

# **‘A Wisdom of Crowds’: Social Media Mining for Soccer Match Analysis**

## **Abstract**

The advent of social media has allowed channeling of the voice of sports fans that have essentially lead to gathering and storing fan-generated, large-scale opinions about sports match and team performance. Although research utilizing social media data for the purposes of supporting consumer market research has been increasing throughout the recent decade, there is a lack of studies using social media mining approach to improve team performance.

In this paper , an opportunity mining approach is proposed to identify opportunities to improve team performance based on text mining and cluster analysis. A case study of the 2018 Fédération Internationale de Football Association (FIFA) World Cup final qualification of Korea, Korea versus Uzbekistan, was conducted to explain how the proposed method works. Fan comment data collected in the study revealed 16 different opportunities that would satisfy fans with regard to the team performance, and of those, two main extreme opportunities were identified.

This data mining technique , while implemented , can largely outweigh conventional data analysing techniques like live video data analysing and embedded device like GPS based data collection.

## **References :**

- 1) C. Xu, J. Wang, K. Wan, Y. Li, and L. Duan, “Live sports event detection based on broadcast video and web-casting text,” in Proc. 14th ACM Int. Conf. Multimedia, 2006, pp. 221–230.
- 2) J. Nichols, J. Mahmud, and C. Drews, “Summarizing sporting events using twitter,” in Proc. ACM Int. Conf. Intell. User Interfaces, 2012, pp. 189–198.
- 3) H.-S. Jung, J.-U. Lee, J.-H. Yu, H.-S. Lee, and D.-H. Park, “In-depth analysis of soccer game via webcast and text mining,” J. Korea Contents Assoc., vol. 11, no. 10, pp. 59–68, Nov. 2011.