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Artificial Intelligence (AI)-Driven Mediated Communication Strategies: A Case Study of Sellers in Shopee's Live Streaming E-Commerce Platform

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Abstract: The utilization of live-streaming features on e-commerce platforms such as Shopee creates a real-time interaction space between sellers and consumers. At the same time, artificial intelligence (AI) technologies, including chatbots and automatic recommendation systems, increasingly shape the communication patterns within this space. This study, AI-Driven Mediated Communication Strategies: A Case Study of Sellers in Shopee's Live Streaming E-Commerce Platform, examines how AI features influence the communication strategies employed by business operators during live streaming. Using an interpretive qualitative approach, this research involved three active Shopee sellers who regularly conduct live-streaming activities. The analysis draws on Actor-Network Theory (ANT) and AI-Mediated Communication (AIMC). The findings show that AI functions as a non-human actor within the communication network between sellers and buyers. AI supports interaction by answering common questions automatically, displaying relevant products, and helping sellers adjust their communication strategies. Thus, AI is no longer merely a supporting tool, but also an active partner in shaping digital communication in e-commerce.

Keywords: Shopee, Live Streaming, Artificial Intelligence, Actor Network Theory, AI-Mediated Communication.

INTRODUCTION

Digital transformation has brought significant changes in many aspects of human life, including the patterns of marketing communication. One particularly evident manifestation of this shift is the rise of e-commerce or electronic commerce. E-commerce refers to any activity or service involving the purchase and sale of goods and services via internet (Madanchian, 2024). In Indonesia, e-commerce is seen as a lifeline for small and medium-sized enterprises (UMKM) to expand their target market, especially during the pandemic when face-to-face transactions were impossible. Today, almost all internet users have

conducted online purchasing. This trend is supported by We Are Social survey, which shows that 88.1% of Indonesian internet users use online shopping services—the highest rate globally. The UK get second place at 86.9%, followed by the Philippines at 86.2% (Alamin, Missouri, Sutriawan, Fathir, & Khairunnas, 2023).

E-commerce in Indonesia began in 1996 with the launch of www.sanur.com, the first online bookstore (Chao & Anggara, 2019). Other popular e-commerce sites include astaga.com, mandirionline.com, and satunet.com. However, the 1998 monetary crisis slowed its growth. In 1999, internet-based shopping forums such as Kaskus emerged, it followed by platforms like Tokobagus and bhinneka.com, which specialize in electronic products, especially personal computers. Then, the sector experienced rapid expansion, giving rise to the marketplace platforms, websites that can facilitate online transactions between sellers and buyers (Al Haqqoni & Pramana, 2021).

Tokopedia became the first e-commerce marketplace to launch in Indonesia in 2009, followed by Bukalapak and Blibli in the next following year. Then, the sector experienced rapid growth with the emerging of other platforms such as Zalora, Lazada, and Shopee (Qothrunnada, 2022). Competition intensified as marketplaces competed to attract entrepreneurs to list their products. According to data from the Ministry of Cooperatives and Small and Medium Enterprises, in July 2024, 25.5 million micro, small, and medium-sized enterprises (MSMEs) had transitioned into the digital ecosystem (Antara, 2024). Business owners typically participate in multiple marketplaces; Shopee stands out as Indonesia's most popular online shopping platform, recording an average of 216.77 million visits in Q3 2023 (Alamin, Missouri, Sutriawan, Fathir, & Khairunnas, 2023). Meanwhile, transaction volumes through online intermediaries in Indonesia continue to rise steadily. According to reports by Google, Temasek, and Bain (2023), e-commerce is one of the key growth drivers for small and medium-sized enterprises (SMEs) and a major contributor to Indonesia's digital economy, accounting for US$62 billion of the country's total Gross Merchandise Value (GMV) in 2023, out of a total GMV of US$82 billion (Indef, 2024).

These shifts in purchasing behavior can fundamentally redefine how sellers and buyers interact. In the fast-paced, automated digital ecosystem, communication has become a cornerstone element. Sellers must go beyond merely offering products; they need to establish effective communication with buyers, including resolving conflicts (Neeraj & Shafighi, 2022). This underscores that digital communication is essential for interactions across various channels—instant messaging, live chat features, customer reviews, and the rapidly growing live-streaming services. Moreover, strategic digital communication is critical as it significantly influences consumer purchase intent (Panigoro, Harwani, Permana, Imaningsih, & Mahadewi, 2023).

To develop effective communication strategies, sellers and buyers must understand the available features. In recent years, e-commerce platforms and marketplaces have invested heavily to keep pace with technological advancements, especially in artificial intelligence (AI). According to Srivastava (2021), AI not only revolutionizes consumer interactions with online shopping platforms but also transforms internal business operations—such as service personalization, automatic communication via chatbots, and virtual assistants (Srivastava, 2021). The e-commerce industry leverages AI to process large-scale, dynamic customer databases, engage with customers through chatbots, and assist in searching, sorting, and identifying relevant products. By looking this trend, this study examines how sellers utilize various AI features in live-streaming e-commerce (LSE) to enhance and transform their communication practices. This study will focus on the most popular marketplace, namely Shopee.

Research on live shopping from a digital communication perspective is exemplified by the study which is conducted by Fransiska & Paramita (2020), which examines live shopping

through the lens of digital communication via mobile platforms. The study employs marketing communication theory, case analysis methodology, and a qualitative approach. It will focus on live shopping activities, which is carried out by dropshipping service providers via their Instagram accounts. Fransiska & Paramita (2020) concluded that live shopping represents a novel form of marketing communication that can enable businesses to promote products, engage with consumers and potential customers, and interact with social media followers. Globally, Hossain & Kim's (2024) research addresses a similar topic from a marketing perspective, investigating how the stimuli presented by live-streaming merchants influence consumer perceptions and purchasing decisions. Hossain and Kim's study focuses on a qualitative approach by conducting surveys among individuals who had watched live-streaming shopping events. The research revealed that the source's credibility, responsiveness to consumers, and interactivity with them have a direct and significant impact on consumer engagement. Furthermore, customer engagement during live streaming can significantly influence the intensity of purchasing and final purchasing decisions (Hossain & Kim, 2024). Meanwhile, this study addresses the research gap by focusing on how producers interpret AI-mediated communication, specifically within the live streaming feature on the Shopee e-commerce platform. Furthermore, it explains the impact of AI on seller-consumer communication, illustrating how it transforms product sales strategies, consumer engagement, and complaint management.

Research Question

Based on the above background, the formulation of the research problem for this study is as follows:

1. How do sellers experience and interpret communication mediated by AI on mobile e-commerce platforms, specifically within the live streaming feature on the Shopee platform?
2. How does artificial intelligence (AI) influence the way sellers communicate messages, interact with customers, and build digital relationships?

Research Objective

1. Explain the various forms of communication between sellers and buyers that are facilitated by AI in mobile e-commerce particularly through live streaming, chatbots, and auto-reply features.
2. Explain the impact of AI on the communication between sellers and consumers.

Benefits of Research

Practically, this study gives valuable reference for entrepreneurs and platform developers in designing more effective, user-centric, and strategically sound communication systems within the digital commerce ecosystem by leveraging AI capabilities. In addition, it holds significant academic value by contributing to the advancement of communication research related to mobile environments and artificial intelligence in marketplaces and e-commerce contexts.

Literature Review

Live Streaming E-Commerce (LSE)

Live streaming e-commerce (LSE) is a subset of digital platform-based sales that incorporates live streaming features (Yang et al., 2023). It provides sellers and consumers with a visual space for real-time, expressive, and dynamic interaction while showcasing products. Liu & Zhao (2024) define LSE as an interactive form of online shopping that integrates live streaming with e-commerce. LSE offers sellers a dynamic communication channel to demonstrate products in real time, offer discounts, and respond promptly to

consumer inquiries. This real-time interaction enables consumers to enjoy a seamless online shopping experience and fosters stronger interpersonal connections with sellers (Arisman & Imam, 2022). LSE is also closely linked to three fundamental consumer values: utility (functional benefits), hedonism (emotional value), and symbolism that influence purchasing decisions (Arisman & Imam, 2022; Ahmad & Methe, 2013). These values shape consumers' perceptions and interactions within the LSE platform, delivering a unique and engaging online shopping experience (Wongkitrungrueng & Assarut, 2020).

Utility value refers to a product's or service's ability to meet consumer expectations. In the context of LSE, consumers interact with sellers in real time, enabling them to receive immediate assistance and responses to their inquiries. This interactive feature is considered essential for a smooth online shopping experience, as it helps consumers locate desired products easily. Furthermore, LSE enhances utility value by offering cost-saving benefits, exclusive discounts, and seamless online transactions (Arisman & Imam, 2022). Hedonic value arises when sellers or businesses provide freedom, enjoyment, fulfill consumers' fantasies, and boost positive emotions (Holbrook & Hirschman, 1982); it is often associated with a delightful and enjoyable shopping experience, leading consumers to view online shopping as an opportunity to break from their daily routines (Arisman & Imam, 2022). An engaging shopping experience can be personalized by artificial intelligence (AI), significantly impacting consumer purchasing behavior (Mei et al., 2025). The study posits that the efficacy of AI in driving purchase decisions is underpinned by four key elements: dynamic product recommendation personalization based on user behavior, real-time interactive support (example : chatbots) that facilitates a seamless shopping journey, the reinforcement of word-of-mouth to establish product credibility, and optimized content delivery capable of effectively persuading audiences and driving sales conversions (Mei et al., 2025)

Digital Marketing Communication

Digital marketing creates opportunities to reach, inform, and build relationships with consumers while enabling the online provision and sale of products and services. It is projected to become the leading force in future technological transformation (Faruk et al., 2021). The adoption of digital marketing has fundamentally changed how marketers communicate with consumers. Nowadays, majority of consumers utilize various digital platforms—including computers, mobile devices, and social media channels such as Facebook, Instagram, Twitter, WhatsApp, and YouTube—which have significantly driven the growth of digital advertising spending (Owusu-Kyei et al., 2022). Furthermore, digital marketing is increasingly integrating artificial intelligence (AI) across three key domains (Chen et al., 2022). This context encompasses personalization (the using of consumer data collected by companies and processed by AI to align with last behavior), prediction and adaptation (where AI makes forecasts and adjustments based on various perspectives and specific marketing practices), and interaction/engagement (where AI employs cognitive technologies to interact with consumers through tools like chatbots and virtual assistants). In this framework, digital marketing serves as a bridge, reducing marketing costs while enabling efficient, targeted communication across diverse digital communication channels (Li, 2022). For this study, the focus is on digital media platforms such as e-commerce platforms.

The advancement of digital marketing has further propelled the development of digital marketing communication. In digital marketing practices, the integration of computer and communication technologies, innovative adoption of digital solutions, utilization of interactive digital marketing research, and provision of market decision support for manufacturers through data-driven marketing represent key directions for future development (Li, 2022). Within digital marketing strategies, communication plays a central role as

interactions between businesses and consumers via mobile devices or other digital platforms are pivotal (Shankar et al., 2022).

Shankar & Malthouse (2007) define digital marketing communication as exchanges conducted between businesses and consumers through electronic or digital channels. Distinct from traditional marketing communication, digital marketing communication facilitates direct interaction and dialogue between sellers and buyers. By leveraging various digital marketing communication channels, businesses can effectively engage with consumers, enhance communication efficiency, and drive internal digital transformation (Li, 2022). In the context of the LSE and business-to-customer (B2C) digital marketing communications, content emerges as a pivotal factor. Content significantly influences the effectiveness of digital marketing communications by shaping cognitive perceptions, fostering interaction, and shaping consumer behavior and brand relationships (Shankar et al., 2022).

In line with advancements of marketing communication theory, the concept of integrated marketing communication (IMC) was developed by Don E. Schultz, Stanley I. Tannenbaum, and Robert F. Lauterborn in the early 1990s. Schultz (1993) defined IMC as a marketing communication planning framework that emphasizes the added value of a comprehensive strategy that evaluates the strategic roles of various communication disciplines—such as advertising, direct response, sales promotion, and public relations—to achieve clear, consistent, and maximal communication impact (American Association of Advertising Agencies). In their seminal work, Schultz & Schultz (2003) defined IMC as a business strategy process designed to plan, develop, implement, and evaluate brand communication programs in a coordinated, measurable, and consistently persuasive manner across consumers, potential customers, and other targets—including both internal and external audiences. IMC is also defined as a process of managing consumer relationships to enhance brand value (Duncan, 2002). Specifically, IMC constitutes a cross-functional approach aimed at fostering beneficial relationships with consumers and other stakeholders by developing strategies to control and influence all communications delivered to consumers through targeted databases and dialogues (Nadube, 2018).

Schultz & Schultz (2003) outlined eight guiding principles of the Integrated Marketing Communications (IMC) approach: adopting a consumer-centric corporate philosophy, employing an outside-in planning methodology, prioritizing consumer experience, aligning consumer objectives with business goals, defining consumer behavior objectives, treating consumers as assets, streamlining functional activities, and coordinating marketing communication efforts. They also described five IMC processes: identifying customers and potential customers, estimating their value, designing communication messages and incentives, calculating Return on Customer Investment (ROIC), conducting post-program analysis, and developing subsequent strategies. In later developments, Sterne (2017) noted that artificial intelligence (AI) can facilitate the creation of cross-channel value built through collaborative relationships between companies and their customers. AI is also recognized as capable of ensuring effective communication across all consumer touchpoints. Companies can leverage machine learning or other AI-powered features to deliver detailed insights into specific consumer targets or segments, along with tailored marketing communication strategies that align with the experiences and preferences of current or potential customers (Sterne, 2017).

The concept of Integrated Marketing Communication (IMC) is included as a conceptual foundation for understanding this shift in the marketing communications paradigm. Traditionally, the main principle of IMC requires producers to integrate personalized and consistent messages across various consumer touchpoints (Schultz & Schultz, 2003). However, in the live streaming e-commerce (LSE) ecosystem, interactions unfold simultaneously, in real time, and on a massive scale. It has become nearly impossible for

human sellers to execute these principles manually. The presence of artificial intelligence (AI) technology in the marketplace acts as a solution to execute IMC objectives that humans can no longer handle independently.

AI-Mediated Communication (AIMC)

The perspective of AI-mediated communication is employed in this study to examine sellers' marketing communication practices through live streaming on e-commerce platforms. Advances in AI within interpersonal communication have expanded computer-mediated communication (CMC) to include AI-powered forms of interaction (Hancook et al., 2020). Artificial Intelligence Mediated Communication (AIMC) is defined as interpersonal communication that is not only transmitted via technology but also modified, enriched, or even created by computational agents to achieve specific communicative objectives (Hancook et al., 2020). AIMC comprises five dimensions: magnitude (AI modifies messages and media formats such as text, audio, and video); goal optimization (AI tailors messages to achieve intended outcomes); autonomy (AI acts on behalf of the sender); role orientation (AI enhances the efficiency of response interactions); and context adaptation (AI adapts communication strategies to specific scenarios). AI-mediated communication is also related to the concepts of "human agency" and "machine agency" within the context of communicative interactions (Mieczkowski & Hancock, 2023).

Actor Network Theory (ANT)

This study employs Actor Network Theory (ANT) to examine the using of artificial intelligence in live-streaming e-commerce (LSE) from a merchant's perspective. Within the context of Communication Science research, ANT analyzes the communicative properties and interactions between humans and non-human agents (Littlejohn, 2021). The non-human agents encompass objects, stars, natural phenomena, physical structures, transportation vehicles, texts, and economically valuable items, but exclude supernatural elements and natural symbols. The core concept of ANT is that non-human agents are actors with agency who interact within networks. In ANT terms, "action" refers to activities performed by actors that are evolving and expanding continuously.these actions are manifested through networks, patterns, and relationships formed during interactions. Agency, meanwhile, denotes a human or non-human entity that induces changes in another entity or network. The concept of networks also plays a central role in ANT, as agencies interact productively and collectively (Littlejohn, 2021). ANT is often described as a systematic approach to examining the infrastructure that supports scientific and technological advancement within networks, thereby enabling more profound investigation and understanding of these systems. It serves as a theoretical framework for interpreting socio-political phenomena in hybrid contexts, particularly those where digital technology plays a pivotal role (Zein & Twinomurinzi, 2022).

METHOD

This study employs a constructivist paradigm, which posits that reality is relative, non-universal, and shaped by individual experiences and subjective interpretations (Baxter & Jack, 2008). In other words, there is no single absolute truth; rather, multiple truths exist depending on how they are interpreted. Baxter and Jack highlight one key advantage of the constructivist approach: close collaboration between researchers and participants. This enables researchers to gain deeper insights into participants' behaviors and ensures they remain engaged in the interpretive process, actively contributing to understanding and interpreting the meanings conveyed by participants. In practical term, this paradigm specifically guides the data collection and interpretation processes. During data collection, the researcher approach is implemented through open-ended interviews, allowing the

researcher to facilitate producers in articulating their subjective experiences regarding AI-mediated interactions. At the interpretation stage, the researcher engages in a process of co-constructing meaning. By actively interpreting the informants' narratives and aligning them with the context of their daily work practices in live streaming

This study employs a case study approach. A case study is a method that enables researchers to examine complex phenomena within their real-world context (Baxter & Jack, 2008). This approach is particularly valuable when researchers aim to explore, understand, or describe a specific event, program, policy, group, or individual in depth by considering its broader context. Baxter and Jack explain that case studies allow for the exploration of phenomena within their natural setting using diverse data sources. The primary objective of this approach is not merely to elucidate a phenomenon but also to reveal the various perspectives that shape the experience, thereby fostering a more comprehensive and nuanced understanding. Specifically, this research adopts a single case study design. Stake (1995) defines a case study as examining the particularity and complexity of a single case to understand its activity within its specific context. This single case is treated as a bounded system, specifically restricted in this study to sellers interacting via the live-streaming feature on Shopee (Stake, 1995).

The research methodology employed in this study is qualitative, selected to align with the objectives study of elucidating how sellers employ communication practices in live-streaming e-commerce and which AI features they utilize. The research subjects—specific social phenomena or manifestations of social behavior targeted for scientific investigation—are identified using a topic-based, question-driven scientific approach (Neuman, 2014). Neuman defines subjects as experiences, perceptions, attitudes, meanings, or behaviors that represent specific topics and serve as data sources. In this study, the subjects examined encompass communication practices in live-streaming e-commerce and the AI features employed by sellers.

The subjects of this study were three micro-, small, and medium-sized enterprise (MSME) entrepreneurs who actively sold products through live streaming on mobile e-commerce apps. The decision to utilize a relatively small sample size is grounded in the primary objective of qualitative case study research, which favors the in-depth exploration of thick description—over statistical generalizability. Data saturation was attained not by expanding the participant pool, but through the rigorous intensity and iterative nature of the data-gathering process. Researchers employed a purposive sampling method to select participants by establishing specific criteria aligned with the objectives study ;primarily, they sought local market vendors with experience in live streaming and proficiency in AI-powered features like chatbots, auto-reply for over three years to ensure authentic depictions of their business activities. Data collection followed a personalized and selective approach, with researchers proactively identifying individuals engaged in e-commerce sales and live streaming within their community. Participants were selected based on their relevance to the research focus and willingness to participate openly. Furthermore, the researchers ensured that all participants engaged consciously and voluntarily. Prior to conducting interviews, they provided detailed explanations of the objectives study the expected form of participation, as well as how the data would be used and how confidentiality would be maintained.

This approach aimed to create a safe and comfortable environment for respondents to share their personal experiences. As a result, the data collection process not only yielded substantive information but also upheld research ethics and respected the participants' perspectives.

In-Depth Interview

After identifying participants who met the criteria, primary data were collected through face-to-face, semi-structured interviews. The interview questions were designed based on the dimensions outlined in Actor Network Theory (ANT).

The semi-structured approach offers flexibility in deeply exploring the sources' narratives and personal experiences without deviating from the established theoretical framework. During interviews, researchers first obtain consent from participants to document the conversation process for data accuracy. They also regularly check that participants feel comfortable and agree to have their interviews transcribed and incorporated into the research dataset. This phase aims to identify communication patterns and the dynamics of interactions between sellers and buyers in live-streaming e-commerce (LSE) contexts.

Literature Review

In addition to rely on in-depth interviews as the primary data source, this study also incorporates literature reviews as a secondary data source. Researchers conducted a search of relevant references, including academic books and scientific journal articles, to gain a comprehensive understanding of how communication practices are implemented and what features traders using Lokapasar applications for sales employment. This literature review is not only served as a supplement but also formed a crucial foundation for developing the analytical framework and deepening interpretations of source data. By enriching their perspective with existing literature, researchers were able to link field findings with established theories, thereby enhancing the academic study and relevance to advancements in communication research.

Data Analysis Techniques

To analyze the data, researchers will review interview transcripts carefully and record on the left margin about the meanings of specific sections. These notes may include summaries, associations, or interpretations based on their experience using live-streaming features on marketplaces. They will note the themes that emerge on the right margin; these initial notes are subsequently refined into more meaningful statements that capture the broader implications of the text. The identified themes are further analyzed to uncover relationships between them; some may be grouped, while others require further subdivision. Researchers create a structured theme table, assigning appropriate names to each theme and linking them to the original text via quotations. Themes that do not align with the main themes or contribute little significance may be excluded. If the study involves more than one participant, the researcher will repeat the above steps for each case. The researcher may start from scratch or use the thematic table from the first case as a guide for subsequent cases. This process is repeated until the researcher obtains a final thematic table that represents all cases in the study.

Data Validity

Data validity is essential to ensure authenticity (Neuman, 2014). In qualitative research, according to Neuman, this entails providing an honest and balanced portrayal of social life from the perspective of those who experience it. To maintain data validity, researchers employ qualitative strategies such as credibility, dependability, confirmability, and transferability. To ensure crebility and transferability, researcher conducted member checking and provided verbatim quotes from the informants to establish a thick description. Meanwhile, in order to ensure dependability and confirmability, researcher maintain audit trails, and document personal reflections during analysis. All these processes are carried out

consistently and transparently to ensure that the experiences constructed by participants are interpreted accurately and meaningfully.

RESULTS AND DISCUSSION

This study demonstrates that AI features on Shopee's marketplace platform are perceived as non-human entities actively participating in the communication network between sellers and buyers. This is the evidence from interviews with seller respondents who conduct live streaming. for example, Respondent 1 states that the use of auto-reply features and automatic product recommendations enhances efficiency communication with buyers. Respondent 1 attributed their preference for the auto-reply feature on LSE to frequently experiencing difficulty responding to send messages or comments during live broadcasts.

> *"Yang paling sering saya pakai itu auto-reply, jadi lebih praktis kalau langsung dijawab otomatis…"* dan *"...sistem langsung munculin produk yang relevan."* (Informan 1, 2025)

The review indicates that AI has taken over repetitive communication tasks, enabling sellers to focus on more complex interactions. The further ANT approach emphasizes that technologies like AI employ agents as crucial as humans within the network. In other words, Shopee's AI features serve as key players mediating information flow between sellers and consumers, fostering a hybrid human-machine communication ecosystem.

The same case happened to Informant 2 as well. Although it has not fully integrated yet AI features into its live streaming services, the platform employs automatic replies under strict oversight and states that AI serves as a support tool for operations. Informant 2 gave further confirms that AI has been incorporated into the buyer-seller communication system within its live e-commerce (LSE) platform, while human operators remain responsible for managing the conversational flow.

> *Auto*-reply… *kami masih aktif mengecek ulang hasilnya.*" (Informan 2, 2025)

Similarly, Informant 3 did not utilize all available AI features due to unsatisfactory results that aligned with the intended functionality and authenticity of the product being sold. Features designed to streamline flows were implemented, while those deemed inappropriate were omitted.

The Transformation of Sales Representatives' Communication Styles

From the perspective of AI-Mediated Communication (AIMC), intelligent agents can modify or generate messages on behalf of communicators, thereby altering users 'communication styles. This is evident in Informant 1 admission that AI influenced his communication style; he deliberately chose specific words to enable the AI system to get better capture of the conversational context, resulting in a more systematic and focused speech pattern.

> *"Lumayan berpengaruh. Sekarang saya jadi lebih sering pakai kata kunci tertentu. Saya juga sekarang ngomong lebih terstruktur. Gaya bicara saya sekarang lebih terarah dibanding dulu."* (Informan 1, 2025).

Source 1 also states that the use of AI-powered auto-reply functionality in LSE enables sellers to focus on verbal interaction with viewers, as most comments and questions are answered automatically. Additionally, Source 1 employs a humorous communication style by incorporating witty remarks to prevent viewer fatigue and enhance engagement with both current customers and potential buyers.

> *"Jadi saya bisa fokus ke interaksi, kayak menanggapi permintaan khusus, ngejokes sama penonton, atau kasih review soal produk. Tapi kadang saya merasa ada jawaban AI yang terlalu kaku atau enggak sesuai konteks, jadi saya tetap harus cek dan sesekali koreksi."* (Informan 1, 2025)

Informant 3 also agree with this view, acknowledging that the introduction of AI features has transformed their communication style and strategy. During live streaming, there are pop-up notifications and audience statistics that hosts can monitor. When the viewership drops, their communication approach shifts—from simply explaining product details to offer promotions actively to boost the engagement. Similarly, for pop-ups informing viewers whether a product has been added to their cart or hasn't been purchased (a common question), hosts proactively ask why the inquiry hasn't resulted in a purchase.

> "*Karena terlihat grafik dan notifikasi membuat ada perubahan strategi dan pola, oh si kakak yang nanya doang tapi belum masukin keranjang, kami bakal melakukan pendekatan lebih dengan mempertanyakan kenapa blm masukin keranjang atau checkout, ada yang mau ditanya lagi nggak, kalo nggak aku spill yang lain yaa barangkali cocok." (*Informan 3, 2025).

Another communication transformation observed by Informant 3 in the systematization aspect involves responding to and introducing products. The automated questioning feature—activated by clicking the "ask seller" button—generates messages that appear in the comment section during live streams faster than manual inquiries, making communication more targeted based on frequently asked or first-raised questions, thus preventing hosts from feeling compelled to explain products.repeatedly .Informant 3 has also adopted a "wave-checking" strategy for flash sale events and product bidding sessions as a communication tactic to attract more viewers and buyers. Hosts now employ more refined language, reflecting Informant 3's recognition that consumers prefer sellers who are interactive and cheerful.

> *"Misal begini kata-katanya, buat kakak yang checkout saat aku live, aku kasih sesuatu di dalam paketnya. Ini mentrigger mereka untuk checkout saat live."* (Informan 3, 2025)

On the other hand, Informant 2 states hat the AI features have no impact on how traders structure the messages they deliver during live e-commerce broadcasts (LSE).

Informant 2 shared his perspective on LSE, noting significant changes in live streaming practices over time. He explained that initially, consumers were reluctant to watch long live sessions due to the limited number of online sellers offering such services; this contrasts sharply with today's high customer turnover rate. Addressing these differences, Informant 2 states that each seller has unique strategies to build rapport with buyers, including distinctive language styles. He also mentioned that while AI auto-reply features are utilized, they still verify the relevance of the language manually in message boxes. Informant 2 emphasized that informative content remains a core element of communication with LSE customers.

> *Kami usahakan untuk tetap memantau chat, walau sudah ada pesan otomatis dari AI. Ini karena kami ingin memastikan chat dibalas dengan gaya bahasa yang lebih santai dan 'manusiawi', serta lebih menjawab pertanyaan." (Informan 2, 2025)*

This difference indicates that the impact of AI on communication styles depends on how extensively sellers integrate this technology. Conceptually, this aligns with the notion that the presence of AI-MC requires communicators to adapt their messaging strategies—

both to optimize AI functionality and to preserve the authenticity of communication. Based on the empirical findings, the concrete manifestation of this strategic adaptation is most evident in the highly intensive use of live-streaming and auto-reply features. These two features serve as the primary representation of how the informants navigate AI: delegating the delivery of basic messages to automated systems (auto-reply), while focusing their effort on cultivating organic relationships through virtual face-to-face interactions (live streaming).

Control Negotiations between the Seller and the AI

This study reveals that respondents negotiate control actively over AI-mediated communication and remain vigilant about potential errors or inflexible information from automated systems. For example , Respondent 1 States that AI responses can be overly rigid or sometimes out of context; Respondent 2 emphasizes that despite using auto-reply features, they monitor the conversation continuously to maintain a personalized experience; while Respondent 3 acknowledges that users prefer more humanized responses and not all questions can be answered by chatbots.

> *"Kami usahakan untuk tetap memantau chat, memastikan chat dibalas dengan gaya bahasa yang lebih santai dan manusiawi."* (Informan 2, 2025)
> *"Ada beberapa kasus yang enggak bisa diselesaikan oleh autoreply, jadi ada pilihan mau dari sistem atau chat penjual. Lebih banyak yang memilih ke penjual, lebih memilih cara human mereply."* (Informan 3, 2025)

This approach reflects that sellers do not delegate communication authority fully to the AI system. Within the ANT framework, this condition illustrates a role negotiation process that forms a specific network relationship: seller, AI, and consumer. Within this network, sellers retain ultimate control over ensuring message accuracy and nuance, while AI serves only as a supporting role. Even though this communication chain is mediated by machines, sellers still position themselves as controllers of communication with buyers. Conceptually, these findings align with concerns raised in AIMC literature regarding the necessity of human oversight to guard the authenticity and ethical integrity of technology-mediated communication.

AI as a Partner

All three respondents viewed AI as a collaborator rather than a replacement. Respondent 1 described how AI's role has evolved from being initially seen as a tool to become partner. Meanwhile, Respondent 3 emphasized the enduring importance of human sellers as key players, because look at the development trajectory and algorithms behind their sales processes, consumers in Indonesia are still unaccustomed to responses from robots or automated systems.

> *"Jadi AI itu semacam asisten aja yang bantu kerjaan jadi lebih efisien." (Informan 1, 2025)*
> *"Mereka masih ingin dijawab oleh human dan banyak pertanyaan belum dimengerti oleh AI."* (Informan 3, 2025).

This perspective suggests that AI is viewed as a collaborator that alleviates operational burdens without eliminating human involvement. On the other hand, Informant 2 emphasizes that AI should be regarded solely as a technical tool.

> *Kebanyakan berposisi sebagai tools… Belum ada fitur AI yang sudah berperan menjadi pengganti di toko kami."* (Informan 2, 2025)

These two perspectives highlight that AI will play a collaborative role in supporting humans in achieving communication objectives. However, its adoption also presents unique challenges. Beyond the aforementioned rigidity in response times, there is a reliance on algorithms that require sellers to continuously learn and adapt to new technologies. In Shopee's highly competitive marketplace environment, response speed and communication responsiveness are critical. Sellers must develop strategies to leverage AI's potential for enhancing efficiency while maintaining close connections with buyers. Thus, AI serves as both a partner and a challenge in digital interactions, aligning with research emphasizing the need for a balance between automation efficiency and human-centric interaction.

Ultimately, this study integrates interview findings with the theoretical frameworks of ANT and AIMC. The role of AI in Shopee's live-streaming sales practice can be understood as part of a complex actor network: AI serves as an agent that supports communication (ANT) and influences how orders are structured and delivered (AIMC). The interaction between sellers and AI is characterized by adaptations in communication styles, control mechanisms, and collaborative dynamics—all occurring within Indonesia's contemporary digital e-commerce ecosystem.

CONCLUSION

This study demonstrates that the adoption of AI technology in Shopee's live-streaming sessions significantly influence sellers' communication patterns and strategies. Features such as automatic product recommendations and chatbots enable sellers to respond quickly to inquiries and tailor communication content to consumer preferences. Pop-up notifications and audience analytics further enhance interaction responsiveness and structure, especially in real-time scenarios. From the perspective of Actor-Network Theory, AI serves not only as a technological complement but also as non-human actor that shapes the dynamics of seller-buyer interactions. Technologies like chatbots and AI algorithms can mediate messages, guide conversation flows, influence user responses, and assist sellers in generating product recommendations based on algorithmic insights. This underscores that the communication network in live streaming is inherently hybrid, involving functional connections between humans and machines. Within the framework of AI-Mediated Communication, artificial intelligence actively modifies and restructures communication messages to support sales objectives, adapting content based on consumer behavior data. These findings confirm that communication in e-commerce live streaming no longer stems solely from human actors but represents a collaborative effort between human agents and machines within a dynamic digital communication system.

Academic Suggestions and Recommendations

To enrich the findings, future research should incorporate a broader range of participants from diverse product or platform backgrounds. The study can extend beyond Shopee to include other platforms such as TikTok Shop to provide a more comprehensive understanding of this phenomenon. Keep in mind that this study focuses on sellers 'experiences, subsequent research is also recommended to explore buyer' s perspectives, especially regarding how audiences interpret AI-powered seller communications in terms of authenticity, comfort, and trust. Similarly, additional studies should examine communication effectiveness by involving both sellers 'and buyers' perspectives. To enhance theoretical deeply, future research may integrate ANT and AIMC with other models such as the Technology Acceptance Model (TAM), Uses and Gratifications, or Technological Ethics Perspectives. This multidisciplinary approach can provide a more comprehensive understanding of digital communication practices mediated by artificial intelligence (AI).

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