

POST CHARACTERISTICS AND ENGAGEMENT IN SPORTS INFLUENCER PARTNERSHIPS ON INSTAGRAM

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ABSTRACT

Companies strategically leverage social media platforms, such as Instagram, to enhance user engagement through paid partnership posts, enabling users to engage between influencers and their audience, while a research gap persists regarding the effects of post characteristics. This study investigates the impact of various post characteristics on user engagement in paid partnership posts on Instagram, focusing on sports influencers with a global reach. Using a sample of 1052 paid partnership posts, this study employs an ordered probit regression model to analyze the relationship between post characteristics and user engagement. The results indicate that vividness, verbal interactivity, and post caption length significantly influence user engagement, while publication schedule does not show a significant effect. The study findings have theoretical and managerial implications for brand communications and significantly contribute to the existing literature, offering foundation for evidence-based decision-making.

Keywords: Influencer Marketing, Instagram, Paid Partnerships, Social Media, Sports Influencers, User Engagement

INTRODUCTION

Social media platforms provide an opportunity for users to engage with firms, communicate and provide feedback about their offerings (Ranaweera & Silva, 2022). User engagement is the degree to which people interact with, and connect with a platform, service, or digital experience, and in the context of social media, it refers to the degree of engagement that consumers have with a firm's social media content, such as liking or commenting on posts (Cuevas-Molano et al., 2021). Businesses have changed how they position products and engage with consumers in light of the emergence of disruptive technology, particularly through social media. In recent years, breakthroughs in transformative technology, particularly through social media, have fundamentally changed how firms position their products and engage with target audiences.

Instagram is accessed by approximately 11.01% of the global population of active internet users on a daily basis, making it a popular marketing tool for businesses to interact with their customers and to receive feedback (Backlinko, 2023; Samarakoon & Rathnayaka, 2022). Therefore, user engagement on Instagram is critical for businesses, as it directly affects how effectively consumers interact with content, influencing both market positioning and feedback collection (Bazi et al., 2023).

Influencer marketing is a new marketing strategy that has rapidly grown in recent years due to the rise of influencer-follower interactions on social media platforms (Veirman et al., 2017). Social media has also become a popular tool for professional athletes to engage with fans, share personal and sports-related information, and promote

themselves (Abeza et al., 2017). The world of sports continues to see growth and momentum, driven by increased global participation, media coverage, and commercialization (Ekebas-Turedi et al., 2020; PwC, 2023). Despite prior research on influencer marketing and Instagram engagement (Lou & Yuan, 2019; Veirman et al., 2017), limited attention has been given to paid partnership posts, particularly within the context of sports influencers. As the sports influencer industry continues to grow and brands increasingly rely on paid collaborations, it is critical to understand how these posts impact audience engagement. Addressing this gap can provide valuable insights for marketers and influencers alike. Accordingly, this study investigates the post characteristics that effectively engage users in Instagram paid partnership posts involving sports influencers. By examining these post characteristics, the research intends to provide valuable insights and understanding into the strategies and elements that contribute to user engagement in this specific context. This investigation is crucial for both marketers and influencers, as it allows them to make informed decisions regarding their content creation and marketing strategies.

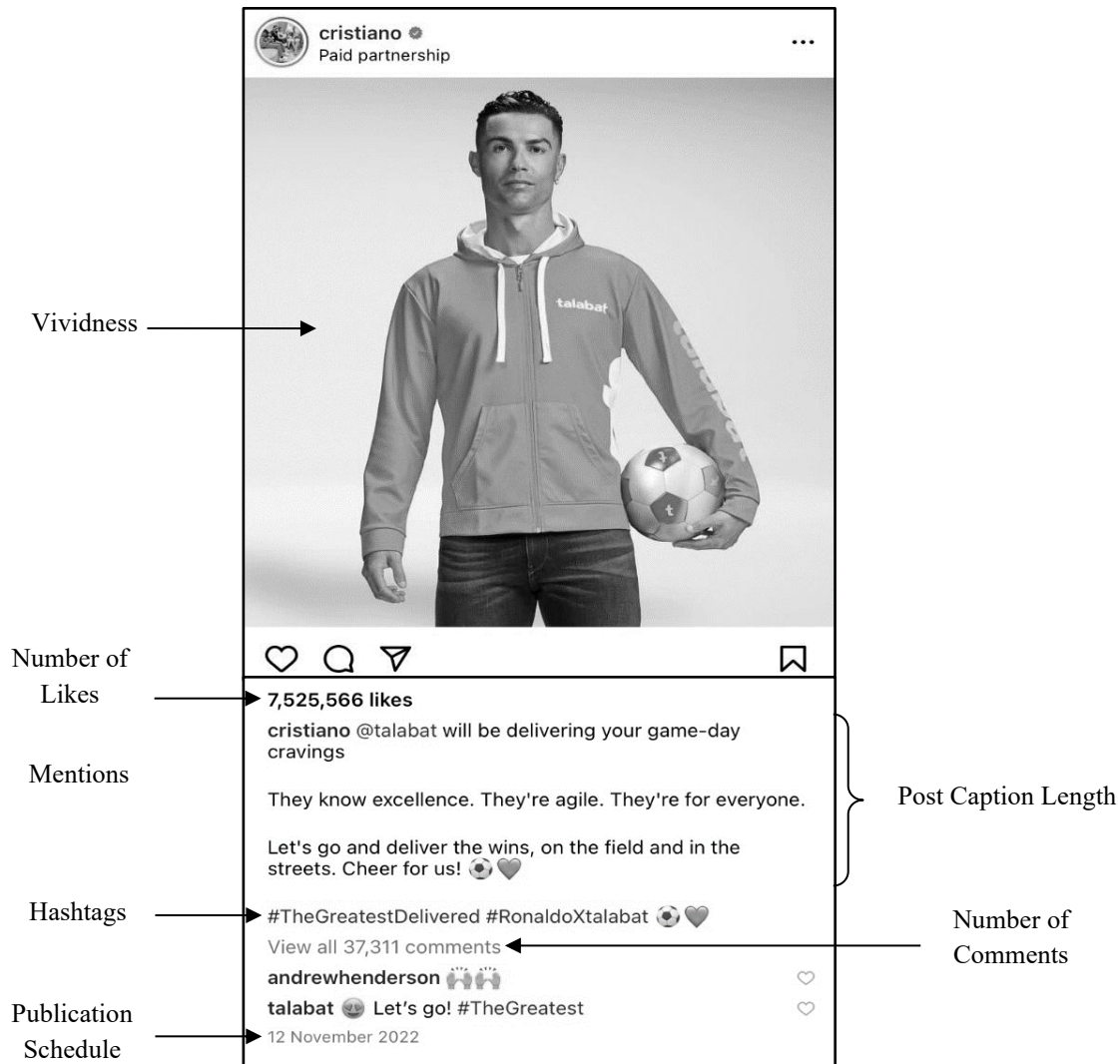
Furthermore, while previous studies have examined individual factors influencing user engagement, such as hashtag usage (Francisco & McMillan, 2024), timing of posts (Singh et al., 2024), brand integration (Paramita et al., 2021), empathy (Rawal, 2017), social identity (Rawal, 2017) and visual aesthetics (Yang et al., 2021) there remains a gap in understanding how these elements collectively influence engagement specifically in the context of paid partnership posts. This study addresses that gap by analyzing multiple content characteristics simultaneously. By analyzing these factors, the research aims to identify patterns and best practices that can optimize user engagement in paid partnership posts within the sports influencer industry. Ultimately, the findings will contribute to the existing body of knowledge on social media marketing and influencer marketing, offering valuable insights for practitioners, researchers, and industry professionals. This contribution will help bridge the current research gap and provide actionable recommendations for improving user engagement on Instagram through paid partnership with sports influencer industry.

When reviewing the literature on Instagram user engagement, it is evident that few studies have focused on the visual and structural components of Instagram posts (Cuevas-Molano et al., 2021; Zhao et al., 2021). The findings of these studies indicate that several post characteristics, including vividness, verbal interactivity, post caption length, and publication schedule, encourage user engagement (Cuevas-Molano et al., 2021). Therefore, it is crucial to consider these post characteristics when aiming to enhance user engagement on social media platforms like Instagram. This study investigates how user engagement on Instagram is influenced by these characteristics in the context of paid partnership posts by global sports influencers. Figure 1 demonstrates the post characteristics discussed in this study.

The outcomes of the study would have implications for businesses promoting sports-related items or any other product or service through Instagram-paid partnerships with sports influencers. Understanding and optimizing post characteristics such as vividness, verbal interactivity, post caption length, and publication schedule can significantly boost user engagement on social media, leading to more effective marketing strategies. In conclusion, this study highlights the role of post characteristics in driving user engagement and underscores the potential for businesses to leverage influencer marketing more effectively.

The remaining parts of the paper are structured as follows: Section 2 presents a literature review based on existing research. Section 3 describes the methodology, including data collection and analysis techniques. Section 4 presents the results and discussion. The final two sections include the limitations and conclusion of the study.

Figure 1: Instagram Post Characteristics



LITERATURE REVIEW

Instagram is the fastest growing social networking site today, and it has become a popular tool for brands to promote their products and services (Statista, 2024). According to a study by Cuevas-Molano et al. (2021) found that Instagram can be an effective way to build relationships with customers and to increase brand awareness. This specifically focusses on Instagram paid partnership posts which come under B2B relationship. A key framework for examining such relationships is social exchange theory (SET) (Cassia et al., 2021; Jahan & Kim, 2020), which explains how social and economic exchanges shape long-term partnerships. The dynamics of these exchanges produce both social and economic outcomes, influencing how partnerships evolve over time.

The type of content shared on social media has a significant effect on audience engagement. Pletikosa Cvijikj & Michahelles (2013) identified three main types of content that motivate people to engage, including entertainment, information, and remuneration. Meanwhile Casaló et al. (2017) highlighted that posts featuring eye-catching photos tend to attract higher levels of engagement. However, there is limited consensus on which type of content consistently drives engagement across different influencer-brand collaborations, especially in B2B contexts. Recent studies further emphasize that AI-driven content personalization can significantly impact customer journey. Hardcastle et al. (2025) found that consumers expect more than just automation which is directly influencing the customer decision making throughout customer journey.

According to SET, positive initial results encourage ongoing dialogue that can develop into relational exchanges as a result of the dynamic nature of this evaluation process (Jahan & Kim, 2020). Conversely, negative initial experiences may result in the premature termination of the relationship. Short-term interactions, often do not allow important social outcomes such as commitment and trust to fully develop. Several studies have emphasized the relationship between the length of partnerships and the strength of social bonds, noting that long-standing buyer-supplier relationships typically foster stronger social ties (Rijn et al., 2019). However, these insights often generalize relational dynamics without closely examining how engagement indicators—such as likes and comments—might reflect or contradict actual levels of trust and commitment.

According to Rijn et al. (2019), relationship marketing includes all marketing initiatives aimed at creating, nurturing and maintaining effective relationship exchange. This concept is consistent with being classified as a sponsorship-related exchange because it typically lasts at least three years and involves significant interaction between the sponsor and the sponsor. This perspective is supported by the relationship marketing literature, which emphasizes the need for commitment and trust as essential components for developing long-term partnerships (Rijn et al., 2019). Commitment in this context is defined as a strong belief in the value of maintaining a long-term relationship with a partner, which motivates one to do one's best. Moreover, trust is understood as a party's belief in the reliability and morality of its trading partner (Cassia et al., 2021).

While numerous studies have emphasized the importance of trust and commitment in influencer-brand partnerships, few have empirically explored how these values are conveyed through specific Instagram post characteristics. This lack of detail presents a clear research gap. Guided by SET, this study examines how specific content elements in Instagram paid partnership posts affect user engagement, treating engagement as a form of social exchange. Accordingly, understanding the perceived value of content types is essential for grasping how engagement forms and is sustained within social media-based B2B relationships.

User Engagement

User engagement refers to the interaction between users and brands on social media platforms, including activities such as liking, commenting, sharing, and following. It plays a significant role in brand loyalty and customer interaction (Rachmah & Mayangsari, 2020; Sha & Tripathi, 2015). By actively engaging in conversations and receiving comments, marketers can gain insights into customer preferences, ultimately improving customer relationships. Increased user activity on social media also leads to more customer complaints and compliments directed at businesses (Rachmah & Mayangsari, 2020).

Understanding how users behave and what strategies they respond to is vital for developing effective social media marketing approaches, as user engagement varies based on post type, content, and quality (Sha & Tripathi, 2015). Prior research has categorized user engagement into low, medium, and high levels based on observed behavior and interaction with social media accounts (McAlexander et al., 2002; Sha & Tripathi, 2015). Higher levels of engagement on a company's social media page correlate with increased engagement with the firm's products (McAlexander et al., 2002; Sha & Tripathi, 2015).

According to Dwivedi et al. (2023), the interactive aspects of Instagram, including stories, polls, and live videos, make real-time participation easier and foster a sense of community among its users. These features help build an atmosphere that is more inclusive and participative when they engage content creators who actively respond to comments and messages. This interaction eventually results in an increase in user loyalty and engagement. Shahbaznezhad et al. (2021) emphasize that the timing and frequency of posts are two of the most important factors that determine the visibility and reach of material on Instagram. Content makers are able to carefully arrange messaging, which increases the likelihood of user engagement, when they have a thorough awareness of the peak hours of the audience. However, despite improving visibility, the direct influence on long-term engagement remains underexplored in the literature.

The practice of increasing user engagement on Instagram through collaboration with influential users has become increasingly common. According to Ibáñez Sánchez et al. (2021) influencers that have a large number of devoted followers have the ability to expand a brand's reach and boost its credibility. Authentic partnerships, where the goals of the influencer and brand, as well as their audience demographics, align result in higher levels of engagement. Emotional resonance is a key motivator of user engagement because of how it makes people feel. Akgün et al. (2019) found that content eliciting strong emotional responses such as delight, surprise, or empathy is more likely to garner likes, comments, and shares. Stronger connection between your material and your audience by telling stories using captions that accompany emotionally charged photographs.

Measuring user engagement involves considering various attributes, including the number of likes and comments received by brand posts and the community size of each fan page (Cuevas-

Molano et al., 2021; Pletikosa Cvijikj & Michahelles, 2013). According to these studies, factors such as the type of content, use of hashtags, and inclusion of interactive elements can significantly impact user engagement on Instagram.

Vividness

The current study centers on exploring the impact of vividness in social media posts and its effect on user engagement. According to Pancer & Poole (2016), there is a clear connection between sensory-rich content like images and videos and user engagement in online marketing and advertising. However, these studies often focused on single platforms and specific content formats.

To expand our understanding of social media content targeting sports brand followers, this study aims to analyze the latest Instagram formats engaging users' different senses through photos, videos without sound, and videos with sound. Vividness is measured by classifying Instagram content formats into three interactivity levels: low, medium, and high, based on their ability to engage the senses (Schultz, 2017). Prior studies have conceptualized content vividness on a spectrum: photos as low vividness, videos without sound as medium vividness, and videos with sound as high vividness (Chaudhuri et al., 2014; Cuevas-Molano et al., 2021; Pletikosa Cvijikj & Michahelles, 2013).

Past literature consistently demonstrates a positive and significant relationship between vividness and user engagement (Callow et al., 2006; Cuevas-Molano et al., 2021). This aligns with findings that underscore the value of creating vivid mental imagery for users (Cuevas-Molano et al., 2021). Posts with higher vividness, utilizing dynamic animations, contrasting colors, and engaging visuals, can capture users' attention and leave a lasting impact (Cuevas-Molano et al., 2021).

Verbal Interactivity

In the realm of digital communication, verbal interactivity holds a pivotal role in enhancing user engagement with branded content. This interactivity, which enables communication participants to influence one another and shape message exchanges, can significantly impact user engagement (Ko et al., 2005).

Various interactive elements, such as hashtags, mentions, and links, serve multiple purposes in social media marketing. Hashtags, denoted by the (#) sign, organize content, index phrases into searchable links, and track discussions based on keywords, facilitating content discovery and encouraging users to join relevant conversations. On the other hand, mentions (e.g., @adidas) involve other users in the conversation, eliciting immediate engagement and recognition from the audience. Incorporating links (URLs) to external websites within posts enhances content distribution and expands reach to a broader audience. A study conducted by Cuevas-Molano et al. (2021) and another by Pancer & Poole (2016) both revealed a positive correlation between the number of hashtags in an image post and various engagement metrics like likes, reach, and impressions. Additionally, posts with hashtags, mentions, and tags generally elicited higher levels of interactivity and generated more user responses compared to posts solely including links. Previous studies have classified interactivity levels into low, medium, and high based on the communication elements used (Cuevas-Molano et al., 2021; Pletikosa Cvijikj & Michahelles, 2013; Schultz, 2017). Low verbal interactivity is achieved through the use of links, medium verbal interactivity through hashtags, and high verbal interactivity through mentions and tags (Cuevas-Molano et al., 2021).

Interestingly, higher levels of verbal interactivity were associated with a lower user engagement in various studies (Anagnostopoulos et al., 2018; Balaban et al., 2022; Cuevas-Molano et al., 2021; Kearns et al., 2022). This highlights the importance of maintaining a balance between verbal elements and visual content in brand posts. Excessive focus on verbal elements without appropriate visual stimuli may lead to user disengagement or distraction (Kearns et al., 2022; Pletikosa Cvijikj & Michahelles, 2013). Therefore, understanding the significance of each interactive element and striking the right balance is essential to maximize user engagement and optimize social media marketing strategies.

Post Caption Length

Post caption length refers to the number of characters or words used in the text accompanying an image or post on social media platforms. It plays a crucial role in conveying the message and engaging the audience. Various studies have explored the relationship between post caption length and its impact on user engagement, shedding light on how different lengths can influence audience behavior.

Social media marketers in previous literature have commonly suggested adhering to a specific character range for captions, typically between 138 and 150 characters, to optimize user engagement (Cuevas-Molano et al., 2021). However, in contrast, Cuevas-Molano et al. (2021) took a distinct approach by exploring the potential negative impact of longer message lengths on engagement, challenging conventional beliefs and sparking inquiries about the ideal caption length.

Cuevas-Molano et al. (2021) further investigate the association between post length and consumer engagement on social media, revealing intriguing findings that added to the existing knowledge on the subject. The study unveiled that keeping post captions within the range of 16-50 characters stimulated a medium degree of sharing among users. This finding further challenged the traditional viewpoint and provided valuable insights into the effectiveness of shorter captions in encouraging audience engagement. Similarly, Zhao et al. (2021) conduct a study to delve deeper into the impact of post caption length on user engagement. Through meticulous measurement and analysis, they explored the relationship between caption length and the number of shares a post received. The findings of Zhao et al. (2021) were compelling and provided strong evidence supporting the influence of post caption length on user engagement. The study revealed that the number of characters in a post had a significant impact on the number of shares it received. More specifically, posts with lengths ranging from 16 to 50 characters were found to be particularly effective in stimulating a medium degree of sharing among the audience.

By referring to the previous studies and offering additional insights, Zhao et al. (2021)'s findings contribute to a better understanding of how post caption length can influence user engagement. This body of literature encourages social media marketers and content creators to consider the potential benefits of using shorter captions to capture audience interest and promote active participation.

Publication Schedule

The impact of the publication schedule on social media engagement has been extensively examined. According to Zhao et al. (2021), posts published on weekends generated higher levels of sharing and liking compared to those posted on weekdays. Interestingly, their study also revealed that regardless of the day of the week, posts motivated a similar level of sharing, suggesting that the impact of post-scheduling may vary depending on the specific engagement metric analyzed.

Kaplan & Haenlein (2010), demonstrated that images and videos posted on Instagram are more likely to be shared and commented on than text posts, and this focus on visual content underscores the importance of aligning your posting schedule with times when users are most active and responsive to visual stimuli. Understanding the best time to post content plays a key role in optimizing user activity on Instagram. The study by Smith et al. (2012) has found that peak periods of user activity occur at specific times such as morning and evening. In addition, choosing the day of the week can also change the user's behavior. Smith et al. (2012) shows that weekends often see more user engagement during more free time. By properly aligning their newsletter schedule with these high-activity periods, content creators can increase their visibility and expand their reach.

To further investigate this impact, Cuevas-Molano et al. (2021) took a more in-depth approach, differentiating between weekdays and weekends, as well as business hours and non-business hours. Their goal was to reconcile contradictory findings regarding the relationship between posting time and user engagement. By utilizing dummy coding for post-scheduling based on established norms, the researchers aimed to clarify these discrepancies. The results indicated that different factors may influence engagement metrics, highlighting the need for further investigation into the nuanced relationship between post-scheduling and user behavior.

The study by Cheung et al. (2020) has shown that publishing content can have a significant impact on user engagement and the posts shared during peak hours, when user activity is highest, tend to achieve higher engagement rates. Furthermore, maintaining a consistent posting schedule is associated with higher user retention and increased brand loyalty (Smith et al., 2012). This highlights the importance of a well-planned and consistent publishing program to build a strong and engaged user base.

Examining the effect of post frequency, Rahman et al. (2022) made intriguing discoveries, two daily posts achieved better engagement results compared to three daily posts, as excessive posting within a day was associated with perceptions of spam-like behavior. While posting more frequently increased the overall reach of a brand's content, it decreased the reach of each individual post. However, the study emphasized the importance of maintaining an active presence, as no posts could lead to a decline in customer interest. These findings underscored the significance of striking the right balance between post frequency and quality to maximize user engagement.

In their research, Cuevas-Molano et al. (2021) found that the publication schedule had a low influence on consumer engagement on Instagram, leading them to state that "the low influence of temporal factors prevented us from making recommendations related to days and times that could improve consumer engagement on Instagram".

Additionally, Oliveira & Goussevskaia (2020) explored the distribution of both sponsored and regular content on Instagram. Their study delved into the relationship between variations in the number of sponsored posts and the number of likes and comments received on a weekly basis. The authors also examined how different posting strategies impacted audience engagement across various influencer groups, providing valuable insights into the optimal posting time and frequency of sponsored content on Instagram, which ultimately benefited brands and marketers.

HYPOTHESES DEVELOPMENT

Considering the above literature on user engagement and post characteristics, this study conceptualizes a framework to investigate the influence of key post characteristics on user engagement. The independent variables under examination include vividness, verbal interactivity, post caption length, and publication schedule. Based on the above literature review, the following hypotheses are developed:

- H1: There is a significant impact of vividness on user engagement.
- H2: There is a significant impact of verbal interactivity on user engagement.
- H3: There is a significant impact of post caption length on user engagement.
- H4: There is a significant impact of publication schedule on user engagement.

Considering the relationship between the independent variables discussed in the literature and their potential effects on user engagement, this study aims to explore how these factors collectively influence engagement outcomes in the context of Instagram posts.

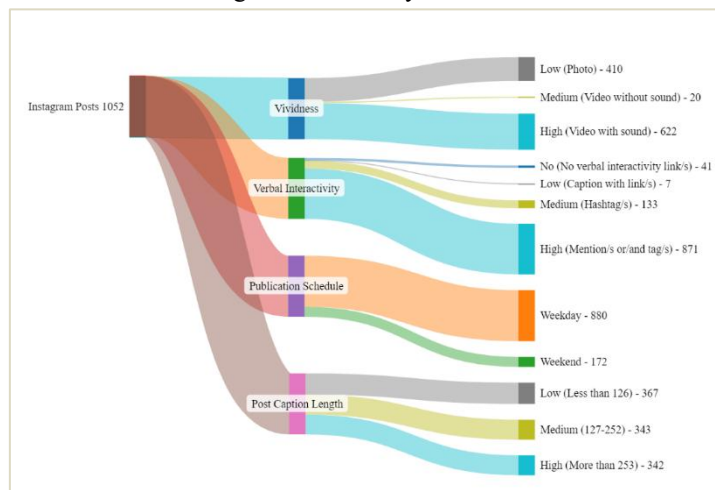
METHODOLOGY

Data Collection

This study specifically analyzes user engagement metrics, including likes, comments, and shares, to evaluate the effectiveness of paid partnership posts on Instagram. To investigate the factors impacting user engagement on Instagram paid partnership posts' characteristics, a sample of 1052 paid partnership posts from all 16 Instagram influencers in the sports category, among the top 100 global Instagram influencers, was selected based on the rich list of Hopper HQ (2022), a criterion also utilized by previous researchers in their studies Rutter et al. (2021). This purposive sampling approach was adopted to ensure contextual depth and relevance, focusing on a consistent set of high-profile sports influencers over a three-year period (2020–2022). The selected influencers include both globally renowned athletes and regionally prominent sports figures, all with substantial follower bases, to ensure diversity in influencer reach and appeal. All posts published by sports influencers from 2020 to 2022 were considered, and the characteristics in these posts were captured using quantitative content analysis, a technique that quantifies the characteristics of each post (Mele et al., 2023).

All the independent variables (vividness, verbal interactivity, post caption length and publication schedule) were recorded as categorical variables. Accordingly, vividness was categorized into three groups: photos (low), videos without sound (medium), and videos with sound (high), in a scale ranging from 1 to 3. Verbal interactivity was also categorized into four groups: no (no interactivity), caption with link (low), hashtag (medium), and mention/tag (high), in a scale ranging from 0 to 3. Post caption length was measured based on number of characters and classified into three categories; low, medium, and high (Cuevas-Molano et al., 2021). The publication schedule was recorded in binary format where 0 was assigned when it was published on weekdays and 1 was assigned when it was published on weekends. The summary observations were represented in Figure 2.

Figure 2: Summary Observations



The user engagement was measured by the following formula suggested by Cuevas-Molano et al. (2021), which functions as the dependent variable of the study.

$$\text{User engagement} = \frac{(\text{Number of likes} + \text{Number of comments})}{\text{Number of followers}} \quad (01)$$

Thereafter, the user engagement was divided into three categories based on the value received for the aforementioned formula. Accordingly, if the level of user engagement is categorized as low when the value of the user engagement ranges from 0.00065 to 0.0066. Also, it was categorized as medium if the level of user engagement is ranging from 0.0067 to 0.0142. Finally, it was categorized as high if the level of user engagement ranges from 0.0143 to 0.0844.

Data Analysis

To analyze the data, the ordered probit regression model was used since it enables the analysis of ordered categorical dependent variables with more than two outcomes (Greene, 2020), a method that has been suggested by researchers for marketing dating back to 1977 (Doyle, 1977) and continues to be recommended in recent studies (Echaniz et al., 2019). The following equation has been used to investigate the impact of different post characteristics on user engagement. Based on the study, the authors' general specification of the formula related to the ordered probit model can be expressed as:

$$y_i^* = x_i\beta + \varepsilon_i \quad (02)$$

Here, where y_i^* represents the latent or unobserved dependent variable (user engagement) for the i th observation, x_i represents a vector of predictor variables for the i th observation, β is a regression coefficients and ε_i represents the error term or disturbance for the i th observation. The ordered probit model translates the latent variable into observed ordinal-user engagement data, y , as follows:

$y = 1$: low engagement
 $y = 2$: medium engagement
 $y = 3$: high engagement

The marginal effects of the variables obtained from the ordered probit model estimates is used to measure the impact on the probability of user engagement levels due to various explanatory variables (post characteristics).

RESULTS

An ordered probit regression model was applied to analyze the data, and robust standard errors were obtained to address concerns related to heteroscedasticity. A stepwise regression was performed to select the most relevant variables. The publication schedule was eliminated from the stepwise regression because the p-value exceeded 0.05 (the significance level set at 0.05). However, the stepwise regression results revealed publication schedule as an insignificant character to impact user engagement. Therefore, H4 is not supported. Vividness, verbal interactivity, and post caption length remain for the final results (Table 1).

Vividness can be identified as a highly significant characteristic that positively impacts on the user engagement since the estimated value is positive (0.3000314). The marginal effects were calculated for each engagement level (low, medium, and high) to interpret the effect of vividness on the likelihood of user engagement categories. The marginal effects of the vividness under low engagement are -0.1077224. This means that moving from a photo to a video with sound decreases the probability of low engagement by 10.7 percentage points. Furthermore, the medium category implies that this shift in vividness slightly decreases the probability of medium engagement by 0.06 percentage points. On the other hand, it increases the likelihood of high engagement by 10.8 percentage points. Thus, it can be concluded that an increase in vividness increases the user engagement. Therefore, H1 is supported.

Table 01: Results of the Ordered Probit Regression Analysis

Variable	Estimate	Robust SE	Marginal Effects (in percentages)		
			Low engagement (y=1)	Medium engagement (y=2)	High engagement (y=3)
Vividness	0.1179821***	0.0361025	-0.0426864	0.0000927	0.0425936
Verbal interactivity	-0.0932957*	0.0538845	0.0337336	-0.0000541	-0.0336795
Post caption length	-0.0010648***	0.0001858***	0.0003852	-8.37e-07	-0.0003844

Note:

- a) *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level
b) 'y' means user engagement. These are categorized as (y = 1: low engagement, y = 2: medium engagement, y = 3: high engagement).
c) Marginal effects were computed based on the predicted probabilities derived from the ordered probit model. These values represent the change in the probability of observing each level of user engagement (low, medium, high) for a one-unit change in the respective independent variable, holding all other variables at their mean values.

Accordingly, verbal interactivity can be identified as a significant characteristic that negatively impacts on the user engagement as a result of the negative estimate (-0.1757067) given in table 3. However, the negative estimate revealed that increasing verbal interactivity causes the user engagement level to go down. To examine this further, marginal effects were calculated for the low, medium, and high engagement levels. According to the marginal impacts of verbal interactivity, moving from no interactivity to tagging or mentioning increases the probability of low engagement by 6.3 percentage points. Additionally, it slightly increases the probability of medium engagement by 0.03 percentage points and decreases the probability of high engagement by 6.3 percentage points. Therefore, H2 is supported.

The results of the analysis indicate that post caption length is also a significant predictor of user engagement. However, a negative coefficient of -0.0004708 implies that increase in post caption length decreases the user engagement. The marginal effects suggest that a longer caption increases the probability of low engagement by 0.01 percentage points. Furthermore, it increases the probability of medium engagement by 9.29 percentage points and decreases high engagement likelihood by 0.01 percentage points. In order to maximize user engagement on Instagram, brand managers and firms should avoid including too much information in the post caption while partnering with sports influencers. Therefore, H3 is supported.

DISCUSSION

According to Cuevas-Molano et al. (2021)'s study, brand post length improved consumer likes because a lengthier text may represent a post delivering more extensive information even though the maximum caption limit is 2,200 characters in Instagram. Thus, it suggested maintaining the post caption length as 138-150 characters to promote user engagement. On the other hand Cuevas-Molano et al. (2021) took a different strategy by investigating the potential negative impact that lengthier message lengths could have on engagement. This challenged common ideas and sparked inquiries regarding the appropriate caption length. Previous study has investigated the effect that the length of a caption has on the level of user engagement across different platforms. For instance, Lee et al. (2017) discovered that shorter captions on social media sites like Twitter and Facebook generated higher levels of engagement. This engagement was measured in the form of likes, shares, and comments. This study is consistent with the assumption that shorter captions are easier to digest and increase engagement since they are more concise. On the other hand, in sites that are primarily focused on images, such as Instagram, the correlation between caption length and engagement can be more ambiguous. The findings of Zhao et al. (2021) were persuasive and offered significant evidence in support of the influence that the length of post caption has on user engagement and to be more specific, it was discovered that posts with lengths ranging from 16 to 50 characters were especially efficient at promoting a medium degree of sharing among the

audience. In conclusion, the results of this study and those of other studies are consistent in showing that user engagement is higher when captions are shorter.

To examine the effects of post caption length on user engagement, the marginal effects were assessed individually for low, medium, and high levels of engagement. The Social Exchange Theory (SET) offers a paradigm for comprehending how user engagement on Instagram is influenced by the length of post captions. Individuals consider the advantages and disadvantages of their contacts, including the information they give in post descriptions, according to SET (Jahan & Kim, 2020). Although longer post captions may provide more context or information and possibly increase user engagement, they also run the risk of overwhelming or demotivating the audience.

The findings confirm that increasing vividness leads to increased user engagement in Instagram and are comparable with the past studies (Cuevas-Molano et al., 2021; Kaplan & Haenlein, 2010; Pletikosa Cvijikj & Michahelles, 2013). Thus, the positive impact that vividness does on the user engagement might be as a result of improved attention-grabbing nature of the content. Moreover, the higher level of vividness might increase the media richness (ability of a communication medium to convey information with high levels of clarity, detail, and sensory cues) and thereby increase the user engagement (Cuevas-Molano et al., 2021). Conceptually, low-vividness posts (e.g., photos) offer a basic level of visual stimulation, whereas medium-vividness posts (e.g., videos without sound) are more effective at capturing attention. High-vividness posts (e.g., videos with sound) offers the richest media experience, which increases in user engagement (Cuevas-Molano et al., 2021; Pletikosa Cvijikj & Michahelles, 2013). The growing popularity of visual material on Instagram demonstrates that the platform is successful in its efforts to boost user engagement by utilizing dynamic features. The findings of a studies demonstrated that text-only posts on Instagram receive fewer likes and comments compared to those that include images and videos (Kaplan & Haenlein, 2010; Manic, 2015). In conclusion, vividness is crucial in positively impacting Instagram user engagement. The study's findings emphasize the need to generate attention-grabbing and visually rich material that enhances user engagement. This is consistent with a wider range of studies highlighting the importance of dynamic, sensory-rich content in boosting engagement in online marketing and advertising.

This might be caused by the excessive focus on verbal elements without appropriate visual stimuli which lead to user disengagement or distraction (Kearns et al., 2022; Pletikosa Cvijikj & Michahelles, 2013). Therefore, the implications can be provided for the brand managers and firms which use the sports influencers to incorporate photos and videos with or without sound to the Instagram post to increase the level of user engagement.

Other studies shown that higher levels of verbal interactivity were associated with lower levels of user engagement demonstrating how important it is to strike a balance between the verbal components and the visual content that is included in brand posts (Anagnostopoulos et al., 2018; Balaban et al., 2022; Cuevas-Molano et al., 2021; Kearns et al., 2022, Amarakoon et al., 2023). In contrast some previous studies found that content traits related to verbal interactivity, such as voting, contests, hashtags mentions and questions, have a positive effect on user engagement in terms of comments has shown that brand postings that contain interactive aspects have a positively influence on user engagement, particularly in terms of the number of likes and comments they generate, which helps to develop deeper connections with the audience (Cuevas-Molano et al., 2021; Ko et al., 005; Liu-Thompkins & Shrum, 2002). This perspective is supported by the relationship marketing literature, which highlights the need for commitment and trust as essential components for developing long-term partnerships (Cassia et al., 2021). In relationship marketing, commitment is described as a firm belief in the importance of preserving a long-term connection with a partner, which inspires one to perform well (Rijn et al., 2019). A party's conviction in the dependability and morality of its commercial partner is another definition of trust.

A study conducted by Cuevas-Molano et al. (2021) and another by Pancer & Poole (2016) both revealed discovered a positively association between the number of hashtags included in an image post and several engagement metrics such as the number of likes, the amount of reach, and the number of impressions. In addition, study conducted by Kaplan & Haenlein (2010) found that systems place a stronger priority on verbal contact, have better levels of user engagement and the study by Barger et al. (2016) shown that receive a high volume of involvement, such as comments and direct messages, have a greater likelihood of being seen by platform users. In conclusion, verbal interactivity is crucial in positively and negatively impacting Instagram user engagement. The study's findings emphasize that understanding the significance of each interactive element and striking the right balance is essential to maximize user engagement and optimize social media marketing strategies.

The findings are complying with the findings of Cuevas-Molano et al. (2021). The implications might be given for brand managers and firms to avoid focusing too much on utilizing sports influencers to include links, hashtags, mentions, and tags to the Instagram post in order to boost the amount of engagement from users.

The findings are supported by the argument of Cuevas-Molano et al. (2021) where the study revealed a low impact of publication schedule on user engagement. Furthermore, the findings are also contradictory to the findings of

Zhao et al. (2021), where they emphasized the importance of posting the post on weekends and on peak hours. According to the findings of a study conducted by Cheung et al. (2020), publishing content can have a substantial impact on the level of engagement that users have with the information they share, and posts that are shared during peak hours when the level of user activity is at its highest, tend to achieve greater levels of engagement.

In conclusion, vividness plays a crucial role in positively influencing Instagram user engagement. The findings underscore the importance of creating attention-grabbing and visually rich content to boost user interaction. Verbal interactivity exhibits both positive and negative effects on engagement, highlighting the need to strike a balance between verbal elements and visual content. Recognizing the influence of each interactive component and maintaining the right mix is key to maximizing engagement and refining social media marketing strategies. Accordingly, brand managers and firms collaborating with sports influencers should consider incorporating a mix of photos and videos, with or without sound into Instagram posts to enhance engagement, while avoiding overuse of links, hashtags, mentions, and tags. Finally, maintaining an optimal post caption length can further encourage higher levels of engagement, helping to build deeper connections with the audience and enhance overall social media performance.

LIMITATIONS AND FUTURE DIRECTIONS

The research study provides valuable insights into user engagement with Instagram sports influencers yet acknowledges several limitations that should be considered. Primarily, the reliance on self-reported measures of user engagement may introduce biases and inaccuracies. To mitigate this, future studies could incorporate more objective measures such as time spent on brand posts or click-through rates for a more nuanced understanding of user behavior. Furthermore, the generalizability of the findings is limited due to the study's specific sample and focus on a particular social media platform. The lack of demographic and cultural diversity in the dataset may also limit the extent to which the findings apply to different audience segments across global contexts. Replicating the study across diverse samples and platforms would enhance the external validity of the results. Additionally, individual differences such as personality traits and prior brand affinity could influence user engagement and should be explored in future research.

The study could have also benefited from a larger sample size, which would increase statistical power and allow for subgroup analyses based on demographic factors or user characteristics. However, the sample of 1052 posts from 16 top-ranked sports influencers was purposively selected to ensure contextual focus, data consistency, and relevance over a three-year period. Moreover, the focus solely on Instagram sports influencers restricts the generalizability of the findings to other influencer categories and platforms. Future research may consider examining interaction effects (e.g., post type \times influencer follower count) to uncover nuanced relationships that may influence engagement outcomes.

Another limitation of the study is that inter-coder reliability was not formally assessed during the content analysis process. Additionally, the study primarily utilized quantitative measures of user engagement, overlooking potential insights provided by qualitative methodologies such as interviews or focus groups. Integrating qualitative approaches could offer a deeper understanding of user perceptions and motivations. The study also did not include post-level contextual variables such as the type of product promoted, which could be a relevant covariate influencing engagement. This was a deliberate choice to maintain consistency in content-level analysis, but future research should explore the role of product type or brand characteristics to provide a more holistic view. Temporal factors, such as changes in user behavior or trends in influenced marketing, may also impact the study's findings. Longitudinal studies conducted over an extended period would provide a more comprehensive examination of user engagement dynamics. Employing longitudinal or experimental designs would help future studies better capture evolving patterns of user engagement and causality.

Furthermore, the impact of Instagram's algorithm such as personalized content was not considered in this study and may have impacted user engagement levels. Future studies should consider accounting for algorithmic influence on user engagement. Additionally, the study may be subject to omitted variable bias, as not all potentially relevant factors such as personalized content, user sentiment. Future research should address these omitted variables to strengthen the explanatory power of the analysis.

Cause Segment Profiling

From a strategic marketing perspective consider the role that brand activism has on market segmentation. While not a common approach to segmentation, attitude toward a social cause may be used as a segmentation criterion. An important concept is the group *prototype* which is used to describe a typical group member (either factually or symbolically) and upon which members are compared to and to whom they emulate as a social referent. Conveniently, the description of the group prototype can serve as a customer profile template similarly used to describe a market segment. From this perspective a 'social group' and 'market segment' have common elements of behavior and

motivation toward fulfilling shared goals while being identifiable and reachable. Given the market segment analogy marketers can analyze a social group prototype relative to their brand and use the prototype as a market segment exemplar to which they can position their brand.

CONCLUSION

The research study delves into the impact of post characteristics on user engagement within the sports sector on Instagram. Through analysis of 753 paid partnership posts from 16 sports influencers, key findings emerge: vivid visuals significantly enhance engagement, fostering excitement and emotional connections with the audience; while appropriate verbal interactivity through captions fosters dialogue and participation, excessive verbal interactivity may hinder engagement; optimal post caption length balances effective messaging with audience attention; and consistent publication scheduling, aligned with audience activity patterns, maximizes visibility and interaction. These insights emphasize the importance of strategic content creation and posting practices in cultivating user engagement and fostering audience connections on Instagram within the sports domain.

Declaration of generative ai in scientific Writing

During the preparation of this work, the author(s) used ChatGPT 3.5 to improve readability and language. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the publication's content.

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