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QUALITY OF SPORTS MANAGEMENT IN SAUDI ARABIA

Abstract: *In Saudi Arabia, both traditional and modern sports are popular. The facilities required for them are based on the population of the area and the level of participation. There are a few world-class sportspersons in Saudi Arabia and they have won in some competitions. The Saudi sports activities are administered and controlled by the General Presidency of Youth Welfare (GPYW) established in 1974. There are also active programmes to develop sports in educational institutions. Against the above background, the following question assumes relevance: What are the various issues, factors, and challenges of sports management in Saudi Arabia, and how they can be addressed? This review tries to answer this research question through a systematic review. There are obstacles and challenges also. The main obstacle related to the Islamic cultural and social restrictions, especially not permitting women to participate in sports and physical activities. Positive attitudes of male and female university students are affected by the lack of facilities, opportunities, and programmes. Effective interventions by adequate security mechanisms and agencies, backed by appropriate regulations need to be ensured to reduce riots in the stadia. Injuries are a major problem in sports, sometimes incapacitating them lifelong. The effect of the covid pandemic on sports had been serious as it affected the schedules of major sports events all over the world. Some were cancelled and others like the Tokyo Olympics 2020 were postponed. When such sports events are conducted, the risks involved need to be attended to for reducing the impact of covid on the sportspersons, audience, and others. Some modern trends in sports research include flipped classrooms based on neural networks as a method of modernising sports education, the use of exergames to improve the physical activities of hearing-impaired students, and the use of UAV-enabled Internet of Things to track and work on the player safety. Overall, it is safe to say that sports management is at a nascent stage in Saudi Arabia. Addressing the challenges faced in sports management in Saudi Arabia can improve the sporting outcomes for the country..*

Keywords: *Sports management, Saudi Arabia, Systematic review*

1. Introduction

Some basic facts about sports activities in Saudi Arabia are provided in SaudiEmbassy

(2022). Both traditional and modern sports are popular in Saudi Arabia. The traditional sports include horse racing, camel racing, falconry, and hunting with hounds. Soccer is the most popular modern sport in the

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country. Many national and international matches are played in spectacular stadia. Saudi soccer league matches culminate in the King's cup and these matches are watched by millions of Saudi families in stadia and on television at home. Saudi national team competes in international competitions. Apart from soccer, gymnastics, volleyball, swimming, and basketball are also popular. There are excellent golf courses that were introduced by the American expatriates in the late 1940s. Saudi Arabia has many sports facilities at various levels, ranging from neighbourhoods and local clubs to major sports complexes called sports cities located in major cities. Facilities to play various sports are available and sports medicine centres are also provided in these sports cities. Smaller facilities exist in smaller cities and areas according to the population and their interest in various sports. The sports activities of the Kingdom are managed by

the General Presidency of Youth Welfare (GPYW) established in 1974. GPYW works with the Ministries of Education and Higher Education in developing sports among children in schools and universities. GPYW controls all the 18 sports organisations in the country. This review tries to answer the research question-

What are the various issues, factors, and challenges of sports management in Saudi Arabia, and how they can be addressed?

2. Methodology

A PRISMA methodology was used for this review. Google Scholar and other databases were used to search for relevant literature. The keywords used included 'Sports management' and 'Saudi Arabia'. The results of the screening procedure are given in Figure 1.

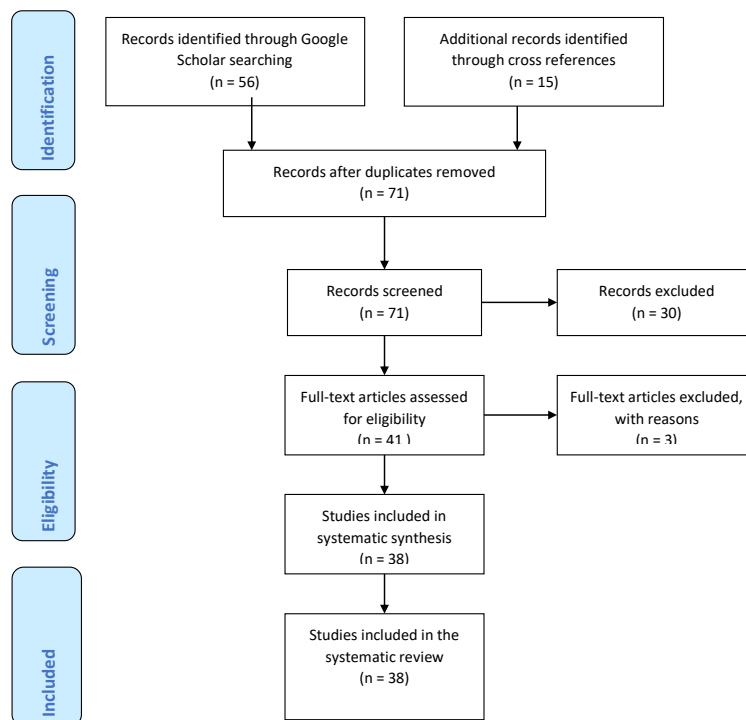


Figure 1. PRISMA diagram

A search of Google Scholar yielded 56 papers from the first six web pages. Another 15 useful papers were collected from other databases. Therefore, a total of totally 71 papers were compiled. From these, 30 were excluded as they were not directly about sports management. From the remaining 41 papers, 3 papers were excluded as they were repetitions of the same findings. The remaining 38 papers were used in this systematic review.

3. Result

3.1 Quality management

Quality management and factors related to it in sports are the first points related to sports management. These include administrative and financial support, professional management, total quality management practices, service quality, marketing, investments, opportunities, employee job satisfaction, and extent of participation in sports by the population, all leading to the development of sports organisations as centres of excellence. Some results available on these topics are reviewed below.

In the studies by Alqahtani (2016), obstacles related to administrative and financial support for professional administration of soccer league clubs were found to be affecting the professional management of soccer clubs in Saudi Arabia. Lack of planned objectives and funding affected working to a plan and timetables. Innovative rules and regulations and regulated training courses to the staff on professional management were found to be the solutions. Recommendations were given for an assessment of the professionalism in the management and development of strategic plans using scientific methods for setting goals of professional soccer clubs in the country.

The studies by Hegazy (2012) revealed poor total quality management practices in Saudi

Judo and Taekwondo Federation. This state was reflected in the absence of vision, mission, objectives, and a training plan for the sportspersons in this Federation. A weak performance level of 61.42, especially due to poor human resources management, systems and documentation of information, no plan for dissemination of this sport, no clear plans, or certified needs of employees in various disciplines, no effort to raise the awareness of employees on or practice of total quality management and no plan for improving the quality of services to various stakeholders of the Federation. The same author (Hegazy A. F., 2012) noted similar results in the case of sports clubs in the Al-Jouf region of Saudi Arabia also. In another similar study, Bouzhmehrani, Razavi, Dousti, Akbarihossein, and Elahi (2021) identified organizational culture, human resources and managers, processes and innovation, society and athletic environment, management and planning, rules and organizational structure, IT, and corresponding directions, process development, and training and culture as the obstacles for quality management in Saudi sports federations. Identifying the needs and expectations of the customers was of the highest priority.

In the case of Saudi fitness centres, a significant association of service quality with customer satisfaction, but not with educational or income levels or any association of the two factors with customer satisfaction was noted by Koshak (2019). Within the quality subscales, tangibility, assurance, and empathy were significant predictors of customer satisfaction.

In the case of Saudi sports clubs especially those related to soccer, AlThobaiti (2020) observed that the club management was eager to promote its website as a method of electronic marketing of its services. To ensure the availability of high-quality infrastructure for electronic marketing and use it for the promotion of the services offered by the clubs, the marketing officials

were involved in policy and strategy decisions.

In a Chinese study, Li and Huang (2021) observed a high level of matching between the external opportunities and internal advantages. The youth physical health management under the government mechanism had poor effects. The need to establish a market mechanism for youth physical health management was identified. The internal advantages of youth physical health management were large, and high potentials for the public management service market and the market-oriented health construction were also recognised.

Job satisfaction among the employees of GPYW, Saudi Araba due to upward influence was studied by Albabtain (1987) using a combination of different methods. Increasing levels of assertiveness, bargaining, coalition, and friendliness decreased the job satisfaction of the influence agent. Significant effects were noted for personal, organisational goals and the evaluation of superiors on the relationship of reason strategy with job satisfaction.

In an article, Madichie (2021) observed that sports investments were shifting from north to south and west to east, particularly to the Middle East. The countries in this region had been investing heavily in team purchases, naming stadia, sponsorship, and prized hosting of international matches like the 2022 FIFA world cup in Qatar. However, accredited officials from these countries had been notably absent. The implications of these issues in sports management are very clear.

The aim of the research by Ghreeb, Abdelkader, and Sayyd (2021) was to identify and compare the levels of institutional excellence in the Egyptian and Saudi football federations using the European Excellence Model (EFQM) dimensions. The overall EFQM score in the case of the Egyptian football federations was 1.84, indicating an intermediate level of

excellence. The overall EFQM score in the case of Saudi football federations was 2.41, significantly higher than that of Egypt. The mean values of all the nine EFQM dimensions were significantly higher in the case of Saudi football federations compared with the Egyptian federations. Only the fourth and fifth dimensions related to partnerships and resources and the fifth dimension related to operations and service management secured the same rankings of 1 and 4 respectively concerning the importance ratio of the nine dimensions. Thus, in the case of Egyptian football federations, the levels of excellence for all dimensions could be rated as average and those of Saudi football federations as good.

According to the results of a national survey of the population in different regions of the country, only 17.4% of the Saudi people of 15 years of age or above were engaged in physical activities of 150 minutes or more per week. Men were better practitioners of physical activities than women among both Saudi and non-Saudi people. Walking, followed by football, was a more frequent physical activity. This was also more common with men than women among both Saudi and non-Saudi people. More people in the Makkah region and younger generations practised physical activities than those in other regions or older age groups. People who study till intermediate, secondary, or graduate levels were more likely to practise physical activities than others. Simple unwillingness to practise physical activities was the dominant reason for not doing it among Saudis. Lack of time was the dominant reason for this among non-Saudis. The authors (Alqahtani, Alenazi, Alhowimel, & Elnaggar, 2021) suggested appropriate interventions and promotional programmes to improve the situation.

3.2 Sport and Islamic faith

Leisure activities are considered to be incompatible with the Islamic faith by some people. Hence, many of the leisure facilities

like squash courts, swimming pools, and aerobics, existing even in the capital city of Riyadh, are privately owned and utilised by expatriates. There is a need to popularise them among Saudi nationals (Alghenaim, 2013). However, the participants were less satisfied with private facilities. In this respect, using 18 case studies, Alhakami (2014) noted major obstacles to privatisation policies and attempts of privatisation within the Saudi sports sector and the sports clubs in particular. From their survey studies, Ahmadi, Amirtash, and Safania (2018) identified six cultural factors to be considered before sports privatisation. The six factors were education and empowerment, private television network, government managers' attitudes, media, strategic thinking, and trust. The mixed-method research by Balwel and Tayachi (2021) showed that privatisation, especially of sports clubs, was significantly related to the economic development of Saudi Arabia. This is also related to the Vision 2030 strategies of the Saudi government.

The above findings prove the existence of many challenges to the privatisation driven by the Saudi government to reduce its investment in Vision 2030 strategies.

3.3 Women in sports

Saudi Arabia had been late in recognising the possibility of women contributing to its efforts to improve the physical fitness of the population and gains in international sports competitions like the Olympics. Sajeed (2015) noted that Saudi Arabia's first sports centre for girls was opened in Khobar in 2013. This centre started offering training programs that on physical fitness, karate, yoga and weight loss, and special activities for children. The girls were also allowed to practice sports in private schools. As the International Olympic Committee exerted pressure on the Saudi Olympic Committee to send female athletes to the 2012 Summer Olympics the Saudi Embassy in London announced an agreement to this and sent two

young women, Wojdan Shaherkani and Sarah Attar, as the first Saudi women ever to compete in the Olympics in 2012. The issue of Sharia laws affecting women's engagement in sports and fitness activities could be addressed by providing facilities for the privacy of women gymnasts in Saudi clubs, as per the Sharia laws, through architectural design, as was stressed by Elwazir and Sindi (2013). Here, the willingness of Saudi women to return to fitness centres could be a factor and it is affected by social factors driving motivation, but not by tangible factors (Fallatah, Pyo, & Alsaleh, 2019). On the other hand, according to Malchrowicz-Mosko (2021), it can be assumed that women's sports and sports tourism are acceptable if conditions of the Islamic teachings are met. These conditions are related to clothing, the nature of the sport, and the place of physical activity. On the other hand, sport is not yet an important element of Islamic tourism under the current social and cultural conditions. Thus, the relationship between travelling and sports becomes a serious issue, especially when Muslim women are considered.

Sports abayas are becoming increasingly popular in Saudi Arabia as women are increasingly participating in fitness and sports activities. The Islamic law mandates the wearing of abayas over their daily clothes to hide their body contours. The comfort and performance of the wearer are affected by this extra layer of abayas, the choice of the correct fabric to make abayas is important. In this respect, the comparative studies on cotton and polyester abayas by Helmi, Tashkandi, and Wang (2021), showed results favouring the use of the latter. Air permeability was higher, and the vapour resistance was lower for polyester than for cotton. The thermal resistance did not differ significantly. Also, the thermal and vapour resistance of sports abayas was lower than those of traditional abayas.

3.4 University students

University students represent the future of sports of the nation. Their attitudes on sports matter very much. Fakehy, Alfadhil, Hassan, and Alotaibi (2021), from survey results, found that the attitude of the female students at Saudi universities was influenced by the better physiological experience from physical fitness, social experience, and formal competition.

Another factor is the adequacy of facilities and programmes in sports. Inadequate sports facilities and programmes could affect the participation of Saudi university students in various sports activities, as was noted by Sayyd, Zainuddin, Ghabban, and Altowerqi (2021). About one-third of the Saudi university undergraduates of sports sciences had inadequate levels of physical activities. About 42% of them were smartphone addicts. However, the relative levels of physical activities and smartphone addiction did not indicate that smartphone addiction was a major cause of the low level of physical activity. Both these problems were higher in the case of students in Physical Education and Sports Teaching and Sports management programmes (Buke, Egesoy, & Unver, 2021).

Physically active students also perform well in academics. This was proved by the observation of Alsanea (2021) that a negative relationship between academic performance with no physical activity and a positive relationship with increasing levels of physical activities of Saudi male and female university students, some of whom were also members of the Jeddah Runners Club, were reported by. These findings were applicable across different demographic variables. However, in the survey data, the frequency of students as members or non-members of the Jeddah Runners Club or its impact was not provided nor were discussed.

3.5 Stadium riots

Overenthusiasm, especially from the younger fans can create situations favourable for riots in sports stadia. A descriptive study by Alshamrani (2019) showed that mostly young people are involved in the stadium riots. The roles of security systems and agencies are relevant here. There are very effective modern methods of monitoring sports grounds. Very effective security systems are also available to reduce the riot risks. However, there is a lack of transparency and clarity about the activities of some security firms. Also, there is no active participation of citizens. The regulatory system and regulators in security, sports, or control are inadequate. There is also inadequate media awareness. The recommendations on these issues include the need to introduce control scenarios on sports programs that contribute to increased anger and lead to riots in the playgrounds, the need to increase awareness programs with a spirit of satisfaction and inculcate the spirit of rejection of intolerance. The blind imitation of some western countries on these matters needs to be discouraged. People should be motivated to adhere to the ethics, customs, and the teachings of the Islamic religion.

3.6 Sport injuries

Direct and indirect contact sports can cause injuries, which are often fatal preventing the sportspersons from competing in their favourite sports lifelong. In the studies reviewed here, only certain injuries of a largely non-fatal nature were dealt with.

The importance of sports teachers in the management of traumatic injuries among children was highlighted by Eroje, et al. (2020) through a survey of the sports teachers in Saudi Arabia on their awareness and knowledge of orofacial trauma and its management as an example. Most of the teachers had only partial knowledge of certain aspects related to these types of injuries. Although most of the taekwondo

athletes were aware of oral and maxillofacial (OMF) injuries, they lacked the knowledge and behaviour of preventing and managing these diseases (Aljohani, Alfaifi, Redwan, Sabbahi, & Zahran, 2017).

The nature and type of injury can differ with the nature of the sport. The results of a survey by Bawazir, Alqair, and Alayed (2022) showed that Taekwondo and football athletes experienced more dental trauma than volleyball players in Saudi Arabia. Even in the case of the volleyball players, about one-third of them experienced dental trauma. Among the different types of dental trauma, crown fractures were the most common dental injury followed by mobility. The awareness of mouthguards was better in the case of Taekwondo athletes, and they were using it during their practice sessions, compared to the football or the volleyball athletes. Overall, dental trauma was more in the case of direct and indirect contact sports affecting the performance of athletes in these sports. Increased awareness and use of mouthguards even during practice sessions need to be insisted. A survey study by Althunyan, Darwish, Sabra, Alqahtani, and Mutabgani (2021) found that about 10% of the professional and amateur cyclists in Saudi Arabia developed Achilles tendon pain. It was higher in the case of racing cyclists compared to mountain riders. The Achilles tendon pain usually lasted for seven days. Higher training loads increased the pain. The pain was less in the case of motorcyclists. Both overweight and underweight increased the incidence of Achilles tendon pain.

To sum up, as per the survey results of Aldaferi, et al. (2021), despite a high prevalence of about 24% of surveyed Saudi participants reporting sports injuries, their knowledge and attitude were moderate at best. Female gender, living in the southern region of the country, being overweight or obese, and having a history of sports injuries were associated with poor knowledge and attitude.

3.7 Sport during COVID-19 pandemic

Movement and travel restrictions during the covid pandemic undoubtedly affected many national and international sports events across nations. Some of them were cancelled, while others like the Tokyo Olympics 2020 were postponed. An analysis of the issues related to the postponement of major international sports events like the Tokyo Olympics 2020 by Ludvigsen and Parnell (2021) showed that many organisational, social, and spatial redesigning processes were undertaken in rescheduling these sports events to manage the covid risks in a better manner. Some of the risk management strategies included closed doors, entry restrictions to a much lower number of spectators compared to capacities, and others.

In the case of Saudi Arabia, decisive social distancing measures even before the first case of covid was confirmed in the country. As a result, many sporting events were suspended or cancelled, thus avoiding some chances of mass gatherings. This was an effective method of sports management during the current covid pandemic (Yezli & Khan, 2020). Alamir, et al. (2021) also noted that covid restrictions affected sports activities, especially, soccer and basketball in Saudi Arabia. During the quarantine, the number of active individuals increased, but sports injuries decreased. Lack of participation in soccer and basketball was particularly evident, as these two sports were the major contributors to sports injuries. Using a walk-through approach of the Post-Occupancy Evaluation (POE) method and backed by a literature review on a Saudi health club, Ibrahim and Hassanain (2022) concluded that there was a need to improve the facility management and operations as precautionary measures during covid and post-pandemic periods.

3.8 Some modern trends in sports research

A few emerging trends in sports research are briefly reviewed below.

Flipped classrooms, based on neural network methods, are increasingly being adopted to meet the changing needs of physical education. They have the potential to modernise physical education while ensuring a positive educational impact. A method was proposed by Xu, Xiong, Shao, and Li (2021) to predict the sports performance of college students. A particle swarm optimization neural network was used for this purpose. It was also aimed to provide a reliable basis of analysis for defining sports teaching goals.

The benefits of using exergames to improve the physical activities of hearing-impaired primary school students in Saudi Arabia were explored by Alshahrany and Ibrahim (2021). The role of teachers in the inclusive educational setup is particularly important. Adequate opportunities for these children to practice exergames are necessary.

One of the uses of monitoring systems based on the Internet of Things is in the field of sports. A UAV-enabled IoT can be used in sports to track and work on player safety effectively and efficiently. An ant-based routing technique, AntHocNet, was proposed by Khan, et al. (2021) to ensure safe application of the system for use in sports.

4. Conclusion

This review tried to answer the research question: What are the various issues, factors, and challenges of sports management in Saudi Arabia, and how they can be addressed? Systematic review was done to collect relevant literature, and these have been discussed above under different section heads.

Both traditional and modern sports are popular in Saudi Arabia. The level of facilities available for various sports depends on the population and their participation in

specific sports. General Presidency of Youth Welfare (GPYW), established in 1974, administers and controls the 18 sports organisations that exist now in the country.

This review showed that the elements of sports management are administrative and financial support, professional management, total quality management practices, service quality, marketing, investments, opportunities, employee job satisfaction and extent of participation in sports by the population and the extent of privatisation, all leading to the development of sports organisations as centres of excellence. Some results available on these topics are reviewed below.

On the other hand, there are obstacles and challenges, mainly in the form of Islamic cultural and social codes of behaviour. They affect especially the women, who would like to participate in sports and physical activities. These challenges affect the achievement of the Vision 2030 goals of the country,

The attitudes of both male and female university students are important in building up the future generations of world-class sportspersons, who can win international competitions including the Olympics. Without adequate facilities and programmes, it is impossible to achieve these goals. The need for at least a minimum level of physical activity for students is required for academic performance.

On the other hand, overenthusiasm among younger fans often leads to situations favourable for riots in the stadia. Adequate security systems and interventions by security agencies are required to control this. There should also be regulatory provisions to support the security interventions.

To reduce injuries in the case of direct and indirect contact sports, awareness and knowledge about these injuries and their prevention and cure need to be provided to sportspersons, their coaches, families, and clubs. Otherwise, sportspersons will be at the risk of permanently out of action for the rest

of their lives and this is a national loss too. Covid pandemic has affected the schedules of major sports events all over the world. Some were cancelled and others like the Tokyo Olympics 2020 were postponed. When such sports events are conducted, the risks involved need to be attended to to reduce the impact of covid on the sports persons, audience, and others.

Some modern trends in sports have been researched. These include flipped classrooms based on neural networks as a method of modernising sports education, use of exergames to improve the physical activities of hearing-impaired students, and use of UAV-enabled Internet of Things to track and work on player safety.

References:

- Ahmadi, M., Amirtash, A. M., & Safania, A. M. (2018). Factor analysis of the necessary cultural components before the privatization of sport. *Sport Management Studies*, 10(50), 37-62. doi:10.22089/SMRJ.2018.4652.1892
- Alamir, M. A., AlMohaini, R. A., Alharbi, A. A., Almazied, M. K., AlSwaji, G. F., & Khoja, Y. T. (2021). Prevalence of Sports Injuries before and during COVID-19 Quarantine among Adults of Riyadh, Saudi Arabia. *Journal of Pharmaceutical Research International*, 165-175. doi:10.9734/JPRI/2021/v33i35A31886
- Albabbain, A. A. (1987). *The relationship between upward influence and job satisfaction among sports management personnel of the general presidency of youth welfare in Saudi Arabia*. Department of Movement Science and Physical Education. The Florida State University. Retrieved February 16, 2022, from <https://www.proquest.com/openview/37a8be8ce45b7003ecd0a1559d52e1b1/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Aldaferi, A. T., Alromaih, E. A., Alwhaid, M. S., Alhasson, M. A., Alwabel, R. A., Alshathri, Y. A., . . . Alhawwas, A. I. (2021). National prevalence, knowledge, and attitude of the general population regarding sports injuries: a cross-sectional study. *International Journal of Medicine in Developing Countries*, 5(2), 1-10. doi:10.24911/IJMDC.51-1607792676
- Alghenaim, K. F. (2013). *Recreating urban space in Saudi Arabia: private sector participation in leisure, sports, and recreation*. Middle Tennessee State University. Retrieved February 16, 2022, from <https://jewlscholar.mtsu.edu/server/api/core/bitstreams/847c9dfb-908e-41b2-8d8f-63f75ac21909/content>
- Alhakami, F. (2014). *Strategy and strategising: an examination of sports clubs privatisation strategy in Saudi Arabia*. College of Health and Life Sciences, The Department of Life Science . Brunel University London. Retrieved February 16, 2022, from <https://bura.brunel.ac.uk/bitstream/2438/11341/1/FulltextThesis.pdf>
- Aljohani, Y. R., Alfaifi, K. H., Redwan, S. K., Sabbahi, D. A., & Zahran, M. H. (2017). Dental injuries in taekwondo athletes practicing in Saudi Arabia. *Saudi medical journal*, 38(11), 1143–1147. doi:10.15537/smj.2017.11.21111
- Alqahtani, A. M. (2016). *Obstacles of Professional Management in Football Professional League Club in Kingdom of Saudi Arabia*. Faculty of Human Movement and Quality of Life Sciences, Department of Sports Organisation and Management. University of Peloponnese. Retrieved February 16, 2022, from <https://amitos.library.uop.gr/xmlui/bitstream/handle/123456789/4846/Alqahtani%20Abdulaziz%20-%20Master's%20thesis.pdf?sequence=1>

- Alqahtani, B. A., Alenazi, A. M., Alhowimel, A. S., & Elnaggar, R. K. (2021). The descriptive pattern of physical activity in Saudi Arabia: analysis of national survey data. *International Health*, 13(3), 232-239. doi:10.1093/inthealth/ihaa027
- Alsanea, M. (2021). Abundant Evidence That Frequent Sports or Physical Activities Positively Academic Performance. *Saudi Journal of Humanities and Social Sciences*, 6(12), 533-540. doi:10.36348/sjhss.2021.v06i12.003
- Alshahrany, A. N., & Ibrahim, H. B. (2021). Using an Exergame in Inclusive Physical Education for Elementary School Children with Hearing Impairment: A Future Area of Research in Saudi Arabia. *Studies of Applied Economics*, 39(10). doi:10.25115/eea.v39i10.5808
- Alshamrani, A. F. (2019). The effectiveness of strategic planning in the management of sports riots. *Journal of Risk & Crisis Management*, 1(4), 64-79. doi:10.26389/AJSRP.S311019
- AlThobaiti, Y. A. (2020). The role of electronic marketing in improving the performance of sports club in the Kingdom of Saudi Arabia. *Journal of studies and researches of sport education*(63), 156-173. Retrieved February 16, 2022, from <https://www.iasj.net/iasj/article/204137>
- Althunyan, A. K., Darwish, M. A., Sabra, A. A., Alqahtani, H. A., & Mutabgani, S. M. (2021). Factors associated with Achilles tendon pain in cyclists in eastern province of Saudi Arabia. *Journal of Family & Community Medicine*, 28(1), 35–41. doi:10.4103/jfcm.JFCM_503_20
- Balwel, M., & Tayachi, T. (2021). The impact of privatisation on Saudi clubs according to 2030 Vision. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 18(13), 580-586. Retrieved February 18, 2022, from <https://archives.palarch.nl/index.php/jae/article/view/8143>
- Bawazir, O. A., Alqoair, A. I., & Alayed, Y. N. (2022). Sport-related Dental Trauma and Mouthguard Use among Athletes in Riyadh, Saudi Arabia: A Cross-sectional Survey. *World*, 13(1), 21-25. doi:10.5005/jp-journals-10015-1897
- Bouzhmehrani, S., Razavi, S. M., Dousti, M., AkbariHossein, H., & Elahi, A. (2021). Obstacles and Solutions for Deploying Quality Management in Sports Federations. *Sport Management and Development*, 10(1), 31-40. doi:10.22124/JSMD.2021.5032
- Buke, M., Egesoy, H., & Unver, F. (2021). The effect of smartphone addiction on physical activity level in sports science undergraduates. *Journal of Bodywork and Movement Therapies*, 28(October), 530-534. doi:10.1016/j.jbmt.2021.09.003
- Elwazir, M. A., & Sindi, A. A. (2013). Architectural Design Proposal for Women's Sports Clubs That Fits the Privacy of Muslim Women an Empirical Study on The Kindom of Saudi Arabia.(Dept. A). *Mansoura Engineering Journal*, 38(3), 44-61. doi:10.21608/bfemu.2020.106419
- Eroje, A. B., Tikare, S., AlQahtani, N. A., Braimoh, O. B., Sundarraj, R. K., Muteq, M. A., . . . Albargi, A. M. (2020). Orofacial trauma awareness among sports teachers in Southern Saudi Arabia. *Nigerian Journal of Clinical Practice*, 23(3), 343-348. doi:10.4103/njcp.njcp_466_19
- Falsehy, M., Alfadhil, A., Hassan, Y., & Alotaibi, H. (2021). Empowering Saudi Women for Sports as a Response to KSA Vision 2030: Attitudes of Undergraduate Female Students toward Practicing Sports. *Revista de Psicología del Deporte (Journal of Sport Psychology)*, 30(2), 53-66. Retrieved February 16, 2022, from <https://web.p.ebscohost.com/abstract?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=1132239X&AN=152150422&h=kvwGEvbg1AGehH5jHX1AcBolb%2biPJnEd>

- WrurbRIRxrYb8ZKyopqIK4%2bR3kDoRvdSq8ta3DnT2qDLUhHLkAWfg%3d%3d&resultNs=AdminWebAuth&resultLoca
- Fallatah, B. A., Pyo, H. S., & Alsaleh, B. N. (2019). Recreational physical activity participation among women in Saudi Arabia. *Journal of Human Sport and Exercise*, 14 (Proc 1), S84-S91. doi:10.14198/jhse.2019.14.Proc1.10
- Ghreeb, M. S., Abdelkader, A. M., & Sayyid, S. M. (2021). Institutional Excellence in the Egyptian and Saudi Federations of Football in View of European Model of Excellence EFQM" A Comparative Study. *International Journal of Human Movement and Sports Sciences*, 9(5), 993 - 1003. doi:10.13189/saj.2021.090521
- Hegazy, A. E. (2012). Total Quality Management in Saudi Arabia Judo and Taekwondo Federation. *World Journal of Sport Sciences*, 6(4), 473-477. doi:10.5829/idosi.wjss.2012.6.4.1161
- Hegazy, A. F. (2012). Obstacles to applying total quality management to sport clubs in Al-Jouf, Saudi Arabia. *World Journal of Sport Sciences*, 6(1), 1-5. Retrieved February 16, 2022, from [https://www.researchgate.net/profile/Ahmed-Hegazy-5/publication/337858366_\"Obstacles_to_the_application_of_total_quality_management_to_sport_clubs_in_Al-Jouf_Saudi_Arabia\"_World_Journal_of_Sport_Sciences_6_1_01-05_2012_Available_online_at_httpwwwidosior](https://www.researchgate.net/profile/Ahmed-Hegazy-5/publication/337858366_\)
- Helmi, M., Tashkandi, S., & Wang, L. (2021). Design of sports-abaya and its thermal comfort evaluation. *Textile Research Journal*, 92(1-2), 59-69. doi:10.1177/00405175211028802
- Ibrahim, A. M., & Hassanain, M. A. (2022). Assessment of COVID-19 precautionary measures in sports facilities: A case study on a health club in Saudi Arabia. *Journal of Building Engineering*, 46(April), 103662. doi:10.1016/j.jobe.2021.103662
- Khan, I. U., Hassan, M. A., Alshehri, M. D., Ikram, M. A., Alyamani, H. J., Alturki, R., & Hoang, V. T. (2021). Monitoring system-based flying IoT in public health and sports using ant-enabled energy-aware routing. *Journal of Healthcare Engineering*(July), 1686946. doi:10.1155/2021/1686946
- Koshak, H. K. (2019). *The Relationship between Service Quality and Customer Satisfaction in Men's Fitness Centers in Saudi Arabia*. Concordia University Chicago. Retrieved February 16, 2022, from <https://www.proquest.com/openview/fe569d08caf7d350505c8cc0462ec3fd/1?pq-origsite=gscholar&cbl=44156>
- Li, Y., & Huang, D. (2021). The path of improving chinese youth's physical health from the perspective of public sports service. *Revista Brasileira de Medicina do Esporte*, 27(Jan-Mar), 91-93. doi:10.1590/1517-8692202127012020_0096
- Ludvigsen, J. A., & Parnell, D. (2021). Redesigning the Games? The 2020 Olympic Games, Playbooks and new sports event risk management tools. *Managing Sport and Leisure*, 1-13. doi:10.1080/23750472.2021.1928538
- Madichie, N. (2021). Uncelebrated Sports Officials in the Middle East & Africa. *Advance*, Pre-print. doi:10.31124/advance.13482780.v1
- Malchrowicz-Mosko, E. (2021). "Can she run or scream while travelling?" Is sports tourism halal or haram? Management of sports travel of muslim women in the era of west-east dichotomy. *European Research Studies Journal*, 24(1), 421-443. Retrieved February 18, 2022, from https://www.um.edu.mt/library/oar/bitstream/123456789/80234/1/Can_she_run_or_scream_while_travelling.pdf

- Sajeed, K. P. (2015). Women and sports in Saudi Arabia. *International Journal of Social Science and Interdisciplinary Research*, 4(8), 24-27. Retrieved February 16, 2022, from <https://www.cabdirect.org/cabdirect/abstract/20153336853>
- SaudiEmbassy. (2022). *About Saudi Arabia: Sports and Recreation*. Retrieved February 16, 2022, from The Embassy of the Kingdom of Saudi Arabia, Washington D C: <https://www.saudiembassy.net/sports-and-recreation>
- Sayyd, S. M., Zainuddin, Z. A., Ghabban, F. M., & Altowerqi, Z. M. (2021). Influence of sports facilities and programs on sports participation at Saudi Universities. *Journal of Physical Education & Sport*, 21(Suppl. issue 4), 2302-2307. doi:10.7752/jpes.2021.s4293
- Xu, W., Xiong, W., Shao, Z., & Li, Y. (2021, July 31). Analysis of effectiveness and performance prediction of sports flipped classroom teaching based on neural networks. *Scientific Programming*, 1-7. doi:10.1155/2021/5284457
- Yezli, S., & Khan, A. (2020). COVID-19 social distancing in the Kingdom of Saudi Arabia: Bold measures in the face of political, economic, social and religious challenges. *Travel medicine and infectious disease*, 37(September-October), 101692. doi:10.1016/j.tmaid.2020.101692

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