Mod.No.
Problems in Digital Innovation Management for Selected Industries: Digitalization of Sports

Overview

In this module, the opportunities and challenges that digital innovation bring to businesses in different industries will be discussed and analysed.

In 2024, the focus of the module will be on the **Digitalization of the Sports Industry.**

Ever since the first Olympic Games was held at Olympia, Greece in 776 BC, sports as a field has accumulated a strong tradition, filled with glory and heroism. At that time, there were only seven sports: running, long jump, shot put, javelin, boxing, pankration, and equestrian events. Today, there are over 8.000 indigenous sports.

Recent years have witnessed a major development in sports – including professionalization, commercialization, but also wide-spread digitalization, which can be traced all the way back to Michael Lewis' work on how Billy Beane, the head coach of Oakland Athletics, deployed analytics to make evidence-based decisions regarding the composition of the team. Nowadays, the use of digital technologies in sports is even more pervasive. On one hand, the trend of using analytical technologies to support performance enhancement (for the sake of winning) continues and intensifies. One the other hand, the utilization of digital technologies in sports also expands to areas such as organizing and managing sports teams and their stakeholders, accessing and interpreting sports information, inventing new instruments and strategies that would not be possible without these technologies. Finally, digitalization led to creation of new sports – e-Sports, which poses profound implications for the very nature of the sports field.

This course charters an in-depth examination of the sports digitalization and how digitalization transforms the conditions for professional sports. Specifically, we will discuss the influence of digitalization along different functional areas of professional sports, including performance management, marketing and fan/customer engagement, event and facility management, and talent management. This discussion will aid students in gaining functional and managerial knowledge with regard to sports as a business. Furthermore, the course challenges students to face an unusual and challenging managerial context. Technologies that will be covered in the discussion include but are not limited to: analytic technologies, Internet of Things, Artificial Intelligence, virtual reality and augmented reality, among others. We will also discuss e-sports and its characteristics, the (potential) synergy between e-sports and traditional sports, as well as the future of digital sports.

Learning outcomes

Students learn to…

- understand the nature of industries impacted by digital innovation
- identify industry-specific drivers for digitalization
- analyse the influence of digitalization in different functional areas of the industry
- discuss the unique feature of digitalized industries
- critically appraise managerial and organizational aspect of digital industry business
- reflect on the future of industries in the digital era

Contents

The following list of topic exemplifies the contents covered in this edition of the course (**Digitalization of the Sports Industry)**:

- Unique Features of Sports
- Sports as a Business
- The nature of eSports
- Sports Analytics
- Digital Fan Engagement and Marketing
- The Emergence of SportTech
- The Future of Digitalized Sports

Preliminary Schedule

The course will consist of biweekly lectures of 3h length followed by biweekly practical tutorials of 1.5h length. The preliminary schedule is as follows:

Week	Topic	Lecture	Tutorial
1	Introduction: Sports as a Business and Sports Digitalization	3h	
2	Practical session		1.5h
3	Digitally-Born Sports: The Nature of eSports	3h	
4	Practical session		1.5h
5	Sports Analytics	3h	
6	Practical session		1.5h
7	Marketing and Fan Engagement in the Digital Age	3h	
8	Practical session		1.5h
9	Digital Business Models for Sports Organizations	3h	
10	Practical session		1.5h
11	The Sports Tech Industry	3h	
12	Emerging Trends in Sports		1.5h
13	Group Presentation in Class	3h	

Required Readings

Relevant papers and other reading materials will be announced and/or made available in due time. Amongst others, materials from the following textbook and readings will be used:

- Miah, A. (2017). Sport 2.0: Transforming sports for a digital world. MIT Press.
- Xiao, X., Hedman, J., Tan, F. T. C., Tan, C. W., Lim, E. T., Clemenson, T., ... & Van Hillegersberg, J. (2017). Sports Digitalization: An Overview and A Research Agenda. *In Thirty Eighth International Conference on Information Systems*, Seoul 2017
- Davenport, T. H. 2014b. "What Businesses Can Learn From Sports Analytics," *MIT Sloan Management Review*, (55:4), p. 10.

Assessment

For the examination, students work in groups of up to 4 students. The group needs to work assignments based on the analysis of a real-life sport organization (this could include the actual sport athlete/clubs/federations as well as organizations that work in the professional sport ecosystem, such as data provider, content provider, broadcast companies, etc.). Students are expected to (1) identify a problem area in relation to sport digitalization; (2) analyse the problem with real world data; and (3) provide potential solutions or recommendations.

In-class presentation (10%). The presentation should cover the students progress on their project throughout the semester. Specifically, students should present their selected case, problematization, data collected, and preliminary insights.

Written Group-based essay (90%). The exam will be completed as an electronic take-home assignment. More details will be provided once available.

Detailed instructions on the group work and continuous feedback on the project will be given throughout the semester.