



Designing an Optimal Model for the Construction, Equipping, and Maintenance of Sports Facilities

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Abstract

This research aimed to design an optimal model for the construction, equipping, and maintenance of sports facilities. In the present study, grounded theory based on the Glaserian approach and the information analysis method based on Glaserian coding steps were used. The study population included managers and specialist officials in the Ministry of Sports and Youth, the Sports Facilities Development and Equipment Company, construction officials, and professors in the field of sport management. Among these individuals, 14 people were selected as the sample through purposive (judgmental) sampling based on criteria of education, expertise, and experience related to the research. To confirm the validity, the impact of the interviewees' responses was examined by receiving feedback from them. Test-retest reliability was also used for final confirmation of the tool. Data analysis was performed through descriptive statistics, and the Glaser method was used to achieve the desired model. The results showed that the components of location and access, design and architecture, environmental sustainability in the construction sector; facilities and ancillary services, cultural and welfare facilities, appropriate sports equipment in the sports equipment section; and planning for repairs and maintenance, hygiene and cleanliness, and security in the sports facilities maintenance section are considered among the most important components of the model for constructing, equipping, and maintaining sports facilities. Therefore, the success of a sports complex depends on simultaneous attention to location, sustainable design, appropriate equipment, and documented planning for maintenance and security, and the model proposed in this study can be used as a comprehensive roadmap for the qualitative and sustainable development of sports venues.

Introduction

Today, with sports becoming a social, economic, and cultural phenomenon, many people in different societies have realized the importance of sports in maintaining health, vitality, and well-being and increasing physical and mental abilities. Certainly, all leisure or championship sports are performed in sports venues and facilities. Developing infrastructure, producing quality equipment, and providing these facilities are necessary for the development of sports in society (Zülch & Palme, 2017). The urgent need to further develop sports activities at the national level, especially considering the importance of sports in promoting and maintaining the health of the body, mind, and spirit of humans, should always be the focus of attention of the authorities. This

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requires providing a set of conditions and facilities, the most important of which is the use of standard sports spaces and venues that are designed and built based on international standards (Ansari, 2011).

Methods and Materials

The present study is applied in terms of purpose and qualitative and exploratory in terms of method, based on data-based theory and using the Glaser approach (new, classic, emergent). In this approach, open-ended questions, content analysis, and conclusions based on findings are used, and the data are systematically analyzed and theorized. The research strategy is inductive, meaning that the theory is built from part to whole, and its goal is to explain research phenomena by identifying and classifying key elements and the relationships between them (Haji Eshaq, 2008). The research participants included managers and specialized officials in the Ministry of Sports and Youth, the Sports Facilities Development and Equipment Company, construction officials, and professors in the field of sport management. Among these individuals, 14 people were selected as the sample through purposive (judgmental) sampling based on the criteria of education, expertise, and experience related to the research. Interviews continued until theoretical saturation was reached, at which point new data did not add anything new to the findings. The duration of each interview was 45 to 90 minutes, and the average time for each interview was 60 minutes. Two methods were used to collect data: semi-structured interviews and library study. The interviews include general and specialized questions tailored to the experiences and expertise of the interviewees, and supplementary questions are also asked during the interview process. In addition, theoretical sources, including documents, evidence, and texts related to the research topic, have been used to supplement the interview findings. In order to increase internal validity, after each interview, the results were fed back to the interviewee, and necessary changes were made. For reliability, several interviews were recoded at different time intervals, and the intra-subject agreement rate was assessed to be 88%, which is appropriate. Data analysis was conducted using a three-stage coding method (open, axial, and selective). In open coding, data were broken down and grouped into concepts and categories. Then, in the selection stage, the focus is on the pivotal variables, and finally, in theoretical coding, the concepts are linked and a comprehensive theory is formed.

Results and Discussion

After analyzing the data and finalizing the collected information, 66 key concepts were identified as the initial concepts of the optimal model for the construction, equipping, and maintenance of sports facilities. These codes were coherently categorized and formed the main concepts, and the results showed that the most important concepts in the construction of sports facilities were location and accessibility, design and architecture, and environmental sustainability. The most important components of equipping sports venues were facilities and ancillary services, cultural and welfare facilities, and appropriate sports equipment; and the most important components of maintaining sports venues were planning repairs and maintenance, hygiene and cleanliness, and security and protection.

Conclusion

In conclusion, it can be claimed that the optimal model extracted in this research is a comprehensive and dynamic model that emphasizes integration and the logical sequence of processes. This model shows that the excellence of a sports complex is not simply in the grandeur of its structure or the latest equipment, but in holistic planning, from site selection and initial design to purposeful equipment and, finally, the implementation of a continuous maintenance system. The results of this study can provide a valuable framework for managers, planners, and designers in the country's sports field to design, develop, and manage sports facilities with a systematic and evidence-based approach, and by optimizing resources, help improve the quality, safety, and sustainability and ultimately increase the social and economic productivity of these

national assets. It is suggested that future research should measure the causal relationships between these components and, using the present findings, develop quantitative measurement tools and evaluation models for existing sports venues.

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Keywords: environmental sustainability, ancillary services, sports equipment, site selection