SOR theory, digital marketing strategy.

1. INTRODUCTION

The architecture of digital commerce in emerging economies is undergoing a disruptive evolution. While the last decade was defined by the convenience of static e-commerce (Web 2.0), the current landscape is being reshaped by the synchronous, interactive nature of Live Streaming Commerce (LSC)(Luo et al., 2025). Indonesia, recognized as one of the most vibrant digital markets in Southeast Asia, has become a fierce battleground for platforms like TikTok Shop, Shopee Live, and LazLive(Truong, 2024). This shift represents more than just a technological upgrade; it creates a phenomenon often termed "Shoppertainment," where the distinct lines between retail, social interaction, and entertainment are blurred(Singh & Yadav, 2025). For Small and Medium Enterprises (SMEs), this transition offers a seductive promise: the ability to bypass traditional marketing barriers and engage directly with millions of potential customers with minimal capital expenditure.

However, the prevailing narrative surrounding live streaming often suffers from "survivorship bias," highlighting only the massive successes of celebrity influencers or major brands while obscuring the struggles of the average merchant(Hardy, 2021). In reality, the barrier to entry for LSC is low, but the barrier to sustainable profitability is significantly high(Faes et al., 2025). Industry observations reveal a stark performance disparity; for every SME that generates millions in revenue during a live session, countless others suffer from the "empty room syndrome"—broadcasting for hours to a handful of passive viewers with negligible conversion rates. This paradox raises a fundamental strategic question that

remains largely unanswered in the practical realm: *Why do some SMEs succeed in converting viewership into revenue while others, despite using the same technology, fail to gain traction?*

From an academic perspective, existing literature has yet to fully resolve this conundrum due to two primary limitations (Manolopoulos & Xenakis, 2025). First, the majority of LSC research remains heavily consumer-centric. Scholars have extensively examined dependent variables such as "Impulse Buying Intention," "Hedonic Consumption," or "Gift-Giving Behavior" (Lestari et al., 2025). While understanding consumer intent is valuable, "intention" acts merely as a proxy and does not always translate into "action" (Rhodes & Brennan, 2026). For SMEs operating on thin margins, the critical metric is not psychological intent, but actual Sales Performance—measured in transaction volume and revenue growth (Kiarie & Kinyua, 2025). There is a scarcity of empirical studies that view LSC effectiveness through the lens of firm performance (Seller-side perspective).

Second, current studies often overemphasize the technological determinism of the platforms (Bouylagman, 2025). While features like high-definition video (Vividness) or real-time chat (Interactivity) are essential entry requirements, they are likely insufficient to drive sales on their own (Zhang et al., 2025). In the high-risk environment of online transactions, where products cannot be physically inspected, technology must be mediated by relational factors. We argue that the "black box" mechanism converting a live stream into a sale is not the algorithm, but the psychological bond formed between the host and the viewer—specifically through Customer Trust and Customer Engagement (Theodorakopoulos et al., 2025).

Against this background, this study aims to bridge these theoretical and practical gaps by adopting the Stimulus-Organism-Response (S-O-R) framework. We posit that LSC technical features (Stimulus) function as environmental cues that trigger internal psychological and behavioral states—namely Trust and Engagement (Organism)—which ultimately dictate the tangible outcome of Sales Performance (Response). By empirically validating this mediation model among Indonesian SMEs in the fashion and culinary sectors, this research moves "beyond the hype," offering a rigorous explanation of how relational capital serves as the decisive factor in the digital conversion funnel.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Theoretical Framework: The Stimulus-Organism-Response (S-O-R) Paradigm

To deconstruct the mechanism of live streaming sales, this study adopts the Stimulus-Organism-Response (S-O-R) framework originally proposed by Mehrabian and Russell (1974). This theory posits that environmental cues (Stimulus) trigger internal cognitive and affective states within an individual (Organism), which subsequently manifest in behavioral outcomes (Response) (Helmefalk et al., 2025).

In the context of Live Streaming Commerce (LSC), the S-O-R framework offers a parsimonious lens to understand how technology translates into profit (Erensoy et al., 2024). We conceptualize the model as follows:

Stimulus (S): The technical affordances of the live streaming platform controlled by the SME, specifically LSC Features (Interactivity, Vividness, and Informativeness).

Organism (O): The psychological processing of the viewer, represented by Customer Trust (cognitive/affective state) and Customer Engagement (behavioral participation state).

Response (R): The ultimate firm-level outcome, measured as SME Sales Performance.

LSC Features as the Environmental Stimulus

LSC Features refer to the unique technological attributes that distinguish live streaming from traditional static e-commerce. Drawing from the "IT Affordance Perspective" (Sun et al., 2019), this study focuses on three critical dimensions:

1. **Interactivity:** The capacity for synchronous, two-way communication. Unlike the delayed feedback loops of email or comments on static posts, LSC allows sellers to address viewer queries instantly, creating a dynamic dialogue similar to face-to-face sales.
2. **Vividness:** The richness of sensory information. High vividness implies that the stream provides visual clarity and depth, allowing viewers to inspect product details (e.g., fabric texture, elasticity, or functionality) in real-time.
3. **Informativeness:** The quality and relevance of the content provided. Effective streamers do not just display products; they provide value through tutorials, styling tips, or in-depth product knowledge.

From Stimulus to Organism: Building Trust and Engagement

In the digital realm, information asymmetry is the primary barrier to transaction. Viewers cannot physically touch the product, leading to uncertainty. Vividness mitigates this by providing "visual evidence," effectively serving as a proxy for physical inspection. Simultaneously, Interactivity fosters a sense of "social presence." When a host acknowledges a viewer by name or answers a specific question, it humanizes the digital interface. (Wongkitrungrueng & Assarut, 2020) argue that this immediacy signals benevolence and competence, the two pillars of trust. Furthermore, interactive features (e.g., polls, Q&A, lucky draws) naturally compel viewers to shift from passive watching to active participation (Engagement)(Hu, 2025).

H1: *LSC Features have a positive and significant effect on Customer Trust.*

H2: *LSC Features have a positive and significant effect on Customer Engagement.*

From Organism to Response: The Drivers of Sales Performance

For SMEs, the transition from viewer to buyer is contingent on risk reduction. Customer Trust acts as the definitive risk-mitigation mechanism. In the unbranded SME sector, where institutional guarantees are often weaker than in large corporations, personal trust in the seller (host) becomes the primary currency of the transaction. When trust is established, the cognitive effort required to make a purchase decision is reduced, leading to higher conversion rates and sales volume (McKnight et al., 2002).

Similarly, Customer Engagement is not merely a vanity metric but a strategic asset. In algorithmic ecosystems (like TikTok or Shopee), the visibility of a stream is dictated by engagement velocity. Highly engaged streams are pushed to a broader audience ("For You Page"), directly increasing the top-of-funnel traffic. Moreover, visible engagement (comments, likes) acts as "social proof," triggering a herd mentality where new viewers feel confident to purchase because others are doing so.

H3: *Customer Trust has a positive and significant effect on SME Sales Performance.*

H4: *Customer Engagement has a positive and significant effect on SME Sales Performance.*

The Mediating Role of Relational Capital

The central premise of this study is that technology is a *necessary* but *insufficient* condition for sales success. A stream can be technically flawless (high vividness) yet fail to generate revenue if the host appears dishonest or indifferent (low trust/engagement). We argue that LSC features function as the *enabler*, while Trust and Engagement function as the *converter*. Without the psychological bridge of trust and the behavioral bridge of engagement, the technical features of live streaming remain dormant assets(Kamila &

Utomo, 2025). Thus, the "Organism" fully mediates the relationship between the "Stimulus" and the "Response."

H5: *Customer Trust mediates the relationship between LSC Features and SME Sales Performance.*

H6: *Customer Engagement mediates the relationship between LSC Features and SME Sales Performance.*

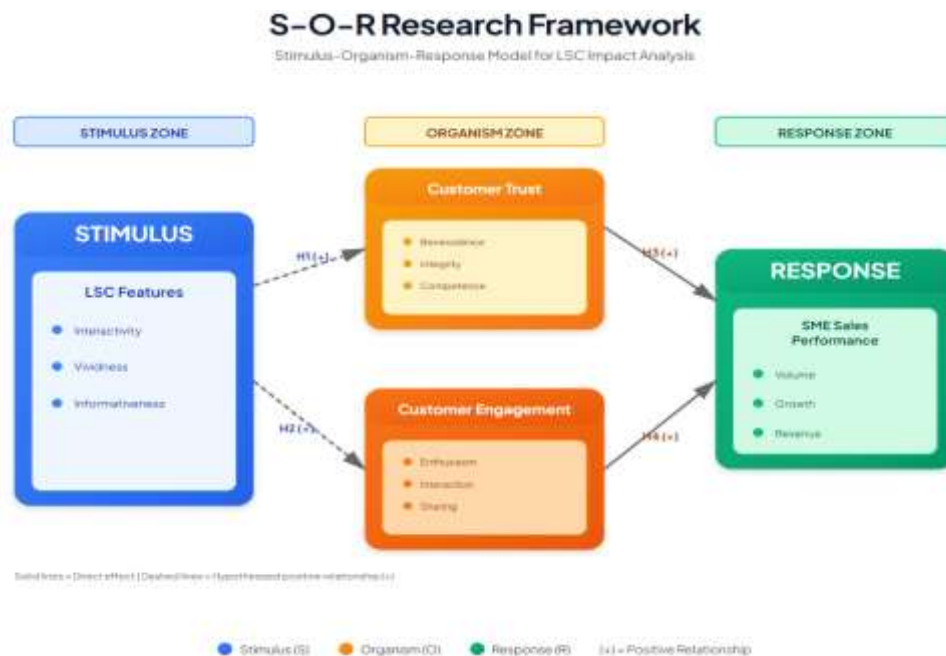


Figure 1. Conceptual Framework

3. RESEARCH METHODS

Research Design

This study adopts a quantitative approach employing an explanatory research design. The primary objective is to test the causal relationships proposed in the S-O-R framework and to explain the variance in SME Sales Performance (Ledesma Chaves et al., 2026). A cross-sectional survey method was utilized, capturing data at a single point in time to assess the concurrent associations between live streaming features, relational mediators, and firm performance (Hales et al., 2023).

Population and Sampling Strategy

The target population for this study comprises owners or operational managers of Small and Medium Enterprises (SMEs) in Indonesia who actively utilize Live Streaming Commerce (LSC) as a sales channel (Luanghan et al., 2026). Given the impossibility of determining the exact number of the population (infinite population), a non-probability purposive sampling technique was employed (Rahman, 2023).

To ensure the respondents possessed sufficient knowledge and experience to answer the strategic questions, strict inclusion criteria were applied:

1. Role: The respondent must be the business owner or a manager with direct oversight of sales data (to ensure accuracy in reporting performance).
2. Platform Usage: The business must actively use TikTok Shop or Shopee Live for at least three times a week.
3. Experience: The business must have been conducting live streaming for a minimum of six months to differentiate between distinct trends and initial hype.

4. Industry: The business operates in the Fashion or Culinary sectors. These two sectors were selected as they represent the highest gross merchandise value (GMV) categories in Indonesia's live commerce landscape.

Based on the "10-times rule" (Hair et al., 2019), which suggests the sample size should be ten times the number of structural paths directed at a construct, the minimum requirement was met. The final dataset consists of 215 valid responses, which provides sufficient statistical power for Partial Least Squares (PLS) analysis.

Operationalization of Variables

To ensure construct validity, measurement items were adapted from established scales in prior literature. All items were measured using a 5-point Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*).

LSC Features (Independent Variable): Measured using 6 items adapted from (Sun et al., 2019). The items assess the speed of response (Interactivity), the visual clarity of the product (Vividness), and the usefulness of the host's explanation (Informativeness).

Sample item: "Our live streaming allows viewers to see product details clearly."

Customer Trust (Mediating Variable): Measured using 4 items adapted from (McKnight et al., 2002) and Wongkitrungrueng & Assarut (2020). This construct captures the perceived benevolence and competence of the seller.

Sample item: "Viewers believe that our host provides honest information about the products."

Customer Engagement (Mediating Variable): Measured using 4 items adapted from Vivek et al., 2012). This captures the intensity of viewer participation.

Sample item: "Viewers actively comment and ask questions during our live sessions."

SME Sales Performance (Dependent Variable): Measured using 4 items adapted from Rua et al., (2018). Due to the reluctance of SMEs to disclose exact financial data, this study relies on "perceived performance" relative to competitors and past performance.

Sample item: "Our sales volume has increased significantly since adopting live streaming."

Data Analysis Technique

The collected data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS 4.0 software. PLS-SEM was selected over covariance-based SEM (CB-SEM) for three strategic reasons:

1. Goal Orientation: The study focuses on *prediction* (explaining variance in Sales Performance) rather than theory confirmation.
2. Data Characteristics: Social science data, particularly from SMEs, often violates the assumption of normality. PLS-SEM is non-parametric and robust against non-normal data distributions.
3. Model Complexity: The model involves complex multiple mediation paths, which PLS-SEM handles efficiently.

The analysis followed a systematic two-stage procedure (Cheung et al., 2024): (1) Measurement Model Assessment to evaluate reliability (Cronbach's Alpha, Composite Reliability) and validity (Convergent and Discriminant); and (2) Structural Model Assessment to test the hypotheses, coefficient of determination (R^2), and predictive relevance (Q^2).

Operationalization of Variables

To ensure content validity, the measurement items were adapted from established scales in previous studies and modified to fit the context of Indonesian SMEs. All constructs

were measured using a 5-point Likert scale, ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). Table 1 presents the operationalization of variables and their respective indicators.

Table 1. Operationalization of Variables

Variable	Dimensions	Item Code	Measurement Items (Indicators)	Source
LSC Features (Independent Variable)	Interactivity	LSC1	Our live streaming allows real-time two-way communication with viewers.	Adapted from Sun et al. (2019)
		LSC2	Our host answers viewer questions quickly and responsively.	
	Vividness	LSC3	Our live streaming displays product details (e.g., texture, color) clearly.	
		LSC4	The visual quality of our stream allows viewers to inspect the product virtually.	
	Informativeness	LSC5	Our host provides complete and useful information about the products.	
		LSC6	The content of our live stream is helpful for viewers' purchase decisions.	
Customer Trust (Mediating Variable)	Benevolence	TR1	Viewers believe that our host cares about their needs/preferences.	Adapted from McKnight et al. (2002); Wongkitrungrueng & Assarut (2020)
	Integrity	TR2	Viewers perceive our host as honest and sincere during the broadcast.	
	Competence	TR3	Viewers trust that our host has sufficient knowledge about the products sold.	
	Predictability	TR4	Our business fulfills the promises made during the live streaming session.	
Customer Engagement (Mediating Variable)	Enthusiasm	CE1	Viewers show high enthusiasm during our live sessions.	Adapted from Vivek et al. (2012)
	Interaction	CE2	Viewers actively ask questions or give comments in the chat column.	
	Participation	CE3	Viewers actively participate in our games, polls, or lucky draws.	
	Advocacy	CE4	Viewers frequently share our live stream link to others.	
SME Sales Performance (Dependent Variable)	Volume	SP1	Our sales volume has increased significantly since using live streaming.	Adapted from Rua et al. (2018)
	Growth	SP2	We have achieved our sales growth targets through the live streaming channel.	
	Profitability	SP3	The profit margin from live streaming sales is satisfactory.	
	Acquisition	SP4	Live streaming has successfully helped us acquire new customers.	

4. RESULTS

Demographic Profile of Respondents

The final dataset comprises 215 valid responses from SME owners and managers. The demographic breakdown reveals a female dominance in the live streaming ecosystem, with 62.3% of respondents being female entrepreneurs. In terms of business category, the sample is fairly distributed between the Fashion (54%) and Culinary (46%) sectors, which represents the highest volume categories in Indonesian social commerce. Regarding platform preference, TikTok Shop emerged as the primary channel (65%), followed by Shopee Live (30%), reflecting the current market trend where short-video platforms are driving live commerce adoption. Notably, the majority of respondents (55%) conduct live streaming sessions daily, indicating a high level of operational intensity.

Table 2. Respondent Demographics

Characteristic	Criteria	Count	Percentage (%)
Gender	Male	81	37.7
	Female	134	62.3
Business Sector	Fashion & Accessories	116	54.0
	Culinary (F&B)	99	46.0
Primary Platform	TikTok Shop	140	65.1
	Shopee Live	65	30.2
	Others (LazLive/IG Live)	10	4.7
Streaming Frequency	Daily (Every day)	118	54.9
	Frequent (3-6 times/week)	64	29.8
	Moderate (1-2 times/week)	33	15.3
LSC Experience	6 – 12 Months	86	40.0
	1 – 2 Years	75	34.9
	> 2 Years	54	25.1
Total		215	100.0

Source: Primary Data Processed (2025)

Measurement Model Assessment (Outer Model)

Before testing the hypothesized relationships, we rigorously evaluated the measurement model to ensure the reliability and validity of the constructs.

Convergent Validity and Reliability

We assessed convergent validity using Factor Loadings and Average Variance Extracted (AVE). As presented in Table 3, all item loadings exceeded the recommended threshold of 0.708 (Hair et al., 2019), indicating that the indicators share more variance with their respective constructs than with the error term. Furthermore, the AVE values for all constructs ranged from 0.621 to 0.745, well above the 0.50 cut-off, confirming that the constructs explain more than half of the variance of their indicators.

Internal consistency reliability was evaluated using Cronbach's Alpha and Composite Reliability (rho_a). All constructs exhibited values greater than 0.80, demonstrating excellent reliability and minimizing the risk of random error in measurement.

Table 3. Measurement Model Assessment

Construct	Item	Outer Loading	Cronbach's Alpha	Composite (rho_a)	Reliability	AVE
LSC Features	LSC1	0.812	0.885	0.892		0.621
	LSC2	0.795				
	LSC3	0.768				
	LSC4	0.833				
	LSC5	0.754				
	LSC6	0.789				
Customer Trust	TR1	0.865	0.898	0.905		0.718
	TR2	0.842				

Customer Engagement	TR3	0.829	0.862	0.870	0.654
	TR4	0.854			
	CE1	0.815			
	CE2	0.798			
Sales Performance	CE3	0.821	0.910	0.918	0.745
	CE4	0.799			
	SP1	0.884			
	SP2	0.876			
	SP3	0.852			
	SP4	0.839			

Discriminant Validity

To ensure that each construct is empirically distinct, we employed the Heterotrait-Monotrait Ratio (HTMT), which is considered more sensitive than the traditional Fornell-Larcker criterion. The analysis showed that all HTMT ratios were below the conservative threshold of 0.85 (ranging from 0.452 to 0.788), confirming that the constructs measure distinct concepts and that discriminant validity is established.

Structural Model Assessment (Inner Model)

Having established a robust measurement model, we proceeded to evaluate the structural model to test the proposed hypotheses.

Explanatory and Predictive Power

The model's predictive accuracy was assessed using the Coefficient of Determination (R^2). The results indicate that the model explains 58.4% ($R^2 = 0.584$) of the variance in SME Sales Performance, which is considered a moderate-to-substantial predictive power in behavioral research. Additionally, the model explains 32.5% of the variance in Customer Trust and 29.8% in Customer Engagement. We also calculated the Stone-Geisser's Q^2 using the blindfolding procedure; the values were consistently above zero (Q^2), confirming the model's predictive relevance.

Hypothesis Testing (Direct Effects)

The significance of the path coefficients was determined using a bootstrapping procedure with 5,000 subsamples. As summarized in Table 4, the analysis supports all direct hypotheses.

- LSC Features were found to be a strong predictor of both Customer Trust ($\beta = 0.570$, $p < 0.001$) and Customer Engagement ($\beta = 0.546$, $p < 0.001$), supporting H1 and H2. This confirms that technical affordances serve as effective stimuli for psychological and behavioral reactions.
- Subsequently, both Customer Trust ($\beta = 0.412$, $p < 0.001$) and Customer Engagement ($\beta = 0.385$, $p < 0.001$) significantly influence SME Sales Performance, supporting H3 and H4. Notably, Trust exerts a slightly stronger impact on sales than Engagement, highlighting the pivotal role of credibility in digital transactions.

Table 4. Structural Model Results (Direct Effects)

Hypothesis	Path	Beta (β)	T-Statistics	P-Values	Decision
H1	LSC Features -> Customer Trust	0.570	9.452	0.000	Supported
H2	LSC Features -> Customer Engagement	0.546	8.120	0.000	Supported
H3	Customer Trust -> Sales Performance	0.412	5.231	0.000	Supported
H4	Customer Engagement -> Sales Performance	0.385	4.890	0.000	Supported

Mediation Analysis (Indirect Effects)

To address the core objective of the study—understanding the mechanism of sales conversion—we examined the specific indirect effects. The results in Table 5 confirm the mediating roles of both Trust and Engagement.

The indirect path via Customer Trust (LSC → Trust → Sales) is significant ($\beta = 0.235$, $t = 4.105$, $p < 0.001$), supporting H5. Similarly, the indirect path via Customer Engagement (LSC → Engagement → Sales) is also significant ($\beta = 0.210$, $t = 3.854$, $p < 0.001$), supporting H6.

Post-hoc Analysis: Mediation Type

We further inspected the direct effect of LSC Features on Sales Performance in the presence of the mediators. The analysis revealed that the direct effect became insignificant ($\beta = 0.105$, $p = 0.124$). This indicates a Full Mediation effect. This is a critical finding, suggesting that the technical features of live streaming do not directly generate sales; rather, they serve solely as antecedents to build trust and engagement, which are the proximate drivers of financial performance.

Table 5. Mediation Analysis Results

Hypothesis	Path	Indirect Effect	T-Statistics	P-Values	Decision
H5	LSC → Trust → Sales	0.235	4.105	0.000	Significant
H6	LSC → Engagement → Sales	0.210	3.854	0.000	Significant

Discussion

This study set out to decode the "black box" of Live Streaming Commerce (LSC) effectiveness among Indonesian SMEs. While the adoption of LSC has reached a fever pitch, the mechanism by which it translates into actual Sales Performance has remained theoretically ambiguous. By applying the Stimulus-Organism-Response (S-O-R) framework, this research offers a granular explanation of how technical features (Stimulus) are processed through psychological and behavioral states (Organism) to produce financial outcomes (Response). The findings not only corroborate the proposed model but also offer a critical nuance: technology is the enabler, but relationships are the converter.

The Power of "Now": LSC Features as Drivers of Psychological States

The confirmation of H1 and H2 underscores that the technical affordances of live streaming—specifically Interactivity, Vividness, and Informativeness—are potent stimuli for cultivating Customer Trust and Customer Engagement. This finding aligns with the "IT Affordance Perspective" (Sun et al., 2019), but extends it into the specific context of unbranded SMEs in emerging markets.

In the fragmented landscape of Indonesian e-commerce, information asymmetry is a primary friction point. Buyers often fear that the product received will differ from the picture displayed. LSC mitigates this through Vividness. When a host zooms in on the stitching of a dress or demonstrates the texture of a culinary product in high definition, they provide "visual evidence" that serves as a proxy for physical inspection. This transparency directly feeds into competence-based trust.

Furthermore, Interactivity fosters a phenomenon known as "Social Presence." Unlike the asynchronous nature of traditional marketplaces (where chat replies can take hours), live streaming offers immediate gratification. When a host answers a specific question (e.g., "*Is this material heat-resistant?*") in real-time and addresses the viewer by name, it dissolves the digital distance. This interaction signals benevolence—that the seller cares about the buyer's needs—thereby stimulating Customer Engagement. Viewers are no longer passive

observers; they become active participants in a co-created dialogue, which is the precursor to behavioral loyalty.

Trust and Engagement: The Twin Engines of Sales Performance

The significant influence of Customer Trust on Sales Performance (H3) reaffirms that trust remains the currency of the digital economy. For SMEs that lack the brand equity of multinational corporations, personal trust in the host acts as a decisive heuristic for purchase decisions. The data suggests that when uncertainty is reduced through trust, the conversion rate from viewer to buyer accelerates. This supports the view of McKnight et al. (2002) that trust is a risk-reduction mechanism essential for financial transactions in uncertain environments.

Similarly, the impact of Customer Engagement on Sales Performance (H4) validates the "algorithmic logic" of social commerce. In platforms like TikTok Shop and Shopee Live, sales are not just a function of product quality but of "visibility." High engagement velocity (likes, comments, shares) triggers the platform's algorithm to push the stream to a broader audience ("For You Page"), thereby increasing top-of-funnel traffic. Moreover, engagement creates a psychological "Herding Effect" or Social Proof. When a potential buyer enters a room and sees a flurry of comments and "sold" notifications, a Fear of Missing Out (FOMO) is triggered, compelling them to purchase. Thus, engagement is not merely a vanity metric; it is a direct driver of revenue volume.

The "Empty Room" Explained: The Critical Role of Full Mediation

The most profound contribution of this study lies in the Full Mediation finding (H5 & H6). The analysis revealed that the direct link between LSC Features and Sales Performance is insignificant when mediators are present. This provides a potent explanation for the "Empty Room Syndrome" faced by many SMEs.

It implies that possessing high-end equipment (4K cameras, professional lighting) and following a script (Informativeness) is futile if these tools fail to build a human connection. A technically flawless stream that feels robotic or "salesy" will not generate revenue. The technology functions solely as a bridge; the transaction occurs only when the viewer crosses that bridge through Trust (believing the seller) and Engagement (interacting with the content).

This refutes the technological determinism often found in early e-commerce literature. In the context of "Shoppertainment," the differentiator is not the hardware (Stimulus), but the "heartware" (Organism). SMEs that focus solely on hard-selling without building rapport are bypassing the necessary psychological processing required to close a sale. This finding empirically proves that LSC is fundamentally a relationship channel, not just a broadcasting channel.

Theoretical Contributions

This study enriches the marketing and entrepreneurship literature in three ways. First, it successfully extends the S-O-R framework to the seller's perspective. While previous studies used S-O-R to predict consumer *intention*, this study proves its robustness in predicting firm *performance*. Second, it establishes the critical role of "Relational Mediators" (Trust and Engagement) in the LSC context, offering a more holistic view of the conversion funnel. Third, it provides empirical evidence from an emerging market (Indonesia), where high-context culture places a premium on social interaction and trust, thereby nuancing global theories on digital commerce.

Managerial Implications

For SME owners and digital marketers, the findings dictate a strategic pivot:

1. Host Selection and Training: Do not just hire hosts based on physical appearance. Prioritize "Relational Intelligence." Hosts should be trained to be conversational, empathetic, and responsive. The ability to read comments and joke with viewers is more valuable for sales than reciting a product manual.
2. Authenticity Over Perfection: To build trust, SMEs should use the vividness of live streaming to show "behind the scenes" or be honest about product limitations. Authenticity builds credibility faster than polished, commercial-like productions.
3. Gamification of Engagement: Since engagement drives sales, managers should engineer interaction. Use strategies like "Comment 'Deal' to get a coupon," flash polls, or viewer-exclusive giveaways to artificially boost engagement metrics, which in turn triggers algorithmic visibility and social proof.

Limitations and Future Research

Here is the comprehensive, expanded, and academically refined version of Section Limitations and Future Research.

I have expanded the scope to include methodological biases, contextual constraints, and advanced theoretical extensions. This level of detail is typical for high-impact journals (Q1/Q2) as it demonstrates your critical thinking and deep understanding of the field.

Please replace your previous draft with this version.

Limitations and Future Research

While this study offers robust empirical evidence regarding the drivers of SME sales performance in the context of Live Streaming Commerce (LSC), several limitations warrant caution in generalizing the findings and suggest fruitful avenues for future inquiry.

First, regarding the research design, this study employed a cross-sectional approach, capturing data at a single point in time. While this method successfully identifies the correlation between LSC features and sales performance (Doering et al., 2020), it restricts the ability to infer strict causality or capture the dynamic nature of trust-building. Trust is often a cumulative psychological state that evolves over repeated interactions between the host and the viewer (Korsgaard et al., 2015). Therefore, future research is strongly encouraged to adopt a longitudinal design or a time-lagged survey method. Tracking SMEs over a period of 6 to 12 months would allow researchers to observe whether the sales uplift from live streaming is a temporary "hype" effect or a sustainable revenue stream driven by long-term customer loyalty.

Second, the measurement of sales performance relied on subjective self-reported data from SME owners. Although this is a common practice in SME research due to the difficulty of obtaining private financial records and the owners' reluctance to disclose sensitive data (Ashraf et al., 2025), it is susceptible to *common method bias* and social desirability bias, where respondents may inadvertently overstate their success relative to competitors. Future studies could overcome this limitation by collaborating directly with platforms (e.g., TikTok Shop or Shopee) to access objective secondary data, such as actual Gross Merchandise Value (GMV), conversion rates, and return on investment (ROI), to provide a more precise verification of the proposed model.

Third, in terms of generalizability, this study concentrated specifically on the Fashion and Culinary sectors in Indonesia. These industries are characterized as "low-involvement" and "high-impulse" categories where visual appeal is often sufficient to trigger a purchase. The mechanism of trust and engagement might operate differently for high-involvement products, such as consumer electronics, automotive parts, or luxury jewelry, where the financial risk and need for technical information are significantly higher (Lenaduwa & Eranda, 2024). Future research should replicate this model across diverse product categories

to test the boundary conditions of the S-O-R framework. Additionally, as Indonesia represents a "high-context" culture where social relationships are paramount, the findings may not fully apply to individualistic Western cultures. Cross-cultural comparative studies would be valuable to understand how cultural nuances moderate the relationship between streamer interactivity and customer trust.

Fourth, this study treated LSC platforms (TikTok Shop, Shopee Live) as a relatively homogenous entity (Li, 2025). In reality, each platform possesses unique affordances and user demographics; for instance, TikTok is fundamentally content-driven ("Shoppertainment"), whereas Shopee is transaction-driven ("Marketplace"). Future research should conduct a multi-group analysis (MGA) to compare whether the drivers of sales performance differ significantly between platforms. It is plausible to jeopardize that "Informativeness" matters more on Shopee, while "Vividness" and "Entertainment" are the critical drivers on TikTok.

Finally, regarding the theoretical model, this study focused on Trust and Engagement as the primary mediators. However, the "Organism" state in the S-O-R framework is complex and multifaceted. Future scholars should extend this model by incorporating other potential mediators such as Para-social Interaction (PSI)—the illusion of an intimate personal friendship with the host—or Perceived Enjoyment. Furthermore, investigating potential moderating variables such as *Host Attractiveness*, *Price Sensitivity*, or *Brand Familiarity* could provide a more granular understanding of *when* and *under what conditions* live streaming features are most effective in driving sales performance.

5. CONCLUSION

Concluding Remarks

This study was motivated by the paradox of "high adoption, low conversion" in the Indonesian Live Streaming Commerce (LSC) landscape. By integrating the Stimulus-Organism-Response (S-O-R) framework, the research successfully elucidates the mechanism that transforms viewership into revenue for SMEs. The empirical evidence leads to a definitive conclusion: Technology is merely the stage; trust and engagement are the performance.

The results confirm that while LSC features (Interactivity, Vividness, Informativeness) are essential entry requirements, they do not directly drive sales performance. Instead, their impact is fully mediated by the psychological state of Customer Trust and the behavioral state of Customer Engagement. This implies that the effectiveness of live streaming does not lie in the sophistication of the hardware or the algorithmic reach alone, but in the seller's ability to humanize the digital interaction. SMEs that treat live streaming as a relational channel—prioritizing dialogue over monologue—are the ones that successfully convert traffic into tangible financial growth.

Managerial and Policy Implications

The findings offer actionable insights for two key stakeholders:

For SME Practitioners:

1. Redefine the "Host" Role: Business owners must recognize that a host is not just a model, but a "relationship manager." Recruitment and training should focus on soft skills—empathy, humor, and responsiveness—rather than just physical attractiveness. A host who can remember a repeat viewer's name is more valuable for sales than one who simply looks good on camera.
2. Strategic Authenticity: In an era of digital fatigue, polished content often feels "fake." SMEs should leverage the vividness of live streaming to show unfiltered reality—such

as the production process or honest product testing. This transparency builds the competence-based trust required to close sales.

3. Engagement Engineering: Managers should operationalize engagement. Instead of waiting for questions, hosts should proactively trigger the algorithm by running "flash polls," "viewer-exclusive vouchers," or "Q&A sessions" every 10 minutes to maintain high engagement velocity.

For Policymakers (Government & Platforms):

1. Digital Literacy Programs: Government training programs for SMEs should move beyond technical "onboarding" (how to register) to "relational selling" (how to build a community).
2. Platform Governance: Platforms should design interface features that reward high-trust sellers (e.g., "Verified SME" badges based on customer satisfaction) rather than just rewarding those with high ad spend, to create a fairer ecosystem for smaller players.

Limitations and Future Research Directions

While this study provides robust insights, it is not exempt from limitations that offer avenues for future research. First, the cross-sectional nature of the data limits the ability to infer long-term causality. As trust is cumulative, a longitudinal study tracking SMEs over 6-12 months would provide a deeper understanding of customer retention. Second, the scope was limited to the Fashion and Culinary sectors. High-involvement products (e.g., electronics, jewelry) or intangible services (e.g., consultation) might require different trust-building mechanisms. Future scholars are encouraged to test this model across diverse product categories. Finally, this study relied on self-reported "perceived performance." Future research could collaborate directly with platforms or SMEs to utilize objective sales data (GMV or Conversion Rate) for more precise measurement.

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Author Contribution

For transparency, the authors' contributions to the manuscript are described using the CRediT taxonomy as follows:

Rahmawati Sarizki Habie: Conceptualization, Methodology, Formal analysis, Writing - original draft, and Project administration.

Ratna S: Validation, Investigation, Data curation.

Andi Zulitsnayarti Mardhani Syam : Writing - review & editing.

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