"Consumer analytics and technology transformation in sports marketing and marketing"

Introduction

The sports industry, upstream (production of goods and services) and downstream (media, tourism, advertising, etc.), has direct employment for 4.5 million people (i.e., 2.1% of the workforce of the EU). The jobs created by sporting activities are 7.3 million, or 3.5% of total employment in the Union. Sports activity also has important repercussions in the construction sector for the infrastructures necessary for its performance (stadiums, gyms, laboratories, etc.). The 1992 Barcelona Olympics represent perhaps the most important example of urban transformation due to a sporting event.
For the above reasons, it seems interesting to verify the possibility of using new technologies to collect data and allow more efficient engagement of spectators or tourists.
New technologies and data analytics represent more and more an evolution of the traditional understanding of sports marketing as they are becoming more accessible, reliable, and feasible. However, they still require training in data skills and technology integration with strategic and operational marketing to be used efficiently by sports marketers as superior tools for value creation and delivery.
Marketers and policy maker should capitalize on technology's benefits by harnessing the power of data, thinking in an agile manner, and looking at the customer/fan experience end-to-end.
The research project aims to contribute to customer engagement and data collection and integration. It will mostly focus on the context of football, basketball and cycling because of the easier access to data, their popularity and economic relevance for the city of Rimini.
Below are some possible search directions for candidates.

1-Technology-mediated consumer behavior in sporting contexts
RESEARCH QUESTION: How do new technologies affect fans' sports consumption and experience?
As tickets' prices rise and the at-home experience improves, the game attendance declines. Organizations must recognize that fans' experiences are evolving. Older stadiums start falling behind in infrastructure and technology: the future stadium is a platform allowing fans to engage with teams/athletes in new ways through technology-mediated, personalized settings: the game is only a small part of the main attraction.
Any description of the revenue structure of a football club documents the importance of fans and, therefore, the value of using advanced technologies for marketing activities, especially as traditional revenues streams (tickets and merchandising, first of all) are decreasing dramatically.

METHOD AND EXPECTED RESULTS: The first step would be to do a literature review to report in a table the main theories used before to 1-address consumer behavior in sport; 2-understand technology-mediated engagement. Then, the table should open up to a list of constructs used in these theories. For instance: consumer behavior in sport-->Edgework theory--> Self-enhancement; Sensation Seeking.
Then, researchers need to think of possible overlaps, integration, and contradictions emerging in these theories, to develop a causal relationship model with dependent variables such as engagement or willingness to buy.
The method would be quantitative, most likely a model of multiple moderated mediation. A set of sequential studies could start from a basic model and explore conditions that emphasize or switch off the effects on consumer engagement. Those positive and negative moderators would stem from the literature review table.
The data could be provided by market research companies such as Qualtrics, Toluna, Prolific, etc. An experimental design is most likely, with consumers assigned to different scenarios of interactions through different technologies offering different levels of immersiveness, customization, and flexibility. A field would much likely become necessary for the external validity of the findings.
As aforementioned, it is clear that something is changing in how people experience sports. What exactly and how is unknown. This is where our contribution comes. Specifically, we expect to answer these questions: How to increase customer engagement with technology? Can engagement be obtained without compromising privacy? What is the influence of fan–brand personality congruence? What psychological drivers come into play?

Our results would show how fans' experiences are changing, how to design the future stadium to engage with teams/athletes through technology, and how to manage fans' expectations. Answering these questions goes straight to the heart of the problem the sports industry is currently witnessing. In this vein, it might help to recall that sports move above 1.5 trillion dollars globally, involving billions of consumers. Thus, the results should be appealing to sports managers and sports policymakers. Given that the expected result is to understand technology-mediated consumer behavior in sporting contexts, there is a clear advancement in knowledge, as technology-driven customer engagement and technology interactions are highly debated topics at present.

2. Managing Big data in sports marketing

RESEARCH QUESTION: How can Big data and analytics help data collection and generation in sports marketing?

Answering this question contributes to unifying data islands currently independently built by various teams, creating a multidimensional shared data platform comprising athletes, coaches, teams, and countries.

METHOD AND EXPECTED RESULTS: The method should be better split into two different parts for this RQ. One is to discuss other studies (not necessarily in sports) that have already used automatic methods and ML to detect their outcome variable. And a second part highlights the negative effects of a lack of attention to data preparation and platform unification while instructing machine learning algorithms.

We expect to show in the first part that the use of large quantities of data yet rare in collection frequency does not allow for the use of modern machine learning-based methods. In this unfortunate but likely scenario, our challenge for the second part will be to use learning algorithms, even if trained with data coming from readings of traditional sources or low-quality sets. We also aim to test whether a large amount of data available, spanning multiple years and involving multiple teams, could balance the low recording frequency. Thus, in the second part, we are concerned that while machine learning techniques can (and often do) analyze large and expensive datasets, results are still unreliable. In this part, the researchers will develop specific learning algorithms showing that ML risks identifying patterns that exist only in that dataset and do not possess any external validity nor describe the general phenomenon.

3. Stewardship

RESEARCH QUESTION: How sport managers and policy maker should behave to responsibly plan sport's events?

The 2017 AMA definition of marketing emphasizes the role of the discipline (theory and practice) in offering value for "customers, clients, partners, and society at large". In the same line, the SIM statement of marketing highlights its role in creating trust, sustain growth and technological innovation building a sustainable future. These quotes link companies' economic action to environment, society and the overall possibilities of future generations, suggesting a radically different perspective compared to a traditional profit-maximization view. This recalls the overarching idea of *stewardship*, which represents "an alternate view in which organizational actors see greater long-term utility in other focused prosocial behavior than in self-serving, short-term opportunistic behavior" (Hernandez, 2012, p. 172). Thus, a stewardship mindset is central to the ongoing debate in the practice, and it seems to have an impact both on a company's short-term actions and on its long-term strategic directions.

METHOD AND EXPECTED RESULTS: through an analysis of the literature we want to verify the role of organizational leaders in guiding towards more responsible behavior in event management.

Timeline

Months 1-4: literature review
Months 4-9: data collection (events in Rimini)
Months 10-12: reports writing