

Multidimensional Innovation and Sustainable Development in the Intelligent Management of Sporting Events

Yi Chen¹, Jiankang Zhang^{2*}

^{1,2}School of International Economy & Tourism Management, Zhejiang International

Studies University, Hangzhou, Zhejiang 310023, China

*Corresponding author. Email: zhangjk@zisu.edu.cn

ABSTRACT

The intelligent management of sporting events refers to a set of specific management concepts, management systems and management methods built on the basis of a two-way interactive platform, using advanced digital technology to coordinate and manage the entire event, and relying on the power of science and technology to achieve constant innovation and optimisation. The multi-dimensional innovations in the intelligent management of sporting events include: the pursuit of two-way interaction in the platform architecture, the digital applications following the technological trends of the times, the rational and efficient allocation of resources, the development of the rules of the platform with a balance of ethics and law, the sustainable and coordinated development of the management concept and the dynamic optimisation of the incentive structure. The sustainable development of the intelligent management of sporting events should enhance communication and cooperation to broaden new ideas of event management; change management perspectives to explore new directions of event management; focus on domestic and international developments to grasp the new focus of event management, etc.

Keywords: Sporting events, intelligent management, multidimensional innovation and sustainable development

1. INTRODUCTORY REMARKS

At present, the theoretical system for the intelligent management of sporting events in China has not yet been completed, and there is a large gap in many areas - no complete theoretical system, lack of clear understanding of the management object, inadequate relevant laws and regulations, etc. In the current sports events, the workload of various departments is huge and the lack of a sound intelligent management for coordination and management will lead to inefficiency, cause inaccurate results and affect the perception of athletes and spectators towards the event organising committee[1]. With the widespread use of digital information technology in all areas of society, a new digital era has dawned and is driving continuous change in society. The distinctive feature of the digital era is the expanding and significant benefits of digital technology in various fields of social life, productive life, economic life, science and technology, cultural communication, education and teaching, defence science and technology. Obviously,

digital information technology will also gain more and more importance in the context of sport events. The management model and mechanism of sporting events in today's era must also move towards comprehensive intelligence in line with the changes of the time.

2. THE CONCEPT OF INTELLIGENT MANAGEMENT OF SPORTING EVENTS

Intelligent management of sporting events refers to a set of specific management concepts, systems and methods based on a two-way interactive platform, using advanced digital technology to coordinate and manage the entire event, and relying on the power of technology to achieve continuous innovation and optimisation. Throughout the entire process of preparing for a sporting event, during the competition and in the aftermath, a scientific and rational intelligent management is built to rationally and efficiently allocate resources, improve the efficiency of the competition, enhance the spectator experience and expand the positive influence of society.

To ensure the sustainable operation of intelligent management of sporting events, the following principles should be followed: firstly, science. Wisdom management is built on digital technology as the basis of means of the Internet, platform, digital information and other elements as one of the new era of scientific products, its own scientific requirements are extremely high, is to model the construction process to strictly follow the principle of science. The second is feasible. The construction of the intelligent management of sports events should be able to ensure its feasibility in terms of the policies issued by the government, the economy of the market and the supporting technology, i.e. the mode of operation should be in line with the policies and regulations, be able to bring certain revenue, and the supporting technology is safe and reliable without copyright disputes. At the same time, attention should be paid to linking theory with practice, after perfecting theoretical support, to ensure that the practical results are in line with the theoretical report, with both theoretical and practical feasibility. The third is advanced. The unique nature of intelligent management is to be able to access and grasp data and information in a timely manner, so that it can detect the trend of the time, and thus constantly reform and innovate to maintain its own advancement[2].

3. MULTIDIMENSIONAL INNOVATION FOR THE INTELLIGENT MANAGEMENT OF SPORTING EVENTS

3.1 Platform Architecture: Two-way Positive Interaction

The effective architecture of the platform is a key factor for a positive interaction. The platform architecture for the intelligent management of sporting events must be both technically in its wisdom and market-oriented for the group, and the two must support and cooperate with each other. The development and application of intelligent platforms for sporting events should be geared towards both platform users and the protection of the due rights of event managers[3]. For the users of the platform, what is needed is an easy-to-use, fast and scientifically integrated technical platform to facilitate their access to information about the event and its surroundings. For event managers, what is needed is a reasonable, efficient and comprehensive market management platform that facilitates the extension of their temporal and spatial values, i.e. the effectual collection of information. The platform enables a wide range of digital information to flow between user groups, which largely facilitates the reproduction and optimal allocation of quality resources and elements, and also enhances the quality of the platform's services by promoting the two-way integration of online and offline between the platform and its users. For the platform to develop in a sustainable and healthy

manner, it is necessary to play an important role as a platform manager to ensure the effective operation of order on the one hand; on the other hand, it is necessary to take advantage of the platform users to form a free and open ethos, constituting a two-way positive interaction and helping to promote the spread of sports events in a wider scope.

3.2 Digital Applications: Keeping Up With The Technological Trends of the Times

In the 21st century, the widespread use of digital technology has grown up to be an inevitable trend in the world. Digital technology is a computer technology with numeral as its core. Today, with the numerical wave represented by new technologies such as the Internet of Things, Big Data and Artificial Intelligence sweeping the world, traditional management models and methods are no longer able to meet the demands of modern sporting events. For example, GoalControl's M2M (Machine To Machine) goal-line technology system, which uses multiple high-speed cameras and data booths to collect data and analyse it to help referees accurately determine player goals and prevent misjudgements and missed calls. In addition to this, Hawk-Eye technology has been used in tennis and volleyball to ensure fair play, and M2M could be used in conjunction with wearable devices in future sporting events - for example, M2M and connected helmets could be used to determine whether a rugby player has suffered a traumatic brain injury, and team coaches could use eye tracking technology, player GPS, and other devices to track the movement of players. Team coaches can use eye tracking technology, player GPS and location tracking to better monitor players and develop training plans and game strategies; and player body temperature detection to keep players safe. The use of digital technology should be reinforced in all aspects of sporting events to ensure fairness and the health and safety of participants.

3.3 Resource Allocation: Rational and Efficient

The flow and allocation of resources are a planned, institutionalised and regulated deployment. The Beijing Winter Olympics are both an opportunity and a new challenge for ice and snow sports in China. China's ice and snow sports have many shortcomings in the allocation of sports resources, and are in a backward status quo with an overall low level of competition and unreasonable allocation of sport resources. To change the status quo, it is necessary to vigorously develop our ice and snow sports, and at the same time to use and develop sport resources in a scientific and reasonable manner[4]. Due to geographical conditions, China's ice and snow sports are right on a greater disadvantage in terms of resources than those in Europe and North America, which are strong countries in ice and snow sports. Our focus should be placed on the allocation of resources with a hard hand. In

particular, we should work hard on the training of talent resources, the development and utilisation of venue resources, the rational allocation of resources for sporting events and the effective development of sport tourism resources. By analogy, each sporting event should be based on the operation of the whole industry chain will be intelligent management and mechanism of comprehensive reform, rational allocation of resources, increase investment, scientific and efficient development of various event resources, training of sports event professionals, construction of suitable venues, good publicity and operation, and strive to achieve with the top international level, to show the style of a great country.

3.4 Platform Rules: Balancing Ethics and the Law

The rules of the platform should not only comply with the requirements of the corresponding network laws and network norms, ensure the legitimate rights and interests of both platform managers and users, resolutely resist any violations of the law and behavioral phenomena beyond the bottom line of social morality, create a clean and upright platform environment, minimize the operational risks of the platform, guarantee the political security and healthy economic development of the platform; but also take into account the legal and humane situation, keep the bottom line of values, and establish a warm and humane platform. It is also necessary to take into account the legal and humane situation, to keep the value line, to build a warm and humane platform, to make users comply with the rules of the platform by subtle means, and to make them feel the respect of the platform for the user community and the attitude of always insisting on better service for the users[5].

3.5 Management Philosophy: Sustainable and Coordinated Development

In terms of management philosophy, the main operational direction of intelligent management of sports events is to sustain coordinated development. First, coordination, that is, under the premise of unified management, we should focus on long-term goals, but also take care of short-term goals, coordinate the relationship between each goal and the external environment, the future development trend, so that the management model is adapted to the current context of the times. Second, development, development should focus on the foundation and innovation. The foundation is the foundation of stability and life, we must always remember not to deviate from the original intention of creating intelligent management; innovation is the inevitable way of development, the only innovation, in order to make the road of intelligent sports event management full of vitality and vitality.

3.6 Incentive Structures: Dynamic Optimisation

Each sporting event should build a dynamic and optimised incentive structure for the intelligent management of sporting events. People are the main line of the incentive structure. Fairness is at the heart of the incentive structure. Fairness is an essential cornerstone of any event and can stimulate new energy in all types of players. When structuring the incentive structure, sporting events must ensure fairness and transparency, so that all participants can see every step and its effectiveness. Efficiency is the purpose of the incentive structure. An efficient management model helps to increase the satisfaction of both partners and the turnover of all business. The management model of each sporting event should be clear, simple and organised, with the relevant responsibilities in place to improve the efficiency of communication between the two partners and to ensure that the objectives are fulfilled. Reality is the purpose of the incentive structure. The rapid development of the digital age requires that the management models and mechanisms of sporting events are reformed and evolved more quickly, with high efficiency to match the external environment, high technology to guarantee the operation of the event, and high skills to demonstrate the level of talent to meet the higher demands of the audience[6].

4. CONTINUOUS DEVELOPMENT OF INTELLIGENT MANAGEMENT OF SPORTS EVENTS

4.1 Enhance Communication and Cooperation To Broaden New Ideas For Event Management

To broaden new ideas in event management, it is necessary to enhance communication and cooperation between managers and technicians from different event fields and professions, as well as from the same fields but in different aspects. This facilitates the flow of respective information, the sharing of management experience and the collision of diverse ideas from which new management ideas can emerge. At the same time, it also promotes the sharing and integration of quality event resources and optimises the allocation of resources so that they can work together to complete the scientific construction of intelligent management of domestic sporting events, thus forming more and more valuable new achievements suitable for the development of the times from them.

4.2 Change Management Perspective and Explore New Directions In Event Management

In the dynamic evolution of the scientific construction of the entire wisdom management process, the direction of its event management should be up to date, up to date with current events and constantly updated. Innovation is a fundamental guarantee of the vitality of the overall

wisdom of event management. We need to continue to think differently and search for new management directions through the change of management perspective, to study in depth the new directions of the times, to implement the concept of coordinated development, and to constantly test and amend the existing models and mechanisms to make them more perfect.

4.3 Paying Attention To Domestic and International Developments and Grasping New Focus of Event Management

The scientific construction of the intelligent management of sporting events is closely related to the evolution of event dynamics at home and abroad, the development of new technologies and the emergence of new focal points in event management, so that we still need to correctly grasp the national policies and keep an eye on the emergence of new situations at home and abroad in our future research[7]. At the same time, the new focus of event management is also a new focus of development, and the correct interpretation of the new focus of event management and the timely grasp of new technologies to improve the existing models and mechanisms will help to promote the evolution of sports event management models to advanced intelligence[8].

5. CONCLUSION

In the face of the challenges and demands of the digital age and internationalisation on traditional sporting event management models, it is an inevitable requirement for them to embark on the path of total wisdom. In the future, intelligent management will become a common model including but not limited to major events, and the platform built on the Internet will become an important focus. In the process of further promoting the judicious management of sporting events, we need to pay attention to the management concept, digital technology, innovation and optimisation to maintain the sustainable operation of intelligent management.

ACKNOWLEDGMENTS

This work was supported by the Zhejiang Provincial Social Science Planning Project “Communication Technology Deconstruction and Practice Orientation of the Intelligent Asian Games”(20NDJC159YB).

REFERENCES

- [1] Wang Xiaoming, Zhu Yongbin. Digitalization of service-oriented manufacturing to promote the innovative development of value-added information and intelligent services [N]. China Economic Times, 2020-10-15(004).

- [2] Xue Jianxin,Zhang Jin. Research on the allocation of sports resources for ice and snow sports in the Beijing Winter Olympics[J]. Sports Research and Education,2020,35(05):5-9.
- [3] Zhao W. Brilliant. Research and exploration of information technology in the construction and management of Asian Games venues [J]. Computer Age, 2020(09):125-127.
- [4] Ji X. Research on innovation of sustainable operation mechanism of public service platform for small and medium enterprises[J]. China Small and Medium Enterprises, 2020(09):89-90.
- [5] Ma Wenbo, Zhu Yacheng. The current situation of China's university sports event resources and optimization allocation strategy[J]. Sports and culture supplies and technology,2020(17):127-128.
- [6] Fu Gangqiang. Research on the intelligent operation mode of sports stadiums under the background of "intelligent Asian Games" [J]. Shandong Sports Science and Technology,2020,42(03):1-6.6
- [7] Tang Yue, Li Zhaokun. Diffusion of the impact of artificial intelligence application technology in the media industry [J]. Journal of Journalism Research,2019,10(17):232-233.
- [8] Lin Yingze. E-commerce platform rules and the development of sharing economy[J]. China circulation economy,2018,32(01):85-92.