

Global multi-sport events: content strategy for driving fan engagement on Twitter

Abstract

Purpose: The objective of this study is to understand the impact of content orientation, media type and information richness on fan engagement when it comes to multi-sport global events

Design/methodology/approach: Tweets recording over two million user impressions from the “Olympic Khel” account managed by the International Olympic Committee for India were retrieved during the event. A multivariate Poisson model using the Bayesian approach was used for analyzing data.

Findings: Our study found that fan engagement is likely to be higher for player-oriented content as opposed to team-oriented content. Also, the usage of photos to enhance engagement worked better than any other media type. Finally, the study revealed that the inclusion of hashtags has a positive effect on fan engagement for tweet comments but not for like count and retweet count.

Originality: The study contributes by being the first to highlight the differences in player versus team-oriented posts in global multi-sport competitions. The findings have significant implications for practicing sport managers by informing them about key elements that drive fans to engage with online communication.

Keywords: Content strategy; Fan engagement; Content orientation; Media type; Olympic Games; Social media marketing;

1 **Introduction**

2 Social media has revolutionized the way fans engage with their sporting entities and fellow
3 fans (Ioakimidis, 2010; Vermeer and Araujo, 2020). It offers a plethora of opportunities for
4 sporting entities to monetize through exclusive video-on-demand content, enhanced e-
5 commerce targeting, and using fan surveys to improve personalization (Forbes, 2018). A
6 significant portion of fans actively converse on social media about their favourite teams on a
7 regular basis (Meng et al., 2015; Sullivan et al., 2021). Fans develop a highly engaged
8 relationship, including non-transactional behaviours such as positive word of mouth, fan-to-
9 fan interaction on social media, and following information about their sporting entity (Ahearne
10 et al., 2005; De Ruyter and Wetzels, 2000). Due to the increasing popularity and utilization of
11 social media, sporting entities and brands are investing significant time and resources to
12 understand what to be communicated to effectively driver online engagement of fans (Filo et
13 al., 2015; Naraine et al., 2021; Thompson et al., 2018). Especially, when public spectacle was
14 banned to curb COVID-19, as in the case of Tokyo Olympics 2020, engaging the fans on social
15 media is of paramount importance (Ströbel et al., 2021). While there has been growing
16 academic research exploring sport fan engagement, studies are still limited that help in gaining
17 an increased understanding of what should be communicated to drive fans' online behaviour
18 and understand the underlying motivations (Vale and Fernandes, 2018).

19 Sport fan tends to exhibit their attachment to the sporting object through focal points such as
20 team, player, sport, and coach (Trail et al., 2003). Sport literature extensively investigates this
21 affinity as a 'point of attachment' (POA) that detail the psychological connection to a specific
22 sporting entity (Kwon and Armstrong, 2004; Spinda et al., 2016). The sport fans' POA is likely
23 to influence their fan engagement on social media as well (Li, Dittmore and Scott, 2017; Spinda
24 et al., 2016). The focal point dominant in the social media content orients the communication
25 to psychologically connect with the sport fan (Lee and Kahle, 2016). Since the sport related

behaviours are diverse depending on the attachment exhibited by the sport fan (Trail et al., 2003; Spinda et al., 2016; Kang et al., 2022), it is essential to study the influence of content orientation in social media communication (Kim et al., 2015).

Extant literature has explored the effect of content type on social media engagement, classified as information, remuneration, social and entertainment content, or a combination thereof (Luarn et al., 2015; Khan et al., 2016; Gillooly et al., 2017; Annamalai et al., 2021). Further, social media sport literature has classified content based on domain specific factors as detailed in Table 1. Sport literature suggests that sport fan have a strong identification and emotional attachment with their teams and players (Abeza et al., 2017; Yoshida et al., 2014). This provides an alternative sport-specific perspective to study fan engagement in the context of team versus player-oriented communication on social media. This difference is likely to amplify in global multi-sport events like Olympic Games, Paralympics, Commonwealth games, Asian games, etc (Tang and Cooper, 2018). These events command a huge advertising budget from corporates both on players as well as teams, with money being spent on sponsoring teams, players, featuring teams, or players on advertising, amongst other options. During Tokyo Olympic Games 2021, Broadcast Audience Research Council (BARC) India reported that 31% of the advertising during that period featured Indian Olympians (BARC, 2021). Individual players like Manu Bhaker (Shooting), and PV Sindhu (Badminton), along with players from team sport like hockey, were leveraged for promotion (BARC, 2021). With huge advertising money being pumped into such global events, it is important to determine if (and why) fans respond differently to player oriented communication versus team oriented communication. The content orientation, along with other characteristic of communication plays a crucial role in engaging fans on social media. The content characteristics are broadly defined in terms of message, media, and information richness that can be maneuvered to enhance social media engagement (Khan and Ahmad, 2021).

<Place for Table 1>

Individuals approach different social media platforms for serving different motivations (Chandrasekaran et al., 2022). Kietzmann et al. (2011) identified seven blocks (conversation, groups, identity, presence, reputation, relationship and sharing) and suggested that users approach sites differently depending on which blocks the site focusses on. For e.g., Facebooks primary focus is on relationship with a secondary focus on presence, identity and reputation while Twitter's primary focus is on sharing information with a secondary focus on identity, reputation and conversation (Chandrasekaran et al., 2022). As information dissemination is quick and unfiltered (Siemon and Wessels, 2022), organizations use Twitter to initiate brand-specific conversations with the users (Soboleva et al., 2017). We have focused our attention on Twitter, for our Olympics study, since it is the most popular social platform for sharing of news and current events to drive real time conversations (Martin, 2023). Sport organizations and sponsors have acknowledged the prominent role of Twitter in achieving marketing objectives (Abeza et al., 2017; Winand et al., 2019). The two-way communication that allows for direct communication and interaction among sport fans makes Twitter a platform of choice for a more humanistic way of communication (Gillooly et al., 2017), displaying sport fandom and for garnering greater engagement of fans (Yoon and Pederson, 2022; Naraine et al., 2021). The velocity of messages posted per second in Twitter is also huge, particularly during multi-country events like Olympics. For e.g., there were over 20,000 tweets recorded per second during World Cup 2022¹.

With this background, we conceptualize the study to understand what drives fan engagement regarding multi-sport events – what content orientation would work better (player-oriented/team-oriented) and the desired supplementary elements (media type and information

¹ <https://twitter.com/elonmusk/status/1595505413113323520?lang=en>

richness). The research is rooted in the widely applied uses and gratifications theory (UGT) and aims to contribute to the growing literature on operationalizing effective usage of social media (Filo et al., 2015). We focussed our analysis keeping Tokyo Olympic Games 2021 as the anchor for which data sources were retrieved. Fans identify with the Olympic Games contingent from their home countries and follow the event closely as they share connections in terms of nationality and culture (Xu and Billings, 2018). We restricted our study to the Indian contingent and resulting fan engagement. We selected India for the following reasons: a) With huge following of sports, India is often referred to as a developing sport business nation (Westerbeek, 2010) and sport managers leverage the same for building fan engagement b) However, impact of social media communication on fan engagement is relatively under researched in the Indian setting (Annamalai et al., 2021) c) Further, India has the third-largest number of Twitter users worldwide (Statista, 2022) making it a ripe setting for sport managers to connect with their fans.

The paper is structured as follows. First, a literature review of key concepts is presented leading up to the building up of the study hypothesis. This is followed by a description of the methodology for testing the hypothesis. Finally, we present the results, study ramifications, and their implications on theory and practice.

Conceptual background and hypothesis development

Uses and gratifications

UGT states that usage of media is goal-driven (Kim and Hull, 2017). Motivations have been described as an impetus that drives one's choice of media (Rubin, 1983). UGT focuses on audience gratification that voluntarily attracts them to certain media types and content for meeting their desires (Dunne et al., 2010). The theory is often used to explore why people prefer specific media types and the resultant satisfaction that they derive (Ko et al., 2005). Several studies have used UGT in the context of sport and social media (Vale and Fernandes,

2018). UGT assumes people are active in their media usage and with social media involving active participation and involvement of users, UGT can be used to understand user psychology for engaging with social media content. UGT has been employed in the domain of sport management especially with respect to sport on social media (Filo et al., 2015; Annamalai et al., 2021). Fans have various drivers for engaging with social media posts including information gathering, socialization, remuneration, and entertainment (Özsoy, 2011; Witkemper et al., 2012; Gibbs et al., 2014; Vale and Fernandes, 2018). These elements exhibit themselves via the content that is shared on social media (Annamalai et al., 2021). Hence it becomes imperative for social management firms to develop content that aligns with users' motivation for following social media channels like Twitter (Gillooly et al., 2017). UGT has been used in analyzing the interaction between social media and sport (Kim and Hull, 2017). Social media has created new sources of gratifications that may resonate with sport fan like interactivity, community building, display of fandom (Kim and Hull, 2017). Based on UGT, we attempt to understand fans' response to different types of content and the way fans seek gratification through the content during multi-sport events like Olympic games.

Content orientation and fan engagement

Prior to the advent of social media, communication orientation was well-researched in sales communication literature that refers to the content creation process for facilitating interaction between the buyer and seller (Williams and Spiro, 1985). The process entails adapting the communication style according to the contextual factors such as situation and buyer characteristics (Miles et al., 1990). Communication orientation is broadly grouped into three dimensions namely task-orientation, self-orientation and interaction-orientation depending on the desired communication objective (Sheth, 1976). The task-orientation focusses on closing sales, self-orientation to fulfil the communicator's needs and interests, and interaction-orientation to foster interpersonal relationship (Miles et al., 1990). The interaction-orientation

1 is of interest in social media communication as it enhances customer engagement primarily
2 through content sharing (Kim et al., 2015). However, the effect of content orientation on social
3 media engagement has gained limited attention and necessitates further investigation (Yousaf
4 et al., 2021; Pederson et al., 2016).

5 Sport fan's engagement with focal objects such as players/teams is studied as "fan
6 engagement." Fan engagement is a multidimensional construct detailing the fans' route to value
7 creation/destruction for the sport team (Huettermann et al., 2019). The construct of fan
8 engagement focusses on the behavior that includes prosocial supporting behavior, management
9 collaboration, and performance forbearance (Yoshida et al., 2014). This fan behaviour is
10 manifested via participation in fan communities, providing positive word of mouth and in
11 following player/team related information (Ahearne et al., 2005). With social media becoming
12 an integral part of most fan's daily lives, prominence of fan engagement on social media has
13 grown significantly (Popp et al., 2016).

14 Hunt et al. (1999) proposed that a person becomes a fan of a player/team through a halo process.
15 A fan has a reservoir of information (called schema) that contains expectations, beliefs and
16 perceptions that the fan had of the sporting entity. This entity could be a team, player, or even
17 a league (Hunt et al., 1999). Fisher and Wakefields (1998) observed that a fan may first identify
18 with a player and subsequently with the team. A bond of a fan's identification with a player is
19 likely to influence their identification with the team (Kamath et al., 2020). In a comparison
20 between National Basketball Association (NBA) fans from China and the United States, the
21 study showed player to be one of the key POAs for fans from China (Li et al., 2017). Thus, a
22 fan's attachment to a player is likely to be a critical end-note of this schema and is developed
23 through a halo effect (Hunt et al., 1999). A person may become a fan of a player and
24 subsequently become a fan of the team e.g., fan of soccer player Lionel Messi may become a
25 fan of the soccer club that one represents (earlier Barcelona, now PSG).

1 A player with a strong performance and positive image helps build a positive brand image in
2 the minds of the fans. This brand image develops knowledge structures that influence fan
3 behaviour (Mahmoudian et al., 2020). Development of high level of loyalty towards a player
4 tends to increase fan's consumption of player related elements including the related sport and
5 fan's engagement with player related communication (Hoyos, 2008). This was also established
6 earlier by Fisher and Wakefield (1998), who found that identification with a player leads to
7 subsequent identification of a fan with the team. This suggests that players will likely be
8 stronger in forming crucial end nodes to trigger engagement.

9 UGT argues that individuals seek the type of media content that fulfils their own needs and
10 desires. With fans having a strong attachment to players, they may be more interested in the
11 personal lives and experiences of individual players rather than the overall performance of the
12 team. As a result, they are likely to engage more with tweets about players, both on and off the
13 field. Extending this logic to the context, we argue that content focusing on players will likely
14 witness stronger fan engagement owing to fan identification with the player first and then the
15 team. Hence, it can be posited that:

16 **H1: Tweet content orientation influences fan engagement in the sport context,**
17 **such that player related content orientation results in maximum fan engagement**
18 **than team related content orientation.**

20 *Media type and fan engagement*

21 Sport marketers share content through multiple channels, including social media, using varying
22 media formats such as video, photo, text or a combination thereof (Annamalai et al., 2021;
23 Mohammadkazemi et al., 2020). Media richness theory states that multiple media formats
24 trigger multiple degrees of sensory stimulation (Schnotz, 2005). The degree of sensory
25 stimulation triggered by the media type is referred to as vividness (Steuer, 1992). Media

literature posits that multimedia content with increased content vividness triggers a greater level of sensory stimulation (Coyle and Thorson, 2001; Fortin and Dholakia, 2005) and, in turn, records increased engagement on social media (Chandrasekaran et al., 2019; Hwang and Oh, 2020; Tafesse, 2016). For example, tweets supplemented with video provide audio-visual stimulation, as against tweets sharing only text that provide no stimulus. Therefore, a tweet supplemented with multimedia, such as a video or photo, is expected to gain increased attention than a text-only tweet (Li and Xie, 2020; Nekrasov et al., 2021). Further, attention economy theory states that attention is the limiting factor in information consumption with the increasingly available information (Davenport and Beck, 2002). As a result, the media type of photo that rapidly attracts attention with minimal effort in quick time is more likely to gain increased engagement than a video that takes a long time to view relatively (De Vries et al., 2012; Luarn et al., 2015). In the sport context, Annamalai et al. (2021) observed that Facebook posts featuring photos gained increased fan engagement than other media types. It is further supplemented by the finding that tweets sharing photos fuelled increased engagement than tweets sharing videos (Twitter Blog, 2014). Hence, it can be posited that:

H2: Tweet media type influences fan engagement in the sport context, such that photo yields the highest fan engagement of all media types.

Information richness and fan engagement

Information richness represents the volume of information shared in a post for enhanced decision making (Chen and Tseng, 2011). To ensure brevity and effective communication of the focal point, micro-blogging sites restrict the maximum length of a message, thereby limiting the information richness. For instance, tweet length is limited to a maximum of 280 characters (Twitter Blog, 2017). The platform offers two key communication tools to enhance information richness, such as hyperlinks to share additional information and hashtags to concisely relate to

a particular topic (Shi et al., 2018). Hyperlink included in a tweet is a reference to external content for the user community (Guo and Saxton, 2014). The hyperlinks are generally used to complement a message or share credit for the original information and are shortened using services such as bit.ly and [http://t.co](https://t.co) (Mamic and Almaraz, 2013). Further, hyperlinks sharing multimedia content such as videos and photos will likely enhance fan engagement through increased coverage (Wang, 2021). Hence, tweets with hyperlinks are likely to mitigate possible information deficiency during tweet diffusion and record increased engagement (Sabate et al., 2014). The communication tool of hashtags provides a reference to a specific topic and finds application in branding drives such as communicating the latest news (Blaszka et al., 2012; Naraine et al., 2021). A hashtag denoted using the “#” symbol provides a contextual reference point that eases information processing by providing a heuristic cue (Gul et al., 2016). Extant literature supports the positive effect of hashtags on tweet diffusion (Naraine et al., 2021; Lahuerta-Otero et al., 2018; Wang, 2021). Thus, the presence of communication tools enhances information richness, thereby aiding in tweet diffusion and enhancing the likelihood of fan engagement. Hence, it can be posited that:

H3: Tweet content richness influence fan engagement, such that:

a. having hyperlink in the tweet message will increase fan engagement.

b. having hashtag in the tweet message will increase fan engagement.

Method

Data collection

Twitter was chosen as a platform for this study for its distinct characteristics of short-form communication that promotes two-way communication and information abundance signalling sport fan proclivity to display sport fandom on the platform (Yoon and Pederson, 2022; Naraine et al., 2021). Twitter allows for direct communication and interaction among sport fans resulting in greater engagement and involvement of fans (MacIntosh et al., 2017). An official

social media account recorded increased engagement than media-managed or fan-managed social media accounts (Lewis et al., 2017). Hence, the current study collected Twitter data from the official Indian account for the Olympic games, “Olympic Khel”, managed by the International Olympic Committee. The Twitter page was crawled and scrapped using the application programming interface (API) provided by Twitter for academic researchers. The 2020 Summer Olympic Games, branded as Tokyo 2020, was held from 23rd July 2021 to 8th August 2021. The data for this study consisted of all official tweets posted during this period. A total of 540 tweets registering over 2 million user impressions were obtained. For each tweet, the following information was captured: tweet post, media shared, number of likes, number of comments, and number of retweets.

Variable operationalization

The content orientation, media type, and Twitter metrics for measuring information richness level, namely hashtags and hyperlinks (https), are operationalized as part of the official committee shared communication. The principal engagement activities of the sport fans are operationalized as fan engagement. The proposed research model with the operationalized variable is detailed in Figure 1.

<Place for Figure 1>

Independent variables

- *Content orientation:* The tweets were classified into three content orientations, namely (1) player-oriented, (2) team-oriented, and (3) other tweets, as shown in Table 2. Posts that singularly refer to a specific sport person (regardless of the sport type) was categorized as a player-oriented post. While the post content referring a contingent was categorized as a team-oriented post. Tweets such as those that promote the event were categorized as other posts.

<Place for Table 2>

- *Media type*: Consistent with Twitter engagement literature (Chen et al., 2020), the media types of tweets are classified at three levels, namely: (1) videos (with or without photos or text or links), (2) photos (with or without text or links), and (3) statuses (with or without text or links).
- *Information richness*: Consistent with Twitter engagement literature (Shi et al., 2018; Wang, 2021), the Twitter metric of hashtags and hyperlinks is included as dichotomous variables for measuring the information richness of tweets. Hashtag includes a “#” symbol to indicate that the tweet relates to a specific topic. For example, #Tokyo2020 indicates that the tweet content is related to Tokyo 2020 Olympic Games. The other measure of hyperlink shows the presence of a web link to other sites or related content, such as pictures and videos. For example, <https://t.co/Zjt34p1KR8> is a web link showing the details of the Indian contingent participating in Tokyo 2020.

Dependent variables

Consistent with Twitter engagement research, the volume of contribution, namely the number of likes, number of comments, and the number of retweets received by each tweet, is considered for measuring fan engagement.

Content analysis

First, automated word cloud analysis was used to visually inspect the tweet post textual composition. A word cloud visually represents word frequency such that more frequent words appear bigger and brighter, enabling effective inspection (Johansson and Johansson, 2021). In this study, we used the prevalent WordItOut tool to filter the frequent words and generate a preferable word cloud design, as shown in Figure 2.

<Place for Figure 2>

The frequent words can be broadly grouped as player-oriented, team-oriented and other words. The first set of prevalent words, such as “Neeraj Chopra”, “IamDeepikaK”, “BajrangPunia”,

“Pvsindhu”, “aditigolf”, and “Mary”, is player mentions and denote player-oriented content. The second set of words, such as “The Hockey India”, “men’s”, “women’s”, “Team India”, “IND”, and “AUS”, denotes team-oriented content. The third set of words, such as “Tokyo”, “BestOfTokyo”, “Olympics”, and “Olympic”, are the remaining tweets that largely denote the overall campaign. Thus, the visual inspection using the word cloud establishes the presence of player-oriented, team-oriented and other content.

Next, content analysis is used to scientifically determine the concepts and topics present in the data set (Smith et al., 2012). The analysis has been widely used in sport research on social media (Annamalai et al., 2021; Pronschinske et al., 2012). Hence, content analysis is used in this study to identify the content orientation of a tweet. The content orientation of the tweet was manually coded by an independent coder and the first author. In line with social media research, dummy codes (0, absence of message with a specific content orientation; 1, presence of message with a specific content orientation) were adapted and used to assess the presence of player-oriented, team-oriented, and other tweets (Annamalai et al., 2021). The codes in Table 2 were briefed to the independent coder and were consulted and refined by the second author after coding 20 percentage (108 tweets) of the sample. The inter-coder reliability, measured using Perrault and Leigh’s formula (1989), was 0.931 and within the permissible range of 0.8-1.0. The coding differences were scrutinized and settled by the authors. The media type and information richness of the tweet were retrieved and processed directly using the API and involved no manual coding.

Data analysis

We use a multivariate Poisson model because the dependent variables are count variables, and the outcome is modelled as a multivariate set as the like count, comment count, and retweet count are highly correlated ($r_{\text{like-comment}}=0.81$; $r_{\text{like-retweet}}=0.95$; $r_{\text{comment-retweet}}=0.79$). Also, the count measures were over-dispersed (like: $M=3286.20$, $SD=5932.40$; comment: $M=52.20$,

SD=106.28; retweet: M=558.97, SD=1439.69), violating the assumption of normal distribution. Since a correlation matrix has to be estimated from the observed data matrix, traditional maximum likelihood approaches are computationally complex. Hence, we use the Bayesian approach to test the influence of content orientation, media type, and information richness metrics on fan engagement. The approach estimates the model parameters by applying draws from the posterior distribution using Markov Chain Monte Carlo simulations (Muthen and Asparouhov, 2012).

Results

Descriptive statistics

The official Indian account for the Olympic Games started in January 2020, has shared 2953 tweets and is followed by 1.26 million users as of 30th December 2021. Table 3 shows the summary statistics distribution of the considered variables for the time period of the study. The fan engagement measures, like, comment, and retweet count, differ at varying levels across the independent variables – content orientation, media type, and information richness measure.

<Place for Table 3>

- *Content orientation:* Player-oriented content was most frequently tweeted (48%), followed by other content (27%) and team-oriented content (25%). The engagement measures of the like count, comment count, and retweet count were the highest for player-oriented content, followed by team-oriented content and other content.
- *Media type:* Status was the most often used media type (52%), followed by video (24%) and photo (24%). The engagement measures were the highest for photo, followed by video and status.
- *Information richness metrics:* Over 98% of the tweets included hashtags, and 71% had hyperlinks. The comment and retweet counts were higher for tweets with hashtag and

without hyperlink. While the like count was higher for tweets without hyperlink and hashtag.

Hypothesis tests

The content orientation, media type, and Twitter metrics for measuring information richness level are modelled as the main effects, with the number of likes, comments, and retweets as the dependent variables. Table 4 provides the estimates of the main effects using posterior distribution.

<Place for Table 4>

The results of content orientation show that, compared to the other types of tweets, player-oriented tweets garnered an increased number of likes, comments and retweets. With respect to media type, photo and video garnered an increased number of likes, comments and retweets compared to status. Tweets with hyperlinks garnered fewer likes, comments and retweets than tweets without hyperlinks. The presence of hashtags on tweets showed no significant influence on the number of likes and retweets, while it significantly influenced the number of comments.

- *Content orientation:* H1 stated that fan engagement, measured as the number of likes, comments, and retweets, would be higher for tweets sharing player-oriented content type. The parameters of the regression model denote the percentage change in the expected mean of the multivariate outcome. The magnitude of the parameter representing the player-oriented content type (Player-oriented = 1.14, SE = .004) is higher than that of the team-oriented content type (Team-oriented = 0.98, SE = 0.004), exhibiting a significant and increased number of likes for player-oriented content in comparison to team-oriented content. Similar results were observed for the number of comments (Player-oriented = 1.26, SE = 0.004; Team-oriented = 0.92, SE = 0.005) and number of retweets (Player-oriented

=1.38, SE = 0.004; Team-oriented = 1.20, SE = 0.005). Thus, supporting H1 at a 0.05 level of significance.

- *Media type*: H2 stated that fan engagement would be higher for tweets sharing photos. The media type, photos and videos exhibited a significant and increased number of likes (Photo =1.5, SE = 0.004; Video = 1.3, SE = 0.004), comments (Photo =1.64, SE = 0.005; Video = 1.30, SE = 0.005), and retweets (Photo =1.75, SE = 0.005; Video = 1.73, SE = 0.005) in comparison to tweets with status. Thus, H2 is supported at a 0.05 level of significance.
- *Information richness metrics*: H3 stated that fan engagement would be higher for tweets having hyperlinks and hashtags. Results show that the presence of hyperlinks in tweets showed a significant but decreased number of likes (Hyperlink =-1.12, SE = 0.004), comments (Hyperlink =-1.48, SE = 0.005), and retweets (Hyperlink =-1.28, SE = 0.005). The presence of hashtags in tweets exhibited a significant and increased number of comments for a tweet (Hashtags=1.37, SE=0.013) but did not influence the number of likes and retweets. Thus, H3 is not supported at a 0.05 level of significance.

Discussion

Content orientation

UGT has been used to understand users' motivation to engage with different content on Twitter (Gillooly et al., 2017; Hambrick et al., 2010). Regarding the uses and gratification of social media in sport, the sport manager is responsible for creating post content that provides the most gratification to sport fans (Kim and Hull, 2017). By engaging with a post, sport fans provide instant feedback to sport manager about what posts they enjoy or are indifferent to (Kim and Hull, 2017). Our study was aligned with earlier research findings that the content characteristics has a direct impact on fan's engagement on social media (Annamalai et al., 2021). In terms of content characteristics, team success and star player have been identified as key product related attributes of the message content (Parganas et al., 2015, Bauer et al., 2008). Parganas et al.

(2015), in their analysis of the Twitter content of Liverpool Football Club (LFC), found the frequency of player related posts to be higher than team success related posts. Similar results were found in a content analysis on Instagram, where posts related to star player and head coach generated much greater fan engagement than any other brand attribute (Anagnostopoulos et al., 2018). Geurin and Gee (2014) studied the engagement of posts in the 2014 Olympic games that mentioned either team or athletes versus posts that did not mention either team or athletes. We extend the findings of Geurin and Gee (2014) by taking a step further and comparing differential engagement rates for player versus team related posts. Our results show that a player oriented post is likely to garner additional engagement compared to team oriented posts in the studied context. A likely explanation is that the fans use the interactive Twitter platform, which links the fans to sport and simultaneously broadcasts to the network, to gratify the need for player oriented information more than other content. Consistent with earlier findings on NBA fans, the POA for the fans from China is the player, while it is the team for the fans from the United States (Li et al., 2017). Prakash and Majumdar (2021) considered the three dimensions of power distance, individualism and indulgence score to highlight the role of cultural differences in sport fan engagement. Based on Hofstede's cultural dimension theory (Hofstede, 2011), the national culture of India is aligned more with neighbor China than the United States (Power distance: China – 80, India – 77, US – 40; Individualism: China – 20, India – 48, US – 91; Indulgence: China – 24, India – 26, US - 68). Sport fans from India are akin to the global south country of China, which represent a more collectivist culture (Mamo et al., 2021). Hence, in line with UGT, player-oriented content is likely to adhere closer to the fan's motivation and will hence be seen as more gratifying for the fan. Resultantly, player-oriented content is likely to gain increased engagement in this context. Extant sport communication literature also emphasizes using player-oriented content to maximize fan engagement (Mahony and Moorman, 2000; Woo et al., 2009). Hence, leveraging player related

information may be a pathway to greater engagement for the promoting sporting entity compared to team related posts.

Media type

The findings support the differential sensory stimulation of various media formats as stated in media richness theory (Schnotz, 2005). Consistent with earlier findings on the Facebook platform, the media type of content significantly influences fan engagement (Annamalai et al., 2021). Tweets sharing photo encourage fans to express themselves more than video and status format. A possible explanation for the decreased engagement for video, as against photo, is that it takes longer time to view and necessitates increased effort (De Vries et al., 2012; Luarn et al., 2015). While a status that shares text, link or both is less vivid in comparison to photo and creates lesser sensory stimulation to trigger engagement behaviour (Chandrasekaran et al., 2019). Therefore, the media type of photo may be used more to enhance fan engagement on the Twitter platform in a multi-sport context.

Information richness metrics

Consistent with prior literature, the inclusion of hashtag has a positive effect on the fan engagement measure of tweet comments (Naraine et al., 2021). Surprisingly, the effect was not significant for like count and retweet count. The observation can be ascribed to the varying influence of liking, commenting and sharing (retweeting) behaviour on social media (Kim and Yang, 2017; Swani et al., 2017). Since the inclusion of hashtag intends to enhance information processing, it can have a positive impact on the cognitively driven behaviour of commenting. But a similar influence is not to be seen for liking and retweeting behaviour as it includes an affectively driven component. Therefore, marketers may use hashtag with the objective to enhance the comment count on the Twitter platform in a multi-sport context. Surprisingly, the inclusion of hyperlink has an adverse effect on engagement as indicated by the significantly negative coefficients of hyperlinks for the three fan engagement count measures of likes,

1 comments and retweets. *Similar results were observed in airline tweets, where tweets with*
2 *hyperlinks had an adverse effect on engagement (Li and Xie, 2020).* A possible explanation is
3 that the inclusion of hyperlinks redirects the users to an external web page for additional
4 information (Lahuerta-Otero et al., 2018). This discontinuity on the Twitter platform
5 necessitates increased effort from the sport fan to re-enter the platform, thereby detrimental for
6 fan engagement. Though hyperlinks enhance information richness, marketers may minimally
7 use it to enhance fan engagement on Twitter platform in a multi-sport context.

8 **Conclusion**

9 Objective of this study was to understand what drives fan engagement when it comes down to
10 multi-sport events – what content would work better (player/team) and how would audience
11 want the content to be presented (what media type). Our study highlighted that fans are likely
12 to engage actively with content focused on players versus content focused on the team. In terms
13 of media type, the study suggests usage of photos to enhance engagement more than any other
14 media type. Finally, the study revealed that the inclusion of hashtag has a positive effect on the
15 fan engagement measure of cognitively driven tweet comments but is not significant for
16 affectively driven like count and retweet count. Our study has the following implications for
17 theory and practising managers.

18 *Theoretical implications*

19 The study addresses the call for research on fan engagement in diverse sport contexts
20 (Yoshida et al., 2014). This is the first empirical study on a global multi-sport event to
21 investigate fan engagement based on the interaction data from Twitter. Sport literature has
22 explored social media fan activities at a broader level (Vale and Fernandes, 2018) and detailed
23 the contribution activities in a team sport (Annamalai et al., 2021). This study extends to the
24 Twitter platform and details the difference in fan engagement between player oriented and team
25 oriented communication in a relatively less-explored Indian context (Filo et al., 2015). Sport

1 teams actively try to create content that may lead to user gratification (Kim and Hull, 2017).
2 This study furthers UGT by examining what type of content gives sport fan greater
3 gratification. While the influence of content orientation on fan engagement has been
4 established in past research (Li et al., 2017), the current study highlighted the differences in
5 player versus team oriented posts in large multi-sport related international competitions. Fans
6 seem to be deriving greater gratification from their association with the player resulting in
7 greater engagement with posts that relate to players versus posts that relate to the team.

8 *Managerial implications*

9 The study has important ramifications for practising managers. Understanding why fans
10 are fans and what motivates them to engage with online communication is important for both
11 sport managers and brand managers. Social media platforms like Twitter and Facebook are
12 also being used by sport event organizers for developing fan loyalty along with short-term
13 marketing campaigns (Thompson et al., 2018). These interactions with fans become even more
14 significant in global multi-sport events like Olympic Games, Commonwealth Games, and
15 Asian Games. Study results suggest that managers may be better served leveraging content on
16 star players as compared to leveraging content focused on the team in the given context. A
17 fan's identification with a player is likely to impact their identification with the team as well
18 (Kamath et al., 2020). For e.g., the presentation ceremony of Cristiano Ronaldo in Madrid
19 attracted 80,000 fans to the stadium and millions of TV viewers worldwide (Hasaan et al.,
20 2016). A similar effect was seen on social media when Liverpool football club uploaded videos
21 of new players with special messages for their fans, generating 1,000+ comments and shares
22 within less than a day (Wong and Hung, 2023). Fans tend to have a personal connection with
23 individual sport persons, and they may buy their jerseys, follow them on social media and
24 watch their interviews. Fans are also interested in the individual performance of a sport person,
25 both on and off the field. Sport managers should leverage fans' personal connections with the

1 star player, their interest in chosen player's performance, and their emotional connections with
2 players to garner greater engagement for their social media posts.

3 Additionally, sport managers would be better off posting content with higher vividness
4 since it triggers a higher level of sensory stimulation (Fortin and Dholakia, 2005), resulting in
5 greater engagement (Chandrasekaran et al., 2019). For e.g., the following visual post with
6 player related content gathered one of the highest engagements on the Olympic Khel Twitter
7 account during the Tokyo Olympic games: “@Neeraj_chopra I made entering an Olympic final
8 look so easy! Neeraj's FIRST attempt of 86.65m in his FIRST-EVER #Olympics was recorded
9 as the highest in men's Group A, beating @jojo_javelin's 85.64m”

10 *Limitations*

11 Although this study has given the required results, it has certain shortcomings. First,
12 the study is limited to the Twitter platform, and future studies can widen to other social media
13 platforms like Facebook. Second, the study is limited to India to control the possible influence
14 of cultural dimensions. It would be interesting to study the cross-cultural aspects by exploring
15 sport fan engagement across cultures. Third, the study is limited to a mega-event like Olympic
16 Games and cannot be generalized to other sport settings. Further, the study has selected the
17 dominant tweet characteristics of content orientation, media type, and information richness
18 metrics. Future studies can explore other characteristics such as interactivity, tweet length,
19 posting day and time, etc. Alternatively, the content orientations can be re-looked at from the
20 perspective of hedonic and utilitarian values gratified by sport fans. Limitations
21 notwithstanding, the study provides valid and definitive treatment for the content
22 characteristics that drive sport fans to engage on Twitter in a global multi-sport event.

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10

Table 1: Related sport literature on social media engagement

Author	Domain	Platform	Sample size	Content classification	Findings
Zhang and Su (2022)	Outdoor-sports brands	Instagram	957 posts	Task-, interaction-, and self-oriented communication	Interaction-oriented content registered increased likes than other content types
Annamalai et al. (2021)	Cricket (Indian Premier League)	Facebook	3881 posts	Information, remuneration, social and entertainment	Social content gained maximum engagement (like, comment and share)
Prakash and Majumdar (2021)	Cricket (Indian Premier League)	Twitter	5430 tweets	Chief Operation Officer: Foreign versus local	Content aligned with local culture receives more engagement
Doyle et al. (2020)	Football (Major League Soccer)	Instagram	1727 posts	Athletic performance, attractive appearance, marketable lifestyle and offstage content	Athletic performance content type gained maximum engagement
Winand et al. (2019)	Football (Fédération internationale de football association)	Twitter	5389 tweets	Informing, marketing, personalizing, and activating	Social communication gained increased engagement
Agrawal et al. (2018)	Cricket (Indian Premier League)	Facebook	400 posts	Message orientation: Socio-emotional and informational	Socio-emotional content gained maximum number of likes
Wang and Zhou (2015)	Basketball (National Basketball Association)	Twitter	5561 tweets	Relationship: Professional, personal and community	Professional relationship content garnered significant engagement

Table 2: Content category of Tweets with examples

Categories	Description	Example tweets
Player-oriented	Predominantly contain information about a player's participation in the Olympic Games, such as individual performances.	.@Pvsindhul opens her #Tokyo2020 campaign with straight games win over Ksenia Polikarpova! Score 21-7, 21-10 #StrongerTogether #UnitedByEmotion #Badminton #IND
Team-oriented	Predominantly contain information about a team's participation in the Olympic Games, such as a match related update.	.@TheHockeyIndia's quest for an Olympic medal at #Tokyo2020 is right on track as they beat #NZL 3-2 in their opening match of Pool A! Field hockey stick and ball #Tokyo2020 #UnitedByEmotion #StrongerTogether
Other	Content beyond player-oriented and team-oriented tweets, such as marketing activities of the mega-event.	Watch Tokyo 2020 in your territory here: https://t.co/VpJfAxkWA1

Table 3: Summary statistics of the independent variables

Types		Tweet	Like		Comment		Retweet	
		count	M	SD	M	SD	M	SD
Content orientation	Player-oriented	257	4353.15	6986.98	66.30	108.50	768.05	1820.41
	Team-oriented	135	3432.58	5260.95	63.60	139.80	575.15	1156.95
	Others	148	1299.94	3579.69	17.40	37.56	181.16	623.14
Media type	Video	130	4129.26	8086.15	58.40	139.20	838.84	2268.81
	Photo	129	4334.81	5935.62	55.40	67.17	628.56	1053.27
	Status	281	2414.78	4463.01	47.90	103.50	397.55	1023.02
Information richness metric	With hashtag	530	3279.65	5852.98	52.50	106.60	559.37	1439.64
	Without hashtag	10	3633.40	9694.24	36.90	90.41	537.90	1520.31
	With hyperlink	386	3042.93	6064.6	41.00	92.47	512.31	1484.71
	Without hyperlink	54	3895.96	5559.57	80.20	131.00	675.93	1317.49

Notes: M, mean; SD, standard deviation.

Table 4: Predicting fan engagement through tweet characteristics

	Like count		Comment count		Retweet count	
	PM	SE	PM	SE	PM	SE
(Intercept)	6.23	0.011	1.16	0.013	3.82	0.013
Content Orientation (reference group: other)						
Player-oriented	1.14***	0.004	1.26***	0.004	1.38***	0.004
Team-oriented	0.98***	0.004	0.92***	0.005	1.20***	0.005
Media Type (reference group: status)						
Photo	1.50***	0.004	1.64***	0.005	1.75***	0.005
Video	1.30***	0.004	1.30***	0.005	1.73***	0.005
Information richness metrics (reference group: without hyperlink/ hashtag)						
Hyperlink	- 1.12***	0.004	-1.48**	0.005	-1.28***	0.005
Hashtag	0.34	0.010	1.37**	0.013	0.33	0.013
N	3593				3593	

Note: PM: Posterior Mean; SE: Standard Error; ***p < 0.001, **p<0.01

Figure 1: Research model with operationalization of variables

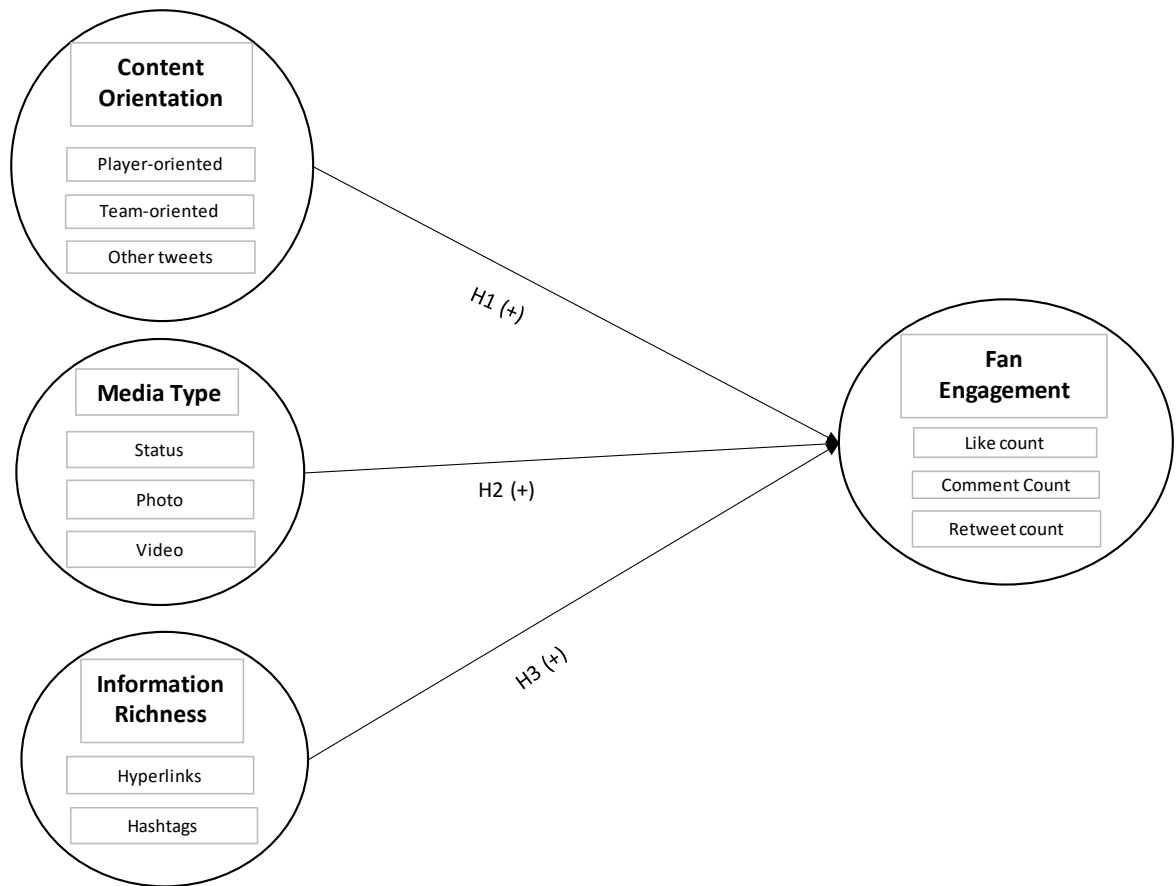


Figure 2: Word cloud of the most frequent words from the “Olympic Khel” Twitter handle

