# Journal of Hospitality and Tourism Management



Crowd Management, Risk Assessment Strategies and Sports Tourism Events in Nairobi County, Kenya

Moses Chengo, Jane Bitok, PhD & Shem Wambugu Maingi, PhD

**ISSN: 2706-6592** 



# Crowd Management, Risk Assessment Strategies and Sports Tourism Events in Nairobi County, Kenya

# \*1Moses Chengo

School of Hospitality, Tourism and Leisure studies, Kenyatta University \*Email of corresponding author: <u>chengomm@gmail.com</u>

# <sup>2</sup>Jane Bitok, PhD

School of Hospitality, Tourism and Leisure studies, Kenyatta University

#### <sup>3</sup>Shem Wambugu Maingi, PhD

School of Hospitality, Tourism and Leisure studies, Kenyatta University

*How to cite this article:* Chengo, M., Bitok, J. & Maingi., S. W. (2024). Crowd Management, Risk Assessment Strategies and Sports Tourism Events in Nairobi County, Kenya. *Journal* of Hospitality & Tourism Management, 7(1), 46-66. <u>https://doi.org/10.53819/81018102t4253</u>

# Abstract

The lack of long-term, sustainable strategic planning and development for sports and tourism in Kenya is a challenge for Kenya's sports tourism industry. The purpose of the study was thus to determine the impact of risk assessment methodologies on sporting tourism events. The specific objectives of the study were: to create a profile of the sports tourism events and venues, to establish the effect of crowd management and risk assessment strategies on sports tourism events in Nairobi County, Kenya; and to determine the moderating effect of financial capability on the relationship between crowd management, risk assessment strategies, and sports tourism events in Nairobi County, Kenya. In this study, a descriptive research approach was utilized, and the population of interest consisted of 17 prominent sporting event venues located within Nairobi County. The research focused its attention on a total of 340 participants in addition to 69 managers. The participants in the study, which consisted of 17 managers and 105 sportspeople, were chosen using a technique called purposeful sampling. In order to obtain data that reflect the ideas and opinions of the respondents in an unfiltered manner, questionnaires and an interview guide were used. A linear regression model was used to link the independent variable to the dependent variable. Result outputs were represented in tables, charts, and bars. The multiple linear regression analysis findings revealed a coefficient of determination of 0.700, implying that the independent variable used in this study; crowd management and risk management strategies, explains 70% of the variation in sports tourism events in Nairobi County, Kenya. The study established that there was a positive and statistically significant relationship between Crowd management and risk management strategies and the success of sports tourism events in Nairobi County ( $\beta$ =0.837,

Stratford Peer Reviewed Journals and Book Publishing Journal of Hospitality and Tourism Management Volume 7//Issue 1//Page 46-66/February//2024/ Email: info@stratfordjournals.org ISSN: 2706-6592



p=0.000<0.05). The study also established that financial capability had moderating effect on the relationship between crowd management and risk assessment strategies and the success of sports tourism events in Nairobi County. The study thus recommends a multi-agency approach to strengthen risk assessment and crowd management protocols.

**Keywords:** Crowd Management, Sports Tourism Events, Risk Assessment Strategies, Kenya Sports Tourism Safety, Nairobi County Sports Events

# **1.0 Introduction**

Over the past few decades, event tourism which includes travel to conferences and other social and professional gatherings has experienced rapid growth (Kersuli, Peri & Wise 2020). Sports tourism refers to the practice of people traveling to an area to take part in or witness athletic events. Travel opportunities related to sports include global competitions, international test series, stadium tours, mass participation events, player testimonials, group trips, and sporting activities and displays (World Tourism Organization, 2018). Since it is a vital part of global tourism, the phenomenon of sports tourism is given significance on a large scale. Tourists attend sporting events of all shapes and sizes, either as participants or spectators, and destinations strive to distinguish themselves by incorporating local flavors into these events in order to provide tourists with unique local experiences. The term "sports tourism" refers to travel that is organized by persons for the purpose of seeing or taking part in a variety of sporting activities; hence, it is a subset of tourism that is centered on sports (UNWTO, 2019).

Sport tourism events have grown in popularity, which has attracted larger and more diverse crowds, making crowd control and safety a crucial and vital aspect of any event's planning (Rookwood, 2021). The management of the crowd at a sporting event represents the area as a preferred venue for events with a successful track record. Sports events are notoriously high-intensity but high-risk crowd events; the presence of team partisanship and likely alcohol use can cause problems. To ensure the successful functioning of your event and the protection of attendees, you must have on-site, highly visible security personnel who are skilled in crowd and confrontation control (Rookwood, 2021). The connection between sports and tourism is not a recent phenomenon; nonetheless, academics have recently begun to recognize the rise of athletic events as one of the most important aspects of event tourism as well as one of the most comprehensive aspects of sporting tourism (Jeong, Yu & Kim, 2020). Risk management has been incorporated into sporting events, and it now constitutes an essential component of the overarching sport program.

Sports event planning may be complicated and difficult in many ways, necessitating staff logistical management (Spencer & Steyn, 2017). Crowd sizes can be a concern, the local climate can be unpredictable, and the host site might not be equipped to handle the additional demands that are put on it. While coordinating events with a high number of stakeholders and while adhering to tight regulatory and customer criteria, logistics managers must recognize some of the coordination problems associated with event preparation (Herold, Breitbarth, Schulenkorf & Kummer, 2019). Hence, an event is surrounded by excessive stress, energy, and activity. Plans for logistics must be ensured, and events must be consistently hosted (Herold et el., 2019). Sports tourism is a brandnew offering in the global tourist industry that is based on sporting resources and makes use of various sports events to organize, develop, and blend into relevant items that can pique people's interests in sports and provide them with authentic outdoor experiences (UNWTO, 2021).



Although it is a common and expanding phenomena, sports tourism did not suddenly exist in the twentieth century (UNESCO, 2019).

Notwithstanding periodic shocks, the global sports tourism business has had nearly unbroken development over the past two decades, highlighting the sector's resiliency and strength (UNCTAD, 2020). Parallel to this, Africa's sports tourism industry has shown itself to be a dynamic and quickly expanding industry, enjoying nearly continuous development from 2010 to 2020. The region saw annual average growth of 8% for arrivals, 12% for international sports tourism receipts, and 3% for tourism export profits during this time (UNCTAD, 2020). For instance, earlier FIFA World Cup competitions have boosted the economic development of the host regions, and this trend is still present now. The safety of those who are attending an event is of the utmost importance, and the facility or event venue concept must make the safety of attendees a fundamental principle in order to maintain consistent attendance. The International Conference on Sports Management and Administration (2021) reported that event organizers are greatly concerned about crowd management during sports tourism events. According to several studies (O'Toole, Luke, Brown, Tatrai, and Ashwin, 2020; Stott, Khan, Madsen, and Havelund, 2020), attending any event is linked to an increased risk of injury, which can result in extreme cases that result in death.

Several events, in notably the Kenyan professional leagues, swiftly organized themselves following the initial global lockdown to make sure they wouldn't miss the entire 2020 season. Sports events were long regarded as being too uncritical, and their importance to the long-term growth of a place was not questioned. In recent years, the population's input on decisions regarding which big sporting events will be held, such as the bid for the Olympic Games, has revealed an especially stark division of local viewpoints (UNWTO, 2020b). Public sport, tourist, and leisure service groups rely on taxes from the general populace for their primary financial resources. They may also charge fees and accept gratuities from private sources, but the ability of the government to achieve its operational objectives by taxing its citizens or those who are subject to its taxation is the cornerstone of their support.

Nairobi in particular serves as a tourist destination for Kenya, drawing both domestic and foreign tourists on vacations as well as those traveling for business and conferences (GoK, 2018). Kenya is well renowned for organizing major sporting events that attract both local and foreign athletes who choose to take part in organized football, rugby, hockey, cricket, and other team sports. Kenya, according to GoK (2018), exhibits a sizable potential in the tourism sector due to the people's willingness and ability to partake in and enjoy sporting goods and services. Sports should be considered to be a significant component of the leisure experience and product in metropolitan settings for this reason. Kenya has successfully hosted a number of events. By the end of 2019, Kenya had held 251 international and continental gatherings that drew billionaires and numerous leaders of State and administration (AK, 2020).

# **1.1 Statement of the Problem**

Sports tourism in Kenya faces challenges related to the absence of long-term, strategic management and development; one notable trend is the expansion of lodging facilities throughout the nation whose activities do not formally support regional tourist growth and development (KIPPRA, 2020). Compared to other tourism products, sports tourism still remains among a few undermined products in Kenya (GoK, 2019). According to the Kenya National Tourism Blueprint 2030, Kenya's sports tourism underperformance and unpredictability is more of a systemic than a



safety related problem (NTB 2030, 2020). Kenya is not an exception when it comes to crowd chaos and disasters during sporting events, particularly with regards to risk assessment (FKF, 2019).

In addition to the above issues facing sports tourism, the global outbreak of COVID-19 has had serious negatively impact on the sporting industry as it has resulted in closure or postponement of major sporting events in the Country. As a result of the COVID-19 pandemic, various establishments such as gyms, stadiums, swimming pools, dance and fitness studios, physiotherapy centres, parks, and playgrounds have been forced to close down as a safety measure to prevent the spread of the virus and protect public health (International Olympic Committee, 2021).

In crowded stadiums during sporting events, chaos and disaster have been experienced by Kenyans; these disasters have caused property damage, injuries, the deaths of football supporters, and the scaring away of tourists (FKF, 2018). This necessitates a critical examination of the policies and strategies established by Kenya's sports stadium administration in order to get ready for football games. Event planners have a lot of concerns about crowd control during sporting events. The attendees' safety is of the utmost significance, and in order to maintain attendance, this safety must be a fundamental part of a facility or event site philosophy.

Many research examining sports tourism have been conducted in Kenya. For instance, Njoroge, Buyeke, and Akama (2015) investigated the obstacles to the growth of sports tourism in Iten Township, a non-metropolitan area of Kenya. They discovered that the absence of national and local rules governing sports development was the second major problem. Contextual and conceptual gaps are noticeable because the study was carried out in the rift valley region of Kenya and utilized many factors.

Additionally, Muiruri et al. (2017) evaluated sports tourism and its perceived socio-economic impact in Machakos County and found that among the positive effects were improvements to the county's infrastructure and urban planning, financial benefits, community cohesion, and cross-cultural exchange, while the negative effects included financial losses, traffic congestion, safety hazards, ecological concerns, and interpersonal conflicts. The study was conducted in Machakos County and focused on economic impacts of sporting tourism, thus contextual gaps are presented. It is evident from the highlighted studies that no study has been carried in Nairobi County on sports tourism despite being a leading tourist destination in the country. It is in light of these gaps that the current study sought to establish the effect of crowd management and risk assessment strategies on the growth of sports tourism in Nairobi County, Kenya.

# **1.2 Research Objectives**

- i. To profile the sports tourism events and venues in Nairobi County, Kenya
- ii. To establish the effect of risk assessment strategies on sports tourism events in Nairobi county, Kenya.
- iii. To determine the moderating effect of financial capability on the relationship between crowd management, risk assessment strategies and sports tourism events in Nairobi County, Kenya.

# **1.3 Research Hypotheses**

 $H_{01}$ : There is no significant relationship between risk assessment strategies and sports tourism events in Nairobi County, Kenya.

**H**<sub>02</sub>: Financial capability has no moderating effect on the relationship between risk assessment strategies and sports tourism events in Nairobi County, Kenya.



# **2.1 Theoretical Framework**

# 2.1.1 Crowd Management Theory

According to crowd management theory, the police, private security, and the general public should be concerned about large gatherings of people who may exhibit behaviour ranging from jovial to rowdy to aggressive, as well as noise levels ranging from chants to bands (Kingshott, 2014). Whether the role is performed at a neighborhood fair, a sporting event, or a sizable town or city demonstration, it is common for crowd management or other police tasks to provoke violent responses from participants in the crowd or from those who are in charge of crowd control. It is also clear that "norms" that develop in a crowd situation can influence people's conduct.

According to O'Toole, Luke, Semmens, Brown, and Tatrai (2019), the public, as well as the police and private security, are frequently concerned when a big number of people have gathered together, and their moods, energy levels, and the volume of the accompanying chants or bands can all run the gamut from happy to rowdy to hostile: The scenario for crowd control occurs frequently in policing operations if there is a risk of aggressive behavior toward other crowd members or those responsible for crowd control, whether the operation is performed at a community fair, a sporting event, or a sizable town or city demonstration. So, it follows that everyone who is in charge of public safety ought to be aware of how complicated that crowd is.

# 2.1.2 Contagion Theory

In 1895, French social psychologist Gustave Le Bon developed the Contagion Hypothesis. The Contagion Hypothesis explains why behaviors in groups are the way they are. The crowd's behavior, according to Le Bon's 1895 book The Crowd: A Study of the Popular Mind, was caused by the "collective racial unconscious" of the crowd taking precedence over people's sense of identity, personalities, and personal responsibility (Scherer & Cho, 2003). Le Bon (1895) claimed that when liberated from personal accountability, people will act more instinctively. According to Van Ginneken (1985), a man drops several rungs on the ladder of civilisation by virtue of the fact that he is a member of a structured group. A contemporary example would be a teenager who justifies his actions of toilet papering the principal's house by saying that everyone else was doing it.

Yet, Le Bon's theory contains flaws that may be seen in the numerous contradictions that it displays. Secondly, the contagion theory portrays crowd members as being irrational. Nevertheless, a lot of crowd activity is actually the consequence of rational fear (such as being confined in a theatre that is burning) or a reasoned feeling of injustice (such as the racial riots that occurred in Cincinnati). Second, although it is true that a crowd appears to have a mind of its own, it is important to remember that individuals frequently influence and lead crowd behavior. It is important to note that Le Bon's work is written from the viewpoint of an anxious aristocrat.

Stratford Peer Reviewed Journals and Book Publishing Journal of Hospitality and Tourism Management Volume 7//Issue 1//Page 46-66/February//2024/ Email: info@stratfordjournals.org ISSN: 2706-6592



# **2.2 Conceptual Framework**

Figure 1 shows the conceptual framework for the study.



# **Intervening Variable**

# **Figure 1: Conceptual Framework**

Source: Researcher (2021)

# **2.3 Empirical Literature**

This section presents a comprehensive literature review of previous studies conducted on the dependent and independent variables.

# 2.3.1 Event Risk Management and Sports Tourism Events

Łuczak (2021) conducted a study which sought to assess risk management for running events' organization on the example of half marathons in Poland. The study objective was to identify and assess the dangers associated with planning long runs (half marathons). The study includes a



survey that was completed by 10 sizable half marathons that were hosted in Poland between 2017 and 2018. A multi-stage risk assessment was carried out by ten industry professionals using the Delphi methodology for the purpose of event planning for running competitions. In addition, Alpha Cronbach statistics were utilized in order to evaluate the reliability of the research procedure. The results of the risk assessment were presented to those who took part in the survey. As a consequence of this, they conducted an analysis of them and concentrated on the serious threats that need to be given the utmost attention throughout the planning stages of running events. According to the findings of the study, professional risk management using the risk factors database that was established as a direct result of the research typically led to the highest levels of safety and satisfaction for all parties involved (mainly: participants, organizers, the local community).

Cheng, Lu, and Zhao (2020) discovered that this risk is a key concern in crowd control since it not only undermines public safety but also reduces the efficiency of urban subway transportation during large-scale athletic events. Experts say that if we want to make subways safer for pedestrians, we need to figure out how to assess the risk of pedestrian evacuation. In order to calculate the potential for pedestrian stampedes and casualties during evacuation, this study developed a mathematical model. The likelihood of pedestrian evacuation at Beijing, China's "Olympic Park Station" was then evaluated by simulating a number of different scenarios using the social force model (SFM). The results demonstrated that the risk associated with evacuating pedestrians is strongly affected by the pedestrian evacuation plan, the location of the pedestrian stampede, and the distance between the stampede area and the ticket gate. Subsequently, the safest and most dangerous methods of evacuating pedestrians from Olympic Park Station during major athletic events are identified.

# 2.3.2 Communication Risk Assessment Sports Tourism Events

Events, according to Gong, Daamen, Bozzon, and Hoogendoorn (2020), are a vital part of a burgeoning sector of the economy that is expanding both nationally and internationally. As events get more well-liked, more people attend them. As a direct consequence of this explosive growth, the event business today faces substantial issues in the areas of crowd management and crowd control. The phrases "crowd management" and "crowd control" are not interchangeable but are related; the former relates to the facilitation, employment, and mobility of people, while the latter refers to the actions that are taken when a crowd or portions of it start acting in a disorderly or dangerous way (Gong et al., 2020).

According to Müller and Braun (2021), good communication between management and attendees, employees, and visitors is a key component of successful crowd management during sporting events. These parties should be able to successfully coordinate when there is effective communication between them. It is generally acknowledged that effective communication involves a number of goals, including exchanging information and conveying messages effectively. Endrejat, Meinecke, and Kauffeld (2020) state that electronic communication is currently thought to be the most successful method for crowd control during events. Since most events take place in big spaces where textual and/or visual communication is challenging, using two-way radios, cell phones, instant messaging services, the internet, etc., is extremely beneficial to event managers.



# 2.3.3 Staff Logistics Risk Assessment and Sports Tourism Events

Morgan, Taylor, and Adair define "logistics" as "the complex operations that set up the people, locations, and objects for the big day" (2020). It's easy to see how problems with event logistics, such as bringing in a keynote speaker or reserving enough tables, might ruin the entire thing. It's never easy to plan a charity ball or a large, multi-day conference, but there are steps you can take to ensure success for both your attendees and your client (Morgan et al.2020). Continue reading for 17 event logistics tips that will help you organize organized gatherings. Without proper signage at the appropriate places, attendees may become lost at events and even cause celebrations, concerts, or meetings to run late. Place signs on the roads leading to venues that are difficult to locate. To direct visitors to parking areas and the event entry, utilize outside signs as well. Make sure there are obvious signs inside directing guests to all the locations they will need to go throughout the event, such as the registration table, restrooms, meeting rooms, presenter booths, and the ballroom.

Sport crowd management and event management are both related to the study of sport event logistics (Aicher, Paule-Koba, & Newland, 2019; O'Toole et al., 2020; Greenwell et al., 2020; Hall et al., 2021). It can be viewed as a sub-aspect of managing sporting events when particular logistical tasks are critically examined and addressed. For instance, studies of travel or transportation processes and their effects on logistical planning and policy frequently use the Olympic Games as a case study. While Kassens-Noor (2020) and Bovy (2020) looked into how the Olympic Games' transportation difficulties affected urban transportation systems, Jiang (2018) conducted a study on the subway passenger flow during the 2008 Beijing Olympic Games, while Mulley and Moutou (2015) examined the transportation-related relationship between tourist destinations and sporting events using the 2000 Sydney Olympics as a case study.

# 2.3.4 Staff Training Risk Assessment and Sports Tourism Events

Sealy (2020) undertook a survey on risk management with an emphasis on crowd control and other risks connected to outdoor music events in the UK. When there are thousands of spectators at athletic events but only a few hundred event staff, only a few of whom have received crowd management training, it is critical to train crowd managers on how to manage the audience and keep them under control. In order to reduce the risk of injuries and interference with activities, crowd managers try to keep the crowd under control while they are taking place. A overview of the responsibilities of a crowd manager is covered in the first level of crowd management training, which is required for managers. The second level of training is conducted on-site at the location where the manager works (Sealy, 2020). He concluded that crowd management training for event staff should include an explanation of the roles crowd control staff play around the venue, how they interact with the crowd, how to settle conflicts, and how to mitigate potentially dangerous situations.

Watanabe et al. (2020) state that no matter how large or small the venue, every member of the crowd control crew needs to have received formal training in crowd management in order for the event to go off without a hitch. There is dedicated crowd management instruction at each and every venue. The International Association of Venue Managers (2020) mandates that all venue staff, including crowd managers, complete this training before they are allowed to operate at the venue during an event. In addition to familiarizing new crowd managers with the venue's organizational structure, policies, and procedures, this orientation should also cover emergency response protocol and shelter procedures in the event that your venue serves as a shelter for victims of natural



disasters like hurricanes and floods. Furthermore, crucial to the success of this initiative is training for new crowd managers in guest relations, which covers topics such as how to approach and interact with audience members.

# 3.0 Research Methodology

A descriptive research strategy was used for this investigation. Clarifying the research strategy serves primarily to portray the state of affairs during the research process. Provides specific responses to the who, what, and how questions raised by the investigation. The study was carried out in Nairobi County, Kenya which is both the capital city and one of the forty-seven counties in Kenya. It was founded in 2013 and it was formerly one of the eight provinces. The city is both populous and attractive for local and international sports tourism events. These events show that the city has a potential of hosting sports tourism events and crowd management strategy is worth researching. This study targeted 17 major sports event venues based in Nairobi County (Sports Kenya Report, 2020 (Saunders, Lewis & Thornhill, 2003). The units of analysis (venues) and the respondents included events managers/planners and general managers of these events venues. The study also purposively selected twenty participants per venue to take part in the study. The study therefore targeted all events organizers and general managers of the 17 event venues together with 340 participants.

The researchers selected general managers and event managers to participate in the study sample. The sample size for the study was determined by the use of a technique called purposeful sampling. The researcher made a conscious effort to choose one event manager for each event venue. The study purposively selected 105 sports participants and 17 managers from each venue. For the purpose of this study, standardized questionnaires and interview guides were both used to collect data. A structured questionnaire is suitable for a research study because it collects the data the researcher needs, is reasonably priced, and is simple to interpret and duplicate. Both quantitative and qualitative data can be gathered with it. Interviewing templates were utilized to get data from the managers. In order to proceed with the study, it is necessary to receive a letter of consent from the university stating that the research project has been approved. In a similar fashion, an authority from NACOSTI was sought after.

This research used inferential statistical methods, such correlation and regression coefficients, to determine the nature of the relationship between successful event management and the hosting of gatherings in Nairobi County, Kenya.

The multiple regression model would be;

 $\mathbf{Y} = \mathbf{\beta}\mathbf{0} + \mathbf{\beta}\mathbf{X} + \mathbf{e}.$  (3.1)

Where:

Y = Success of sports tourism events

X = Crowd management and risk assessment strategies

 $\beta_{i}$  = the coefficients for the independent variable

e = Error term.



# **Moderating Effect of Financial Capability**

To test the moderating impact of financial capability on the relationship between crowd management, risk assessment strategies, and sports tourism events in Nairobi County, Kenya, the researchers adopted Kenny and Baron's (1986) moderation technique, as shown in the model below:

 $Y = \beta_0 + \beta \chi^* M + \epsilon$ 

Where;

Y = Success of sports tourism events

 $\chi$  = Crowd management and risk assessment strategies

M= Financial capability (Moderator).

Researchers should think about ethical considerations at every step of the research design process and across all research approaches. All of the ethical issues that are pertinent to research were adhered to during the course of the study. Before any subject is included in the study, they were asked to give their consent after receiving appropriate information. Each and every response was kept anonymous and secret while also being treated with the utmost respect. Instead than using the participants' names or other identifiers to link them to the data, study numbers and information that is coded was used. This means that no data was linked to any participants. The only people who viewed the data were the people who took part in the study and the researcher.

# 4.0 Findings and Discussion

A total of 122 questionnaires were administered to general managers and event managers. Out of the total number, 106 were properly completed and sent back, resulting in a response rate of 86.89 percent. According to Orodho (2009), a response rate higher than 50% indicates a significant volume of data that may be used to represent the viewpoints of the respondents in the chosen population regarding the research topic. Demographic results showed that majority of the study participants are female, comprising 58.3% of the total participants. The male participants represent 41.7% of the sample. This data highlights a gender diversity among the participants, with a larger percentage of females in the sample. The majority, at 30.20%, hold postgraduate-level qualifications. University-level education follows closely at 26%, indicating a substantial number of highly educated participants. Secondary-level education accounts for 25% of the respondents, while college-level education represents 18.80% of the total. Furthermore, the age groups were fairly evenly distributed. Approximately 25% fall into the category of 'Less than 30 years' and '31 to 40 years' each. The '41 to 50 years' age group accounts for 21.90% of the respondents, while '51 years and above' constitutes the largest portion at 28.10%. Moreover, the study found that 29.20% of the managers have been attending sports events for 'less than 1 year.' Another 24% have attended for '1 to 4 years,' and a similar 24% have been attending for '5 to 10 years.' Those with 'More than 10 years' of attendance account for 22.90% of the total.

# **Sports Tourism Events and Venues**

The first objective of the study was to profile the sports tourism events and venues in Nairobi County, Kenya. KII were asked to describe the variety of sports tourism events that have taken place in Nairobi County over the past few years, highlighting the most popular ones. In response, most of the KII explained that;



Nairobi County has witnessed a diverse range of sports tourism events in recent years. Among the most popular events are international rugby tournaments, including the Safari Sevens, which attracts teams from various countries. Additionally, marathons like the Standard Chartered Nairobi Marathon have gained global recognition, drawing both professional athletes and recreational runners from different parts of the world. These events not only promote sports tourism but also contribute significantly to the local economy.

The respondents were also asked to indicate some of the key venues or facilities in Nairobi County that have hosted sports tourism events, and what makes them attractive for such events. In response, most of the KII indicated that;

The Kasarani Stadium Complex, located in the Kasarani area of Nairobi County, stands out as one of the primary venues for hosting sports tourism events. Its multifunctional nature allows it to accommodate various sports, from football to athletics. The main stadium has a seating capacity of over 60,000 spectators, making it ideal for large-scale events. Additionally, the facility boasts a modern track and field, which has attracted numerous international athletics competitions, including the World Athletics Continental Tour meetings. The accessibility of Kasarani Stadium, along with its state-of-the-art facilities, makes it a magnet for sports tourism. Moreover, its proximity to hotels and commercial centers ensures the convenience of visitors, enhancing the overall appeal of the venue.

The key informant interviews (KIIs) revealed a diverse array of sporting events that have taken place in Nairobi County over recent years. Among the most prominent were international rugby tournaments like the Safari Sevens and globally recognized marathons such as the Standard Chartered Nairobi Marathon. These events not only promote sports tourism but also significantly contribute to the local economy. The study also highlighted the presence of prestigious golf tournaments like the Barclays Kenya Open, cricket tournaments like the East Africa Premier League, and the revival of the Kenya Safari Rally, all of which attract enthusiasts and tourists from around the world. Additionally, athletics meetings like the Kip Keino Classic have solidified Nairobi's position as a hub for track and field sports.

# **Crowd Management and Risk Assessment Strategies**

The study sought to establish the effect of risk assessment strategies on sports tourism events in Nairobi County, Kenya.

# **Descriptive Analysis**

Descriptive results revealed that a majority of the respondents (75.0%) agreed that venue management pays attention to event guidelines when organizing any sporting event (Mean=4.04, SD=1.21). Additionally, a majority (72.9%) also agreed that venue management conducts security feasibilities when organizing any sporting event (Mean=4.04, SD=1.08). Furthermore, a significant majority (75.0%) of respondents agreed that venue management engages in personnel planning in all their event organizations (Mean=4.09, SD=1.17). Regarding the involvement of quality assurance and support services teams in sports event management, a substantial majority (71.9%) were in agreement that the management is involved in quality assurance and support services (Mean=3.99, SD=1.17).

Stratford Peer Reviewed Journals and Book Publishing Journal of Hospitality and Tourism Management Volume 7//Issue 1//Page 46-66/February//2024/ Email: info@stratfordjournals.org ISSN: 2706-6592



A majority (71.9%) of the participants agreed that there existed capacity management evaluation in sports events (Mean=4.01, SD=0.95). Similarly, a majority of the participants (74.0%) agreed that venue management encourages communication risk assessment practices in sports events (Mean=4.05, SD=1.12). Finally, when it comes to valuing feedback from visitors, the majority (75.1%) agreed (Mean=4.00, SD=1.17). A majority of respondents (80.20%) agreed that venue management has invested in modern communication technology to fasten its services delivery (Mean=4.18, SD=1.06). Similarly, a majority (74.00%) agreed that venue management has implemented modern communication in marketing and customer access (Mean=4.02, SD=1.19). Furthermore, a significant majority (76.00%) agreed that venue management devotes the majority of their communication time to verbal and written interactions with their staff members (Mean=4.10, SD=1.05).

Regarding the use of outsourcing as a tactical instrument for the management of operations, a majority (74.90%) agreed that venue management employs outsourcing as a tactical instrument for operations management (Mean=4.06, SD=1.14). A majority 72.90% of respondents agreed that review sessions with service providers are conducted by venue management to ensure the success of the relationship with outsourcing organizations (Mean=3.99, SD=1.09). In enhancing inventory management in operations, a majority (70.60%) of the participants agreed that venue management practices inventory management (Mean=3.93, SD=1.22). Additionally, when it comes to the logistic department's role in planning, implementing, and controlling event equipment and support items. A majority (75.00%) of the participants agreed that venue management plans, implements, and controls event equipment and support items (Mean=4.04, SD=1.21). A significant majority (75.30%) that logistic managers and supervising coworkers communicate with the general and event managers (Mean=4.02, SD=1.25). Overall, the average mean score for these statements was 4.037, suggesting a general consensus among respondents on various aspects of venue management practices.

# **Correlation Analysis**

This study conducted a correlation analysis to evaluate the strength and nature of the association between risk assessment strategies and the success of sports tourism events in Nairobi County, Kenya. Table 1 shows the correlation matrix.

		Success of Sports Tourism Events	Risk Assessment Strategies
Success of Sports			
Tourism Events	Pearson Correlation	1.000	
	Sig. (2-tailed)		
<b>Risk Assessment</b>			
Strategies	Pearson Correlation	.837**	1.000
	Sig. (2-tailed)	0.005	

# Table 1: Correlation Matrix

The correlation analysis results in Table 1 indicate a strong positive and significant association between the success of sports tourism events and risk assessment strategies in Nairobi County, Kenya (r = 0.837, p < 0.005). This finding is statistically significant at the 5% level of significance.



It suggests that as the effectiveness of risk assessment strategies improves, it positively influences the success of sports tourism events in the region.

# **Regression Analysis**

Regression analysis was conducted to determine the influence of risk assessment strategies on the success of sports tourism events in Nairobi County, Kenya. Table 2 presents the regression model summary.

# **Table 2: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the
				Estimate
1	.837a	0.70	0.697	0.33709
a Predicto	re (Constant)	Risk Assessment S	trategies	

a Predictors: (Constant), Risk Assessment Strategies

As shown in Table 2, the regression analysis reveals that risk assessment strategies have a significant influence on the success of sports tourism events in Nairobi County, Kenya. The R coefficient of 0.837 indicates a strong positive association between risk assessment strategies and event success. This implies that risk assessment strategies are highly correlated with event success (R = 0.837). Furthermore, the coefficient of determination (R-squared) is 0.70, signifying that risk assessment strategies explain 70% of the variability in the success of sports tourism events in Nairobi County. Table 3 provides the analysis of the variance (ANOVA) results.

# Table 3: ANOVA

Mode	l	Sum Squares	of	df	Mean Square	F	Sig.
1	Regression	25.207		1	25.207	221.835	.000 <sup>b</sup>
	Residual	10.795		95	0.114		
	Total	36.002		96			

a. Dependent Variable: Success of Sports Tourism Events

b. Predictors: (Constant), Risk Assessment Strategies

The results in Table 3 demonstrate that the regression model used is statistically significant in explaining the success of sports tourism events. This suggests that risk assessment strategies, as a predictor variable, play a significant role in determining the success of these events. This is supported by a high F-statistic of 221.835 and a reported p-value of p < .001, which is well below the conventional level of significance (p < .05). Therefore, it can be concluded that risk assessment strategies are highly significant in predicting the success of sports tourism events in Nairobi County, Kenya. The regression of coefficient results is presented in Table 4.



# **Table 4: Regression Coefficient Results**

Mo	odel	Unstand Coefficie		Standardized Coefficients	Τ	Sig.	
		ß	Std. Error	Beta	_		
1	(Constant)	1.884	0.14		13.434	0.000	
	Risk Assessment Strategies	0.504	0.034	0.837	14.894	0.000	

a. Dependent Variable: Success of Sports Tourism Events

The regression model then became;

# Y = 1.884 + 0.504X

Where:

Y = Success of sports tourism events

X = Crowd management and risk assessment strategies

The regression analysis results, as presented in Table 4, reveal that risk assessment strategies had a positive and statistically significant influence on the success of sports tourism events ( $\beta = 0.504$ , p < 0.001). This implies that for every one-unit increase in risk assessment strategies, there is a corresponding increase of approximately 0.504 units in the success of sports tourism events, assuming all other factors remain unchanged. This suggests that a stronger emphasis on and better implementation of risk assessment strategies can significantly enhance the outcomes and success of sports tourism events, which aligns with the findings from the statistical analysis and implies a practical significance of this relationship.

# Hypothesis Testing

 $H_{01}$ : There is no significant relationship between risk assessment strategies and sports tourism events in Nairobi County, Kenya.

The hypothesis was tested using linear regression results in Table 4.9 and determined using the p-value. The acceptance/rejection criteria were that, if the p-value is p<.05, then H<sub>01</sub> is rejected but if it is p>.05, then H<sub>01</sub> is not rejected. Results in Table 4 show that the p-value was less than 0.05. The null hypothesis was therefore rejected and the alternative hypothesis adopted that, there is significant relationship between risk assessment strategies and sports tourism events in Nairobi County, Kenya.

# **Financial Capability**

The study sought to establish the moderating effect of financial capability on the relationship between crowd management, risk assessment strategies and sports tourism events in Nairobi County, Kenya.

# **Descriptive Statistics**

Participants were asked to rate their agreement or otherwise on c financial capability and sports tourism. The descriptive results are presented in Table 5.



# **Table 5: Descriptive Analysis of Financial Capability**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Dev
The venue management	Disagree	Disagree	neutrai	Agree	Agree	Mean	Stu. Dev
practices outsourcing as a							
strategic tool for management of							
their operations.	0.00%	0.00%	30.90%	40.20%	28.90%	3.98	0.78
The venue management	0.0070	0.0070	20.2070	10.2070	20.2070	5.70	0.70
conducts review sessions with							
service providers for the success							
of outsourcing relationship.	1.00%	0.00%	23.70%	36.10%	39.20%	4.12	0.84
The venue management							
practices inventory management							
in their operations.	1.00%	2.10%	30.90%	27.80%	38.10%	4	0.94
The venue management logistic							
department plans, implements,							
and controls event equipment							
and support items.	1.00%	1.00%	30.90%	35.10%	32.00%	3.96	0.88
The venue logistics managers							
oversee and liaise with							
colleagues to ensure stock is							
maintained and moved							
efficiently.	1.00%	1.00%	34.00%	28.90%	35.10%	3.96	0.91
The venue management							
conducts training periodically							
on their employees.	0.00%	1.00%	38.10%	32.00%	28.90%	3.89	0.84
The venue management							
disseminates training							
information through seminars,							
conferences, and meetings.	0.00%	0.00%	37.10%	27.80%	35.10%	3.98	0.85
The venue management engages							
its staff on knowledge, skill and							
attitude trainings.	0.00%	1.00%	28.90%	35.10%	35.10%	4.04	0.83
The venue employees are							
satisfied with the way in which							
the organization identifies their	0.000/	0.000/	26 100/	22.000/	20.000/	2.05	0.02
training.	0.00%	0.00%	36.10%	33.00%	30.90%	3.95	0.82
Financial strength helps in the							
assimilation of new							
competencies that are applied to							
improve productivity and customer satisfaction.	0.00%	0.00%	29.90%	26.80%	43.30%	4.13	0.85
	0.00%	0.00%	29.90%	20.80%	43.30%		0.00
Average Mean						4.001	

#### Source: Field Data, 2024

The results in Table 5 shows that a majority of the participants (69.10%) agreed that venue management practices outsourcing as a strategic tool for the management of their operations (Mean=3.98, SD=0.78). Further, a majority of the participants (75.30%) agreed that venue management conducts review sessions with service providers for the success of the outsourcing relationship (Mean=4.12, SD=0.84). Additionally, majority of the participants (68.90%) agreed that venue management practices inventory management in their operations (Mean=4.00, SD=0.94).



Moreover, a majority of the participants (65.10%) agreed that the venue management logistic department plans, implements, and controls event equipment and support items (Mean=3.96, SD=0.88). Consequently, a majority of the participants (66.10%) agreed that the venue logistics managers oversee and liaise with colleagues to ensure stock is maintained and moved efficiently (Mean=3.96, SD=0.91). In addition, a majority of the participants (70.10%) agreed that the venue management conducts training periodically on their employees (Mean=3.89, SD=0.84). Also, a majority of the participants (72.90%) agreed that the venue management disseminates training information through seminars, conferences, and meetings (Mean=3.98, SD=0.85).

Moreover, a majority of the participants (70.20%) agreed that the venue management engages its staff on knowledge, skill, and attitude trainings (Mean=4.04, SD=0.83). Moreover, a majority of the participants (69.90%) agreed that venue employees are satisfied with the way in which the organization identifies their training (Mean=3.95, SD=0.82). A majority of the participants (70.10%) agreed that financial strength helps in the assimilation of new competencies that are applied to improve productivity and customer satisfaction (Mean=4.13, SD=0.85). The average mean score across all these statements was approximately 4.001, suggesting a general consensus among respondents regarding various aspects of venue management practices. The event managers also corroborated the descriptive analysis findings by stating that financial capability plays a solid role in enhancing the success of sports tourism events in Nairobi County, Kenya.

# **Correlation Analysis**

This study conducted a correlation analysis to evaluate the strength and nature of the association between financial capability and the success of sports tourism events in Nairobi County, Kenya. Table 6 shows the correlation matrix.

		Success of Sports Tourism Events	Financial Capability
Success of Sports			
Tourism Events	Pearson Correlation	1.000	
	Sig. (2-tailed)		
Financial Capability	Pearson Correlation	.642**	1.000
	Sig. (2-tailed)	0.005	

The correlation matrix in Table 6 reveals that Pearson correlation coefficient between the success of sports tourism events and financial capability is 0.642, and this correlation is statistically significant (p = 0.005, 2-tailed). This indicates a moderately strong positive association between these two variables. This implies that as financial capability increases, there tends to be a corresponding increase in the success of sports tourism events. This outcome suggests that having stronger financial resources and capabilities can play a significant role in enhancing the overall success of sports tourism events in Nairobi County, Kenya, as indicated by the statistically significant correlation coefficient.

# Model Summary of Moderating Effect of Financial Capability

The results in Table 7 show the model summary for the moderating effect of financial technology. The R squared was used to check how well the model fitted the data after moderation.

# **Table 7: Model Summary**

			Estimate	
1.860a	0.740	0.735	0.36623	

a. Predictors: (Constant), Crowd Management and Risk Assessment Strategies\* Financial Capability

# Source: Field Data, 2024

The results in Table 7 show that the R squared after moderation by financial capability was 0.740 which was more than the non-moderated effect whose R square was 0.700. This implies that financial capability moderates the relationship between crowd management, risk assessment strategies and sports tourism events in Nairobi County, and explains 74.0% of the variations in sports tourism events in Nairobi County.

# ANOVA Analysis for the Moderating Effect of Financial Capability

Table 8 shows the Analysis of Variance (ANOVA) results for the moderating effect of financial capability.

# Table 8: ANOVA for Moderating Effect of Financial Capability

Model		Sum of Squa	res df	Mean Square	F	Sig.
	Regression	23.26	1	23.26	189.106	.000 <sup>b</sup>
1	Residual	12.742	104	0.123		
	Total	36.002	105			

a. Dependent Variable: Success of Sports Tourism Events

a. Predictors: (Constant), Crowd Management and Risk Assessment Strategies\* Financial Capability

# Source: Field Data, 2024

The results reveal that the regression model of moderating effect of financial capability on the relationship between crowd management, risk assessment strategies and sports tourism events in Nairobi County was significant and supported by F=189.106, p=0.000<.05). The results imply that financial capability influences sports tourism events in Nairobi County.

# **Regression Coefficients for the Moderating Effect of Financial Capability**

The results in Table 9 show the regression coefficients after moderation using financial capability.

# Table 9: Moderating Effect of Financial Capability

Mode	el	Unstanda Coefficie		Standardized Coefficients	Т	Sig.
		В	Std. Error	Beta		
1	(Constant) Crown Management and	2.013	0.149		13.533	0.000
1	Risk Assessment Strategies*FC	0.118	0.009	0.804	13.169	0.000

a. Dependent Variable: Success of Sports Tourism Events

Stratford Peer Reviewed Journals and Book Publishing Journal of Hospitality and Tourism Management Volume 7//Issue 1//Page 46-66/February//2024/ Email: info@stratfordjournals.org ISSN: 2706-6592



# Source: Field Data, 2024

The Moderation model then became:

Y = 2.013 + 0.118X\*FC

Where:

Y= Success of Sports Tourism Events

X= Crowd Management and Risk Assessment Strategies

FC=Financial Capability (moderator)

Based on the results, Crowd Management and Risk Assessment Strategies was significant after moderation with p-value= 0.000<.05. This implies that financial capability moderates the relationship between crowd management and risk Assessment strategies and the Success of Sports Tourism Events.

# **Hypothesis Testing**

 $H_{02}$ : Financial capability has no moderating effect on the relationship between risk assessment strategies and sports tourism events in Nairobi County, Kenya.

The hypothesis was tested using linear regression results in Table 10 and determined using the p-value. The acceptance/rejection criteria were that, if the p-value is p<.05, then  $H_{02}$  is rejected but if it is p>.05, then  $H_{02}$  is not rejected. Results in Table 9 show that the p-value was less than 0.05. The null hypothesis was therefore rejected and the alternative hypothesis adopted that, financial capability has moderating effect on the relationship between risk assessment strategies and sports tourism events in Nairobi County, Kenya.

# **Success of Sports Tourism Events**

The study dependent variable was the success of sports tourism events in Nairobi County, Kenya. Participants were asked to rate their agreement or otherwise regarding the success of sports tourism in Nairobi County. The results are shown in Table 10.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Dev
Timely completion Customer	0.00%	0.00%	33.00%	37.10%	29.90%	3.97	0.80
satisfaction	2.10%	2.10%	35.10%	20.60%	40.20%	3.95	1.01
Budget meets costs Improved service	0.00%	0.00%	37.10%	38.10%	24.70%	3.88	0.78
delivery Improved reputation	5.20%	6.20%	16.50%	32.00%	40.20%	3.96	1.14
of the organization	5.20%	8.20%	10.30%	26.80%	49.50%	4.07	1.18
Average Mean						3.966	

# Table 10: Descriptive Analysis of Success of Sports Tourism Events

# Source: Field Data, 2024

Given the results in Table 10, a majority of the participants (66.10%) agreed that timely completion affects the success of tourism spot events (Mean=3.97, SD=0.8). A majority of the participants



(60.80%) agreed that customer satisfaction impacts the success of tourism spot events (Mean=3.95, SD=1.01). A majority of the participants (62.80%) agreed that budget meeting costs affects the success of tourism spot events (Mean=3.88, SD=0.78). A majority of the participants (72.20%) agreed that improved service delivery affects the success of tourism spot events (Mean=3.96, SD=1.14). Similarly, a majority of the participants (75.30%) agreed that the improved reputation of the organization impacts the success of tourism spot events (Mean=4.07, SD=1.18). The average mean score across all these indicators was approximately 3.966, indicating a general consensus among participants regarding the influence of these factors on the success of tourism spot events.

# **5.0** Conclusion

Based on the findings, the study concludes that there exists a positive and statistically significant relationship between Crowd Management and Risk Management Strategies and the Success of Sports Tourism Events in Nairobi County. This is attributed to the fact that this effective event risk is a key concern in crowd control since it not only undermines public safety but also reduces the efficiency of urban subway transportation during large-scale athletic events. Therefore, effective crowd control and risk management strategies allow for sustained sports event activities.

The study also concludes that financial capability has a significant moderating effect on the relationship between crowd management, risk assessment strategies and sports tourism events in Nairobi County, Kenya. Organizations with stronger financial capabilities are more likely to host successful sports tourism events. Effective financial resource allocation and planning can significantly improve sports events in Kenya.

# 6.0 Recommendation

Based on the study findings, crowd management and risk management strategies contribute towards the success of sports tourism events. To the organizers of sports tourism events in Nairobi County, the study recommends a multi-agency approach to strengthen risk assessment and crowd management protocols. Leveraging advanced technologies like facial recognition and crowd density mapping can offer real-time insights for better decision-making. Collaboration with local authorities should be prioritized to ensure that these technologies and strategies align well with existing regulations. This would help in significantly improving the safety and overall experience during the events.

Further, study suggests that event organizers in Nairobi County should undertake rigorous financial planning and resource allocation measures. A dedicated budget should be established to effectively cover costs related to crowd and risk management. These might include hiring additional security personnel, setting up emergency medical stations, and implementing advanced crowd monitoring systems. Proper financial planning ensures the safety of the attendees and also the overall success of sports tourism events.

Based on the findings, the study recommends that regulatory bodies responsible for overseeing sports tourism activities in Nairobi County should review existing guidelines and regulations. These reviews should focus on the challenges and practical realities that event organizers face. Amending existing regulations to better match these realities would result in safer and more efficient events, benefiting both organizers and attendees.



#### REFERENCES

- Cheng, Z., Lu, J., & Zhao, Y. (2020). Pedestrian evacuation risk assessment of subway station under large-scale sport activity. *International journal of environmental research and public health*, 17(11), 3844.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, *16*(3), 297-334.
- Endrejat, P. C., Meinecke, A. L., & Kauffeld, S. (2020). Get the crowd going: eliciting and maintaining change readiness through solution-focused communication? *Journal of Change Management*, 20(1), 35-58.
- Fast, J., de Boer, E., & Rowson, B. (2017). The influence of the importance of event factors on meeting planner satisfaction: A case study of a theme park event business. *Research in Hospitality Management*, 7(1), 27-38.
- Gong, V. X., Daamen, W., Bozzon, A., & Hoogendoorn, S. P. (2020). Crowd characterization for crowd management using social media data in city events. *Travel behaviour and society*, 20, 192-212.
- Hall, J., & Lavrakas, P. (2008). Cross-sectional survey design. *Encyclopedia of survey research methods*, 173-174.
- Herold, D. M., Breitbarth, T., Schulenkorf, N., & Kummer, S. (2019). Sport logistics research: Reviewing and line marking of a new field. *The International Journal of Logistics Management*.
- Jeong, Y., Yu, A., & Kim, S. K. (2020). The antecedents of tourists' behavioral intentions at sporting events: The case of South Korea. *Sustainability*, *12*(1), 333.
- Kim, W., Jun, H. M., Walker, M., & Drane, D. (2015). Evaluating the perceived social impacts of hosting large-scale sport tourism events: Scale development and validation. *Tourism Management*, 48, 21-32.
- Li, J., de Ridder, H., Vermeeren, A., Conrado, C., & Martella, C. (2013, August). Designing for crowd well-being: Current designs, strategies and future design suggestions. In *Proceeddings of 5th International Congress of International Association of Societies of Design Research* (pp. 2278-2289).
- Łuczak, J. (2021). Risk Management for Running Events' Organization on the Example of Half Marathons in Poland.
- Morgan, A., Taylor, T., & Adair, D. (2020). Sport event sponsorship management from the sponsee's perspective. *Sport Management Review*, 23(5), 838-851.
- Muiruri Njoroge, J., Atieno, L., & Vieira Do Nascimento, D. (2017). Sports tourism and perceived socio-economic impact in Kenya: The case of Machakos County. *Tourism and hospitality management*, 23(2), 195-217.
- Müller, M., & Braun, C. (2021). Guiding or Following the Crowd? Strategic communication as reputational and regulatory strategy. *Journal of Public Administration Research and Theory*.



- Njoroge, J. M., Buyeke, E., & Akama, J. (2015). Challenges to sustainable sports tourism development in a non-metropolitan region in Kenya: A case of Iten township.
- O'Toole, W., Luke, S., Semmens, T., Brown, J., & Tatrai, A. (2019). Crowd Management. Goodfellow Publishers.
- O'Toole, W., Luke, S., Brown, J., Tatrai, A., & Ashwin, P. (2020). Crowd Management: Risk, Security and Health. Oxford: Goodfellow Publishers.
- Passos, C., Da Silva, M. H., Mol, A. C., & Carvalho, P. V. (2017). Design of a collaborative virtual environment for training security agents in big events. *Cognition, Technology & Work*, 19(2), 315-328.
- Polit, D. F., & Beck, C. T. (2008). Nursing research: Generating and assessing evidence for nursing practice. Lippincott Williams & Wilkins.
- Rookwood, J. (2021). Diversifying the fan experience and securitising crowd management: a longitudinal analysis of fan park facilities at 15 football mega events between 2002 and 2019. *Managing Sport and Leisure*, 1-19.
- Saunders, M., Lewis, P., & Thornhill, A. (2003). Research methods forbusiness students. *Essex: Prentice Hall: Financial Times.*
- Scherer, C. W., & Cho, H. (2003). A social network contagion theory of risk perception. *Risk Analysis: An International Journal*, 23(2), 261-267.
- Sealy, W. C. (2020). Managing the Risks: An Observation of Crowd Management and Other Risks Associated With Outdoor Music Festivals in the UK. In Legal, Safety, and Environmental Challenges for Event Management: Emerging Research and Opportunities (pp. 55-83). IGI Global.
- Still, K., Papalexi, M., Fan, Y., & Bamford, D. (2020). Place crowd safety, crowd science? Case studies and application. *Journal of Place Management and Development*.
- Stott, C., Khan, S., Madsen, E., & Havelund, J. (2020). The value of Supporter Liaison Officers (SLOs) in fan dialogue, conflict, governance and football crowd management in Sweden. Soccer & Society, 21(2), 196-208.
- UNWTO, W. (2021). UNWTO tourism highlights 2021 edition. Madrid.
- Van der Wagen, L., & White, L. (2018). Event management: For tourism, cultural, business and sporting events. Cengage AU.
- Watanabe, T., Hashimoto, D., Miyazaki, H., & Is-Hak, M. (2020, May). Design of the acoustic enhancement system for crowd enhancement in the Qatar Univ. Sports & Events Complex. In Audio Engineering Society Convention 148. Audio Engineering Society.