

Antecedents of Enterprise Success in Live Streaming E-Commerce: A Systematic Literature Review and Conceptual Synthesis

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ABSTRACT

This academic article aims to review existing literature and propose key antecedent factors affecting enterprise success in the live streaming e-commerce industry. It is framed as a literature-based, theory-informed article for synthesis. Using a systematic literature review approach, peer-reviewed journal articles were identified through keyword searches combining “live streaming e-commerce,” “enterprise success,” “logistics operations,” “entrepreneurial characteristics,” and “customer relationship management.” Studies were included when they directly examined enterprise-level antecedents or multidimensional performance outcomes in live streaming e-commerce, while duplicates and studies without a clear connection to enterprise performance were excluded. In total, 26 peer-reviewed articles are examined, and the synthesized evidence highlights three critical antecedents—logistics operations, entrepreneurial characteristics, and customer relationship management (CRM)—as the most frequently cited and empirically supported drivers of enterprise success. These antecedents are organized into a conceptual framework grounded in the Balanced Scorecard (BSC), encompassing four key dimensions of performance: financial performance, customer satisfaction, internal process efficiency, and organizational learning. By aligning the three antecedents with BSC dimensions, the article provides a coherent basis for interpreting successful drivers and their associated performance outcomes. The proposed framework further clarifies how operational, strategic, and relational capabilities work in combination to shape enterprise success in the live streaming e-commerce context. The article contributes to the literature by offering a structured and theory-based model that consolidates fragmented findings across disciplines and presents a holistic view of success factors. Practical recommendations are provided for business managers to strengthen digital competitiveness through improved logistics, innovation-driven entrepreneurship, and advanced CRM systems. In addition, policy implications are outlined to support digital infrastructure, regulatory development, and inclusive access for small and medium-sized enterprises (SMEs). Finally, future research directions are proposed to empirically validate and expand the conceptual model in varied geographic and industry contexts.

Keywords: The Success of Live Streaming E-commerce, Customer Relationship Management, Entrepreneurial Characteristics, Logistics Operations.

Introduction

The convergence of live streaming technology and E-commerce platforms has precipitated a paradigm shift in the global retail landscape, creating a rapidly expanding digital retail model known as live streaming E-commerce (LS-Ecommerce). This emerging format fundamentally transforms the traditional online shopping experience—which was historically static and asynchronous—by integrating real-time, interactive product presentations with direct consumer engagement. Unlike conventional E-commerce, where consumers passively browse catalogs, LS-Ecommerce leverages synchronicity to enable higher conversion rates and foster more immersive buyer-seller relationships (Wang & Nimmolrat, 2025). This shift is not merely technological but represents an evolution in consumer psychology, where the immediacy of interaction and the entertainment value of the shopping process become central drivers of purchase decisions.

Historically, this digital evolution builds upon the foundational frameworks established for global E-commerce. The trajectory was catalyzed by critical policy milestones, such as UNCITRAL's Model Law on E-commerce (1996), which provided the legal certainty necessary for digital transactions to flourish globally. When combined with the sophisticated digital infrastructure developed in major economies, these foundations laid the groundwork for the current era. Today, live streaming E-commerce represents the next stage of digital commerce innovation, increasingly powered by the ubiquity of social media, the accessibility of mobile platforms, and the rise of influencer-driven sales models (Xu, 2024; Yin, 2023). Consequently, the marketplace has transitioned from a focus on mere transaction facilitation to one of relational engagement and content-driven commerce.

Despite the exponential growth and increasing commercial dominance of Live Streaming E-commerce (LS-Ecommerce), scholarly literature regarding the determinants of sustainable enterprise success within this dynamic environment remains disparate. Although the phenomenon has garnered significant academic attention, existing inquiries have predominantly adopted a siloed approach. Research has frequently isolated specific components, such as platform trust mechanisms, distinct consumer behavioral patterns, or the persuasive influence of Key Opinion Leaders (KOLs) (Chen et al., 2023; Zhu & Liu, 2023). While these studies yield valuable insights into individual success factors, they stop short of providing a holistic synthesis of the operational, strategic, and relational drivers requisite for enterprise survival and prosperity. For instance, an exclusive focus on the "marketing" influence of KOLs neglects the operational backbone necessary to fulfill the demand generated during live streams. Consequently, a critical research gap persists: there is insufficient conceptual integration of the key antecedents specifically logistics operations, entrepreneurial characteristics, and Customer Relationship Management (CRM) that collectively determine firm performance in LS-Ecommerce settings.

Compounding this fragmentation is the limited attention paid to aligning these antecedents within established, multidimensional performance measurement frameworks. Contemporary discourse often prioritizes the ephemeral sales spikes characteristic of live streaming, thereby obscuring the broader perspective of organizational health. This study addresses this oversight by employing the Balanced Scorecard (BSC), which extends the evaluation of organizational success beyond financial metrics to encompass customer, internal process, and innovation dimensions (Kaplan & Norton, 1996). In the context of the digital economy, adapting the BSC enables a more rigorous assessment of how modern digital strategies translate into sustainable value (Nudurupati et al., 2024).

To resolve these theoretical and empirical disparities, this research systematically reviews and synthesizes the literature to propose a conceptual framework that integrates these factors into a cohesive model. The study strategically focuses on three key antecedents that have emerged with high frequency and empirical support, representing the operational, strategic, and relational pillars of the enterprise. First, logistics operations are examined not merely as delivery mechanisms, but as critical drivers of supply chain efficiency and responsiveness essential for meeting the "instant gratification" expectations of viewers. Second, entrepreneurial characteristics are analyzed to emphasize the necessity of innovation, risk management, and adaptive leadership in a volatile digital market. Third, CRM is explored to elucidate the mechanisms of engagement, personalization, and retention that convert viewers into repeat buyers. Within this framework, enterprise success is comprehensively conceptualized to include operational efficiency, financial performance, customer satisfaction, and sustainable growth, situating these factors specifically within the unique context of LS-Ecommerce.

Systematic Review Procedure The review followed a structured identification, screening, eligibility, and synthesis process. Searches combined terms related to live streaming e-commerce, enterprise success, logistics, entrepreneurial orientation, and customer relationship management. Eligible records were peer-reviewed English-language studies with a direct conceptual or empirical link to enterprise-level success or to the four Balanced Scorecard dimensions. Duplicate records, purely technical studies, and consumer-only studies without enterprise-performance implications were excluded. The final set of 26 articles was coded by antecedent, theoretical lens, performance dimension, and reported relationship; recurring findings were then compared and synthesized into the proposed conceptual framework.

The Context of Live Streaming E-commerce

To understand the critical necessity of identifying the antecedents of enterprise success, one must first appreciate the unprecedented scale and rapid evolution of the Live Streaming E-commerce (LS-Ecommerce) industry. Once considered a niche marketing tactic, LS-Ecommerce has metamorphosed into a dominant retail paradigm, particularly within the Chinese digital economy, which serves as the global bellwether for this sector. According to the High-Quality Development Report of the Live Streaming E-commerce Industry released by the National Institute of Metrology of China (2024), the market size of China's LS-Ecommerce industry surged to 4.9 trillion yuan in 2023, representing a remarkable year-on-year increase of 35.2%. This explosive growth signals that live streaming has transcended its role as a mere promotional channel to become a fundamental infrastructure of modern commerce.

The Shift in Consumption and Operation Models The granularity of this growth reveals a profound shift in consumer behavior and merchant strategy. By December 2023, the user base for live streaming services in China had reached 816 million, accounting for 74.7% of the total internet population. More specifically, the subset of users actively engaging in LS-Ecommerce transactions expanded to 597 million—comprising 54.7% of all internet users (China Internet Network Information Center, 2024). This ubiquity suggests that for the majority of digital consumers, "watching" and "buying" have become simultaneous, integrated activities. On the supply side, the industry is witnessing a structural migration from influencer-led broadcasts to brand-owned channels. Notably, the market share of "store broadcasts" (brands streaming from their own accounts) accounted for more than half of the total market size in 2023 (China National Institute of Metrology, 2024). This indicates a growing tendency among brand merchants to reclaim control over their

sales channels, moving away from reliance on third-party celebrities to building their own digital assets and proprietary broadcasting capabilities.

Technological Integration and Capital Flow The sector's expansion is further catalyzed by the deep integration of advanced digital technologies. In 2023, capital markets demonstrated a clear preference for the "infrastructure" of live streaming, with all 11 major financing events in the field directed towards service providers rather than individual brands. This trend underscores a maturity in the ecosystem; capital is now flowing towards the technologies that make live streaming scalable and efficient. Emerging innovations such as natural language processing (NLP), text-to-speech synthesis, and large language models (LLMs) are driving the adoption of "digital human hosts." These AI-driven avatars are increasingly integrated into live streaming rooms to supplement human broadcasters, allowing for 24/7 operation and standardized service delivery. These technological advancements are anticipated to usher in a stage of refined development, maximizing operational efficiency and bolstering governance capabilities to safeguard the interests of both merchants and consumers (China National Institute of Metrology, 2024).

Competitive Landscape and Market Concentration Currently, the market structure is defined by a high degree of concentration, often described as an oligopoly dominated by three major platforms: Douyin, Kuaishou, and Taobao. Data from Xinda Securities (2024) highlights that during the first three quarters of 2024, these platforms commanded market shares of 40.5% (Douyin), 32% (Kuaishou), and 27.5% (Taobao), with Gross Merchandise Volumes (GMV) reaching 745.23 billion yuan, 588.82 billion yuan, and 506.02 billion yuan, respectively. This domination by a few powerful platforms creates a unique environment for enterprises; success depends not only on internal capabilities but also on navigating the algorithmic and policy constraints imposed by these digital giants.

Transitioning from Rapid Expansion to High-Quality Development However, the narrative of the industry is shifting from "speed" to "quality." After years of unrestrained expansion, where new entrants flourished alongside rapid market growth, the industry is entering a critical transition phase. The sustained expansion has allowed mature enterprises to maintain high growth rates, but it has also exposed systemic challenges, including weak self-discipline, intense low-price competition, and concerns over product quality. As noted by The National Committee of the Chinese People's Political Consultative Conference (2024), the industry is now pivoting towards a stage of standardized development. Regulatory frameworks are being tightened to enhance legal awareness and platform responsibility, aiming to align the digital economy more closely with the real economy.

In this context, the projected compound annual growth rate (CAGR) of 18.0% for the period 2024–2026 signals a steady, rather than explosive, trajectory (China National Institute of Metrology, 2024). This deceleration implies that the "low-hanging fruit" of easy growth is gone. For enterprises to succeed in this new era of regulated, standardized, and technologically advanced commerce, they can no longer rely solely on market momentum. Instead, they must cultivate specific internal antecedents—such as robust logistics, entrepreneurial agility, and advanced CRM—to navigate the complexities of a maturing market. This pivotal moment in the industry's history provides the compelling backdrop for this study.

Concepts and Theories on the Success of Live Streaming E-commerce Businesses

Defining and measuring enterprise success within the nascent and volatile domain of Live Streaming E-commerce (LS-Ecommerce) requires a departure from traditional, purely financial paradigms. Historically, organizational success has been gauged through retrospective financial indicators such as Return on Assets (ROA) and Return on Equity (ROE). While these metrics provide a snapshot of past economic efficiency (Mio et al., 2021), they are inherently limited in their ability to capture the real-time, technology-driven dynamics that characterize the modern digital economy. In the context of LS-Ecommerce, where value is co-created through instantaneous social interaction and impulsive purchasing behaviors, reliance on historical financial data alone fails to account for the intangible assets such as viewer engagement and brand agility that predict future viability (Sun & Wang, 2020). Consequently, scholars have increasingly advocated multidimensional performance frameworks that bridge the gap between current operational execution and future strategic potential. Among the available theoretical lenses, the Balanced Scorecard (BSC) model, introduced by Kaplan and Norton (1996), emerges as the most robust framework for evaluating the multi-layered operations of LS-Ecommerce enterprises.

The Balanced Scorecard (BSC) framework transcends rudimentary financial reporting by evaluating organizational performance across four interrelated dimensions: financial, customer, internal process, and learning and growth. This multidimensional structure facilitates a critical strategic balance between short-term profitability objectives and the long-term drivers of sustainability (Kaplan & Norton, 1996; Nudurupati et al., 2024). In the hyper-competitive and dynamic LS-Ecommerce sector distinguished by its convergence of entertainment and retail the BSC offers a comprehensive approach to dissecting success factors that are frequently overlooked by single-metric analyses.

While the Financial Perspective remains the ultimate output of the strategy, in the context of LS-Ecommerce, it is viewed as a lagging indicator driven by digital efficiency. Financial performance in this sector is inextricably tied to the effectiveness of real-time sales conversions (flash sales) and the scalability of platform operations. Elucidating this connection, Chen et al. (2023) emphasize that direct, synchronous consumer interaction via live streaming significantly enhances sales velocity while simultaneously reducing customer acquisition costs. Thus, financial success is not merely a measure of revenue, but a reflection of the enterprise's ability to monetize social engagement efficiently.

However, these financial outcomes are contingent upon the Customer Perspective, which serves as the leading indicator of value. In the live-streaming environment, the traditional buyer-seller relationship is transformed into an interactive "fan-influencer" dynamic, where real-time engagement, interactivity, and perceived trust become the currency of success. Sun and Wang (2020) demonstrate that personalized live content, wherein streamers respond to viewer queries instantly, fosters deeper emotional bonds and stronger customer relationships. Consequently, success in this dimension is measured not just by market share, but by granular metrics such as viewer retention rates, conversion ratios during broadcasts, and overall satisfaction levels, which collectively predict customer lifetime value.

To sustain these customer relationships, the enterprise must excel in the Internal Process Perspective. Operational success in LS-Ecommerce uniquely requires absolute synchronization; logistics, platform stability, and customer service workflows must align perfectly with the live broadcast schedule. A failure in the "back-end" (e.g., a stockout during a live sale) immediately undermines the "front-end" promise. As emphasized by Nudurupati et al. (2024), effective coordination between the marketing team (streamers)

and the operations team (fulfillment) is the backbone of customer trust and fulfillment efficiency. Thus, internal process success is defined by the seamless integration of the virtual show and the physical supply chain.

Finally, the foundation of the entire model lies in the Learning and Growth Perspective. Given the rapid obsolescence of digital trends, continuous innovation and human capital development are essential for long-term adaptability. Liu and Zhang (2020) argue that firms investing in advanced digital tools, real-time analytics, and the soft-skills development of their streamers are significantly better equipped to navigate market shifts. This perspective suggests that an LS-Ecommerce enterprise's success is ultimately rooted in its organizational learning its capacity to analyze viewer data today to innovate the content of tomorrow.

Collectively, these four dimensions offer a holistic and theoretically grounded approach to understanding enterprise success. By aligning operational capabilities (Internal Process and Learning) with strategic outcomes (Financial and Customer), the BSC framework provides the necessary rigor to analyze the complex antecedents of performance in the LS-Ecommerce sector. Based on the literature review, scholars such as Nudurupati et al. (2024), Lin (2021), Liu and Zhang (2020), Sun and Wang (2020), and Kaplan and Norton (1996) have offered perspectives on the multidimensional nature of organizational performance in a similar direction. These perspectives are consistent in terms of rejecting financial metrics as the sole determinant of success, instead advocating for a systemic view where value is co-created through the alignment of digital engagement and operational capability. From the author's viewpoint, it is argued that within the specific context of LS-Ecommerce, this alignment is not merely strategic but existential; the enterprise's survival depends on the precise coupling of the entrepreneurial "frontstage" influence with the logistical "back-stage" execution.

Concepts and Theories Related to Logistics Operations

Logistics operations within the domain of Live Streaming (LS) E-commerce cannot be viewed merely as the physical movement of goods; rather, they represent a strategic capability that bridges the virtual engagement of live broadcasting with the physical reality of product consumption. Theoretically, this study grounds the conceptualization of logistics operations in three distinct yet complementary frameworks, beginning with Supply Chain Management (SCM) Theory. Originally posited by Mentzer et al. (2001), SCM Theory emphasizes that competition is no longer between individual firms but between supply chains, arguing for the systemic coordination of business functions to create value. In the specific context of LS-Ecommerce, this theory undergoes a critical extension where "value creation" is contingent upon digital responsiveness. As noted by Oteri et al. (2023), the LS supply chain must be integrated not just physically but informationally, where the ability to visualize the chain from inventory to last-mile delivery transforms logistics from a cost center into a strategic asset enabling scalability.

Complementing the macro-perspective, the Dynamic Capabilities Theory (Teece et al., 1997) offers the necessary lens to comprehend the volatile nature of the live streaming market. Teece defines dynamic capabilities as a firm's aptitude for integrating and reconfiguring competences to address rapidly shifting environments. This framework is particularly salient for LS-Ecommerce, a sector characterized by "flash sales" and sudden demand surges driven by influencer popularity. A static logistics model inevitably fails in such an environment; therefore, firms must demonstrate dynamic capabilities through the deployment of AI-

enhanced logistics systems and agile warehousing (Nudurupati et al., 2024). The capacity to rapidly scale fulfillment networks often by leveraging flexible third-party logistics providers exemplifies the reconfiguration aspect of Teece's theory, ensuring the enterprise can seize market opportunities without risking operational collapse.

To bridge the gap between these operational capabilities and customer perception, Service Quality Theory (Parasuraman et al., 1988) provides the third theoretical pillar. While this theory traditionally assesses service across five dimensions, its application in LS-Ecommerce focuses heavily on reliability, responsiveness, and assurance. In a virtual environment where customers cannot physically touch products, logistics becomes the primary physical touchpoint validating the transaction. Payne et al. (2021) and Nudurupati et al. (2024) suggest that logistics service quality acts as a mediator for customer loyalty; if the delivery experience matches the excitement generated by the streamer, perceived service quality increases, whereas logistics failures breach the trust established during the live broadcast.

Empirical research in the digital economy strongly corroborates these theoretical foundations, suggesting a direct causality between robust logistics operations and enterprise success. Nudurupati et al. (2024) and Li et al. (2022) find that leading LS-Ecommerce enterprises differentiate themselves through operational excellence, specifically by enabling real-time inventory visibility and localized distribution. Furthermore, Simanjuntak et al. (2023) highlight a critical psychological dimension: the mitigation of buyer regret. Live streaming purchases are frequently driven by impulse; however, the time gap between purchase and delivery creates a window for cognitive dissonance. Simanjuntak et al. (2023) argue that fast delivery and seamless return processes close this window, validating the purchase decision before negative emotions set in, thus sustaining the impulsive buying behavior inherent to the business model.

The value of logistics components, synthesizing the literature (Oteri et al., 2023; Zhu et al., 2022; Simanjuntak et al., 2023), six observable components emerge as central to logistics operations in LS-Ecommerce: Customer Service, Order Fulfillment, Demand Forecasting, Efficient Transportation, Procurement, and Logistics Communication. From the author's perspective, identifying these specific dimensions adds significant academic and business value by operationalizing the abstract theories discussed above.

Academically, decomposing logistics into these six components bridges the gap between the high-level strategy of Dynamic Capabilities and on-the-ground execution. For instance, Demand Forecasting and Procurement are not merely administrative tasks but are the mechanisms that enable the "sensing" and "seizing" capabilities described by Teece. By utilizing AI-enabled forecasting (Lin, 2021) and maintaining reliable supplier relationships (Liu & Zhang, 2020), firms transform theoretical agility into tangible inventory accuracy. Similarly, Logistics Communication and Customer Service (Payne et al., 2021) serve as the empirical manifestation of Service Quality Theory, validating the "assurance" dimension by keeping the customer informed.

From a business value perspective, the synchronization of Order Fulfillment and Efficient Transportation directly addresses the psychological vulnerability highlighted by Simanjuntak et al. (2023). Errors during peak live events or slow delivery routing do not just increase costs; they trigger buyer regret and reputational damage (Liu & Zhang, 2020; Sun & Wang, 2020). Therefore, the author argues that these six components should not be viewed as isolated functions but as an integrated value-creation system. Order Fulfillment and Transportation deliver the physical promise, while Customer Service and Communication maintain the emotional connection. Collectively, this granular view confirms that the ability to provide fast,

reliable, and adaptive logistics services is not a support function, but a core determinant of sustainable performance in LS-Ecommerce firms.

Concepts and Theories Related to Entrepreneurial Characteristics

The analysis of enterprise success in the Live Streaming E-commerce (LS-Ecommerce) sector necessitates a critical examination of entrepreneurial characteristics, not merely as individual personality traits, but as strategic organizational antecedents. Unlike traditional retail environments where market changes occur over fiscal quarters, the LS-Ecommerce landscape is defined by hyper-volatility, algorithm-driven visibility, and real-time consumer interaction. In this context, static resource accumulation is insufficient for survival. Instead, dynamic entrepreneurial traits—specifically innovation capability, risk-taking, strategic decision-making, adaptability, perceived ability, and technological orientation—function as the essential cognitive and operational engines that enable firms to respond effectively to uncertainty. As substantiated by Zahra et al. (2021), Rodrigues et al. (2020), and Liu & Zhang (2020), these characteristics allow entrepreneurs to leverage real-time engagement tools and rapidly scale digital operations, converting the inherent instability of the digital marketplace into a competitive advantage.

Theoretically, these characteristics are anchored in the Entrepreneurial Orientation (EO) Theory originally posited by Lumpkin and Dess (1996). This seminal framework shifts the focus from "who the entrepreneur is" to "how the firm acts," conceptualizing the firm's strategic posture through dimensions of innovativeness, proactiveness, and risk-taking. In the specific context of LS-Ecommerce, the application of EO Theory is particularly salient given the volatility of consumer behavior and the critical importance of platform responsiveness. Innovation, within this framework, is not limited to product development but extends to "experiential innovation"—the ability to continuously generate novel, interactive content formats that arrest viewer attention in a saturated attention economy. Lin (2021) argue that this form of technological and experiential innovation is essential for enhancing customer engagement and sustaining differentiation. In a digital marketplace crowded with competitors, the ability to innovate the viewing experience is as critical as the quality of the product itself, serving as a primary driver of viewer retention and conversion.

Complementing innovation is the dimension of risk-taking, which acts as a decisive differentiator in the LS-Ecommerce model. The digital landscape is characterized by rapid shifts in platform algorithms and fleeting consumer trends; therefore, waiting for perfect information before acting often results in obsolescence. Risk-taking, in this context, refers to the firm's willingness to commit resources to untested content formats, emerging influencer collaborations, or new broadcasting technologies before their return on investment is proven. Mahmoodi et al. (2023) and Errida and Lotfi (2021) suggest that this propensity to tolerate ambiguity enables firms to capture "first-mover" advantages. For example, investing in a new live-streaming platform or a controversial influencer involves significant risk, yet it is often the only pathway to exponential growth. This theoretical perspective reframes risk not as a danger to be minimized, but as a strategic resource to be optimized, distinguishing high-growth enterprises from stagnant ones.

However, unbridled risk-taking and innovation must be tempered by robust strategic decision-making and team leadership to ensure long-term sustainability. As Nudurupati et al. (2024) and Payne et al. (2021) observe, successful entrepreneurs in LS-Ecommerce must possess "strategic ambidexterity"—the ability to balance operational agility (reacting to live comments and orders) with long-term strategic planning (brand

building and supply chain stability). This is particularly crucial when navigating rapid shifts in platform algorithms or consumer preferences. An enterprise that excels at the "showmanship" of live streaming but fails in the strategic planning of inventory and logistics will ultimately fail to deliver on its promises. Thus, strategic decision-making serves as the stabilizing force that aligns the firm's rapid, innovative actions with its broader organizational goals.

Furthermore, the psychological dimension of Perceived Ability acts as a fundamental driver of these strategic actions. The high-pressure environment of live broadcasting, where mistakes are public and immediate, requires a high degree of entrepreneurial self-efficacy. Rodrigues et al. (2020) highlight that perceived ability and entrepreneurial intention significantly influence confidence and execution in these high-uncertainty environments. If the entrepreneur (or the entrepreneurial team) lacks the psychological belief in their ability to use technology effectively or manage a crisis during a live broadcast, their strategic execution will falter. Therefore, perceived ability acts as a psychological antecedent that activates the other characteristics; it is the fuel that powers the engine of innovation and risk-taking.

Psychological resilience is also essential because stockouts, system failures, hostile comments, and sudden algorithmic changes can emerge during a live broadcast. Resilient entrepreneurs regulate stress, recover quickly from disruption, and coordinate real-time service recovery without allowing a temporary incident to escalate into reputational damage. Within the proposed model, resilience complements perceived ability and strategic decision-making by enabling entrepreneurial capabilities to remain effective under acute operational pressure.

In summary, the success of LS-Ecommerce enterprises is closely linked to a constellation of entrepreneurial characteristics that drive continuous innovation, calculated risk-taking, and strategic adaptability within dynamic digital environments. Crucially, these traits extend beyond individual-level competencies and are systematically embedded within organizational structures through management practices, performance assessment systems, and internal control mechanisms. When an enterprise institutionalizes these traits—encouraging staff to innovate, supporting calculated risks, and fostering strategic leadership—it forms an integrated framework that supports long-term viability. These theoretical insights and empirical findings provide direct support for the hypothesis that entrepreneurial characteristics have a direct and significant impact on the success of live streaming E-commerce enterprises

Concepts and Theories Related to Customer Relationship Management

In the hyper-competitive landscape of Live Streaming E-commerce (LS-Ecommerce), Customer Relationship Management (CRM) has evolved from a supportive administrative function into a central strategic imperative. Unlike traditional e-commerce, where interactions are often static and transactional, LS-Ecommerce is defined by immediacy, emotional contagion, and high-velocity social interaction. Consequently, CRM in this context must extend far beyond traditional marketing tactics; it must integrate real-time personalization, community-building, and long-term loyalty strategies to drive customer retention and enhance firm performance. As noted by Sun and Wang (2020) and Maxwell and Khan (2022), the successful implementation of CRM in live streaming does not merely manage customer data—it orchestrates the entire customer journey, transforming passive viewers into active, loyal participants.

Theoretically, the role of CRM in LS-Ecommerce is grounded in a synthesis of three robust frameworks: Relationship Marketing Theory, the Technology Acceptance Model (TAM), and Customer

Experience Theory. First, Relationship Marketing Theory (Morgan & Hunt, 1994) provides the foundational argument that successful commerce relies on the dual pillars of trust and commitment. In the virtual environment of live streaming, where physical inspection of goods is impossible, trust must be manufactured socially. Hu and Chaudhry (2020) argue that this trust is built through transparent, two-way communication during live sessions and consistent post-purchase responsiveness. When a streamer acknowledges a customer's query in real-time, it signals commitment, thereby reducing perceived risk and fostering the relational bonds necessary for long-term loyalty.

Second, the operationalization of these relationships is explained by the Technology Acceptance Model (TAM) (Davis, 1989) and modern E-CRM adoption frameworks. These theories elucidate how digital tools—specifically AI-driven chatbots, real-time CRM dashboards, and personalization engines—enhance the quality of customer interactions. Gupta (2022) and Ramadhana (2022) suggest that the "perceived usefulness" of a live stream is significantly augmented when technology facilitates seamless interaction. If a customer can easily claim a voucher, ask a question, and track their order through an integrated interface, the technological friction is removed, allowing the relationship to flourish.

Third, Customer Experience Theory (Lemon & Verhoef, 2016) frames CRM as a holistic strategy encompassing every customer touchpoint—from the initial product demonstration during a broadcast to the final follow-up service. Felix and Rembulan (2023) emphasize that in LS-Ecommerce, the "experience" is not limited to the purchase; it includes the entertainment value of the stream, the social validation of the community, and the efficiency of the after-sales support. Therefore, effective CRM acts as the unifying thread that stitches these disparate touchpoints into a coherent, satisfying narrative for the consumer.

Building upon these theoretical foundations, the effectiveness of CRM in LS-Ecommerce is operationalized through four observable and interdependent dimensions: Customer Database Development, Appropriate Use of Technology, Relationship-Building Plans, and Customer Retention.

The first dimension, Customer Database Development, serves as the cognitive backbone of the enterprise. In the data-rich environment of live streaming, firms have access to granular behavioral data, including viewing duration, comment history, and purchasing frequency. Liu and Zhang (2020) and Jam'an (2021) emphasize that the mere collection of this data is insufficient; success depends on the analytics capability to mine this database for insights. By segmenting customers based on real-time behavior, firms can tailor the user experience, pushing personalized product recommendations or exclusive shout-outs during live streams. This data-driven personalization transitions the relationship from generic broadcasting to "narrowcasting," where individual viewers feel uniquely valued.

The second dimension, the Appropriate Use of Technology, acts as the enabler of scale. Live streaming events often generate traffic surges that manual human intervention cannot manage. Lin (2021) highlights that the strategic application of technology—such as automated order processing systems and AI-moderated chat functions—facilitates scalable engagement. This ensures that even when thousands of viewers are interacting simultaneously, the enterprise maintains a high level of responsiveness. Technology here is not just a tool for efficiency; it is the medium through which the relationship is sustained during peak demand, preventing the service failures that typically erode trust.

The third dimension involves proactive Relationship-Building Plans. This goes beyond the transactional exchange of goods to include the exchange of social capital. Sun and Wang (2020) and Bajpai

and Venaik (2023) identify initiatives such as loyalty reward programs, gamification during streams, and interactive community engagement as critical drivers of emotional bonding. In LS-Ecommerce, customers often form communities around specific influencers or brands. CRM strategies that nurture these communities giving fans a sense of belonging and identity strengthen the emotional barriers to exit. A customer who feels part of a community is far less likely to switch to a competitor, even if prices are lower elsewhere.

Finally, these efforts culminate in the fourth dimension: Customer Retention. While acquisition is often the focus of marketing, retention is the driver of profitability. Payne et al. (2021) and Zhu and Liu (2023) argue that comprehensive post-sale support, exclusive offers for repeat buyers, and proactive service recovery are essential mechanisms for ensuring continuity. In the digital economy, where switching costs are low, retention strategies function as a defensive moat. By consistently delivering value after the sale—verifying satisfaction, resolving issues quickly, and incentivizing the next purchase—CRM turns a one-time impulse buyer into a high-lifetime-value patron, thereby ensuring cost-effective business growth.

In summary, CRM in the LS-Ecommerce context functions not only as a sales-enhancing instrument but as a multi-dimensional strategic platform. By integrating robust data analytics, scalable technology, emotional community building, and defensive retention strategies, CRM cultivates the long-term customer value necessary for sustainable competitive advantage. These practices directly support the hypothesis that customer relationship management has a direct, positive, and significant impact on the success of live streaming E-commerce enterprises, fostering deeper engagement and reinforcing brand loyalty in an increasingly competitive digital marketplace. Collectively, customer database development, appropriate technology use, relationship-building plans, and customer retention strengthen the BSC Customer Perspective through satisfaction, trust, and loyalty and improve the Financial Perspective through repeat purchases, customer lifetime value, and more efficient acquisition spending.

Conclusion

This article synthesizes a conceptual model determining enterprise success in LS-Ecommerce, operationalized via the Balanced Scorecard (BSC) to capture financial, customer, internal process, and learning dimensions (Kaplan & Norton, 1996). Addressing the need for theoretical rigor, the model explicitly anchors each antecedent to a core theoretical lens to explain causal linkages. First, Logistics Operations are linked to the BSC's Internal Process perspective through Dynamic Capabilities Theory; this theory explains that an enterprise's ability to reconfigure logistics assets enables the agility required to fulfill rapid "flash sale" demand (Nudurupati et al., 2024). Second, Entrepreneurial Characteristics are tied to the Learning and Growth perspective via Entrepreneurial Orientation (EO) Theory, which posits that risk-taking and proactiveness are the drivers of the continuous digital innovation necessary for survival (Zahra et al., 2021). Third, CRM is connected to the Customer and Financial perspectives through Relationship Marketing Theory, establishing that engagement mechanisms (personalization and interactivity) are the conduct that transforms viewer attention into trust and sustainable revenue (Payne et al., 2021). Consequently, this model integrates these constructs into structured causal pathways, offering a theoretically validated foundation for future empirical inquiry. The proposed relationships are therefore complementary rather than independent: dynamic logistics capabilities translate demand into reliable fulfillment, entrepreneurial orientation and resilience enable continuous adaptation, and relationship-marketing capabilities convert satisfactory interactions into trust and

retention. These mechanisms improve internal processes and learning first, strengthen customer outcomes next, and ultimately support financial performance, which explains the directional pathways shown in Figure 1.

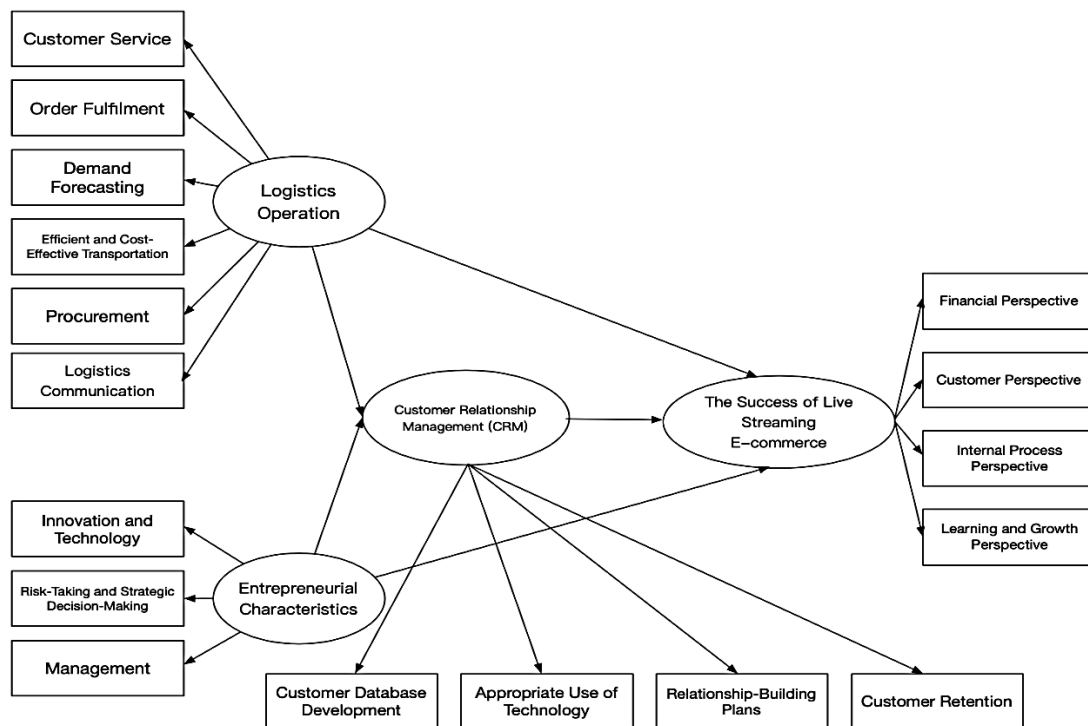


Figure 1, Proposed Conceptual Model Influencing Enterprise Success in Live Streaming E-Commerce.

From Figure 1, the data can be utilized and further developed for industrial applications as follows

1. Strategic Synchronization of Logistics Managers must re-evaluate logistics not as a cost center, but as a critical driver of customer satisfaction and retention. The literature highlights that the "impulse" nature of live streaming creates a window of "buyer remorse" that only fast, transparent delivery can mitigate. Therefore, managers should prioritize investment in agile and data-driven logistics systems. This involves moving beyond standard delivery models to implement real-time inventory synchronization where the "virtual stock" shown on screen matches the "physical stock" in the warehouse instantly. By utilizing predictive analytics—a core component of modern supply chain management—firms can anticipate demand surges generated by popular influencers, pre-positioning inventory in local hubs to reduce lead times. Furthermore, the visibility of the supply chain must be extended to the consumer; offering real-time tracking is a psychological tool that builds trust and reduces the anxiety associated with digital transactions.

2. Institutionalizing Entrepreneurial Competencies While individual charisma drives viewership, organizational resilience drives longevity. Managers must transition from relying on the "heroic entrepreneur" to building an entrepreneurial culture. This requires the institutionalization of competencies such as innovation, risk-taking, and strategic agility across the firm. Practically, this means creating internal structures that reward experimentation with new content formats and platform features (innovation) while establishing tolerance for calculated failures (risk-taking). However, this agility must be balanced with strategic discipline. Managers should implement "strategic ambidexterity" the ability to exploit current revenue streams through

efficient operations while simultaneously exploring new market opportunities. By embedding these traits into performance management systems and training programs, firms can ensure they remain adaptable to shifting market dynamics and algorithm changes, rather than being reactive victims of them.

3. Elevating CRM from Transactional to Relational Finally, managers must evolve their CRM strategies from simple database management to technology-enabled community building. In LS-Ecommerce, the viewer is not just a consumer but a participant. Advanced CRM capabilities should focus on personalized engagement that acknowledges this dual role. Firms should leverage AI and machine learning tools to analyze viewer behavior during streams, allowing for real-time personalization of offers and interactions. Beyond the sale, retention strategies must focus on "emotional loyalty." This involves creating exclusive communities for repeat buyers, offering "fan-only" perks, and ensuring that post-purchase support is as responsive as the live stream itself. By integrating these touchpoints, managers can transform transient traffic into a loyal customer base, thereby increasing Customer Lifetime Value (CLV) and creating a sustainable competitive mode.

4. Policy and Regulatory Support Government agencies and platform regulators should expand reliable digital and logistics infrastructure for SMEs, establish transparent rules for platform algorithms and seller accountability, and strengthen consumer-protection requirements covering truthful product claims, data privacy, payment security, complaint handling, and traceable after-sales service. Training and financing programs should also help smaller enterprises adopt analytics, CRM, and resilient fulfillment systems so that participation in live streaming e-commerce is both competitive and inclusive.

Reference

- Bajpai, H., & Venaik, A. (2023). *A study on the loyalty market in E-commerce business. In Constructive Discontent in Execution (pp. 159-191)*. Apple Academic Press.
- Chen, H., Dou, Y., & Xiao, Y. (2023). Understanding the role of live streamers in live-streaming e-commerce. *Electronic Commerce Research and Applications*, 59, 101266.
- China Internet Network Information Center. (2024). *The 53rd statistical report on Internet development in China*. China Internet Network Information Center. Retrieved March 12, 2026.
- China National Institute of Metrology. (2024). *High-quality development report of the live streaming e-commerce industry (2023–2024)*. National Institute of Metrology of China.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- Errida, A., & Lotfi, B. (2021). The determinants of organizational change management success: Literature review and case study. *International Journal of Engineering Business Management*, 13, 1–15.
- Felix, A., & Rembulan, G. D. (2023). Analysis of Key Factors for Improved Customer Experience, Engagement, and Loyalty in the E-Commerce Industry in Indonesia. *Aptisi Transactions on Technopreneurship (ATT)*, 5(2sp), 196–208.
- Gupta, R. K. (2022). Adoption of mobile wallet services: an empirical analysis. *International Journal of Intellectual Property Management*, 12(3), 305-322.
- Hu, M., & Chaudhry, S. (2020). Enhancing consumer engagement in E-commerce live streaming via relational bonds. *Internet Research*, 30(3), 809-831.
- Jam'an. (2021). Customer Relationship Management (CRM) dalam dunia digital melalui sistem E-commerce. *Jurnal Komunikasi*, 4(2).

- Kaplan, R. S., & Norton, D. P. (1996). *The balanced scorecard: Translating strategy into action*. Harvard Business Press.
- Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing*, 80(6), 69–96.
- Li, X., Wu, C., & Mai, F. (2022). The impact of logistics service quality on customer satisfaction in live streaming e-commerce. *Journal of Retailing and Consumer Services*, 65, 102878.
- Lin, C. (2021). *The relationship between Chinese consumers' exposure to Taobao live streaming of Thai brands and their purchase behavior* (Doctoral dissertation). Chulalongkorn University
- Liu, Y., & Zhang, J. (2020). The role of live streaming in building consumer trust and engagement with social commerce sellers. *Journal of Business Research*, 117, 543–556.
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21(1), 135–172.
- Mahmoodi, G., Kalamaki, F. R., Yazdanicharati, J., & Roohi, G. (2023). A model for organizational entrepreneurship with entrepreneurial personality traits. *Journal of Organizational Health*, 134(2), 1–13.
- Maxwell, S., & Khan, A. M. (2022). Electronic customer relationship management (E-CRM): A study of its role, influence & benefits to e-commerce. *Management Dynamics*, 18(1), 16–25.
- Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., & Zacharia, Z. G. (2001). Defining supply chain management. *Journal of Business Logistics*, 22(2), 1–25.
- Mio, C., Costantini, A., & Panfilio, S. (2021). Performance measurement tools for sustainable business: A systematic literature review on the sustainability balanced scorecard use. *Corporate Social Responsibility and Environmental Management*, 29, 367–384.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20–38.
- Nudurupati, S. S., Bititci, U. S., Kumar, V., & Chan, F. T. S. (2024). Performance measurement for sustainable competitive advantage in E-commerce. *Journal of Business Performance Management*, 18(1), 12–26.
- Oteri, O. J., Onukwulu, E. C., Igwe, A. N., Ewim, C. P. M., Ibeh, A. I., & Sobowale, A. (2023). Cost optimization in logistics product management: Strategies for operational efficiency and profitability. *International Journal of Multidisciplinary Research and Growth Evaluation*, 4(1), 852–860.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12–40.
- Payne, E. M., Peltier, J. W., & Barger, V. A. (2021). Omni-channel marketing, integrated marketing communications and consumer engagement: A research agenda. *Journal of Research in Interactive Marketing*, 15(2), 208–239.
- Ramadhana, R. (2022). *E-CRM* (1st ed.). Routledge.
- Rodrigues, R. G., Marques, I. C., & Geraldes, S. (2020). Understanding entrepreneurial intentions around the world. *International Journal of Technology, Policy and Management*, 22(1–2), 80–95.
- Simanjuntak, M., Pasaribu, R. M., & Purba, J. (2023). Investigating Impulse Buying Behavior in Live Streaming Shopping with SOR Model Perspective. *Jiffina: Journal of Islamic Finance and Accounting*, 6(1).

- Sun, Y., & Wang, J. (2020). Real-time consumer engagement in live-streaming E-commerce: A customer satisfaction perspective. *Journal of Interactive Marketing*, 52, 101-115.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.
- The National Committee of the Chinese People's Political Consultative Conference. (2024). *Promoting the healthy and standardized development of live streaming e-commerce to align with the real economy*. [Policy Report].
- United Nations Commission on International Trade Law. (1996). *UNCITRAL Model Law on Electronic Commerce with Guide to Enactment 1996*. New York: United Nations.
- Wang, Z., & Nimmolrat, A. (2025). Research on consumer trust in social e commerce in China: A case study of Douyin. In *Proceedings of the 2025 3rd International Conference on Digital Economy and Management Science (CDEMS 2025)* (pp. 572–577). Atlantis Press.
- Xu, H. (2024). Chinese digital economy: Current situations, problems, and recommendations. *Advances in Economics, Management and Political Sciences*, 98(1), 198–207.
- Yin, X. (2023). E-commerce law and its impact on live streaming in the digital age. *Chinese Journal of Business and Technology*, 28(4), 178-193.
- Zahra, S. A. (2021). The resource-based view, resourcefulness, and resource management in startups: A discussion. *Strategic Entrepreneurship Journal*, 15(4), 584–596.
- Zhu, L., & Liu, N. (2023). Game theoretic analysis of logistics service coordination in a live-streaming e-commerce system. *Electronic Commerce Research*, 23(2), 1049–1087.
- Zhu, X., Liu, N., & Shi, Y. (2022). Artificial intelligence technology in modern logistics system. *International Journal of Technology, Policy and Management*, 22(1–2), 66–81.