

Integrating E-Commerce, Influencers, UGC, and Personal Shoppers to Drive Asian MSME Internationalization

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Abstract: *The traditional view in international business research portrays Micro, Small, and Medium Enterprises (MSMEs) as disadvantaged in global trade, hindered by their size and foreignness, and reliant on labor-intensive market entry tactics. This literature review, drawing from 60 peer-reviewed sources published between 2018 and 2026, reexamines this framing, specifically in the Asian context. It sets out three main objectives: (1) to analyze the impact of four digital drivers—cross-border e-commerce (CBEC), influencer marketing, user-generated content (UGC), and personal shopper networks—on MSME internationalization in Asia; (2) to define a synergistic digital ecosystem by detailing how these drivers interact for compounded benefits; and (3) to pinpoint systemic weaknesses, regional differences, and methodological gaps that may hinder the effectiveness and applicability of current digital internationalization strategies. These drivers were chosen for their comprehensive connection to the value chain of international digital commerce: CBEC provides infrastructure, influencers build trust, UGC enhances social validation, and personal shoppers offer personalized service. The analysis highlights a key distinction between China's AI-driven, super-app model and Southeast Asia's community-focused approach, emphasizing a divergence in capital types—algorithmic versus relational. The review concludes with a proposed research agenda focused on Industry 5.0 concepts, AI ethics, long-term impact assessment, and the design of inclusive digital ecosystems.*

Keywords: *MSME globalization; transnational e-commerce; influencer promotion; consumer-created content; collaborative digital network*

INTRODUCTION

Something has changed in how small firms go global—and the change is neither incremental nor easily reversed. For decades, the dominant models in international business, most notably the Uppsala Stage Model, described internationalization as a deliberate, sequential process in which firms accumulated experiential knowledge, built relational capital, and gradually extended their geographic reach as uncertainty diminished (Eduardsen, 2018). That model was designed for a world where physical presence, local partnerships, and reputational credibility had to be earned over years of market engagement. It is assumed, reasonably, that the friction of crossing borders is a structural given and that the liabilities of smallness and foreignness are permanent constraints on small firms' international ambitions (Al Omoush et al., 2025). The digital economy has not merely reduced that friction—in certain contexts, it has

eliminated it.

MSMEs can now reach consumers in Jakarta, Chengdu, and Ho Chi Minh City without a local office, distribution network, or established brand presence. Cross-border e-commerce (CBEC) platforms provide the logistical and transactional architecture. Influencer marketers provide the cultural translation that converts platform visibility into consumer trust. User-generated content (UGC) provides the social proof that compensates for consumers' inability to inspect foreign products directly. Moreover, personal shoppers—informal, trust-based human intermediaries exemplified by Indonesia's Jastip operators and China's Daigou networks—fill the gaps left by formal digital systems with a form of relational credibility that no algorithm can replicate. Taken together, these four mechanisms constitute what this review terms a synergistic digital ecosystem: not a set of discrete tools, but an adaptive, co-evolving network in which the value produced by each driver is contingent on, and amplified by, the others (Chotisarn & Phuthong, 2025; Metris et al., 2024). This review is organized around three explicit and interrelated objectives, each of which addresses a gap in the existing literature, as shown in Table 1.

Table 1. Research Objectives

| Objective | Description |
|-----------|--|
| 01 | To map the individual and combined contributions of four digital drivers—CBEC, influencer marketing, UGC, and personal shopper networks—to MSME internationalization outcomes across the Asian region, drawing on evidence from China, Indonesia, Thailand, Vietnam, Malaysia, and India. |
| 02 | To operationalize the concept of a synergistic digital ecosystem by specifying the concrete inter-driver feedback mechanisms through which compounding effects on market reach, consumer trust, and operational efficiency are generated—moving the concept from metaphor to testable framework. |
| 03 | To identify systemic vulnerabilities (platform dependency, algorithmic opacity, influencer scandals, structural access inequalities) and methodological gaps that constrain the sustainability and generalizability of digital internationalization strategies, and to propose a prioritized research agenda responsive to these gaps. |

The selection of CBEC, influencer marketing, UGC, and personal shoppers as the four primary drivers of this review is not arbitrary—it reflects a deliberate theoretical and empirical logic. Collectively, these four mechanisms span the complete value-creation chain of digital international commerce for resource-constrained firms. CBEC provides the foundational infrastructure: the technological, financial, and regulatory substrate without which cross-border transactions at scale are impossible for MSMEs (Nahar & Alam, 2026). Influencer marketing amplifies trust: the mechanism by which a foreign MSME without an established brand reputation

can leverage the credibility of a locally trusted individual to bridge the psychic distance between seller and buyer (Halim & Karami, 2020). UGC provides social validation: the distributed, consumer-generated evidence base that substitutes for direct product inspection in high-uncertainty cross-border transactions (Harsono et al., 2024). Personal shoppers provide relational mediation: the human-layer service that compensates for the limitations of formal digital systems in culturally complex or trust-deficient market environments (Kurniasih, 2019).

Critically, these four drivers are not merely co-present in the Asian MSME digital environment—they are structurally interdependent. Research designs that treat any one of them in isolation systematically underestimate their collective impact, because the output of each driver serves as an input that amplifies the others' efficacy. This interdependence is the core claim of the Synergistic Ecosystem Theory of Internationalization developed in Section's conceptual framework: the synergistic digital ecosystem, and it is precisely this claim that prior single-driver studies have been unable to make. The review, therefore, fills a recognized gap in the literature by providing the first systematic, multi-driver, ecosystem-level synthesis of digital MSME internationalization in the Asian context.

METHODOLOGY: SYSTEMATIC LITERATURE REVIEW PROTOCOL

This review adheres to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The temporal boundary of 2018–2026 was chosen deliberately: it captures three analytically distinct phases—(i) the pre-pandemic acceleration of digital trade in Asia, (ii) the supply-chain dislocations and accelerated digitalization of the COVID-19 period (2020–2022), and (iii) the nascent emergence of Industry 5.0 frameworks and post-pandemic digital resilience strategies (2023–2026), as shown in Figure 1. Sources span business, information systems, marketing, supply chain management, and policy studies, and employ a range of methodologies including meta-analysis, empirical surveys, structural equation modeling, case studies, and qualitative synthesis.

Boolean search strings were deployed across all five databases, designed to capture the intersection of at least one digital driver with the Asian MSME context. Key search configurations targeted: (a) core digital drivers combining MSME/SME, internationalization, and e-commerce terms with Asian geographic identifiers; (b) social and human drivers focusing on influencer marketing, Key Opinion Leaders (KOLs), and virtual influencers in MSME trust contexts; (c) UGC and social commerce terms intersecting with MSME internationalization; and (d) informal model terminology including personal shoppers, Daigou, and Jastip in combination with international expansion. The emphasis on at least two co-occurring drivers in each included study reflects the

ecosystem framing of this review—single-driver studies were excluded unless they offered substantial comparative or theoretical insights unavailable elsewhere in the corpus. Geographic coverage was prioritized for China, Indonesia, Thailand, Vietnam, Malaysia, India, and the broader ASEAN region.

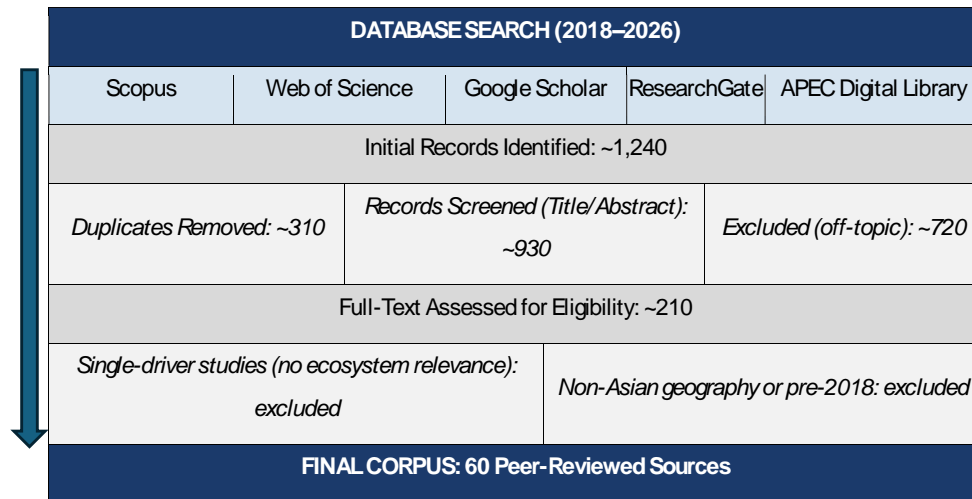


Figure 1. PRISMA-Compliant Screening and Inclusion Workflow

CONCEPTUAL FRAMEWORK: THE SYNERGISTIC DIGITAL ECOSYSTEM

From Metaphor to Operational Framework

The central organizing concept of this review—the Synergistic Digital Ecosystem of Internationalization—has appeared in prior literature primarily as an evocative metaphor: the idea that digital tools work better together than separately. This review advances the concept operationally by specifying the concrete inter-driver feedback mechanisms through which compounding effects are generated (Molina-Sánchez et al., 2022; Samputra & Alfarizi, 2025). The ecosystem is not an abstraction; it is a four-stage value-creation pipeline in which each stage generates outputs that serve as inputs to the next, and in which feedback flows backward through the pipeline to optimize prior stages continuously.

In operational terms, the ecosystem functions as follows. The CBEC platform (Stage 1) provides the foundational transactional architecture—logistics integration, secure multi-currency payment, customs automation, and quality certification signals—that makes cross-border sales structurally feasible for an MSME without dedicated export infrastructure (Febriani et al., 2025). The influencer layer (Stage 2) converts this platform visibility into consumer trust: through parasocial relationship mechanisms, influencer endorsement bridges the psychic distance between a foreign MSME and a skeptical local consumer, translating brand claims into

culturally familiar, emotionally resonant narratives (Metris et al., 2024). UGC (Stage 3) converts trust into purchase validation: reviews, unboxing videos, and peer commentary aggregate distributed consumer evidence that compensates for the buyer's inability to inspect foreign goods directly (Harsono et al., 2024). Personal shoppers (Stage 4) convert this validated interest into customized, high-fidelity service delivery, adding a human relational layer that formal digital systems cannot replicate and generating fine-grained market intelligence that feeds back into every prior stage (Loso Judijanto et al., 2024).

| STAGE 1: INFRASTRUCTURE | STAGE 2: TRUST AMPLIFICATION | STAGE 3: SOCIAL VALIDATION | STAGE 4: RELATIONAL DELIVERY |
|--|--|--|---|
| Cross-Border E-Commerce Platform (CBEC) | Influencer Marketing & KOLs | User-Generated Content (UGC) | Personal Shoppers (Jastip/Daigou) |
| <i>Transactional architecture, logistics, payment, certification</i> | <i>Psychic distance reduction, parasocial trust transfer</i> | <i>Purchase validation, quality signaling, community proof</i> | <i>Customized fulfillment, embedded market intelligence</i> |
| ↑ Feedback: storefront optimization, product iteration, re-listing | | | |

Figure 2. Operational Architecture of the Synergistic Digital Ecosystem

The feedback architecture is equally important. Personal shopper intelligence about product reception, packaging preferences, and sizing inconsistencies feeds directly into MSME storefront optimization on the CBEC platform (Stage 1). UGC sentiment analysis informs influencer content strategy (Stage 2). Influencer campaign performance data shapes which UGC the MSME repurposes as credibility signals (Stage 3). This continuous optimization loop is what distinguishes the ecosystem from a simple collection of digital tools, and it is precisely what makes treating these drivers as independent variables in regression analyses a methodological error rather than merely a simplification (Widyastuti et al., 2023).

Theoretical Foundations

The Synergistic Ecosystem Theory of Internationalization draws on five complementary theoretical traditions. The Resource-Based View (RBV) explains why 'digital capability'—the capacity to integrate and reconfigure technological tools in response to market shifts—emerges as a primary source of sustainable competitive advantage for MSMEs: it is valuable, rare (many MSMEs lack it), difficult to imitate (it requires organizational learning, not just tool adoption), and non-substitutable in digital trade contexts (Pamungkas et al., 2023; Tereshchenko et al., 2024). Network Theory explains why the relational architecture in which a firm is embedded matters as

much as its own resources: for Asian MSMEs, this manifests as Guanxi-based trust networks in China and community-embedded Jastip relationships in Southeast Asia, with 'Swift Guanxi' compressed into live-streaming interactions demonstrating how relational capital can be generated digitally at speed (John et al., 2024; Kurniasih, 2019).

Transaction Cost Theory provides the economic rationale: CBEC platforms reduce search, negotiation, and monitoring costs below the threshold at which cross-border trade becomes economically rational for small firms, not by increasing firm size but by transforming the institutional environment (Mudjahidin et al., 2024). Signaling Theory explains the function of UGC and influencer endorsements in high-information-asymmetry cross-border environments: these signals are credible precisely because they are costly (in time, social capital, and reputational risk) to fake, and because they aggregate distributed consumer intelligence unavailable to the seller (Dong et al., 2025). Finally, Diffusion of Innovation (DOI) theory frames digital adoption as a socially embedded process shaped by peer networks, platform design, and institutional context—explaining both the rapid spread of CBEC adoption in well-connected urban areas and the persistent adoption gaps in rural and semi-urban regions (Fauzi & Sheng, 2022).

THEMATIC FINDINGS: THE FOUR DRIVERS IN DEPTH

Cross-Border E-Commerce: Infrastructure as Strategic Capability

Cross-border e-commerce platforms function simultaneously as distribution channels, data integration hubs, trust certification systems, and policy environments (Febriani et al., 2025; Sudiantini et al., 2024). MSMEs that engage with CBEC platforms do not merely gain access to foreign consumers; they acquire an institutional affiliation that signals legitimacy, absorb logistical capacity they could not build independently, and generate behavioral data that enable progressive market learning. E-commerce adoption directly boosts digital capabilities, expands market reach, improves supply chain performance, and increases foreign sales—its role as a mediator between quality improvements and economic growth underscores its position as a critical enabler rather than merely a sales channel.

The integration of blockchain and IoT technologies into logistics chains addresses a critical pain point in cross-border trade by creating immutable, real-time shipment records that reduce fraud and administrative bottlenecks (Hamsinah et al., 2024; Kulkarni et al., 2024). Digital payment infrastructure, including Fintech-enabled multi-currency settlement, removes the financial friction that historically disadvantaged smaller firms (Tereshchenko et al., 2024). China's Cross-Border E-Commerce Comprehensive Pilot Zones—regional hubs designed to cluster CBEC activity and generate technology diffusion spillovers—represent a policy-level

acceleration mechanism. However, the gains are not evenly distributed: MSMEs in urban, well-connected areas leverage CBEC infrastructure for rapid international reach, while counterparts in rural Indonesia, Vietnam, and India remain constrained by unreliable connectivity, limited digital literacy, and insufficient Fintech penetration (Maulana, 2024; Singgih, 2024).

Influencer Marketing: Trust by Proxy

Influencers perform a fundamentally different function than conventional advertising channels: they provide trust by proxy, allowing consumers to attribute credibility to a foreign MSME based on their pre-existing relationship with a familiar, trusted individual (Metris et al., 2024; Sudadi Pranata et al., 2024). Micro-influencers enhance brand visibility, consumer trust, and international market penetration with a degree of audience engagement that celebrity endorsers rarely achieve for niche MSME products; Instagram, Facebook, and TikTok function as the primary channels for this trust-by-proxy mechanism (Dwi Wahyuni et al., 2025; Hasim & Sherlina, 2022).

The live-streaming format intensifies this dynamic by compressing the trust-building timeline and creating a sense of real-time accountability that pre-recorded content cannot replicate (Chatra et al., 2023). The psychological concept of 'flow'—deep absorption in an engaging experience—explains why live-stream commerce drives impulse purchases at rates that conventional e-commerce cannot match (Triha et al., 2023). Two complications qualify the optimistic account: the emergence of Virtual Human Influencers (VHIs)—AI-generated avatars with crafted personas—introduces unresolved questions about disclosure and the long-term sustainability of parasocial trust (Nsude et al., 2025); and the vulnerability of MSMEs to influencer scandals is asymmetric, with a single misconduct episode capable of inflicting reputational damage disproportionate to the MSME's size.

User-Generated Content: The Infrastructure of Social Proof

UGC has become the default evidentiary standard by which cross-border consumers evaluate foreign MSMEs, and this shift has occurred faster than most academic frameworks have accommodated. UGC derives its credibility precisely from its distance from the seller: a review written by an anonymous consumer carries more persuasive weight than any product description the MSME itself could produce, because it cannot plausibly be fabricated without enormous coordinated effort (Harsono et al., 2024). The mechanism operates through two pathways. The cognitive pathway involves rational evaluation: detailed reviews, technical assessments, and before-and-after documentation allow consumers to form quality judgments about products they cannot inspect directly (Veiga et al., 2024). The affective pathway is less deliberate: short-form

video content, unboxing imagery, and peer commentary create a sense of shared experience and community membership, reducing the psychological distance between the buyer and the foreign seller (Fauzi & Sheng, 2022). Big data analytics and deep learning enable MSMEs to process this UGC stream and feed insights into supply chain management, marketing, and inventory decisions—though adoption is impeded by resource constraints and digital literacy gaps (Herwinsyah, 2025).

Personal Shoppers: The Irreplaceable Human Layer

Of the four drivers, personal shoppers—exemplified by Indonesia's Jastip operators and China's Daigou networks—are the least visible in mainstream internationalization scholarship and arguably the most analytically interesting. Personal shoppers facilitate MSMEs' entry into new markets by providing convenience, trust, and tailored experiences that formal systems cannot match (Loso Judijanto et al., 2024; Winarsih & Sakir, 2023). They occupy a genuinely difficult-to-categorize position: neither formal retail intermediaries nor informal market actors in the traditional sense, but embedded human bridges that carry relational credibility no platform algorithm can replicate.

What personal shoppers provide is not primarily logistics, though they do manage logistics. They provide personalized trust in a high-uncertainty environment: in markets where consumers have limited confidence in the quality certification of foreign goods or the reliability of returns processes, a known individual who physically handles the goods, vouches for their authenticity, and accepts social accountability for the transaction, performs an irreplaceable function (Aziz et al., 2022). They also serve as embedded sensors, generating fine-grained intelligence on consumer preferences, product reception, and market-specific nuances that formal analytics often misses. AI-driven personal shopper alternatives in China demonstrate the contrasting trajectory of technology-mediated personalization, but the human relational layer persists as a distinctive competitive advantage in less algorithmically saturated markets (Khurana et al., 2021; Zhang & Cheung, 2025).

SYNERGY MECHANISMS: THE ECOSYSTEM IN OPERATION

The four drivers do not merely coexist in the digital environment of Asian MSMEs—they form a mutually reinforcing system in which each mechanism generates outputs that become inputs for the others. Table 2 presents the four primary inter-driver synergy mechanisms, the operational processes through which they function, and the empirical evidence supporting each (Anatan & Nur, 2023; Hernández et al., 2024).

Table 2. Inter-Driver Synergy Mechanisms in Asian MSME Digital Ecosystems

| Driver Pairing | Operational Mechanism | Compounding Effect | Key Evidence |
|----------------------------------|---|--|---|
| CBEC + Influencers | Influencer live-streaming drives traffic directly to MSME storefronts; 'flow' psychology compresses the purchase decision cycle. | Platform visibility converts to sales at rates 3–5× conventional banner advertising; trust transfer raises conversion rates. | (Chen & Yang, 2023; Hung et al., 2022) |
| Influencers + UGC | Influencer posts trigger cascading waves of consumer reviews and unboxing content; MSMEs repurpose UGC as credibility signals on product pages. | Multi-subject signals collectively amplify purchase intention beyond what single-source endorsement achieves. | (Naeem & Ozuem, 2022; Romero-Rodriguez & Castillo-Abdul, 2023) |
| Personal Shoppers + Social Media | Jastip/Daigou operators use WhatsApp and WeChat to build exclusive communities; UGC from these channels functions as trusted peer endorsement. | High-loyalty commercial loops with low churn; community trust resists platform algorithm disruption. | (Auliandri et al., 2025; Sari et al., 2026) |
| CBEC + Personal Shoppers | Real-time feedback from personal shopper transactions allows iterative refinement of CBEC storefronts; habitus gaps are corrected continuously. | Market learning loop unavailable to platform-only strategies; reduces product mismatch and return rates. | (Azila Awang Abu Bakar & Shalina Ismail, 2022; Chanamalla et al., 2026) |

The ecosystem framing also implies a negative corollary: disruption of any single node can cascade through the others. A platform algorithm change that reduces MSME visibility disrupts influencer collaborations built around that platform. An influencer scandal erodes the credibility of the UGC that their prior content helped to generate. A regulatory intervention targeting Jastip operators removes the human trust layer that compensated for formal system deficiencies. Understanding the ecosystem in its positive, generative dimension, therefore, requires a parallel understanding of its vulnerability architecture—developed in Section systemic risks and the dark side of digital ecosystems.

REGIONAL DIVERGENCE: TWO MODELS, NOT ONE SPECTRUM

A recurring tendency in the literature on Asian digital trade is to treat China and Southeast

Asia as occupying different positions along a single developmental axis, with China ahead and Southeast Asia lagging. This framing is empirically misleading and analytically counterproductive. China and Southeast Asia are not operating on the same trajectory at different speeds; they are pursuing structurally distinct models of digital internationalization that reflect genuinely different configurations of technological infrastructure, cultural capital, and institutional context, as shown in Table 3.

Table 3. Comparative Digital Commerce Models: China vs. Southeast Asia in MSME Ecosystems

| Feature | China — High-Tech / Algorithmic Scale | Southeast Asia — High-Touch / Community-Centric |
|------------------------------|---|--|
| Dominant Platform | Super-app ecosystems: WeChat, Douyin, Xiaohongshu (fully co-located social + commerce) | Fragmented multi-platform: Facebook, TikTok Shop, Instagram, WhatsApp |
| Primary Trust Driver | Algorithmic precision; 'Swift Guanxi' compressed into live-streaming interactions | Influencer authenticity; direct human engagement; community-embedded relational trust |
| Innovation Model | AI-driven personalization; Virtual Human Influencers (VHIs); deep learning supply chain integration | Frugal innovation; community group-buying; Jastip/Daigou human networks; mobile-first strategies |
| Sales Architecture | Live-stream 'flow' induction; discovery-to-purchase within a single super-app without exit | Social support networks, entertaining content, personal shopper mediation, O2O integration |
| Type of Capital | Algorithmic capital: data sovereignty, AI capability, platform integration depth | Relational capital: community embeddedness, trust networks, cultural authenticity |
| Policy Focus | CBEC Comprehensive Pilot Zones; data sovereignty regulation; AI governance frameworks | Digital literacy programs (Indonesia's UMKM Go Online), O2O support, and Fintech inclusion |
| Scalability vs. Authenticity | High scalability; authenticity risk increases as AI mediation deepens | Authenticity is the competitive advantage; scaling risks destroying the relational property that creates value |

The Southeast Asian model highlights a tension between scalability and authenticity that deserves sustained theoretical attention. The high-touch model works in part because it is not scaled: the trust that a micro-influencer with 50,000 engaged followers generates is qualitatively different from that produced by a celebrity with 5 million, precisely because the former's audience believes in the relationship's authenticity (Hu et al., 2025). Scaling the high-touch model risks destroying the very property that makes it valuable—creating a genuine strategic dilemma for MSMEs that wish to grow. China's model, conversely, has industrialized trust through algorithmic precision. However, data regulation policies create compliance burdens, and the

emergence of VHIs introduces unresolved ethical questions about the long-term sustainability of AI-mediated parasocial relationships (Li et al., 2023; Sun et al., 2023).

SYSTEMIC RISKS AND THE DARK SIDE OF DIGITAL ECOSYSTEMS

An honest engagement with the literature requires acknowledging that academic discourse on digital MSME internationalization has a recurrent structural bias toward optimism: success cases are more publishable, and transformative narratives attract more attention than accounts of dependency and vulnerability. Table 4 presents the four primary systemic risks identified in the corpus, alongside their operational manifestations and documented mitigation strategies.

Table 4. Systemic Risks, Manifestations, and Mitigation Strategies in Asian MSME Digital Ecosystems

| Risk Category | Operational Manifestation | Who is Most Affected | Evidence-Based Mitigation |
|--------------------------------|---|---|--|
| Platform Dependency | Fee restructuring, algorithm changes, and content governance shifts leave MSMEs with limited recourse; customer relationships migrated to substrates the firm does not own. | All MSMEs, women-owned MSMEs face greater financing and competition barriers in platform ecosystems. | Profit/revenue-sharing contracts; multi-platform diversification; government training and infrastructure support (Evanita & Fahmi, 2023; Setiawan et al., 2025). |
| Algorithmic Opacity | Opaque algorithmic management increases job demands, reduces perceived control, heightens anxiety, and discourages investment in digital capability upgrades. | Small MSME owners with limited technical background, rural operators with no access to platform support services. | Transparency tools (explainability dashboards); self-efficacy training; human-centered co-creation initiatives (Gupta & Kumar Singh, 2023; Purnomo & Purwandari, 2025). |
| Influencer Scandals | Value-based scandals (racism, extremism) are rapidly amplified on social media; negative spillover damages MSME brand trust asymmetrically relative to firm size. | MSMEs using micro-influencers—who lack the professional PR infrastructure to manage crisis communications—are particularly exposed. | Influencer-brand alignment frameworks; CSR integration; timely corrective response protocols; organic trust-building as a buffer (Chatra et al., 2023; Kulkarni et al., 2024). |
| Structural Access Inequalities | Digital literacy deficits, Fintech exclusion, and physical infrastructure limitations cluster along geographic, economic, and gender lines; 'dark social' attribution gaps systematically | Rural MSMEs; women entrepreneurs; operators in infrastructure-deficient regions; informal personal shopper networks. | Targeted government literacy programs (Indonesia's UMKM Go Online); mobile-first frugal innovation strategies; gender-sensitive digital inclusion interventions (Apriyanti |

| Risk Category | Operational Manifestation | Who is Most Affected | Evidence-Based Mitigation |
|---------------|--|----------------------|------------------------------------|
| | underestimate the impact of informal channels. | | et al., 2023; Purba et al., 2021). |

Frugal innovation and informal network leverage constitute the primary resilience strategies through which MSMEs respond to these systemic risks. Frugal innovation—adopting inexpensive, mobile-first digital platforms, including social media tools and cloud services—enables MSMEs to overcome resource constraints and compete in volatile environments (Saifurrahman & Kassim, 2024). Informal networks—family, friends, and community groups—provide critical access to financial capital, mentorship, and market information, particularly where formal institutions are weak (Nurjannah et al., 2023). The resilience that emerges from these strategies is not merely reactive; entrepreneurial orientation that combines proactivity and risk-taking with digital capability transforms digital challenges into adaptive strategies that improve sustainability and performance over time (Dwi Wahyuni et al., 2025).

METHODOLOGICAL GAPS AND FUTURE RESEARCH AGENDA

The dominant methodological paradigm in MSME digital internationalization research is the cross-sectional survey analyzed through Structural Equation Modeling. This approach has produced useful insights about adoption determinants and outcome correlates. However, its structural limitations are increasingly apparent: it cannot distinguish between firms experiencing sustainable international growth and those in a temporary digitalization surge, and it systematically underestimates the collective impact of co-occurring drivers by testing them as independent variables, as shown in Table 5. Three specific methodological gaps warrant prioritization (Dwi Wahyuni et al., 2025; Febriani et al., 2025):

Table 5. Research Gap and Recommendations

| No | Gap | Recommended Research Direction |
|----|---|--|
| 1 | Near-complete absence of longitudinal studies tracking long-term financial outcomes of MSMEs pursuing digital internationalization—current policy recommendations rest on adoption patterns, not impact evidence. | Multi-wave panel studies (minimum 5 years) tracking revenue, export intensity, and resilience metrics for digitally active MSMEs; natural experiment designs exploiting platform policy changes. |
| 2 | The 'dark social' attribution problem: a significant proportion of UGC-driven purchase decisions in Southeast Asia occurs through private messaging channels (WhatsApp, WeChat Moments, Instagram | Novel passive data collection methodologies (with ethical frameworks); social network analysis of messaging platform communities; triangulated digital ethnography approaches. |

| No | Gap | Recommended Research Direction |
|----|--|---|
| 3 | DMs), invisible to platform analytics. AI adoption studies for MSMEs remain preliminary; cost-benefit dynamics of deep learning and advanced AI tools for resource-constrained firms are insufficiently understood. | Comparative RCT-style evaluations of AI tools vs. human-mediated strategies; Industry 5.0 frameworks examining optimal human-AI collaboration points for different MSME contexts. |

The Industry 5.0 transition—reconceptualizing digital transformation as human-centric rather than automation-centric—provides a productive organizing framework for the research agenda. The central question it poses for MSME internationalization is not 'how much can AI automate?' but 'where is human judgment, creativity, and relational capacity irreplaceable, and how should technology be configured to support rather than supplant it?' The high-touch model of Southeast Asian MSME commerce, in this reading, is not a developmental lag behind China but a living demonstration of what Industry 5.0 advocates. AI ethics and disclosure standards for VHIs, accountability frameworks for algorithmic harm, and transparency requirements for platform governance are not merely regulatory concerns—they are foundational conditions for the long-term sustainability of consumer trust in digital ecosystems (Mariani et al., 2022).

Policymakers should invest in digital infrastructure, training, and regulatory coherence to support MSME internationalization; MSME leaders should adopt hybrid digital strategies leveraging both human and AI-driven services; and digital platform providers must enhance trust-building mechanisms, data analytics tools, and collaborative models with financial institutions (Benardi et al., 2023; Widjaja et al., 2021). Inclusive digital economy frameworks must specifically address gendered barriers, rural-urban divides, and the informal sector's pivotal but systematically undercounted role in digital trade.

CONCLUSION

For MSMEs operating in or entering Asian markets, digital internationalization has evolved from a strategic choice to a fundamental aspect of competitive dynamics. The focus now lies not in whether to engage with the interconnected ecosystem of consumer-based e-commerce (CBEC), influencers, user-generated content (UGC), and personal shoppers, but in how to leverage this system to create a sustainable competitive advantage while navigating its complexities and challenges. The findings indicate that the four digital drivers—comprising infrastructure, trust amplification, social validation, and relational delivery—collectively enhance value creation significantly more than any individual driver. Furthermore, the synergistic ecosystem can be operationally defined as a four-stage pipeline that illustrates the interconnected mechanisms of

CBEC optimization, influencer trust transfer, UGC social proof, and personal shopper market intelligence. Notably, the structural divergence between China and Southeast Asia highlights distinct models that utilize different types of capital, each with unique strengths and vulnerabilities. Additionally, the darker aspects of platform dependency and algorithmic opacity are intrinsic to this ecosystem, influencing who benefits and who does not. Ultimately, it is crucial to view the synergistic ecosystem—as well as its complexities—as a unified whole, as its emergent properties and implications can only be understood at the network level, challenging the analytical approaches typically employed in this field.

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