Who's the bigger Brand after COVID-19 pandemic? An assessment of Fan engagement during Euro 2020

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Abstract. Post COVID-19 pandemic, sports events and sports activities have been severely affected. The mega sports events were either postponed or held in the absence of live audience. Through this study we investigate the progressive use of social media by fans and other stakeholders to express their support to favorite sports teams, athletes, coaches, sports organizations, sponsors and more during COVID-19. UEFA Euro 2020 was conducted across 12 countries with an intent to show unity and bring normalcy in sports business during the third wave of COVID-19. Hashtag analysis and mention analysis have been performed to find sports teams, athletes or other stakeholders that were directly being discussed about by the fans. We also focused on tweet context annotations that provide entities as pairs of domain and entity collected from tweets' text. Our results indicated that hashtags and mentions alone cannot substantially justify the popularity of any entity. Thus, from the point of view of identifying any athlete, team, organization or any sponsor as a brand, tweet context annotations can be valuable from the perspective of E-Branding, E-Marketing and E-Commerce.

Keywords: COVID-19, Digital Media, Euro 2020, Social Media, Sport Branding, Sport Management, Twitter.

1 Introduction

Sports is an integral part of human life. The ideas and phenomena responsible for evolution and development of humans over the generations are long-established in sports (Sustainable Development Goals Fund, 2018). As sports have evolved over the time, certain terminologies have also developed that are most commonly used to

identify the entities of sports such as fans, athletes, sports persons, sports teams, coaches, broadcasters, sports journalists and sport-media as brands in the domain of sports business and management (Gibbs et al., 2014; Singh et al., 2019, June; Fenton et al., 2021; Mehra et al., 2021). Relying on Internet as the backbone all the latter stated entities of sports have cherished the power of social media to expand the reach to the global audience (Hopkins, 2013). Twitter is one such social media tool that has found acceptance amongst diverse audience all over the world as it provides an immersive information sharing experience amongst fans, athletes, sport marketers and sport organizations (Wang, 2021).

After the COVID-19 was declared pandemic by WHO on March 11, 2020 (Kato, 2021) nationwide lockdowns were imposed and restrictions were imposed on outdoor activities such as sports and entertainment across the globe (Singh et al., 2020a; Mehra et al., 2021). All forms of sports and sport related activities were either postponed or cancelled. It was for the first time in history that Olympics event was postponed for over a year. UEFA Euro 2020 and Copa America were postponed till 2021 (ESPN News Services, 2020, March 23; Al Jazeera, 2020, September 20). Many of the football players such as Pedri Gonzalez, Ferran Torres, Gavi Paez, Ousmane Dembele, Sergino Dest, Philippe Coutinho, Abde Ezzalzouli, Lionel Messi were reported to be infected with COVID-19 (Desk, 2022).

With time as the COVID-19 progressed all over the world, the Twitter emerged as an effective medium of communication to disseminate information for fans, athletes, sports journalists, sports organizations and social bots (Mattei et al., 2021; Mehra et al., 2021). The research fraternity actively participated in identifying the relevance of Twitter as a social media tool by presenting studies of diverse nature that can be broadly categorized to include (a) role of athletes in maintaining a connection with fans during the pandemic (Bowes et al., 2020; Sharpe et al., 2020; Mehra et al., 2021; Smith, 2021) (b) exchange of views and conversations among fans/spectators (Chehal et al., 2021; Garcia & Berton, 2021; González et al., 2021; Mattei et al., 2021; Mehra et al., 2021) (c) efficiency of sports organizations to maintain healthy fan engagement with favorite teams and athletes (Bond, 2020; Sharpe et al., 2020; Bond, 2021) and (d) the idea to continue certain sports during pandemic (Bingaman, 2020; Davidson et al., 2020).

Thus, it becomes imperative to identify the class of athletes, fans, sports teams, sports organizations and sponsors who actively participated and stayed on toes for successful completion of Euro 2020, during the third wave of COVID-19. Euro 2020 the mega sports event that is endorsed by multitude of stakeholders was delayed for over a year to avoid the spread of COVID-19 as health of citizens and athletes was the top priority (Lee Ludvigsen, 2021). This study aims to find the answers to following research questions:

RQ1: Who was the fan-favorite during Euro 2020?

Fans express their support towards athletes, teams or events through hashtags or mentions. Analysis of hashtags and mentions a part of social media analytics is crucial to any study to estimate the popularity of related entity (Singh et al., 2020a, Mehra et al., 2021).

RQ2: Identify the entities that grabbed most attention during the course of Euro2020?

Tweet Context Annotations contain the micro-information in the form of keywords identified by Twitter across more than 50 domains (Twitter, n.d.). To find an answer to RQ2 we rely on these annotations.

2 Literature Review

Over the years social media, a potent tool for information dissemination has experienced immense growth across various sectors such as sports, education, healthcare, financial sector, industrial sector, public administration and many more (Stieglitz, 2014; Rathore, 2017; Stieglitz, 2018; Singh et al., 2019; Mehra et al., 2021). During the ongoing COVID-19 pandemic as well the social media played a crucial role in disseminating the vital information (González et al., 2021) to analyze sports across diverse fields such as *entrepreneurship* (Hammerschmidt et al., 2021), *brand communities* (Fenton et al., 2021), *fan engagement* (Bingaman, 2020; Davidson et al., 2020; Majumdar & Saha, 2020; Bond et al., 2020; Bond et al., 2021; Stavros et al., 2021), *women's sports* (Bowes et al., 2021; Doyle et al., 2021), *promotion of digital platforms* (Westmattelmann et al., 2020; Manoli, 2020; Areiza-Padilla et al., 2021; Hedenborg et al., 2022), *athletes and sports organizations as role models* (Sharpe et al., 2020; Elliott et al., 2021; Smith, 2021), *brand involvement* (Pan & Phua, 2020; Russo & Tallarita, 2021; Su et al., 2021) and *sport management* (Ratten & Jones, 2020; Smith & Skinner2021). In this section, we put light on the related works to the forementioned fields that resulted in their rise, relevance and importance in sports.

2.1 Brand communities, Brand involvement and Promotion of digital platforms

The brand is one of the most valuable assets of any sports entity. Athletes and sports organizations are such entities that have made the most of social media platforms to increase their brand values through the digital connections with fans, teams, sponsors and other stakeholders across the globe. The digital platforms and environment indeed play an important role in managing sports brands by collecting behavioral data such as content linking, merchandise and ticket purchases and more that help to extract meaningful insights and make proper decisions to maintain a healthy connection with the fans (Kunkel & Biscaia, 2020; Pan & Phua, 2020; Fenton et al., 2021; Su et al., 2021). The sports brands were ready to hone the power of E-commerce channels by branding on the backbone of well-being, optimism, resilience and entertainment but delivery timelines and hygiene standards were the major concerns of consumers. In India, E-commerce websites such as Amazon and Flipkart were discussed the most over Twitter (Chehal, 2021; Russo & Tallarita, 2021). To further strengthen the bond with the consumers, sports brands shared empowering content, fulfilling social and civic responsibility. This shared value created by sports brands made the fans to perceive togetherness and themselves to be benefitted towards broader societal good and involvement during the period of COVID-19. (Su et al., 2021). To promote acceptance and increase the brand value via social media the concepts of E-Loyalty, E-Brand Image, E-Customization and E-Purchase Intention need to be capitalized by athletes, sports teams, sports organization and sponsors (Areiza-Padilla et al., 2021) as COVID-

19 forced the individuals, groups and nations to increase the investment in digital tools and digital infrastructure while promoting the consumption of sports through social media and other forms of media thus, deepening the roots of media in sports (Manoli et al., 2020; Westmattelmann et al., 2020; Hedenborg et al., 2022).

2.2 Fan engagement, Athletes and Sports Organizations as role models

Fans, athletes, sports organizations, sport brands and many other entities have used Twitter as the favorite social media platform during this ongoing pandemic for spreading the information to promote good health (Bingaman, 2020; Sharpe et al., 2020; Chehal et al., 2021; Davidson et al., 2021; González et al., 2021; Garcia & Berton, 2021; Mattei et al., 2021; Mehra et al., 2021; Priyadarshini et al., 2021). Fans were concerned about physical performance of athletes and presented grief over demise of athletes due to covid. Marketing of sports goods and other stuff such as masks found a place on Twitter. On the other hand, sports organizations promoted physical activities and digital/online exercise programs through campaigns on Twitter (Bond et al., 2020; Bond et al., 2021; González et al., 2021). Football clubs, NBA franchises and players provided social and economic help to fight against COVID-19 (Sharpe et al., 2020). Football athletes were seen portraying diverse roles over social media through hashtags such as #StayHomeSaveLives (Mesut Ozil), #nevergiveup #countingdownthedays (Tim Krul), #Apartbuttogether (John Egan), #lockdownsaturdays #stayhome #savelives (Theo Walcott), #GymDone (Andy Carroll) (Smith, 2021; Stavros et al., 2021). COVID-19 has provided an opportunity to the sports broadcasters to test and apply newer ideas to enrich fan experience with more creative content, such as the use of Spidercam to perform live interview of any player during the event over a particular achievement. (Bond et al., 2020; Bond et al., 2021; Majumdar & Naha, 2020).

2.3 Entrepreneurship, Sport Management and Women's Sports

Dynamic nature of sport makes it a natural setting for entrepreneurship. Sport entrepreneurship can be identified at individual level (athletes, coaches and managers) and organizational level (sports teams and sports organizations) (Ratten & Jones, 2020). At the time of crisis, the companies with entrepreneurial profile are supposed to survive as they possess the characteristics of risk-taking and innovation. Despite most of the professional football clubs lacked the skills for crisis management, they did not suffer any cash crunch. It was stated that making ample amount of money and creating reserves were disadvantageous as the profits would be taxed. (Hammerschmidt et al.,2021). Women's sports need special attention for its revival. After facing financial crisis, mental and social isolation, women need equity in brand endorsements and brand sponsorships to achieve economic gains, so that they can invest in health equipment and other sports products or goods (Bowes et al., 2020; Doyle et al., 2021; Smith & Skinner, 2021).

2.4 COVID-19, Euro 2020

Hosting Euro 2020 was a great challenge so it was postponed to 2021 where it witnessed the third wave of covid (Heese et al., 2022). But COVID-19 forced the UEFA to perform unimaginable and never happened task of hosting Euro 2020 among 12

European nations. At the time where nations were facing financial losses and hosting mega sport events was being criticized, Euro 2020's format was completely new and was purposed to demonstrate cultural togetherness and fluidity within Eurozone. Fans were affected the most by this multi-nation format as they had to bear high travel costs and tickets for a game clearly a logistical obstacle (Lee Ludvigsen, 2021).

In Germany, only 20% seats were available for booking for all the matches. In Munich the COVID-19 infected cases were reported during several matches amongst Portugal-Germany, Germany-Hungary, Belgium-Italy, despite the cases were reported to be wearing masks all the time and few of them were vaccinated. The Euro 2020 is supposed to have increased the risk of transmission of novel coronavirus (Heese et al., 2022). The cases were found in Scotland, Finland and Moscow as well despite all the recommended measures were strictly enforced (Marsh et al., 2021).

3 Methodology

For the purpose of collecting data, we used tweepy API. As the tweets were to be collected from June 11, 2021 to July 12, 2021, we used the Twitter API V2 for academic research to fetch historic data. Twitter API V1.1 for basic users does not provide this feature (Roesslein, n.d.). To fetch the data, we used the hashtags for example, #TURvsITA OR #ITAvsTUR OR #TURvITA OR #ITAvTUR. Each nation in the hashtag is represented by the three-letter abbreviation as proposed by FIFA. The final match between England and Italy received highest number of tweets 42850 and the match between North Macedonia and Netherlands received only 180 tweets.

A total of 3,36,310 tweets in English language were collected from 1,08,585 unique users globally. The data contained a lot of noise in form of punctuations, stop words, web links, special characters, emojis, whitespaces (extra blank spaces between the words or sentences) were eliminated. in order to keep the focus on the meaningful words in the sentence. Once the data was ready various programming techniques were applied to gain the meaningful insights from the data (Singh et al., 2018; Singh et al., 2020a, Singh et al., 2020b; Mehra et al., 2021).

4 Results and Discussions

In RQ1, we try to analyze the support given by fans to their favorite teams and athletes through social media. For this we analyzed the hashtags and mentions in the Twitter data (See Table 1). As expected, the #EURO2020 was the most used hashtag with a variation in the form of #Euro2020. This shows the behavior of social media users to more often use capital letters in hashtags for the purpose of highlighting the topic they are very keen to discuss about. #Euro2021 was also famous amongst fans as the event was being held in 2021. #ENGvsGER for England vs Germany was second in the list presenting it as the most followed and one of the most discussed matches amongst fans. Apart from England other nations that received huge support from fans through digital media were Scotland, Croatia, Portugal, France, Switzerland and Hungary.

It was interesting to note that amongst athletes, teams, coaches, sport managers or sport brands none was at the top in the list of mentions. The Twitter users with user names Urban Pictures, Simon London, Otto English and Boris Reitschuster, and Twitter handles @Urban_Pictures, @slondonuk, @Otto_English and @reitschuster respectively were found to be mentioned the most by the Twitter users. This clearly shows that independent journalists are cherished amongst the masses in comparison to the conventional well-established media such as British Broadcasting Corporation (BBC-with sports specific Twitter handle @BBCSport), ITV News (@itvnews) and Talkradio (@talkRADIO) as they lagged behind by a huge difference. Amongst the athletes Cristiano Ronaldo (@Cristiano) was received highest mentions, followed by English professional football players Jack Grealish (@JackGrealish) and Raheem Sterling (@sterling7). Fans also mentioned former English footballer David Seamen (@thedavidseamen) in their tweets.

Table 1 Top-20 Hashtags and Mentions during Euro 2020

Hashtags	Count	Mentions	Count
#EURO2020	84,090	@Urban_Pictures	9,230
#ENGvsGER	32,863	@slondonuk	5,024
#ENGvSCO	22,814	@IamHappyToast	4,421
#ENG	19,422	@JamieAndrew99	3,247
#SCOvCZE	18,060	@Otto_English	2,318
#EngvsCro	13,269	@England	2,316
#ENGSCO	10,357	@ugames_uk	1,856
#Euro2021	6,951	@reitschuster	1,471
#Euro2020	6,756	@itvnews	1,443
#EnglandvGermany	6,503	@BorisJohnson_MP	1,366
#GERvsPOR	6,232	@SonySportsIndia	1,012
#FRAvSUI	5,754	@GarethSouthgate	935
#Kane	5,481	@Cristiano	914
#pride	5,171	@JackGrealish	819
#BLM	5,048	@ScotlandNT	786
#mycaptain	5,027	@BBCSport	779
#SCO	4,718	@sterling7	683
#England	4,689	@thedavidseaman	625
#HUNvsFRA	4,453	@talkRADIO	599
#ENGvCRO	4,258	@Iromg	595

The availability of keywords derived through the analysis of tweets' text in the pairs of domain and entity can be very helpful for the researchers who are novice at programming and find it difficult to build sophisticated codes for performing named entity recognition (NER) (Twitter, n.d.; Nasar et al., 2021). To answer RQ2, dataset for Euro 2020, revealed tweet annotations across 43 domains. The domain names that were highly important and useful from the perspective of this research were selected named "Sports Event", "Sports Team", "Sports League", "Athlete", "Sports Personality", "Journalist", "Brand", "Sport", "Coach" and "Fan Community". The forementioned domain names were uniquely analyzed and top-20 entity names were derived from the

tweet annotations as listed in Table 2. As the dataset has been fetched for Euro 2020, for the domain name Sports League the entity UEFA European Championship stood at the top with 2,66,278 annotations count followed by the topic of International Soccer with the count of 1,87,172 and Europe – Soccer with count 187163. WWE, NFL, FIFA Men's World Cup, Copa América, ICC World Test Championship were also being discussed but their count was comparatively negligible. This clearly states that fans are more focused towards the sport. The behavior was same for entity Soccer with count of 26,257 identified in the domain of Sport. Diverse forms of games were being discussed along with Euro 2020 such as cricket, rugby, basketball, combat sports and more at a very miniscule level.

Team England (49,712) was the fan favorite team followed by Germany (15,016), Portugal (10,834), Scotland (9,336), France (9,163) to name a few. Vis-à-vis Sports Events/matches in which England participated such as England vs Germany (3,60,111), England vs Scotland (12,869) and England vs Croatia (19,257) were at the top and as a match England vs Germany was the fan-favorite.

Although in the analysis of hashtags Cristiano Ronaldo gathered the top spot followed by Jack Grealish and Raheem Sterling, tweet annotations revealed a completely different story. As the tweet annotations are derived from tweet text, results indicated that sports fans were presenting higher engagement in context of Raheem Sterling (3,652) followed by Jack Grealish (3,499) and Cristiano Ronaldo (3,168) at the third spot. The fans presented enthusiasm towards Euro 2020 by supporting many other athletes as listed in Table-2. Former professional football players such as Gary Lineker (329), Darren Fletcher (215), Alan Shearer (212), John Barnes (128) received a huge support from fans along with many football managers, sports commentators, young professional football players listed under the domain of Sports Personality. Gareth Southgate (3,536) the coach of England's football team turned out to be the most discussed Coach during Euro 2020. Coaches of other teams such as Steve Clarke (218), Senol Gunes (194), José Mourinho (147) and Joachim Low (116) were amongst the top-5 most discussed football coaches.

The entities identified as brands were broadly categorized as TV/ Movies related, Online Site, Online Services, Beverage, Sports, Gas/Oil, Financial Services, Auto Manufacturer, Telco, Non-Profit and more. Amongst these BBC (162) topped the list of domain name Brand. Sony (651), global online gambling company William Hill (536), Twitter (487) and Coca-Cola (415) were top-5 most supported brands. ESPN (328) an American international sports channel, Gas/Oil brands such as Mobil1 (247) and ExxonMobil (245), Telco brands named Hisense (213) and Apple (149), Online Site such as Instagram (96) and Youtube (81), Auto Manufacturer such as Volkswagen (65) and Beverage named Heineken (123) along with Coca-Cola (415) were amongst the top-20 brands being discussed amongst the fans.

Table 2 Sports specific tweet annotations during Euro 2020

	DOMAIN NAMES																	
	Sports Event		Sports Team		Sports League		Athlete		Sports Personality		Journalist		Brand		Sport		Coach	
	Name	Count	Name	Count	Name	Count	Name	Count	Name	Count	Name	Count	Name	Count	Name	Count	Name	Count
ENTITY NAMES	England vs Germany	36011	England	49712	UEFA European Championship	266278	Raheem Sterling	3652	Gary Lineker	329	Darren Fletcher	218	BBC	1621	Soccer	26257	Gareth Southgate	3536
	England vs Scotland	22869	Germany	15016	International - Soccer	187172	Jack Grealish	3499	Darren Fletcher	215	Alex Scott	179	Sony	651	Combat Sports	532	Steve Clarke	218
	England vs Croatia	19257	Portugal	10834	Europe - Soccer	187163	Cristiano Ronaldo	3168	Alan Shearer	212	Clive Tyldesley	113	William Hill	536	American Football	498	Senol Gunes	194
	Scotland vs Czech Republic	18754	Scotland	9336	WWE	517	Christian Eriksen	2667	Alex Scott	178	Gabby Logan	94	Twitter	487	Rugby	320	José Mourinho	147
	Portugal vs Germany	9521	France	9163	Premier League	509	Kylian Mbappe	2426	John Barnes	128	Dam Walker	61	Coca-Cola	415	Cricket	246	Joachim Low	116
	Denmark vs Finland	8902	Leicester City	8645	NFL	466	Harry Kane	1792	Clive Tyldesley	113	Victoria Derbyshire	48	ESPN	328	Racing	197	Jurgen Klopp	95
	France vs Switzerland	8432	Denmark	7163	UEFA Champions League	360	Kalvin Phillips	1740	Ian Wright	87	Ian Payne	37	Mobil1	247	Basketball	135	Frank James Lampard Jr.	91
	Belgium vs Portugal	5559	Croatia	5773	Copa América	214	Paul Pogba	1463	Martin Keown	82	Martin Tyler	33	ExxonMobil	245	Hockey	111	Andriy Shevchenko	82
	Hungary vs France	5268	Wales	5214	Formula 1	183	Romelu Lukaku	953	Roy Keane	66	Kelly Somers	24	Hisense	213	Netball	78	Fernando Santos	73
	Turkey vs Italy	5263	Belgium	3768	FA Cup	156	David Beckham	915	Taylor Twellman	51	Sam Matterface	21	Republic	174	Baseball	59	Gennaro Gattuso	64
	Croatia vs Spain	5187	Spain	3579	South America - Soccer	151	Patrick Schick	816	Kenny Dalglish	39	Robert Peston	19	Apple	149	Cycling	52	Ole Gunnar Solskjaer	46
	Czech Republic vs England	5015	Czech Republic	3486	UEFA Europa League	127	Karim Benzema	791	Martin Tyler	34	Laura Woods	15	Heineken	123	Diving	47	Pep Guardiola	43
	France vs Germany	4663	Switzerland	3031	FIFA Men's World Cup	123	Joachin Low	763	Alex Ferguson	29			PlayStation	114	Boxing	28	Hansi Flick	41
	Croatia vs Scotland	4486	Hungary	2758	NBA	119	Phil Foden	629	Micah Richards	27			Fiverr	110	Olympic Rugby	25	Robert Page	38
	Sweden vs Ukraine	3889	Finland	2699	UEFA Nations League	115	Kai Havertz	547	Jim White	27			Instagram	96	Rugby League	25	Roberto Mancini	37
	Portugal vs France	3654	Italy	2645	Indian Premier League	106	Luka Modric	541	Danny Murphy	26			BBC News	83	Olympic Archery	24	Fatih Tarim	32
	Italy vs Wales	3210	Ukraine	2516	NHL	100	Danny Ward	520	Jeff Stelling	26			YouTube	81	Olympic Soccer	23	Sam Allardyce	27
	Germany vs Hungary	2509	Turkey	2467	ICC World Test Championship	69	Luke Shaw	518	Michel Platini	23			Xbox	72	Rugby Union	23	Frank De Boer	25
	Denmark vs Belgium	2247	Sweden	1823	ICC World Test Championship 2019-21	65	Gareth Bale	505	Daniel Levy	10			IKEA	70	Rowing	14	Zinedine Zidane	22
	Wales vs Denmark	2215	Netherland	1470	Bundesliga	62	Kevin De Bruyne	436	Steffi Graf	5			Volkswagen	65	Bowling	10	Emma Hayes	20

5 Limitations and Recommendations for future work

The present study is focused on the in-depth analysis of the text data generated over social media that is generally ignored. Still there are certain limitations of this study that can be met in future studies. Various social media analytics techniques such as sentiment analysis and network analysis can be performed in conjunction with tweet annotations to find how the communities are formed in real time based on sentiments towards the identified entities. Location based entities in tweets can also be capitalized to get an idea about the locations where sports fans present maximum engagement. Twitter does not provide names of diseases as part of tweet context annotations. They need to be collected through custom NER model.

The scope of this study can be broadened by incorporating other social media platforms such as Instagram, Facebook, Youtube and more. As there was a huge gap in the count of tweets retrieved for the matches amongst England and Italy and North Macedonia and Netherlands, multilingual studies need to be promoted and performed to identify the reason for such huge difference.

6 Conclusions

Post-covid the acceptance and use of digital devices and digital media witnessed a massive jump. Fans, athletes, sports teams, sports organizations all on social media for sharing information during the initial period of COVID-19. Effective and affective engagement of fans and athletes is integral for any sport event to be considered successful. After the COVID-19 sports and its related activities have been severely affected. Marketers, brands, sponsors, events, teams, organizations and athletes all witnessed an unexpected and unforeseen disruption that not only affected every entity individually, in terms of mental, social and physical well-being but also resulted in economic losses through loss of jobs, pay cuts or brand values. To mitigate such adverse effects Euro 2020 was planned and conducted across 12 nations to avoid monetary pressure and curb the spread of COVID-19.

Through this study it was found that sports event of Euro 2020 was the priority and the most important brand amongst fans and spectators all around the world. Whereas the coach Jack Grealish was most discussed coaches and team England was the favorite team as a brand. We also found that hashtags alone cannot be the deciding factor to assess the popularity of an athlete, journalist or any other brand. Tweet context annotations provide the entities mentioned in text that are overlooked during analysis of hashtags thus, the results to estimate popularity through hashtags may be ambiguous. It can be inferred that tweet context annotations should be given importance by the researchers to broaden the scope of studies and perform better correlation of topics as in case of sport branding and sport management.

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