

## Exploring Tweeters' Concerns and Opinions about FIFA Arab Cup 2021: An Investigation Study

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**Abstract :** Background: Social media platforms play a significant role in the mediated consumption of sport, especially so for sport mega-event. The characteristics of Twitter data (e.g., user mentions, retweets, likes, #hashtag) accumulate the users in one ground and spread information widely and quickly. Analysis of Twitter data can reflect the public attitudes, behavior, and sentiment toward a specific event on a larger scale than traditional surveys. Qatar is going to be the first Arab country to host the mega sports event FIFA World Cup 2022 (Q22). Qatar has hosted the FIFA Arab Cup 2021 (FAC21) to serve as a preparation for the mega-event. Objectives: This study investigates public sentiments and experiences about FAC21 and provides an insight to enhance the public experiences for the upcoming Q22. Method: FCA21-related tweets were downloaded using Twitter Academic research API between 01 October 2021 to 18 February 2022. Tweets were divided into three different periods: before T1 (01 Oct 2021 to 29 Nov 2021), during T2 (30 Nov 2021 -18 Dec 2021), and after the FAC21 T3 (19 Dec 2021-18 Feb 2022). The collected tweets were preprocessed in several steps to prepare for analysis; (1) removed duplicate and retweets, (2) removed emojis, punctuation, and stop words (3) normalized tweets using word lemmatization. Then, rule-based classification was applied to remove irrelevant tweets. Next, the twitter-XLM-roBERTa-base model from Huggingface was applied to identify the sentiment in the tweets. Further, state-of-the-art BertTopic modeling will be applied to identify trending topics over different periods. Results: We downloaded 8,669,875 Tweets posted by 2728220 unique users in different languages. Of those, 819,813 unique English tweets were selected in this study. After splitting into three periods, 541630, 138876, and 139307 were from T1, T2, and T3, respectively. Most of the sentiments were neutral, around 60% in different periods. However, the rate of negative sentiment (23%) was high compared to positive sentiment (18%). The analysis indicates negative concerns about FAC21. Therefore, we will apply BertTopic to identify public concerns. This study will permit the investigation of people's expectations before FAC21 (e.g., stadium, transportation, accommodation, visa, tickets, travel, and other facilities) and ascertain whether these were met. Moreover, it will highlight public expectations and concerns. The findings of this study can assist the event organizers in enhancing implementation plans for Q22. Furthermore, this study can support policymakers with aligning strategies and plans to leverage outstanding outcomes.

**Keywords :** FIFA Arab Cup, FIFA, Twitter, machine learning

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