

A.I. MARKETING & PERFORMANCE FOR THE COMMUNICATION – EVENT INDUSTRY IN VIETNAM - A CONCEPTUAL FRAMEWORK

HUNG NGOC MANH

MBA, Faculty of Marketing - International Business, HUTECH University (Vietnam), 475A Dien Bien Phu Street, Thanh My Tay Ward, Ho Chi Minh City. Email: mn.hung@hutech.edu.vn

THANH TRUNG NGUYEN

MBA, Faculty of Marketing - International Business, HUTECH University (Vietnam), 475A Dien Bien Phu Street, Thanh My Tay Ward, Ho Chi Minh City. Email: nt.thanh77@hutech.edu.vn

TUNG NGOC VO

MBA, Faculty of Marketing - International Business, HUTECH University (Vietnam), 475A Dien Bien Phu Street, Thanh My Tay Ward, Ho Chi Minh City. Email: vn.tung@hutech.edu.vn

Abstract

Artificial Intelligence (AI) has increasingly been recognized as a transformative strategic capability reshaping competitive dynamics across service industries. Despite its growing prominence, the specific pathways through which disaggregated AI-enabled dimensions influence customer engagement, in turn, marketing performance, remain theoretically underspecified, particularly within creative and service-intensive sectors of emerging economies. Grounded in a dual theoretical framework integrating the Resource-Based View (RBV) and Social Information Processing Theory (SIPT), this paper develops a conceptual model proposing that five distinct AI capabilities: Natural Language Processing (NLP), Machine Learning (MAL), Auto-Generated Content (AGC), Predictive Analytics (PAT), and Content Personalization (COP), positively influence customer engagement (CUSE), which subsequently drives marketing performance (MAP). Drawing on a systematic review of the extant literature, each hypothesis is theoretically justified, and the proposed model offers a structured research agenda for empirical investigation within the communication and event industry in Vietnam. The paper concludes by delineating key theoretical contributions, research implications, and directions for future empirical inquiry.

Keywords: Artificial Intelligence; Customer Engagement; Marketing Performance; Resource-Based View; Social Information Processing Theory; Communication and Event Industry.

1. INTRODUCTION

The accelerating diffusion of AI across industries has profoundly altered the strategic landscape of marketing management. Transitioning well beyond its initial characterization as an operational efficiency instrument, AI has emerged as a foundational, multi-dimensional strategic capability capable of redefining how firms sense market opportunities, configure resources, and sustain competitive advantage (Haenlein & Kaplan, 2019; Russell & Norvig, 1995). Within service-intensive industries—where real-time customer interaction and communication quality are paramount—the strategic adoption of AI-driven marketing capabilities enables organizations to process complex informational flows, deliver hyper-personalized content at scale, and achieve unprecedented levels of responsiveness to shifting consumer demands (Yusuf et al., 2024).

While the integration of AI in marketing management has gained significant traction, current literature frequently treats AI as a uniform, single tool rather than dissecting its diverse technical sub-dimensions—such as natural language interfaces, predictive algorithms, or content automation engines. Consequently, how these specific digital capabilities convert into tangible performance metrics remains vaguely defined, particularly within the resource-constrained environments of emerging markets (Pererva & Mazorenko, 2025; Gabelaia, 2025). This lack of granularity is especially problematic for the communication and event sector. Given its inherent experiential complexity, tight delivery timelines, and heavy reliance on active audience participation, this industry demands a more targeted theoretical framework that moves past broad generalizations about AI's utility.

To address these gaps, this study develops a conceptual model that positions customer engagement (CE) as the critical mediating mechanism through which five AI-enabled capabilities, Natural Language Processing (NLP), Machine Learning (MAL), Auto-Generated Content (AGC), Predictive Analytics (PAT), and Content Personalization (COP), are translated into superior marketing performance outcomes. The model is grounded in a theoretically integrated framework drawing on the Resource-Based View (RBV) (Barney, 1991; Teece et al., 1997) and Social Information Processing Theory (SIPT) (Walther, 1992, 1996). This dual-lens integration enables the model to explain not only the strategic value of AI capabilities as inimitable resource bundles, but also the behavioral and relational pathways through which AI-mediated interactions cultivate customer engagement.

The study is set within Vietnam's communication and event industry, a rapidly digitalizing sector within one of Southeast Asia's most dynamic emerging economies. By anchoring the proposed model in this specific socio-economic context, the paper contributes a localized yet transferable theoretical framework applicable to other rapidly digitalizing service economies across the ASEAN region and the broader Global South. The remainder of the paper is organized as follows: Section 2 presents the theoretical foundations; Section 3 develops the research hypotheses and conceptual model; Section 4 outlines the proposed research methodology; and Section 5 concludes with theoretical contributions, managerial implications, and directions for future empirical investigation.

2. THEORETICAL FOUNDATIONS

2.1 Social Information Processing Theory (SIPT)

Social Information Processing Theory (SIPT), originally formulated by Walther (1992, 1996), offers a foundational framework for understanding how individuals develop interpersonal impressions, form attitudes, and cultivate relational bonds within computer-mediated communication environments. A central tenet of SIPT is that while digital interactions inherently lack the richness of non-verbal cues, such as facial expressions and vocal tonality, characteristic of face-to-face encounters, this informational deficit is progressively overcome as users accumulate and interpret textual and contextual signals over repeated interactions. Through this iterative cue-processing mechanism, individuals

develop stable cognitive representations of relational partners and modulate their engagement intensity accordingly.

In the marketing domain, SIPT has been productively employed to explain how AI-mediated informational cues shape consumer trust and engagement. Martin & Murphy (2017) demonstrated that the effectiveness of AI-driven information processing is substantially contingent upon consumer perceptions of data privacy and algorithmic transparency, which function as critical moderators of trust formation. Islam et al. (2019) provided robust empirical evidence that service quality and brand experience constitute foundational informational antecedents that trigger multi-dimensional customer engagement behaviors. Extending SIPT to the organizational adoption context, Makkonen (2021) argued that the success of technological innovations is contingent on how decision-makers gather, process, and interpret information signals within their firms. Within the specific context of NLP applications, Sun, Zafar & Hasan (2022) demonstrated that conversational AI systems serve as particularly potent information richness amplifiers, transforming algorithmic outputs into contextually resonant, humanized interactions that substantially improve consumer sentiment comprehension and relational engagement. SIPT thus provides the primary theoretical lens for elucidating the psychological mechanisms through which AI-generated informational cues—spanning language-based interactions, personalized recommendations, and predictive content—foster trust, psychological bonding, and deep customer engagement in digitally mediated service contexts (Tien et al., 2025).

2.2 Resource-Based View (RBV) and Dynamic Capabilities

The Resource-Based View (RBV), as seminally articulated by Barney (1991), posits that sustainable competitive advantage is generated through the possession and strategic deployment of firm resources that are simultaneously valuable, rare, imperfectly imitable, and non-substitutable, commonly termed the VRIN criteria. Extending this static framework, Teece et al. (1997) developed the Dynamic Capabilities perspective, arguing that a firm's enduring competitive strength resides not merely in its resource stock, but in its higher-order capacity to sense, seize, and reconfigure internal and external competencies in response to rapidly evolving environmental conditions.

Contemporary marketing scholarship increasingly conceptualizes AI as an archetypal exemplar of such a dynamic, reconfigurable strategic resource. Morgan et al. (2002) established the foundational linkage between specific marketing capabilities and organizational performance, arguing that marketing capability bundles enable firms to systematically translate resource investments into superior customer value and competitive outcomes. Chen et al. (2022) applied RBV logic specifically to AI-enhanced e-commerce environments, providing empirical evidence that AI-enabled capabilities drive firm performance through organizational resilience and operational agility. Mikalef & Gupta (2021) further argued that AI capabilities, when combined with organizational creativity and human capital, form idiosyncratic resource configurations that rivals find exceptionally difficult to replicate. In the Vietnamese market context, Ghasemaghaei (2021) underscored the necessity of conceptually differentiating the distinct attributes of

big data resources as a prerequisite for deriving superior business value. Collectively, the integrated RBV and Dynamic Capabilities framework provides the theoretical rationale for conceptualizing the five AI dimensions examined in this study, NLP, MAL, AGC, PAT, and COP, as a portfolio of strategic, inimitable resource bundles that collectively drive customer engagement and marketing performance within the communication and event industry.

2.3 Artificial Intelligence in Marketing

At its conceptual core, Artificial Intelligence refers to the capacity of computational systems to perform tasks that have traditionally required human cognitive functions, encompassing complex problem-solving, adaptive learning, and nuanced pattern recognition (Haenlein & Kaplan, 2019; Russell & Norvig, 1995). Early conceptualizations framed AI through its aptitude for interpreting environmental data and deploying acquired knowledge to achieve specified objectives, continuously adapting to novel informational inputs (Haenlein & Kaplan, 2019). As the technology matured, scholarly attention expanded to encompass AI's implications for communication quality and service personalization, alongside growing ethical concerns regarding automated data processing and algorithmic privacy risks (Song et al., 2022).

Contemporary scholarship frames AI in marketing as a transformative strategic philosophy that has fundamentally reconfigured both industrial and commercial landscapes (Martínez-López & Casillas, 2013). Current conceptualizations emphasize AI's capacity to instantiate human-like cognitive capabilities within computational architectures capable of mirroring, and in certain domains surpassing, human cognitive performance (Sun, Liu, et al., 2022). This evolution underpins increasingly sophisticated and transparent decision-making processes across creative sectors (Pererva & Mazorenko, 2025). Within the e-commerce context, Qin & Jiang (2019) delineate a paradigmatic transition in which AI-based systems are deployed to address specific marketing and advertising challenges with analytical precision transcending human capacity. Synthesizing these conceptual trajectories, AI is appropriately framed as a multi-dimensional strategic capability that is indispensable for modern, high-performance service delivery, particularly within the communication and event industry, where audience engagement quality is the primary determinant of institutional success.

3. HYPOTHESIS DEVELOPMENT AND CONCEPTUAL MODEL

3.1 Natural Language Processing (NLP)

Natural Language Processing (NLP) is a specialized AI subdomain equipping computational systems with the capacity to interpret, generate, and contextually respond to human language in both textual and spoken modalities (Mashaabi et al., 2022). Contemporary NLP scholarship documents a fundamental paradigmatic transition: the displacement of conventional sequence-labeling architectures by unified, large-scale pre-trained language models capable of managing diverse and complex linguistic tasks within coherent, generalized frameworks (Sun, Liu, et al., 2022). This architectural advancement

positions NLP as a critical analytical instrument for decoding nuanced consumer sentiments and facilitating highly personalized, contextually responsive customer interactions at scale (Sun, Zafar, & Hasan, 2022).

From a strategic standpoint, NLP driven marketing systems foster an adaptive, problem-solving orientation that enables firms to co-create value through responsive and contextually informed communication (Gabelaia, 2025). In event management and communication contexts, NLP applications, including conversational chatbots, automated sentiment monitoring, and real-time audience response analysis, serve as primary mechanisms for enriching attendee experience and deepening relational engagement. Systematic evidence further corroborates NLP's capacity to enhance customer engagement and drive operational excellence across diverse marketing contexts (Gerling & Lessmann, 2024). Anchored in SIPT, the deployment of NLP-driven communication systems enriches the informational cue environment of digital service encounters, progressively overcoming the relational deficit of non-mediated interaction and cultivating deeper psychological engagement. Then, we propose:

H1: *Natural Language Processing (NLP) exerts a significant positive influence on Customer Engagement (CUSE).*

3.2 Machine Learning (MAL)

Machine Learning (MAL) is conceptualized as the capacity of AI systems to autonomously acquire knowledge and enhance predictive accuracy from experiential data, without requiring explicit algorithmic reprogramming (Ameri Sianaki, 2019). The field encompasses supervised, unsupervised, and reinforcement learning paradigms, each addressing distinct categories of complex information-processing challenges relevant to real-time event analytics and dynamic behavioral modeling (Capatina et al., 2020). Crucially, MAL serves as the critical bridge between historical behavioral data and forward-looking consumer trend forecasting, enabling the design and delivery of anticipatory, highly personalized customer journeys (Capatina et al., 2020).

The strategic role of MAL within the marketing-communication nexus has deepened considerably as the technology has matured. Recent empirical evidence demonstrates that MAL-driven predictive models enable enterprises to anticipate market outcomes with superior accuracy, thereby materially bolstering e-commerce performance and organizational competitiveness (Tien et al., 2025). In the creative and entertainment industries, MAL automates high-volume operational tasks and optimizes the precision delivery of targeted advertising to granular consumer micro-segments (Pererva & Mazorenko, 2025). From an RBV perspective, MAL constitutes a dynamic organizational capability that reconfigures data assets into inimitable strategic intelligence, satisfying the VRIN criteria and generating differential competitive advantage. Consequently, we propose:

H2: *Machine Learning (MAL) exerts a significant positive influence on Customer Engagement (CUSE).*

3.3 Auto-Generated Content (AGC)

Auto-Generated Content (AGC) has undergone a profound conceptual transformation, evolving from a peripheral operational efficiency instrument into a primary strategic driver of digital audience engagement. Chan-Olmsted (2019) initially identified AGC as a strategic organizational asset that augments a firm's creative capacity, fostering elevated customer interaction through the continuous delivery of fresh, contextually relevant, and tailored messaging. The rapid maturation of generative deep learning algorithms has further empowered AI systems to produce high-fidelity, contextually coherent content, ranging from automated visual assets to complex interactive narratives, without requiring continuous human supervisory intervention.

Within the context of Vietnam's communication and event industry, this automated capability addresses a critical market pressure: the necessity to rapidly produce and scale localized, trend-responsive content across highly fragmented digital channels such as Facebook, TikTok, and Zalo. In an emerging economy characterized by intense competition, high virality, and short consumer attention spans, creative agencies increasingly leverage AGC not just for cost optimization, but as a dynamic mechanism to maintain a continuous, omnipresent brand narrative.

Through the lens of SIPT, these algorithmically generated assets function as potent informational cue generators, substituting for the richness of traditional human-authored content in digital service encounters. When firms successfully align AGC with local cultural nuances and consumer expectations, it preserves user trust and perceived content authenticity, thereby effectively triggering multi-dimensional customer engagement behaviors. This theoretical alignment suggests that the strategic deployment of generative AI content assets directly accelerates relational bonding in fast-paced digital environments. Consequently, we propose:

H3: *Auto-Generated Content (AGC) exerts a significant positive influence on Customer Engagement (CUSE).*

3.4 Predictive Analytics (PAT)

Predictive Analytics (PAT) is established as a multidisciplinary integrative field synthesizing classical statistical inference, advanced machine learning techniques, and mathematical optimization to generate probabilistic forecasts of future events through the systematic analysis of current and historical data patterns (Kumar & Garg, 2018). Unlike descriptive analytical approaches, PAT represents a fundamentally proactive paradigm: it exploits transactional data signatures to assign likelihood scores to future outcomes, equipping organizations with the intelligence required to preemptively mitigate risks and identify nascent competitive opportunities (Kumar & Garg, 2018). Within the broader AI framework, Božić (2023) posits that predictive analytics has evolved into a critical decision-intelligence engine, capable of discovering intricate, non-linear relationships within complex big data ecosystems.

The strategic value of PAT within event marketing is particularly salient. By enabling firms to forecast attendee preferences, optimize resource allocation, and anticipate service bottlenecks ahead of demand manifestation, PAT fundamentally transforms the service delivery paradigm from reactive to anticipatory (Van Hoang et al., 2025). From an SIPT perspective, predictive systems enrich the informational environment of customer interactions by delivering contextually relevant, future-oriented content cues that resonate with individual consumer needs, thereby deepening psychological engagement and fostering trust. Then, we propose:

H4: *Predictive Analytics (PAT) exerts a significant positive influence on Customer Engagement (CUSE).*

3.5 Content Personalization (COP)

The conceptual evolution of Content Personalization (COP) reflects a progressive trajectory from rudimentary demographic segmentation toward sophisticated AI-driven, real-time dynamic content ecosystems. Early scholarly attention centered on leveraging basic NLP architectures to extract latent emotions from textual data for personalized communication.

Today, contemporary scholarship documents that AI-based personalization systems have surpassed these legacy methods by deploying deep learning architectures and predictive neural networks to model complex, evolving user behavioral patterns in real-time, often anticipating individual consumer preferences prior to explicit expression.

In Vietnam's highly dynamic communication and event sector, where consumer behavior is overwhelmingly mobile-first and platform-dependent, generic broadcast marketing increasingly fails to capture audience attention. AI-powered COP enables event organizers and brand managers to transcend basic personalization by dynamically tailoring hyper-targeted promotional content, customized event agendas, and real-time interactive experiences that resonate with the distinct psychographic profiles of individual attendees.

From an RBV perspective, COP constitutes a highly specific, value-generating dynamic capability. By transforming proprietary, localized behavioral data assets into an inimitable strategic resource configuration, firms can deliver individualized service experiences that rivals find exceptionally difficult to replicate.

Grounded in SIPT, these hyper-personalized informational cues directly reduce consumer cognitive overload and enhance perceived service quality. By achieving a judicious equilibrium between data-driven personalization and the preservation of consumer autonomy, modern marketing technology stacks systematically cultivate deeper psychological engagement and long-term brand advocacy. Then, we propose:

H5: *Content Personalization (COP) exerts a significant positive influence on Customer Engagement (CUSE).*

3.6 Customer Engagement (CUSE)

Customer Engagement (CUSE) has evolved from a peripheral relational construct to a central strategic imperative in marketing management, reflecting the broader shift from transactional exchange to value-laden relational paradigms (Hollebeek et al., 2019; Islam et al., 2019). Foundational scholarship conceptualizes CUSE as a multi-dimensional construct encompassing cognitive, emotional, and behavioral investments that customers make in their interactions with a focal brand (Hollebeek et al., 2019). In the communication and event industry specifically, CE constitutes the primary mechanism through which AI-driven interaction quality is converted into tangible institutional outcomes, including brand advocacy intensity, attendee retention, and long-term loyalty (Gabelaia, 2025).

Gao (2010) establishes that non-financial performance indicators derived from high engagement levels, including customer advocacy intensity and retention rates, function as leading predictors of long-term marketing effectiveness and subsequent financial performance. Islam et al. (2019) provide robust empirical evidence that CE substantively bolsters repatronage intent and overall firm performance within service contexts. Within the service-dominant logic framework, Hollebeek et al. (2019) establish CE as the primary value co-creation mechanism through which AI-mediated interactions generate sustainable competitive advantage. As firms embed AI-driven insights across the customer journey, they achieve enhanced marketing productivity—operationalized as the holistic efficiency with which organizational resources are converted into valuable market outcomes through customer-based assets (Morgan et al., 2002). Thus:

H6: *Customer Engagement (CUSE) exerts a significant positive influence on Marketing Performance (MAP).*

3.7 Summary of Hypotheses and Proposed Conceptual Model

Drawing on the integrated theoretical framework of RBV and SIPT, the proposed conceptual model positions five AI-enabled capabilities: NLP, MAL, AGC, PAT, and COP, as the primary exogenous antecedents of customer engagement. Through the RBV lens, these AI capabilities are conceptualized as a portfolio of strategic, inimitable resource bundles that confer differential competitive advantage within the communication and event industry. Concurrently, SIPT explicates the psychological pathways through which AI-generated informational cues are processed by consumers to foster relational bonds and deepen brand engagement. Customer Engagement subsequently operates as the critical strategic mediator that translates upstream technological inputs into downstream, measurable marketing performance outcomes. The six hypotheses are summarized as follows:

H1: *Natural Language Processing (NLP) exerts a significant positive influence on Customer Engagement (CUSE).*

H2: *Machine Learning (MAL) exerts a significant positive influence on Customer Engagement (CUSE).*

- H3:** Auto-Generated Content (AGC) exerts a significant positive influence on Customer Engagement (CUSE).
- H4:** Predictive Analytics (PAT) exerts a significant positive influence on Customer Engagement (CUSE).
- H5:** Content Personalization (COP) exerts a significant positive influence on Customer Engagement (CUSE).
- H6:** Customer Engagement (CUSE) exerts a significant positive influence on Marketing Performance (MAP).

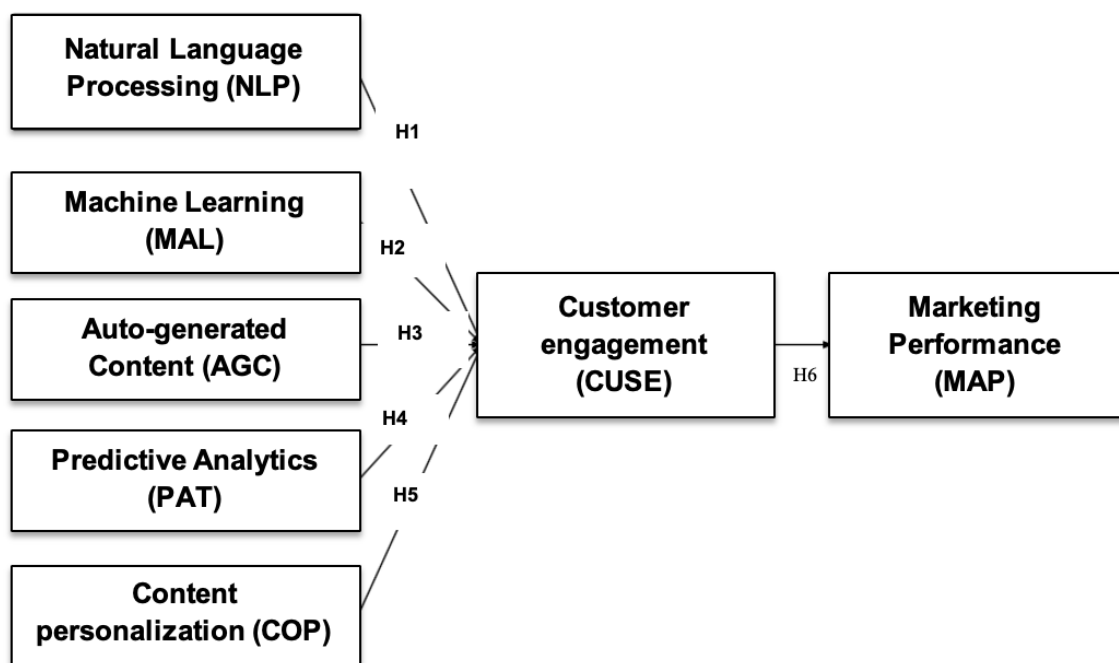


Figure 1: Proposed Conceptual Model

4. PROPOSED RESEARCH METHODOLOGY

To empirically validate the proposed conceptual model, this study advocates the adoption of a positivist, cross-sectional quantitative research design employing a structured survey instrument. The target population would comprise marketing managers, communication specialists, and event planning professionals with direct, hands-on experience in deploying AI-enabled tools within their organizational marketing functions. This requirement for direct AI experience ensures that respondents possess the construct-relevant knowledge necessary to provide informative and valid responses.

The sampling frame would encompass firms operating within Ho Chi Minh City's communication and event industry ecosystem, selected via purposive convenience sampling across a representative range of organizational sizes and sub-sectors. A

minimum sample size of approximately 200 usable observations is recommended to ensure adequate statistical power for the analytical technique to be deployed. All constructs would be operationalized using validated reflective measurement scales sourced from the extant literature, anchored on a five-point Likert response format ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

The primary analytical technique recommended for both measurement model assessment and structural model estimation is Partial Least Squares Structural Equation Modeling (PLS-SEM), executed via SmartPLS 4.0 software. PLS-SEM is particularly well-suited to this research context for three principal reasons. First, it demonstrates established efficacy with moderate sample sizes. Second, it is robust under conditions of non-normal data distribution, a common characteristic of organizational survey data in emerging economy contexts. Third, it is particularly well-suited for exploratory theory testing in novel and complex research domains where established empirical benchmarks are limited (Hair et al., 2014; Hair et al., 2019). The measurement model would be evaluated through standard criteria including indicator reliability (outer loadings > 0.70), internal consistency (Cronbach's Alpha and Composite Reliability > 0.70), convergent validity (AVE > 0.50), and discriminant validity assessed via the HTMT criterion. Structural model assessment would involve the evaluation of path coefficients, R^2 values, effect sizes (f^2), and bootstrapping-derived significance tests using 5,000 resamples (Streukens & Leroi-Werelds, 2016).

5. THEORETICAL CONTRIBUTIONS AND RESEARCH IMPLICATIONS

5.1. Theoretical Contributions

This study makes three principal theoretical contributions to the marketing and information systems literature. First, it advances the Resource-Based View by reconceptualizing AI not as a monolithic technological asset but as a synergistic, multi-dimensional capability bundle. By positioning the five AI dimensions as a portfolio of VRIN-satisfying strategic resources, the study provides a theoretically grounded pathway linking AI capability configuration to sustained competitive advantage within service sectors of emerging economies, an application domain that has received comparatively limited attention in the RBV literature.

Second, the research substantively extends Social Information Processing Theory by applying it to AI-mediated marketing communication contexts. The proposed model theorizes that AI-generated informational cues, including context-aware NLP responses, algorithmically generated personalized content, and predictive service recommendations, are of sufficient richness and contextual relevance to facilitate the formation of deep psychological bonds between consumers and service providers in purely digital environments. This theoretical extension validates SIPT's core mechanism in the AI marketing context and positions CUSE as the pivotal mediating mechanism that bridges AI capability deployment and durable relational outcomes.

Third, the study addresses a critical contextual gap in the AI and marketing literature. The predominant body of existing empirical frameworks is grounded in the institutional and infrastructural contexts of developed Western or East Asian economies. By developing a theoretically rigorous conceptual model tailored to the specific digital maturity level and consumer behavioral patterns of Vietnam, the second fastest-growing digital economy in Southeast Asia, this research offers a transferable theoretical architecture with direct comparative relevance for other rapidly digitalizing service economies across the ASEAN region and the broader Global South.

5.2 Managerial Implications

The proposed model yields several actionable strategic implications for practitioners. First, the dual-lens theoretical framework underscores the strategic necessity of NLP and predictive analytics as the highest-priority AI investments for communication and event firms seeking to maximize customer engagement returns. This prioritization is consistent with the model's prediction of these dimensions' comparatively higher influence on CUSE, grounded in their capacity to deliver contextually rich, anticipatory informational cues.

Second, the model suggests that investment in AI capabilities alone is insufficient to generate superior marketing performance; firms must simultaneously invest in the organizational conditions, including data infrastructure quality, AI literacy programs, and human-in-the-loop governance frameworks, that enable AI systems to generate the informational cue richness required by SIPT to facilitate deep customer engagement. Third, the identification of CUSE as a critical strategic mediator implies that firms should measure and actively manage engagement levels as an intermediate KPI, bridging upstream AI investments and downstream performance outcomes.

5.3 Limitations and Directions for Future Research

The proposed conceptual model is subject to several limitations that simultaneously identify productive avenues for future empirical research.

First, the model's predictive boundary conditions remain unspecified. Future research should investigate potential moderating variables, including digital trust, data privacy concern, algorithmic transparency perceptions, and organizational AI maturity, that may amplify or attenuate the proposed AI and CUSE relationships.

Second, the cross-sectional design proposed for initial validation precludes causal inference; longitudinal research designs would substantially strengthen the model's causal claims.

Third, future studies should adopt comparative cross-national designs to examine whether contextual factors including institutional quality, digital infrastructure maturity, and regulatory environments moderate the influence of AI capabilities on marketing engagement and performance across different emerging economy contexts.

References

- 1) Ameri Sianaki, O. (2019). Machine learning applications: The past and current research trend in diverse industries. *Inventions*, 4(1), Article 8. <https://doi.org/10.3390/inventions4010008>
- 2) Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- 3) Bhuiyan, M. (2024). AI-driven personalization in marketing. *Journal of Digital Marketing and Communication*, 4(2), 45–59.
- 4) Božić, V. (2023). AI and predictive analytics. *Journal of Sports Industry & Blockchain Technology*, 1(11), 1–10.
- 5) Capatina, A., Kachour, M., Lichy, J., Micu, A., Micu, A. E., & Codignola, F. (2020). Matching the future capabilities of an artificial intelligence-based software for social media marketing with potential users' expectations. *Technological Forecasting and Social Change*, 151, Article 119794. <https://doi.org/10.1016/j.techfore.2019.119794>
- 6) Chan-Olmsted, S. M. (2019). A review of artificial intelligence adoptions in the media industry. *International Journal on Media Management*, 21(3–4), 193–215. <https://doi.org/10.1080/14241277.2019.1695619>
- 7) Chen, D., Esperança, J. P., & Wang, S. (2022). The impact of artificial intelligence on firm performance: An application of the resource-based view to e-commerce firms. *Frontiers in Psychology*, 13, Article 884830. <https://doi.org/10.3389/fpsyg.2022.884830>
- 8) Gabelaia, I. (2025). The relevance of AI-driven marketing through design thinking for resilient problem-solving and communication for SMEs. *Sustainability*, 17(20), Article 8994. <https://doi.org/10.3390/su17208994>
- 9) Gao, Y. (2010). Measuring marketing performance: A review and a framework. *The Marketing Review*, 10(1), 25–40.
- 10) Gerling, V., & Lessmann, S. (2024). Natural language processing in marketing: A systematic review. *Journal of Interactive Marketing*, 59(1), 1–22.
- 11) Ghasemaghaei, M. (2021). Understanding the impact of big data on firm performance: The necessity of conceptually differentiating among big data characteristics. *International Journal of Information Management*, 57, Article 102055. <https://doi.org/10.1016/j.ijinfomgt.2019.102055>
- 12) Haenlein, M., & Kaplan, A. (2019). A brief history of artificial intelligence: On the past, present, and future of artificial intelligence. *California Management Review*, 61(4), 5–14. <https://doi.org/10.1177/0008125619838259>
- 13) Hair, J. F., Jr., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106–121. <https://doi.org/10.1108/EBR-10-2013-0128>
- 14) Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- 15) Han, J. (2024). User trust and authenticity perceptions of AI-generated content. *Computers in Human Behavior*, 158, Article 108312.
- 16) Hollebeek, L. D., Srivastava, R. K., & Chen, T. (2019). S-D logic-informed customer engagement: Integrative framework and revised propositions. *Journal of the Academy of Marketing Science*, 47(1), 161–185. <https://doi.org/10.1007/s11747-018-0600-7>

- 17) Huang, M.-H., & Rust, R. T. (2021). Engaged to a robot? The role of AI in service. *Journal of Service Research*, 24(1), 30–41. <https://doi.org/10.1177/1094670520902266>
- 18) Islam, J. U., Hollebeek, L. D., Rahman, Z., Khan, I., & Rasool, A. (2019). Customer engagement in the service context: An empirical investigation of the construct, its antecedents and consequences. *Journal of Retailing and Consumer Services*, 50, 277–285. <https://doi.org/10.1016/j.jretconser.2019.05.018>
- 19) Kumar, V., & Garg, M. L. (2018). Predictive analytics: A review of trends and techniques. *International Journal of Computer Applications*, 182(1), 31–37.
- 20) Kumar, V., Dixit, A., Javalgi, R. G., & Dass, M. (2019). Digital transformation of customer services: The use of AI and big data. *Journal of Business Research*, 100, 400–409. <https://doi.org/10.1016/j.jbusres.2018.10.015>
- 21) Makkonen, H. (2021). Information processing perspective on organisational innovation adoption. *Technology Analysis & Strategic Management*, 33(6), 612–624. <https://doi.org/10.1080/09537325.2020.1847362>
- 22) Martin, K. D., & Murphy, P. E. (2017). The role of data privacy in marketing. *Journal of the Academy of Marketing Science*, 45(2), 135–155. <https://doi.org/10.1007/s11747-016-0495-4>
- 23) Martínez-López, F. J., & Casillas, J. (2013). Artificial intelligence-based systems applied in industrial marketing. *Industrial Marketing Management*, 42(4), 489–495. <https://doi.org/10.1016/j.indmarman.2013.03.001>
- 24) Mashaabi, M., Alotaibi, A., Qudaih, H., Alnashwan, R., & Al-Khalifa, H. (2022). Natural language processing in customer service: A systematic review. *International Journal of Computing and Digital Systems*, 12(1), 1–15.
- 25) Mikalef, P., & Gupta, M. (2021). Artificial intelligence capability and firm performance: The role of organizational learning. *Information & Management*, 58(3), Article 103434. <https://doi.org/10.1016/j.im.2021.103434>
- 26) Morgan, N. A., Clark, B. H., & Gooner, R. (2002). Marketing productivity, marketing audits, and systems for marketing performance assessment: Integrating multiple perspectives. *Journal of Business Research*, 55(5), 363–375.
- 27) Nandanavanam, S. (2025). AI-powered predictive personalization in digital marketing. *Journal of Marketing Technology*, 3(1), 12–28.
- 28) Pererva, I. M., & Mazorenko, O. V. (2025). Digital transformation of creative industries. *Actual Problems of Innovative Economy and Law*, (1), 45–50.
- 29) Qin, X., & Jiang, Z. (2019). The impact of AI on the advertising process: The Chinese experience. *Journal of Advertising*, 48(3), 338–346. <https://doi.org/10.1080/00913367.2019.1622330>
- 30) Russell, S. J., & Norvig, P. (1995). *Artificial intelligence: A modern approach*. Prentice Hall.
- 31) Shin, D., & Park, Y. J. (2019). Role of fairness, accountability and transparency in algorithmic affordance. *Computers in Human Behavior*, 98, 277–284. <https://doi.org/10.1016/j.chb.2019.04.019>
- 32) Song, M., Xing, X., Duan, Y., Cohen, J., & Mou, J. (2022). Will artificial intelligence replace human customer service? The impact of communication quality and privacy risks on adoption intention. *Journal of Retailing and Consumer Services*, 66, Article 102900. <https://doi.org/10.1016/j.jretconser.2021.102900>
- 33) Streukens, S., & Leroi-Werelds, S. (2016). Bootstrapping for PLS-SEM: An easy-to-use method for assessing and managing common method bias. *European Management Journal*, 34(6), 618–632. <https://doi.org/10.1016/j.emj.2016.06.003>

- 34) Sun, H., Zafar, M. Z., & Hasan, N. (2022). Employing natural language processing as AI for analyzing consumer opinion and boosting marketing strategies. *Frontiers in Psychology*, 13, Article 856663.
- 35) Sun, T. X., Liu, X. Y., Qiu, X. P., & Huang, X. J. (2022). Paradigm shift in natural language processing. *Machine Intelligence Research*, 19(3), 169–183.
- 36) Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.
- 37) Tien, N. H., Tuan, N. V. A., & Thy, N. N. A. (2025). Impact of AI on e-commerce performance in Vietnam: Quantitative forecasting and big data analytics. *Cuestiones de Fisioterapia*, 54(5), 465–474.
- 38) Van Hoang, D., Thi Hien, N., Van Thang, H., Nguyen Truc Phuong, P., & Thi-Thuy Duong, T. (2025). Digital capabilities and sustainable competitive advantages of SMEs. *SAGE Open*, 15(2).
- 39) Walther, J. B. (1992). Interpersonal effects in computer-mediated interaction: A relational perspective. *Communication Research*, 19(1), 52–90.
- 40) Walther, J. B. (1996). Computer-mediated communication: Impersonal, interpersonal, and hyperpersonal interaction. *Communication Research*, 23(1), 3–43.
- 41) Wessel, M., Adam, M., Benlian, A., & Thies, F. (2023). Generative AI and its transformative value for digital platforms. *Journal of Management Information Systems*, 40(3), 900–927.
- 42) Yusuf, S. O., Durodola, R. L., Ocran, G., Abubakar, J. E., Echere, A. Z., & Paul-Adeleye, A. H. (2024). Challenges and opportunities in AI adoption for SMEs in emerging economies. *World Journal of Advanced Research and Reviews*, 23(3), 668–678.