

Live streaming's reigning monarchs: Delving into the pivotal role of influencers through live broadcasts

Erwin Erwin^{1*}, Haris Maupa², Julius Jilbert³, Abdullah Sanusi⁴, Yuyun Karystin Meilisa Suade⁵

^{1,5}Ciputra School of Business, Makassar, Indonesia

^{2,3,4}Faculty of Economics and Business, Universitas Hasanuddin, Makassar, Indonesia

*Correspondents e-mail: erwin.parega@ciputra.ac.id

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Author's email:

harismaupa@fe.unhas.ac.id

juliusjilbert@fe.unhas.ac.id

a.sanusi2003@gmail.com

yuyun.suade@ciputra.ac.id

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Abstract

Purpose – The ubiquity of online businesses has seen a surge in influencer marketing, with live streaming emerging as a prominent strategy. However, the pivotal role of influencers, individuals with a substantial social media following, in live streaming and their subsequent influence on customer behavior justifies a thorough investigation. This research digs into the role of influencers in live streaming and examines their impact on Customer Engagement and Brand Awareness through live streaming activities.

Design/methodology/approach – A sample of 225 online customers joined this study. Data was collected using a questionnaire using a 5-point Likert scale and analyzed using Partial Least Square-Structural Equation Modeling (PLS-SEM) processed with WarpPLS Version 8.0.

Findings – Influencers can substantially contribute to both customer engagement and brand awareness through live streaming. However, the study indicates that influencers do not directly contribute to brand awareness. Influencers reign supreme in the realm of live streaming, showing their potential to enhance customer engagement and brand awareness. The study offers valuable insights for businesses and influencers to effectively leverage live streaming to meet their marketing goals.

Research limitations/implications – The cross-sectional design of the study hinders causal inferences. Longitudinal research and broader sampling are necessary to establish temporal relationships and generalize findings to diverse populations and regions.

Practical implications – The research suggests that businesses should strategically select influencers, leverage live streaming for engagement and brand, foster authentic relationships, and measure campaign performance while combining influencer marketing with other digital strategies.

Originality/value – This research offers a comprehensive exploration of the synergistic relationship between influencers and live streaming in driving customer engagement and brand awareness, providing empirical evidence and practical recommendations for marketers.

Keywords: Live Streaming, Influencer, Customer Engagement, Brand Awareness, Marketing Strategy

Introduction

The rapid advancement of technology and the increasing penetration of the internet have significantly transformed how individuals interact and make purchases (Ifadhila et al., 2024; Rosário & Raimundo, 2021). This phenomenon reflects a shift from traditional communication and

transaction methods toward more digital and efficient ones (Ariasih et al., 2023). Social media and online marketplaces have emerged as primary platforms for consumers to seek information, communicate, and conduct transactions (Erwin et al., 2022; Rosário & Raimundo, 2021). These platforms offer convenient access and provide a range of interactive features that enable users to engage more actively in online activities (Maddox & Malson, 2020).

In this highly competitive digital environment, businesses face significant challenges in capturing customer attention and building strong customer engagement and ongoing brand awareness (Malik & Pradhan, 2025; Xia & Shannon, 2025). Although social media and marketplaces provide a broad platform, many businesses, especially small and medium-sized enterprises (SMEs), struggle to leverage these interactive features to establish deep relationships with their audiences (Pellegrino & Abe, 2023; Singh, 2024). Based on data from the South Sulawesi Provincial Cooperatives and MSMEs Office, out of 1.2 million MSME actors, and those who have used digital technology are still relatively low, namely 10 percent or about 120 thousand more MSME actors (Bappelitbangda Sulsel, 2023) which shows that MSME actors still face obstacles in optimizing their digital marketing strategies, one of which is reflected in the low level of interaction and reach in digital campaigns. This phenomenon reveals a gap between the availability of technology and businesses' ability to use it effectively, ultimately hindering their efforts to build a strong and relevant brand in the eyes of consumers.

Amidst this dynamic landscape, the rise of influencers as individuals with substantial social media influence has added complexity to the digital marketing landscape (Erwin et al., 2022). Influencers have a unique ability to forge emotional connections with their audiences, enabling them to significantly affect purchasing decisions and customer engagement. The role of influencers has become increasingly pivotal in marketing strategies, given their capacity to convey messages authentically and personally, which consumers often perceive as more trustworthy than traditional advertising (Delbaere et al., 2021).

Live streaming, as a prominent feature on various social media platforms and marketplaces, has become an effective tool for influencers to interact directly with their audiences (Maddox & Malson, 2020). This feature allows influencers to deliver messages in real-time, provide prompt responses to queries, and offer insights or recommendations relevant to the audience's needs (Giertz et al., 2022). This direct interaction creates a more personal and authentic experience for the audience, then enhancing engagement and loyalty (Giertz et al., 2022; Joo & Yang, 2023; Li et al., 2020).

The ability of live streaming to convey information instantaneously and provides influencers with opportunities to bolster brand awareness (Zhang et al., 2022). Through product demonstrations, live reviews, and responses to audience feedback, influencers can cultivate a positive brand image and credibility (Giertz et al., 2022; Joo & Yang, 2023). The strategic use of live streaming expands the audience reach and increases customer engagement, ultimately positively affecting purchasing decisions and consumer loyalty (Li et al., 2020; Lv et al., 2022).

Although many studies have examined the role of influencers in digital marketing, a gap persists in the literature regarding how real-time interactions through live streaming specifically influence customer engagement and brand awareness (Ahmed et al., 2024; Benevento et al., 2025; Glucksman, 2017; Vo et al., 2025). Most previous studies have focused on static content shared by influencers, but the dynamic influence of live streaming has been less explored. Research conducted seems to focus more on the role of influencers in building engagement and awareness of the activities carried out by influencers (Ahmed et al., 2024; Benevento et al., 2025; Delbaere et al., 2021). Even though there are real-time activities that can be explored more deeply than the role of influencers (Asante et al., 2024; Barari et al., 2021; Chen et al., 2022; Chen & Yang, 2023; Giertz et al., 2022) so it is necessary to involve live streaming activities on the role of influencers in interaction and awareness of the brand that is the specificity of this study.

This study provides an in-depth analysis of how influencers utilise live streaming to build stronger relationships with their audiences and enhance brand awareness (Delbaere et al., 2021; Glucksman, 2017). This study bridges the gap in the literature by positioning this study as one that offers new insights into the effectiveness of live streaming as a digital marketing tool (Giertz et al., 2022; Joo & Yang, 2023; Li et al., 2020). The data was collected from online customers who

interacted on social media platforms and marketplaces in South Sulawesi Province. The choice of this location is based on the features of areas with high internet penetration rates and digital economy dynamics (Nur et al., 2021), thus providing relevant empirical context for this study. Through these findings, the study is expected to contribute to digital marketing literature, offering in-depth insights into the role of influencers when live broadcasting, and providing practical recommendations that can guide companies and marketers in designing more effective campaigns and strategies to increase customer engagement and brand awareness.

Literature Review and Hypotheses

Live Streaming

Live streaming has emerged as a significant phenomenon in the digital realm, merging the technology of live broadcasting with real-time interactions between broadcasters and viewers (Li et al., 2020). Research in this field often focuses on indicators like viewing frequency, active participation and user satisfaction (Lv et al., 2022). The parts of interactivity, engagement, as well as economic and psychological impacts are also primary concerns. These studies contribute to understanding user behavior and the social implications of live streaming, providing insights into the evolution of technology and infrastructure that support these platforms (Zhang et al., 2022). Factors also like video quality, interactivity, and engagement have been central focuses in these studies (Giertz et al., 2022; Joo & Yang, 2023). With the evolution of live streaming platforms, research continues to dig into understanding user behavior and the social implications of this phenomenon (Joo & Yang, 2023).

Research on live streaming has also explored technological and infrastructural parts, such as bandwidth and latency, which influence the quality of live broadcasts. Other commonly used indicators include viewership, viewing duration, and financial contributions through donations or virtual purchases (Giertz et al., 2022). The psychological impact on both broadcasters and viewers, such as performance pressure and effects on mental well-being, has garnered significant attention (Asante et al., 2024). Through these various indicators, researchers try to provide a comprehensive understanding of the dynamics and impacts of live streaming (Zhang et al., 2022).

Influencer

Influencers have emerged as a dominant force in digital marketing, leveraging their social media presence to shape the opinions and behaviors of their followers (Erwin et al., 2024). Research on influences often explores parts such as credibility, attractiveness, and their communications to influence consumer purchasing decisions (Erwin, Suade, & Alam, 2023; Glucksman, 2017). Factors such as follower count, engagement rate, and brand alignment are also significant indicators in assessing influencer effectiveness (Delbaere et al., 2021). These studies provide insights into how influencers can shape markets and how they can be strategically employed in marketing campaigns (Glucksman, 2017).

Research about influencers has identified various key indicators, including credibility, attractiveness, and niche relevance, that influence marketing effectiveness (Ryu & Han, 2021). Researchers often evaluate factors such as follower count, engagement rate, and frequency of interaction to assess an influencer's impact on consumer behavior (Delbaere et al., 2021; Glucksman, 2017). Indicators such as perceived authenticity, respect and brand fit play important roles in determining influencer impact (Erwin et al., 2024). These studies contribute to a better understanding of how influencers can shape purchasing decisions and marketing strategies (Erwin et al., 2022).

Customer Engagement

Customer engagement refers to the active and ongoing interaction between a customer and a brand, encompassing parts such as two-way communication, participation in brand activities, and emotional involvement (Shawky et al., 2020). Research in this area often assesses indicators such as interaction frequency, quality of shared content, and impact on customer loyalty to measure

engagement levels (Ho et al., 2022). Factors such as personalization, responsiveness, and content relevance also play a significant role in enhancing engagement (Felix & Rembulan, 2023). Understanding customer engagement enables brands to foster stronger and more enduring relationships with their customers (Barari et al., 2021).

Customer engagement on social media and marketplaces reveals that research has employed various indicators to measure consumer involvement (Maddox & Malson, 2020; Rosário & Raimundo, 2021). On social media, indicators such as the number of likes, comments, shares, and the level of interaction with content are primary metrics used to assess engagement (Erwin et al., 2023). But in marketplaces, indicators such as the number of reviews, product ratings, questions asked, and responses to customer service are the primary focus (Ho et al., 2022; Liu et al., 2020). These studies provide insights into how interactions on both platforms can influence customer satisfaction, brand loyalty, and purchasing decisions (Ho et al., 2022).

Brand Awareness

Brand awareness refers to the extent to which consumers recognize and can name a brand in the marketplace (Rosário & Raimundo, 2021). It encompasses knowledge of the brand name, logo, and attributes of the products or services offered (Bergkvist & Taylor, 2022). Brand awareness is crucial for building consumer trust and influencing purchasing decisions, as well as contributing to a brand's competitive position (Tan et al., 2022). Brand awareness research reveals that studies often use indicators such as brand recognition levels, brand recall, and logo recognition to measure consumer awareness of a brand (Bergkvist & Taylor, 2022; Tan et al., 2022). Researchers also evaluate factors such as frequency of ad exposure, intensity of marketing campaigns, and the impact of promotions on brand awareness (Bergkvist & Taylor, 2022). Also, measures such as brand salience within a product category and the influence of social media are considered (Maddox & Malson, 2020). These studies provide insights into how various marketing strategies can influence brand awareness levels and consumer perceptions.

Several researchers have identified various methods for measuring brand awareness, including the frequency of brand mentions in both online and offline conversations (Dabbous & Barakat, 2020); the level of recognition of the brand's logo, slogan, or visual identity; the ease with which consumers can recall the brand when prompted with a specific product category; the proportion of consumers who consider the brand as a good choice when buying a similar product or service; and the frequency of brand searches on search engines brand (Bergkvist & Taylor, 2022; Tan et al., 2022).

Hypothesis

The credibility and appeal of influencers have been shown to substantially influence consumer behavior and their engagement with a brand (V I De Araujo et al., 2025; Zaki et al., 2025). Influencers, as individuals who have social influence and knowledge in a particular field, can establish strong personal connections with their followers, which encourages interaction and active participation (Delbaere et al., 2021; Erwin et al., 2024; Pérez-Cabañero et al., 2023). Research by Gupta et al. (2023) found that product recommendations from influencers elicit higher emotional and cognitive responses, as measured by the number of likes, comments, and shares on their content. This two-way interaction, at the heart of customer engagement, shows audiences are consuming information and participating in the brand narrative. Based on these theoretical arguments and empirical findings, some think:

H₁: Influencers positively influence Customer Engagement.

Influencers in the digital marketing landscape has significantly changed the way brands establish recognition and visibility (Delbaere et al., 2021; Joo & Yang, 2023). Their broad authority and reach allow for the rapid and efficient dissemination of brand messages to specific audience segments (Erwin et al., 2023; Ryu & Han, 2021). Repeated and consistent exposure to content sponsored or recommended by influencers significantly increases the frequency of consumer memories of brands, a key prerequisite of brand awareness (Rosário & Raimundo, 2021; Tan et al.,

2022). An empirical study by Pan et al. (2024) confirms that influencer marketing campaigns are positively correlated with increased brand recall and brand recognition among target audiences. This phenomenon shows that influencers act as a powerful catalyst in internalizing brand identity into the minds of consumers. So it is proposed that:

H₂: Influencers positively influence Brand Awareness.

The phenomenon of live streaming has emerged as a dynamic communication channel, offering a unique interactive platform to foster direct and authentic connections between brands and consumers (Joo & Yang, 2023; Lv et al., 2022). This format lets audiences interact in real-time through comments, questions, and reactions, creating an immersive and collaborative environment (Asante et al., 2024; Li et al., 2020). Live streaming helps with two-way dialogue, which significantly improves customer engagement by providing a more personalized and participatory experience compared to static content media (Ho et al., 2022; Lv et al., 2022). A study by Tian & Frank (2024) found that interactive live streaming sessions were strongly correlated with increased engagement metrics, such as watch duration and comment participation. This real-time, interactive environment fosters a sense of community and loyalty, which are essential parts of customer engagement. Based on this argument, some think:

H₃: Live Streaming positively influences Customer Engagement.

Live streaming platforms have become an effective way to build brand awareness by creating instant and massive brand exposure (Dabbous & Barakat, 2020; Giertz et al., 2022). The visually and audio-engaging nature of live broadcasts, combined with real-time interactions, lets brands reach audiences at scale and capture their attention more intensely (Li et al., 2020). Consistent exposure to logos, products, and brand messages during live streaming sessions increases brand recall and recognition in consumers' minds (Bergkvist & Taylor, 2022; Lv et al., 2022). Previous studies, such as those conducted by Haushalter (2023) and Jiao et al. (2024), confirm that the use of live streaming in promotional campaigns is closely correlated with increased brand awareness metrics, including the number of impressions and audience growth. The cost efficiency and speed of message delivery through these platforms make them a powerful instrument for building brand visibility in a competitive market (Bergkvist & Taylor, 2022; Giertz et al., 2022; Lv et al., 2022). Based on this understanding, some think:

H₄: Live Streaming positively influences Brand Awareness.

The dynamics between influencers and the adoption of digital communication channels have been the subject of important research in recent years. The existence of an influencer attracts followers and drives the platforms on which they operate (Erwin et al., 2023). Many influencers strategically use live streaming features as a primary tool to interact with their audiences, build loyalty, and promote products directly (Gupta et al., 2023; Maddox & Malson, 2020; Zhang et al., 2022). This indicates a strong correlation between an influencer's popularity and the frequency and quality of live broadcasts they produce. Studies by Lee et al. (2025) and Buckley et al. (2025) found that the higher an influencer's credibility, the more likely they are to regularly use live streaming to communicate with their audiences, as these platforms offer an authentic and immersive level of interaction. Thus, influencers are users of the platform and the primary agents driving the use and adoption of interactive features, such as live streaming. Based on this argument, some think:

H₅: Influencers positively influence Live Streaming.

The interaction between influencer influence and audience response has been a major focus in digital marketing studies. Influencers on online platforms attracts followers and motivates them to interact more deeply (Buckley et al., 2025; Delbaere et al., 2021). Live streaming offers a mechanism that lets such interactions occur in real-time and authentically (Joo & Yang, 2023; Li et al., 2020). Influencer-guided live streaming sessions serve as a bridge that transforms influencer authority and appeal into measurable customer engagement, such as comments, questions, and direct participation (Gupta et al., 2023; Pérez-Cabañero et al., 2023). Live streaming provides an

interactive environment that is essential for converting an influencer's passive influence into active engagement from the audience (Asante et al., 2024; Barari et al., 2021; Ryu & Han, 2021; Song et al., 2025). So it is proposed that:

H₆: Live Streaming mediates the influence of Influencers on Customer Engagement.

The impact of an influencer on brand awareness does not always occur directly, but is often moderated by certain communication mechanisms (Pan et al., 2025; Rosário & Raimundo, 2021). Live streaming provides an efficient way for influencers to convey brand messages visually and interactively, overcoming the limitations of static content (Erwin et al., 2024; Jiao et al., 2024; Joo & Yang, 2023; Lee et al., 2025). Through live broadcasts, influencers can showcase products, answer audience questions, and present brand stories in a more in-depth and authentic manner, which significantly improves brand recognition and recall among consumers (Ahmed et al., 2024; Benevento et al., 2025; Lee et al., 2025). So live streaming is a medium that amplifies and accelerates how influencers influence translates into stronger and more long-lasting brand awareness (Buckley et al., 2025; Maghraoui & Khrouf, 2025). Based on this argument, some think:

H₇: Live Streaming mediates the influence of Influencers on Brand Awareness.

Research Methods

Respondents

The research respondents were online customers who often made purchases on social media platforms and marketplaces and had purchased or interacted with products through live streams conducted by influencers associated with specific products. To ensure respondents met the set criteria, the researchers included a screening question at the beginning of the questionnaire, which specifically asked whether they often made purchases on social media/marketplaces and had interacted with products through influencer live streams. Using branching logic also automatically filters out irrelevant respondents, so only people who are eligible can go on to the next question. This validation step is important to make sure the data collected is valid and reflects the target population of the study.

Table 1. Respondent Characteristics

| Respondents Location | Number | % | Gender | Number | % |
|------------------------------|------------|----------------|--------------------------------------|------------|----------------|
| Bone Regency | 21 | 10.34% | Male | 81 | 39.90% |
| Gowa Regency | 19 | 9.36% | Female | 122 | 60.10% |
| Makassar City | 63 | 31.03% | Total | 203 | 100.00% |
| Palopo City | 26 | 12.81% | Respondents Age | | |
| Pare-pare City | 21 | 10.34% | 18-22 Years | 43 | 21.18% |
| Sidrap Regency | 23 | 11.33% | 23-27 Years | 94 | 46.31% |
| Toraja Regency | 22 | 10.84% | 28-32 Years | 36 | 17.73% |
| Other | 8 | 3.94% | 33-37 Years | 22 | 10.84% |
| Total | 203 | 100.00% | 38-42 Years | 8 | 3.94% |
| Type of Platforms | | | Total | 203 | 100.00% |
| Shopee | 63 | 31.03% | Observed Business Sectors | | |
| Tokopedia | 12 | 5.91% | Fashion | 109 | 53.69% |
| Tiktok | 61 | 30.05% | Skincare | 56 | 27.59% |
| Facebook | 24 | 11.82% | Culinary | 35 | 17.24% |
| Instagram | 32 | 15.76% | Other | 3 | 1.48% |
| YouTube | 5 | 2.46% | Total | 203 | 100.00% |
| Other | 6 | 2.96% | | | |
| Total | 203 | 100% | | | |

Source: Data processed, 2025

The number of research respondents was 203 online customers. This sample follows the provisions for data analysis, specifically PLS-SEM, as per Hair et al. (2022), which states that the minimum number of samples that can be used is 155 respondents for a significance level of 5%, the targeted statistical power is in the range of coefficients of 0.11-0.2. Respondents completed questionnaires distributed both physically and through Google Forms. Data was collected from respondents between January and May 2024. The description of the research respondents can be seen in Table 1.

Measurement

This study employed a questionnaire to collect data from online customers as research respondents. The questionnaire used a 5-point Likert scale, with 1 indicating strong disagreement and 5 representing strong agreement with the statements. Each statement in the questionnaire was formulated based on indicators derived from various previous studies. The independent variable in this study was influencer, while the dependent variables were customer engagement and brand awareness. Live streaming served as the mediating variable. The operational definitions of each variable can be found in the table below.

Table 2. Measures of the Study Variables

| Variables | Indicators | Source |
|--------------------------|---|--|
| Influencer (INF) | Credibility (INF1) | Glucksman, 2017; Delbaere et al., 2021; Ryu & Han, 2021; Erwin et al., 2023 |
| | Attractiveness (INF2) | |
| | Authenticity (INF3) | |
| | Brand fit (INF4) | |
| | Respect (INF5) | |
| | Communication skill (INF6) | |
| Live Streaming (LS) | Viewing frequency (LS1) | Li et al., 2020; Lv et al., 2022; Giertz et al., 2022; Zhang et al., 2022; Asante et al., 2024 |
| | Active participation (LS2) | |
| | Interactivity (LS3) | |
| | Video (content) quality (LS4) | |
| | Viewing duration (LS5) | |
| | Psychological impact (LS6) | |
| Customer Engagement (CE) | Like (CE1) | Maddox & Malson, 2020; Liu et al., 2020; Rosário & Raimundo, 2021; Ho et al., 2022; Erwin et al., 2023 |
| | Comment (CE2) | |
| | Share (CE3) | |
| | Review (CE4) | |
| | Product ratings (CE5) | |
| | Questions asked (CE6) | |
| | Responses to customer service (CE7) | |
| Brand Awareness (BA) | Brand recognition levels (BA1) | Dabbous & Barakat, 2020; Bergkvist & Taylor, 2022; Tan et al., 2022; |
| | Brand recall (BA2) | |
| | Logo recognition (BA3) | |
| | Brand mentions in both online and offline conversations (BA4) | |
| | The proportion of consumers who consider the brand as a good choice (BA5) | |
| | The frequency of brand searches (BA6) | |

Analysis

The research data was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The reasoning for employing PLS-SEM is attributed to the non-normal distribution of the collected data (Hair et al., 2022). PLS-SEM is considered stronger for testing models with non-normal data and is suited for predictive purposes (Hair & Alamer, 2022; Hair et al., 2022). Data processing was conducted using WarpPLS version 8.

Results and Discussion

Results

Before data analysis, it is imperative to assess the validity and reliability of the measurement instrument. In this study, the instrument was evaluated through convergent validity and reliability analyses. Convergent validity was assessed by examining the factor loadings and average variance extracted (AVE) (Hair et al., 2022). These analyses are important to ensure the instrument's validity, with factor loadings ideally exceeding 0.708 (Hair et al., 2022) and generally recommended to be ≥ 0.70 for social science research (Hulland, 1999). In this study, all factor loadings exceeded 0.70 (Table 3). The AVE had to be ≥ 0.5 for a construct to be considered valid (Hair et al., 2022), and after data processing, all research variables showed AVE values above 0.5 (Table 3). Further evidence of validity can be seen from the results of the discriminant validity test, which compares the square root of the Average Variance Extracted (AVE) with the correlations between constructs (Table 4). For a construct to be considered valid, the square root of its AVE must be greater than its correlations with other constructs (J. F. Hair et al., 2022). Based on Table 4, the developed instrument is considered valid as the square root of the AVE for each construct exceeds its correlations with other constructs.

Reliability of the instrument was evaluated using internal consistency measures, including Cronbach's alpha (CA) and composite reliability (CR). These analyses ensure the consistency and stability of the measurement instrument. The minimum acceptable values for both Cronbach's alpha and composite reliability are generally considered ≥ 0.60 (Hair et al., 2022). After data processing, all variables showed Cronbach's alpha and composite reliability values above 0.60 (Table 3).

Table 3. Results of Validity and Reliability Tests

| Variables and Indicators | Loading Factor | AVE | Cronbach's Alpha | Composite Reliability |
|---------------------------------|----------------|-------|------------------|-----------------------|
| Influencer (INF) | | 0.719 | 0.890 | 0.902 |
| INF1 | 0.858 | | | |
| INF2 | 0.862 | | | |
| INF3 | 0.895 | | | |
| INF4 | 0.909 | | | |
| INF5 | 0.846 | | | |
| INF6 | 0.891 | | | |
| Live Streaming (LS) | | 0.643 | 0.861 | 0.881 |
| LS1 | 0.834 | | | |
| LS2 | 0.830 | | | |
| LS3 | 0.849 | | | |
| LS4 | 0.844 | | | |
| LS5 | 0.818 | | | |
| LS6 | 0.821 | | | |
| Customer Engagement (CE) | | 0.584 | 0.834 | 0.862 |
| CE1 | 0.880 | | | |
| CE2 | 0.810 | | | |
| CE3 | 0.803 | | | |
| CE4 | 0.784 | | | |
| CE5 | 0.768 | | | |
| CE6 | 0.726 | | | |
| CE7 | 0.832 | | | |
| Brand Awareness | | 0.660 | 0.875 | 0.893 |
| BA1 | 0.897 | | | |
| BA2 | 0.914 | | | |
| BA3 | 0.923 | | | |
| BA4 | 0.865 | | | |
| BA5 | 0.884 | | | |
| BA6 | 0.867 | | | |

Table 4. Discriminant Validity Test

| Variables | (1) | (2) | (3) | (4) |
|-------------------------|--------------|--------------|--------------|--------------|
| Influencer (1) | 0.877 | 0.419 | 0.488 | 0.129 |
| Live Streaming (2) | 0.419 | 0.833 | 0.597 | 0.262 |
| Customer Engagement (3) | 0.488 | 0.597 | 0.796 | 0.398 |
| Brand Awareness (4) | 0.129 | 0.262 | 0.398 | 0.843 |

Hypothesis testing was conducted using WarpPLS Version 8. The analysis focused on the beta (β) coefficients, where positive values indicate a positive influence, and negative values indicate a negative influence. Additionally, the p-value (p) was a significance indicator; values below 0.05 suggest a significant relationship, while values above 0.05 indicate an insignificant relationship (Hair et al., 2022; Sarstedt et al., 2017). The study involved seven hypotheses: H1 - H7.

The results of testing the hypothesis of this research are summarized in Table 5. H1 and H2 examined the direct influence of the independent variable on the dependent variables. Results indicated that H1 was supported, suggesting a significant positive influence of influencers on customer engagement ($\beta=0.195$; $P=0.002$). However, H2 was not supported, suggesting that influencers did not significantly impact brand awareness ($\beta=0.101$; $P=0.072$). H3 and H4 examined the mediating effect of a variable on the dependent variables. The results supported both H3 and H4, suggesting that live streaming had a significant positive influence on both customer engagement ($\beta=0.721$; $P<0.001$) and brand awareness ($\beta=0.240$; $P<0.001$). H5 examined the influence of the independent variable on the mediating variable, and the results supported H5, indicating that influencers had a significant positive influence on live streaming ($\beta=0.423$; $P<0.001$). Finally, H6 and H7 tested the mediating effect hypotheses. The results supported both H6 and H7, suggesting that live streaming mediated the influence of influencers on both customer engagement ($\beta=0.305$; $P<0.001$) and brand awareness ($\beta=0.102$; $P=0.019$). Thus, H6 shows the existence of complementary partial mediation from live streaming on the influence of influencers on customer engagement, while H7 shows the effect of complete mediation from live streaming on the influence of influencers on brand awareness.

Table 5. Hypothesis Testing

| Hypothesis | Coefficient | P-Value | Results |
|---------------|-------------|---------|------------------|
| INF → CE | 0.195** | <0.01 | H1 Supported |
| INF → BA | 0.101 | >0.05 | H2 Not Supported |
| LS → CE | 0.721*** | <0.001 | H3 Supported |
| LS → BA | 0.240*** | <0.001 | H4 Supported |
| INF → LS | 0.423*** | <0.001 | H5 Supported |
| INF → LS → CE | 0.305*** | <0.001 | H6 Supported |
| INF → LS → BA | 0.102* | <0.05 | H7 Supported |

Note: *; ** and *** denote significance at the 5%, 1% and 0.1% levels, respectively

Discussion

In today's highly competitive digital marketing landscape, the utilization of influencers and live streaming has become a pivotal strategy (Salfin et al., 2024). Influencers, with their substantial influence over their audience, can foster trust and credibility for products or brands (Erwin et al., 2024). Concurrently, live streaming enables real-time, direct interactions between brands and consumers, thereby enhancing engagement and stimulating impulsive purchasing decisions (Li et al., 2020; Lv et al., 2022; Prahendratno et al., 2023). The synergy between these two elements provides an effective means of reaching target audiences in a personalized and relevant manner, ultimately driving sustainable business growth (Salfin et al., 2024).

Influencers can significantly affect customer engagement by leveraging the trust and connections they have cultivated with their followers (Ryu & Han, 2021). Through authentic and interactive content, influencers can captivate audiences and foster active participation (Erwin et al., 2023). Collaborations with influencers enable brands to reach broader audiences and enhance

engagement through more personalized and relevant campaigns (Ao et al., 2023).

In contrast to its impact on customer engagement, an influencer's ability to enhance brand awareness may be limited if there is a lack of alignment between the influencer's values and the brand's identity. These results are not congruent with those reported by Rosário & Raimundo (2021), Bergkvist & Taylor (2022) and Sesar et al. (Sesar et al., 2022). This can be due to low engagement and a perceived lack of authenticity in product endorsements can reduce the effectiveness of influencer campaigns (Tan et al., 2022). Moreover, if the influencer's followers do not have a genuine interest in the promoted product, efforts to increase brand awareness may yield suboptimal results (Nafees et al., 2021).

When live streaming on social media platforms and marketplaces (Rosário & Raimundo, 2021), influencers can significantly enhance live streaming activities by attracting larger audiences and fostering increased interaction during broadcasts (Chen & Yang, 2023). Through their established credibility and familiarity, influencers can cultivate a more engaging and interactive atmosphere, thus stimulating active participation from viewers (Giertz et al., 2022; Joo & Yang, 2023; Ryu & Han, 2021). Influencer endorsements can also boost the visibility and reach of live streams, making them a powerful tool for both engagement and product marketing (Ryu & Han, 2021).

Live streaming has emerged as a possible strategy for enhancing customer engagement and brand awareness, as it helps with real-time interactions between brands and consumers (C.-D. Chen et al., 2022; Zheng et al., 2022). With a lot of interactive features, live streaming fosters a sense of involvement and connection among consumers and brands (Zheng et al., 2022). Engaging and authentic live streaming content significantly boosts brand visibility through wider reach and more immersive consumer experiences (Chen et al., 2022).

As a mediator, live streaming can significantly contribute to the impact of influencers on both customer engagement and brand awareness by providing an interactive platform that helps with real-time communication between influencers and their audience (Erwin et al., 2022). Through live streaming, influencers can show products, answer questions, and share experiences directly, thus enhancing consumer engagement (Ryu & Han, 2021; Chen et al., 2022; Zheng et al., 2022). The authentic and engaging content delivered during live streams reinforces brand awareness, as viewers are more likely to recall and trust information in real-time (Ryu & Han, 2021; Ao et al., 2023). Live streaming fosters stronger connections among influencers, consumers, and brands, boosting both engagement and awareness (Prahendratno et al., 2023).

Theoretical Implication and Managerial Implication

Theoretical implication

The empirical results of this study align with existing theoretical models, confirming that influencers using live streaming platforms can significantly increase customer engagement and brand awareness. This reinforces the notion that this digital marketing strategy is a powerful tool for businesses aiming to establish connections with their target audience. The research highlights the mediating role of live streaming in helping with a link between influencers and consumer engagement or brand awareness. This suggests that live streaming can amplify the impact of influencers by providing a channel for direct interaction and authentic content. The study emphasizes the importance of consistency between influencer values and brand identity. It proposes that a mismatch in these two factors may hinder the effectiveness of influencer marketing campaigns in boosting brand awareness. The research findings underscore the important role of interactive features on live streaming platforms in driving increased viewer engagement. These results support existing theoretical frameworks suggesting that such features can create a more immersive and engaging viewing experience.

Managerial implication

This research underscores the potential of influencer marketing and live streaming for businesses. The business that needs influencer support and live streaming services to increase customer engagement and brand awareness is businesses engaged in the fields of fashion, skincare and

culinary. By strategically selecting influencers aligned with brand values and leveraging interactive live streaming features, businesses can enhance customer engagement and brand awareness. Authenticity and engagement are key to successful influencer marketing. Businesses should try to create genuine connections through authentic content and interactive experiences. By tracking key performance indicators (KPIs), businesses can measure campaign effectiveness and make data-driven changes. The impact of influencer marketing and live streaming can be long-term. Businesses should adopt a long-term perspective and stay updated on industry trends to ensure their strategies remain effective.

Conclusion and Future Direction

Conclusion

The convergence of influencer marketing and live streaming has become a cornerstone of modern digital marketing strategies. Leveraging their ability to build trust and credibility, influencers can substantially enhance customer engagement through the creation of authentic and interactive content. Live streaming provides a dynamic platform for real-time interactions, thus driving consumer involvement and stimulating impulse purchases. Although the impact of influencers on brand awareness may depend on alignment with brand values, live streaming can augment this impact by helping with direct and personal connections with consumers. The synergistic combination of these two elements offers a compelling approach to reaching target audiences in a highly personalized manner, ultimately fostering long-term business success.

Future Direction

Building on the findings of this research, which were primarily limited by a demographic skew towards young, female consumers of fashion, skincare and culinary, future research should address these generalizability constraints directly. Subsequent studies should aim for a more balanced representation across gender, age groups (specifically including respondents over 30), and diverse industries beyond appearance-supporting products to confirm and extend our findings. Concurrently, such studies could dig into nuanced strategies for optimizing the effectiveness of influencer marketing and live streaming within these broader contexts. For example, a comparative analysis of content formats and interactive elements across different age groups and product categories would provide invaluable insights. Lastly, a longitudinal study evaluating the long-term impact on customer loyalty would further strengthen our understanding of sustainable marketing strategies beyond this study.

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