

The Quality of Crowd Management and Its Impact on the Experience of Event Visitors in Riyadh Season

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Abstract

This research aims to measure visitors' satisfaction and investigate how crowd management plans and service quality affects visitors' satisfaction in the Riyadh Season mega-event, To understand how visitors' experiences at the Riyadh Season affect their return intentions, To examine how health and safety practices affect visitors' experience and satisfaction at the Riyadh Season. Whereas the events that attract many people necessitate the organizers to have a crowd management plan and robust safety procedures to minimize possible risks. Whether sporting events, celebrity events, or major festivals, many people gathered in one place can have fatal consequences if not properly planned and controlled. Crowd management is essential for tourist attraction sites, especially for destinations that attract many visitors.

A cross sectional survey approach was used to gather information and achieve the study purpose. Survey questionnaire was distributed to 542 participants through Google survey. Quantitative analysis using SPSS was performed on the data collected. The findings showed that service quality positively impact customer satisfaction. Similarly, quality health and safety measures enhance customer experience and satisfaction. The result also found that satisfaction with Riyadh season events increased their return intentions.

Keywords: The Quality, Crowd Management, Experience, Event, Visitors, Riyadh Season

1. Introduction

Tourist destinations and other events often attract large crowds, putting pressure on event organizers to ensure the well-being and safety of all attendees. An excellent example of a big event is the Tomorrow land, one of the largest congregations of people in the world. Held in Belgium, this large-scale annual electronic dance music festival aims to connect global populations and unite future generations by creating lasting friendships and beautiful memories. The theme and main stage are changed every year to allow for innovative designs and new agendas. This mega festival has several stages to accommodate more attendees and provide diverse entertainment alternatives. Freedom, Garden of Madness, Harbor House, The Moose Bar, and Rose Garden comprise some of the destinations within Tomorrow land. In 2022, Tomorrowland attracted over 600,000 attendees, with over 800 artists performing on 16 stages (Barrionuevo, 2022). The idea of Tomorrowland has been replicated in many other countries, including Brazil and France. The Riyadh Season is another state-sponsored annual sports and entertainment festival that promotes non-religious tourism by celebrating Riyadh, technology, and the Saudi people/culture (Al-Khaldy et al., 2022). Sports events, entertainment activities, and product promotion gatherings comprise other large-scale events common in many locations globally. “Managing the movement of people in a hassle-free manner, managing crowds on peak days, ensuring the safety and security of attendees, and effective crowd management planning, should be the key focus areas to ensure an incident-free mass gathering events” (Kanaujiya & Tiwari, 2022, p. 263). This research explores the quality of crowd management and its impacts on the experience of event visitors in the Riyadh Season.

1.1. Research Aim

When individuals plan to visit various destinations and events, they expect to have the best time and form unforgettable memories. The objectives are jeopardized when event organizers fail to deliver quality services and effective crowd management. Besides, unruly crowds and undesirable outcomes, such as injuries and fatalities, create unwanted experiences and inform the intention not to return to particular tourist attraction sites. This research aims to examine the quality of crowd management and its impact on visitors' experiences and return intentions for future Riyadh Seasons.

1.2. Research Questions

- RQ 1** How do crowd management and service quality affect visitors' satisfaction in Riyadh Season?
- RQ 2** How does visitors' experience affect their return intentions at the Riyadh Season?
- RQ 3** How do health and safety practices affect visitors' experience and satisfaction at the Riyadh Season?

1.3. Hypotheses

The following alternative hypotheses guide the study.

- Ha1.** Crowd management and service quality significantly affect visitors' satisfaction in Riyadh Season.
- Ha2.** Visitors' experience at the Riyadh Season significantly affects their return intentions.
- Ha3.** Health and safety practices adopted at the Riyadh Season significantly affect visitors' experience and satisfaction.

1.4. Research Objectives

1. To measure visitors' satisfaction and investigate how crowd management plans and service quality affects visitors' satisfaction in the Riyadh Season mega-event
2. To understand how visitors' experiences at the Riyadh Season affect their return intentions
3. To examine how health and safety practices affect visitors' experience and satisfaction at the Riyadh Season

2. Literature Review

Event organizers and tourism promoters aim to plan and execute events in a way that increases the competitiveness of their events. Holding mega-events is increasingly becoming an effective method of driving tourism and marketing destinations. Local communities take pride in successful mega-events since such an outcome yields desirable results, such as higher income and more city visibility. Besides, hosting large events, such as the Olympics and the World Cup, costs fortunes in event organization and infrastructure. For these reasons, it is in the interest of event organizers to deliver fulfilling experiences to visitors and increase the return rate. This literature review explores the theoretical framework and the quality of crowd management from the context of visitor satisfaction, the influence of experience on visitors' return rate, and health and safety.

3. Theoretical Framework

The convergence and contagion theories comprise the two models forming the theoretical framework of this research. The convergence theory argues that crowd behaviors exhibited by people in a crowd are informed by preexisting beliefs and values (Thonhauser, 2022). In other words, people portray collective behavior when they subscribe to similar opinions, goals, and tastes. Therefore, like-minded individuals are likely to behave the same way when converging in one venue. The convergence theory posits that groups are formed by individuals who think the same way and have similar interests. For example, a group that exhibits violence must have a significant number of violent members in it. Otherwise, a group with peaceful members usually dissuades violence through robust policies and laws. Individuals behave similarly in a group because they have compatible motivations (Thonhauser, 2022). Crowd situations can trigger the collective misbehavior of adherents if similar interests drive the members. The convergence theory best explains the behavior of crowds in sporting events since fans supporting a particular team view rival fans as enemies, whether in victory or defeat.

While individuals affect the crowd in the convergence theory, the crowd influences individuals in the contagion theory. According to La Macchia and Winnifred (2016), being part of a crowd causes members to behave in a particular way due to emotional and irrational influences. In other words, crowd situations exert hypnotic influences on individuals so that they stop their rational thinking and follow other members' behavioral paths. This account explains why belonging to a particular group can result in emotionally-charged behavior.

Moreover, the anonymity of belonging to a crowd and the frenzy associated with many multitudes create an infectious outbreak of irrational behavior. The contagion theory explores the social-psychological aspects of group behavior by explaining how attitudes and moods move from one person to another through rapid acceptance (La Macchia & Winnifred, 2016). When individuals agree to become members of a group, they cease to be rational beings and, instead, become members with a collective mind. For this reason, individuals can engage in conduct they could not otherwise exhibit in private. This transformation can be disastrous for event organizers and crowd managers since well-mannered people can easily be influenced to become unreasonable, impulsive followers. The spread of negative attitudes and social aggressions in a crowd situation can impact tourists' experiences, satisfaction, and decision to return to the event. The convergence and contagion theories of crowd management encapsulate crowd dynamics when people act like a group.

Mega-Events and the Riyadh Season

Different cultures across the globe have embraced the idea of events and festivals since time immemorial. However, mega-events are a new trend that has gained popularity in recent decades. Commercial entities and governments host mega-events for branding and destination marketing purposes. Saudi Arabia and many other countries invest in mega festivals to attract positive outcomes, including creating employment and generating foreign exchange (Jago et al., 2010). Big events promote destinations by increasing competitiveness since more visitors translate into more spending. According to Al-Khaldy et al. (2022), mega-events can improve visitor attractions and compensate for off-peak tourism seasons. They enhance the influx of local and international visitors, improve local economies, and deliver many other advantages to the host cities and countries. Since mega-events often attract millions of attendees, organizers should acknowledge the possibility of stressing the local environment and infrastructure. It is also possible for mega-events to produce undesirable outcomes and fail to generate the expected benefits. Therefore, organizers should plan meticulously to address potential issues that prevent mega-events from realizing the expected benefits.

The Riyadh Season is a mega festival that runs over the five winter months in Riyadh. This city-wide celebration is hosted by the local General Entertainment Authority (GEA), and it includes a spectrum of entertainment activities, including virtual reality games, theatrical productions, firework shows,

music performances, and scenery watching (Al-Khaldy et al., 2022). The Riyadh Season is one of the many initiatives by the Saudi Arabia government to boost tourism and the economy. It also corresponds to Crown Prince Mohammed bin Salman's Vision 2030, which targets to transform the Kingdom. The festival is divided into different zones, each with a unique entertainment agenda. An artificial lake in Riyadh is also a major attraction in the Riyadh Season since it enables visitors to board submarines and boats. The Riyadh Season also includes live music performances from over a hundred renowned artists from different countries across different stages with cutting-edge sound systems. "Since its beginning, the number of visitors to the Riyadh Season has increased from 10 million in 2019 to 11 million in 2022, and about 10% of the visitors were international tourists belonging to 125 countries" (Al-Khaldy et al., 2022, p. 2). With more fun activities aimed to be included in Riyadh Season, this mega festival is projected to attract more local and international visitors in the coming years.

Crowd management is essential since people arrive in their millions to the different Riyadh Season zones. This study investigates the quality of crowd management in Riyadh Season and its impact on visitors' experiences. Existing literature confirms that organizing bodies at the Riyadh Season ensure visitors receive high-quality services in transportation and accommodation domains (Al-Khaldy et al., 2022). Visitors' experiences can determine their intentions to visit or return to the Riyadh Season and other attractions in Saudi Arabia. Munar and Jacobsen (2014) argued that "information sharing and social interaction among visitors could play an important role in tourists' decisions and their intentions to visit a destination" (p. 2). The connection between the Riyadh Season and national goals, such as Vision 2030, mandates the organizing bodies to ensure a high level of service quality to keep visitors entertained and yearning to return for subsequent mega festivals.

Crowd Management

Crowd management is the practice of controlling people gathered at events to prevent the occurrence of undesirable outcomes and disasters. This practice became manifest during the COVID-19 pandemic, whereby organizations and the government closely monitored social distancing and crowd behavior to prevent the spread of the deadly virus (Durán-Polanco & Siller, 2021). Notably, crowd management is a challenging task when handled by one individual. Instead, effective crowd management brings together the input of local authorities, emergency services, event planners, and the crowd itself (Martella et al., 2017).

More importantly, effectively managing crowd behavior calls for meticulous planning and the availability of enough resources, which often requires initiating plans in advance. Event organizers must collaborate with other experts to predict possible risks and create contingency plans to avoid unpleasant surprises.

Although event organizers spend considerable time and resources in comprehensive preparations, things can still get out of hand. Besides, some of the crowd disasters happened with robust plans in place. This argument corresponds to the contagion theory of crowd management since crowd behavior can be easily influenced from orderliness to irrationality. Tourist destinations and event organizers should strive to gather valuable information about expected, actual, and preferred crowd behavior (Gong et al., 2020). Attendees' age, gender, and other dynamics, such as access to alcoholic beverages, can help predict how the crowd will likely behave. Some of the best crowd management practices include using barricades, signage, and stanchions to maintain an orderly traffic flow. Interventions to monitor crowd behavior in real-time through technological means can enable early detection and quick corrective action to prevent disruptions and bad experiences.

Following outlined rules is at the core of effective crowd management. There is no denying that most events start and finish without issues. However, a significant fraction of tourist events encounters problems, mostly due to blatant disregard for established rules. According to Zhang et al. (2017), the risk of injury and fatalities increases when a few individuals fail to obey simple rules in a mega-event. Although there is considerable research on crowd management, little is known about its impact on visitors' experiences in mega-events. Moussaïd et al. (2011) noted that "even successful modeling approaches, such as those inspired by Newtonian force models, are still not fully consistent with empirical observations and are sometimes hard to calibrate" (p. 6884). Therefore, there is a need to explore this subject to discover better crowd management practices.

Visitor Satisfaction

Attractions are the main drivers of tourism. Without places that people are attracted to, tourism would hardly exist. According to Sukiman et al. (2013), when a person decides to explore a particular destination, they conduct research and mentally attempt to visualize it. This imagination provides the magnetism and motivation needed to initiate the idea of traveling domestically and internationally.

Although the element of attraction contributes significantly to tourism, other dynamics ensure the sustainability of tourism. In particular, the availing of essential tourist facilities and other provisions that enhance visitor experience ensures the continuity of tourism and event organization through visitor satisfaction (Sukiman et al., 2013). The tourism product is not one element but a combination of elements needed during a trip, including entertainment, transportation, accommodation, and food. These goods and services create a set of subjective experiences for event visitors, and event organizers must be careful not to make mistakes that result in unmet needs and undesirable experiences.

Maximizing visitor satisfaction is integral for successful event organization and fruitful business in tourism. According to Sukiman et al. (2013), “the evaluation of the physical products of destination (instrumental performance), as well as the psychological interpretation of a destination product (expressive attributes), are necessary for human actions, which could be represented as travel satisfaction and destination loyalty” (p. 79). Notably, expressive experiences influence visitor satisfaction more since they tap on people’s emotions. In contrast, instrumental performance is inclined toward cognitive orientation. When viewed from a business standpoint, instrumental performance and expressive experiences affect the demand and supply of tourism attractions, and they combine to determine overall visitor satisfaction.

Different authors have defined tourist satisfaction. According to Sukiman et al. (2013), “tourists’ satisfaction with a destination is the degree to which a tourist’s assessment of the attributes of that destination exceeds his or her expectations for those attributes” (p. 80). Cheng et al. (2022) argued that “visitor satisfaction is a visitor’s cognitive-emotional state after experiencing the services, facilities, or other attributes provided by a destination” (p. 144). Based on these definitions, visitor satisfaction is a post-purchase construct that measures the degree to which a person likes or dislikes a tourist offering after experiencing it. “In many cases, tourism satisfaction and perceived quality have much in common since visitors evaluate the quality of the service according to factors such as comfort, friendliness, security, cleanliness, accommodation, transportation, and infrastructure” (Carlos Castro et al., 2017, p. 281). Notably, satisfaction is accurately measured by comparing pre-travel expectations with actual experiences. Besides, travelers have specific vacation needs and preconceptions about a destination and experience dissatisfaction when tourism products fail to meet their expectations.

Overall, visitor satisfaction is the judgment that individuals make after encountering tourist offerings, and it differs from person to person since everyone has unique tastes and preferences.

Although visitor satisfaction is a heterogenous construct, several factors are known to influence it. Some common variables that affect the level of satisfaction include price, perceived quality, equipment, staff and procedure, and service efficiency (Lei et al., 2022; Sukiman et al., 2013). Event organizers and tourist destinations should do their best to ensure that most factors likely to affect customer satisfaction are properly implemented. Research by Adinegara et al. (2017) revealed that service quality is the main factor determining visitor satisfaction, which indicates that guest satisfaction is the cardinal driver in tourism and event management. The bottom line is that different tourists look for different factors when determining the best and worst destinations.

Influence of Experience on Visitors' Return Rate

The experience visitors have with crowd management during events and festivals significantly impacts their satisfaction levels and their likelihood of returning to the same event or destination in the future. The quality of crowd management plays a crucial role in shaping visitors' experiences, preventing crowd misbehavior, ensuring safety and security, and ultimately influencing their decision to return (Jin et al., 2019). This section explores the influence of experience on visitors' return rate and the importance of effective crowd management in achieving high visitor satisfaction.

The concept of revisiting intention can be compared to the consumer attitudes and willingness to buy. According to Manangiuli et al. (2019), "the willingness to buy is defined as a possibility when a buyer intends to buy a product" (p. 474). People commit to buying something after researching more about it or experiencing it. They tend to choose some products over others, even when most qualities seem equal. Purchase differs from purchase intent since the latter is a follow-up decision informed by individual buying interest. Besides, consuming attitudes are psychological tendencies whereby a person expresses favor or disfavor towards a specific consumption-related entity. In tourism, revisiting intention is how likely a traveler or event attendee is likely to return to a given destination or switch to an alternative location.

Revisit intention has been a subject of research for many years. Maintaining existing visitors is more important than looking for new attendees in destination marketing. "Many researchers conclude that repeat tourists prefer to remain at a destination longer, indulge in

consumer activities more intensively, are more fulfilled, and propagate favorable words of mouth, thus requiring much lower marketing costs than first-time visitors” (Showkat et al., 2021, p. 41). Several factors determining revisit intention include potential attraction, perceived value, service conduct, and satisfaction. It is paramount that tourist brands and event organizers enhance their reputations by considering attendees’ interests so that tourists develop the urge to revisit the destination. Besides, experience determines satisfaction, which directly informs revisiting tourists’ decision-making process. Satisfied tourists hardly accept alternative destinations since they order services from the initial provider. On the other hand, dissatisfied visitors develop a bad taste towards a destination and quickly accept new offers from alternative providers.

The attractiveness of a vacation spot is a major factor in how visitors spend their time there and whether or not they will return. Visitors might be captivated and moved by a place’s natural beauty, such as breathtaking scenery, pristine beaches, or towering mountains (Park et al., 2019). Tourists may also fully immerse themselves in a destination’s rich history due to the existence of cultural heritage and historical sites. In addition, thrilling water sports and tranquil hiking routes may provide enough opportunity for exploration and rest. There is a high chance of returning when there is enough to enjoy to the extent that a visitor does not exhaust the tourist products. In contrast, tourists hardly visit destinations where they have exhaustively covered everything there is to see.

According to Nguyen Viet et al. (2020), service quality is another crucial factor influencing tourists’ experiences and intention to return. Hotels, motels, and vacation rentals are essential in making a visitor’s stay enjoyable. Facilities like clean public areas, comfortable rooms, and valuable services like swimming pools, spas, and fitness centers ensure a pleasurable stay. Tourists’ impressions of a destination can also be significantly influenced by the quality of its transportation infrastructure, including public transit and the availability of rental cars.

Interactions with local communities and the hospitality of residents also shape tourists’ experiences. Friendly residents who are proud of their heritage and willing to share it with guests may help them feel at home and make lasting impressions. Interacting with locals in this way, whether through cultural performances, local cuisine, or guided tours, creates a genuine and engrossing experience (Park et al., 2019).

The experience of interacting with locals and gaining insight into their customs can make a lasting impact, snowballing the probability that they will return and further explore the local culture.

The quality of crowd management influences tourist satisfaction. Visitors are more likely to enjoy an event if they perceive it as well-organized, safe, and well-managed. However, if crowd management is inadequate, and visitors experience problems like congestion, lengthy wait times, or a lack of security, their experience is likely less than satisfactory. For visitors to have a positive experience, the features of the location they visited must surpass their expectations (Chen et al., 2020). Visitors are more likely to leave a destination satisfied if they find the service, comfort, friendliness, security, cleanliness, lodging, transportation, and infrastructure above average. Therefore, the success of the Riyadh Season depends on the city's ability to provide first-rate transportation, accommodation, and crowd control services to its visitors.

Understanding the influence of experience on visitors' return rate is essential for event organizers and tourist destinations. By delivering positive experiences through effective crowd management, organizers can increase visitors' return rates and promote the event's long-term sustainability. Moreover, happy guests are more inclined to spread the word about the event's success. The significance of providing high-quality services and experiences to event attendees cannot be overstated. The influence of experience on visitors' return rate is a crucial aspect to consider in crowd management. Visitors' experiences during an event can greatly impact their decision to return in the future. Visitors are more likely to return and endorse an event if they have had a positive experience characterized by effective crowd control, well-organized amenities, and a feeling of safety. Overcrowding, lengthy lines, and a lack of safety precautions are examples of what might turn tourists off and ruin an otherwise successful event or venue (Feliciani et al., 2022). The success of crowd control strategies is connected to happy tourists. When crowds are managed effectively, business runs smoothly, interruptions are minimal, and everyone enjoys their time. When guests' needs for security and comfort are met, they are more likely to have a good time and form favorable impressions of the event or tourist destination.

There are a variety of approaches that destinations can use to cultivate an atmosphere that leads to memorable experiences and repeat visits. First, a destination's cultural and natural resources must be protected and maintained. Preserving the destination's allure and ensuring its long-term viability by investing in infrastructure and environmental conservation is possible.

Secondly, developing high-quality tourism services should be prioritized (Nguyen Viet et al., 2020). Service providers in the tourism industry can benefit from ongoing training and professional development programs that raise industry standards and guarantee a continually pleasant experience for visitors. Positive encounters between tourists and locals can also be supported by encouraging participation in and pride in one's community. Tourists get a sense of the community's warmth and spirit if local businesses are supported, cultural activities are promoted, and public gatherings are held.

The influence of experience on visitors' return rate in the context of crowd management is a significant aspect to consider for event organizers and tourist destinations. Effective crowd management practices prioritizing visitor safety, efficient operations, and a positive atmosphere can greatly enhance visitor satisfaction and increase the likelihood of return visits. By investing in robust crowd management plans, utilizing technology, and promoting collaboration among stakeholders, event organizers can create memorable experiences that attract visitors and encourage them to revisit in the future. Therefore, delivering fulfilling experiences and ensuring visitor satisfaction are critical factors in the success of events and tourism growth.

Health and Safety

A large part of event management entails ensuring event attendees' and staff members' health and safety. Besides, the responsibility for the safety and health of event attendees rests with the organizers (Toneva, 2022). It is no good for destinations and mega events to spend fortunes organizing mega festivals if the arenas are not safeguarded from safety and health issues. Holding big events entertains the audience and facilitates memory creation so that they consider returning and providing positive reviews. If the attendees go home with injuries or near-death experiences, they may neither recommend the event to their friends nor have plans to return. In contrast, an event that caters to the health and safety of attendees gives the attendees numerous reasons to return. For this reason, event organizers and destination marketers should aim to project possibilities and take measures to address potential issues and mitigate risks.

Several examples can reinforce the idea of health and safety in mega events and the need for appropriate crowd management practices. The Internet is filled with stories about inpatient individuals pushing to see celebrities or get closer to the stage, resulting in people dying in horrible circumstances. Recent issues with events in Europe and Asia underscore the integral role of crowd management.

Wee and Suhartono (2022) described an incident involving soccer fans in Indonesia. In particular, fans invaded a soccer match in October 2022 at Kanjuruhan Stadium in Malang, causing a deadly stampede. The home fans were unhappy to lose to a rival team, and the anger spilled out, leading to a crash. Unfortunately, the response by the police caused more harm than good. In an attempt to control the unruly crowd, the police fired teargas, causing a deadly rush for exits. Teargas was not the best solution since the police did not envisage the possibility of a stampede. Although teargas is often used in crowd management, it is best used in open spaces, where protesters can disperse and run in different directions without causing commotion. Causing panic aggravates unrest instead of prioritizing the health and safety of visitors.

Crowd mismanagement can also negatively impact the health and safety of visitors. Incidents in European airports and airlines caused delays and confusion, which are recipes for disasters and dangerous outcomes. Yeginsu (2022) reported that aviation workers held strikes demanding higher salaries and working conditions, paralyzing operations at many European airports. As mentioned previously, effective crowd management calls for the concerted effort of different stakeholders and proper coordination of all activities. In situations where flights are delayed or canceled without notice, travelers get stranded at the airport. More importantly, some travelers may be on their way to fulfill urgent medical appointments. The absence of enough workers caused the bypassing of established bypass procedures, such as failing to check baggage before loading it into airplanes (Yeginsu, 2022). As witnessed in previous plane hijacking incidences, allowing unchecked baggage into the airplane is a recipe for disaster. Finding sustainable ways to address worker concerns is a better approach since it ensures the safety and health of travelers.

Stampedes and disasters are the most common safety concerns for mega-events. According to Kanaujiya and Tiwari (2022): Based on earlier experiences, the causes of stampedes and disasters can be classified into structural collapse, fire accidents and behavior of crowd, security, no clear evacuation plan, and lack of coordination between stakeholders and less known and understanding of emergency plan of traffic diversion to the enforcement agency (p. 264),

The aspects that complete a wholesome and fulfilling visitor experience include structurally strong arenas and proper safety protocols. Structural collapse arises when the amount of live load exerted on a structure, such as a stadium, exceeds the stress limit, causing the

structure to fail. Such instances are common when the structural integrity of buildings is substandard. For example, a section of a stadium in El Espinal collapsed during a bullfight, leaving four dead and hundreds injured (Pozzebon, 2022). Crowd management practices can also lead to preventable accidents. “Lack of proper planning and feedback from multi-stakeholders, under deployment of security personnel, lack of in-depth training and briefing regarding crowd control, emergency plan and technology use affect security personnel’s capacity to face the challenge in case of disaster” (Kanaujiya & Tiwari, 2022, p. 265). Safeguarding the safety and health of event attendees requires careful planning and examining the structural integrity of venues.

Another fundamental factor that contributes to visitor satisfaction is the ability to navigate the event venue easily. Well-designed signage, clear directions, and efficient crowd flow management can significantly enhance visitors’ experience and reduce frustration. There should not be any bottlenecks or other impediments to visitors as they make their way around the venue. Strategies for managing large crowds must consider how many people are expected to attend, how to keep them under control, and how to ensure they have access to restrooms, food, and medical care. In addition, providing sufficient safety measures is of utmost importance while managing crowds (Chen et al., 2020). The safety and security of guests should be a top priority. Thus, precautions have been taken against accidents, crises, and other threats. For example, hiring trained staff members capable of managing crowd situations, implementing emergency response plans, and providing clear communication channels to inform visitors of any changes or updates are integral to successful tourist trips (Jin et al., 2019). In addition to safety, the overall atmosphere and ambiance of the event play a significant role in visitors’ satisfaction and the likelihood of returning. Attendees have a good time if there are comprehensive crowd control measures and peep keep their cool without following crowd behavior. However, crowd problems like aggressive behavior or disagreements between attendees can ruin the experience for everyone. Therefore, event organizers managing events with large numbers of attendees must understand the possible latent risks and dangerous fatal consequences if effective planning is ignored.

3. Methodology

This chapter describes the methodology that was used in this research. The adopted methodology to accomplish this study uses the following techniques: the information about the

research design, research population, questionnaire design, statistical data analysis, content validity and pilot study.

3.1. Research Method

Cross-sectional survey research was selected as the ideal methodology for this project. This quantitative research approach is suitable since this research entails examining different variables, including visitors' satisfaction, return rate, and health/safety. Besides, crowd management and its impact on visitors' experience are social phenomena that can be communicated using numbers and statistics since they focus on "how" and "why" questions. Understanding the impact of crowd management on visitors' experience also requires the input of many participants rather than a small sample. Lastly, the cross-sectional quantitative research was selected due to the possibility of generalizing findings, examining causal relationships, and predicting future results, especially when the sample is representative of the study population.

3.2. Data Collection and Analysis

To collect the needed data for this research, secondary resources, including books, journals, statistics and web pages, were used in addition to preliminary resources that were not available in secondary resources through distribute questionnaires on study population. The questionnaire was administered to the 542 participants online via Google surveys. Collected data was presented in tables and charts. Descriptive and inferential data analysis methods were used to explain underlying phenomena and make predictions, respectively. The findings were used to justify or reject the hypothesis and answer the research questions.

The study is classified as descriptive and analytical studies, which is the method on which the researcher relies to obtain accurate information depicting social reality and contributing to the analysis of the phenomenon. The descriptive study aimed to collect accurate information about a group, society or phenomenon, formulate generalizations or findings related to "The Quality of Crowd Management and Its Impact on the Experience of Event Visitors in Riyadh Season," and develop a set of recommendations related to the results of study. Additionally, a sample random was used to collect data, and the researcher used SPSS V26 to analyze the data.

3.3. Target Population and Sample Size

The target population for this research is the visitors who purchase tickets and attend the Riyadh Season mega festival. The individuals can be Saudi natives or international visitors. The researcher aimed to invite at least 542 participants to respond to the online questionnaire.

3.4. Research Instrument

The research instrument for this study is the survey. A four-sectioned questionnaire was developed, and it contains close-ended questions. The questionnaire was provided with a covering letter explaining the purpose of the study, the way of responding, the aim of the research and the security of the information in order to encourage a high response. The questionnaire included multiple choice question: which used widely in the questionnaire, The variety in these questions aims first to meet the research objectives, and to collect all the necessary data that can support the discussion, results and recommendations in the research. The sections in the questionnaire are the following:

Section 1: Demographic data

Section 2: Visitor satisfaction aspects

Section 3: Influence of experience on visitors' return rate

Section 4: Health and safety

The respondent in section three and five can answer the items with a number from 1 to 5 where (5) represents the highest acceptance degree about an item and (1) represents the lowest acceptance degree about it as illustrated in table 1.

Table 1: Respondent Scale

Level	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Scale	1	2	3	4	5
Mean Range	1.0-1.8	1.8-2.6	2.6-3.4	3.4-4.2	4.2-5.0
Weight mean	20%-36%	36%-52%	52%-68%	68%-84%	84%-100%

Pilot study

Content Validity of the Questionnaire

Content validity test was conducted by consulting two groups of experts. The first was requested to evaluate and identify whether the questions agreed with the scope of the items and the extent to which these items reflect the concept of the research problem. The other was requested to evaluate that the instrument used is valid statistically and that the questionnaire was designed well enough to provide relations and tests between variables.

The two groups of experts did agree that the questionnaire was valid and suitable enough to measure the concept of interest with some amendments.

Statistical Validity of the Questionnaire

To ensure the validity of the questionnaire, two statistical tests should be applied (Brains et al., 2011), The first test is Criterion-related validity test (Pearson test) which measure the correlation coefficient between each item in the field and the whole field. The second test is structure validity test (Pearson test) that used to test the validity of the questionnaire structure by testing the validity of each field and the validity of the whole questionnaire. It measures the correlation coefficient between one filed and all the fields of the questionnaire that have the same level of similar scale (Kramer et al., 2009).

Criterion Related Validity - Internal Consistency. Internal consistency of the questionnaire is measured by a scouting sample, which consisted of thirty questionnaires, through measuring the correlation coefficients between each question in one field and the whole filed. Table 2 below shows the correlation coefficient and p-value for each field items. As show in the table the p-values are less than 0.05 or 0.01, so the correlation coefficients of this field are significant at $\alpha = 0.01$ or $\alpha = 0.05$, so it can be said that the paragraphs of this field are consistent and valid to be measure what it was set for.

Table 2: The correlation coefficient between each item in the field and the whole field

Section 2: Visitor Satisfaction Aspects			Section 3: Influence of Experience on Visitors' Return Rate			Section 4: Health and Safety		
Item no	Pearson coefficient	p-value	Item no	Pearson coefficient	p-value	Item no	Pearson coefficient	p-value
1	.818**	0.000	1	.768**	0.000	1	.829**	0.000
2	.891**	0.000	2	.857**	0.000	2	.772**	0.000
3	.884**	0.000	3	.896**	0.000	3	.875**	0.000
4	.845**	0.000	4	.720**	0.000	4	.717**	0.000
5	.920**	0.000	5	.811**	0.000	5	.781**	0.000
6	.883**	0.000	6	.880**	0.000	6	.740**	0.000
7	.931**	0.000				7	.646**	0.000
8	.802**	0.000				8	.735**	0.000

**Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

Structure Validity of the Questionnaire. Structure validity is the second statistical test that used to test the validity of the questionnaire structure by testing the validity of each field and the validity of the whole questionnaire. It measures the correlation coefficient between one field and all the fields of the questionnaire that have the same level of Likert scale. As shown in table 3, the significance values are less than 0.01, so the correlation coefficients of all the fields are significant at $\alpha = 0.01$, so it can be said that the fields are valid to be measured what it was set for to achieve the main aim of the study

Table 3: Structure Validity of the Questionnaire

No.	Section	Pearson coefficient	p-value
1	Section 2: Visitor Satisfaction Aspects	.809**	0.000
2	Section 3: Influence of Experience on Visitors' Return Rate	.729**	0.000
3	Section 4: Health and Safety	.768**	0.000

**Correlation is significant at the 0.01 level (2-tailed).

Reliability of the Research

Reliability of an instrument is the degree of consistency with which it measures the attribute it is supposed to be measuring. The test is repeated to the same sample of people on two occasions and then compares the scores obtained by computing a reliability coefficient. For most purposes, reliability coefficient above 0.70 are considered satisfactory. Period of two weeks to a month is recommended between two tests Due to complicated conditions that the consumer is facing at the time being, it was too difficult to ask them to responds to our questionnaire twice within short period. The statistician's explained that, overcoming the distribution of the questionnaire twice to measure the reliability can be achieved by using Kronpakh Alpha coefficient and Half Split Method through the SPSS software.

Half Split Method

This method depends on finding Pearson correlation coefficient between the means of odd rank questions and even rank questions of each field of the questionnaire. Then, correcting the Pearson correlation coefficients can be done by using Spearman Brown correlation

coefficient of correction. The corrected correlation coefficient (consistency coefficient) is computed according to the following equation (Eisinga et al., 2012):

$$\text{Consistency coefficient} = 2r/(r+1) \text{ (where } r \text{ is the Pearson correlation coefficient)}$$

The normal range of corrected correlation coefficient $2r/(r+1)$ is between 0.0 and + 1.0. As shown in Table 4 the reliability coefficient was calculated and ranged from (0.830 – 0.960), and the general reliability for all items equal 0.869. It can be said that according to the Half Split method, this reliability is considered high; the result ensures the reliability of the questionnaire

Table 4: Split-Half Coefficient Method

No.	Section	person- correlation	Spearman-Brown Coefficient
1	Section 2: Visitor Satisfaction Aspects	0.923	0.960
2	Section 3: Influence of Experience on Visitors' Return Rate	0.816	0.899
3	Section 4: Health and Safety	0.71	0.830
	All sections	0.768	0.869

Cronbach's Coefficient Alpha

This method is used to measure the reliability of the questionnaire between each field and the mean of the whole fields of the questionnaire. The normal range of Cronbach's coefficient alpha value between 0.0 and + 1.0, and the higher values reflects a higher degree of internal consistency (Ritter, 2010). As shown in Table 5 the Cronbach's coefficient alpha was calculated and ranged from (0.827 – 0.953). The general reliability for all items equal 0.923. This reliability is considered high; the result ensures the reliability of the questionnaire.

Table 5: Cronbach's Alpha for Reliability

No.	Section	No. of items	Cronbach's Alpha
1	Section 2: Visitor Satisfaction Aspects	8	0.953
2	Section 3: Influence of Experience on Visitors' Return Rate	6	0.836
3	Section 4: Health and Safety	8	0.827
	All sections	22	0.923

Statistical Analysis Tools

The researcher used in the data analysis both qualitative and quantitative data analysis methods. The data analysis was conducted using (SPSS 26). The researcher used the following statistical tools:

- 1) Pearson Correlation Coefficient for Validity and correlation between variables (Brains et al., 2011).
- 2) Cronbach's Alpha for Reliability Statistics (Ritter, 2010).
- 3) Frequency and Descriptive analysis as mean and standard deviation.
- 4) One sample t-test to test the difference between the mean of item and "3."

Pilot Test Results

A reliable questionnaire is critical in ensuring the consistency, accuracy, and dependability of research findings. Voellinger et al. (2010) define reliability as the extent to which a questionnaire generates consistent results over time. This paper aims to establish the reliability of the questionnaire by examining the internal consistency of the items and the consistency of the responses.

Data

The reliability of the questionnaire was tested using the data file "Reliability data.sav," which includes 30 responses. Some questions in sections 1 and 2 were answered twice by the same respondents but at two different times. This outcome is because they measured different constructs. Their reliability was evaluated using the test-retest method instead of the internal consistency method of Cronbach Alpha.

Demographic Data

One way to ensure the reliability of questionnaire responses is by employing the test-retest method. This technique involves administering the same set of questions to the same group of respondents at two different times and then comparing their responses to determine consistency. The test-retest method is particularly appropriate for demographic-related questions since these questions are unlikely to change over time, and the respondents' answers are expected to remain stable. Correlation analysis between the two sets of responses was used to determine the consistency of the responses statistically. A near-perfect positive correlation between the two responses indicates high consistency.

Correlation analysis using Statistical Packages for Social Sciences (SPSS) was used to examine the consistency of the responses. For instance, to examine the consistency of gender response, correlation analysis between the first set of responses (Gender) and the second set of responses (Gender 2) was conducted.

The procedure above demonstrates how to check for consistency in responses to the gender variable. The same procedure is applied to test the consistency of other demographic variables. The results of the correlations are presented in Table 6.

Table 6: Correlation Results for Section 1 questions

		Correlation with the Second Set of responses
Gender	Pearson Correlation	1.000**
Age	Pearson Correlation	1.000**
Marital	Pearson Correlation	1.000**
Education	Pearson Correlation	1.000**
Ticket rank	Pearson Correlation	1.000**
Riyadh	Pearson Correlation	1.000**

Source: SPSS Output

Table 6 presents the results of the correlation analysis conducted to test the consistency of responses to the demographic questions. The table shows that the correlation coefficients for all demographic variables, including gender, age, marital status, educational level, ticket rank, and Riyadh visits, are close to 1. This correlation indicates a high degree of consistency and reliability in the responses provided by the participants. Specifically, the perfect correlation coefficient of 1 indicates that the respondents provided the same answer to the demographic questions at both time points, indicating that the measurement is stable over time. The high reliability of the demographic variables suggests that they can be used confidently in subsequent analyses and that the results are likely to be valid.

Visitor Satisfaction Aspects

Section 2 of the questionnaire includes the first five questions that measure visitor satisfaction. However, these questions do not precisely measure a single construct and allow multiple choices. Therefore, to examine their reliability, the test-retest method, as demonstrated above, is used for questions 1, 2, and 5, while the Cronbach Alpha method is used for questions 3 and 4. Questions 4 and 5 measure the same satisfaction construct using a 5-point Likert scale

with satisfaction levels as scale anchors. Table 7 shows the correlation results, Table 8 presents the Cronbach Alpha reliability results, and Table 9 presents the item’s total statistics.

Table 7: Correlation Results for Section 2 Questions

Correlation with the Second Set of responses		
Objective when attending	Pearson Correlation	1.000**
What to look for	Pearson Correlation	1.000**
Visit Riyadh Again	Pearson Correlation	1.000**

Source: SPSS Output

Table 7 presents the correlation results for questions 1, 2, and 5 in section 2 of the questionnaire, indicating the correlation between the first and second sets of responses. The table reveals that all the questions exhibit a correlation coefficient of 1, demonstrating high consistency and reliability. Therefore, the test-retest method confirms that questions 1, 2, and 5 in section 2 are reliable for measuring visitor satisfaction.

Table 8: Cronbach Alpha Results

Cronbach’s Alpha	N of Items
0.911	2

Source: SPSS Output

Table 8 shows the results of Cronbach’s Alpha for questions 3 and 4 in section 2 of the questionnaire. A Cronbach’s Alpha value ranges between 0 and 1, with values closer to 1 indicating higher levels of internal consistency reliability. In this case, Cronbach’s Alpha value is 0.911, close to 1, indicating high internal consistency reliability for questions 3 and 4.

Table 9: Item Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach’s Alpha if Item Deleted
Satisfaction1	2.57	1.426	.838	.
Satisfaction2	2.37	1.275	.838	.

Source: SPSS Output

Table 9 tests the reliability of two items (Satisfaction1 and Satisfaction2) on a scale. The first column, “Scale Mean if Item Deleted,” shows the mean score of the scale if the particular item is deleted from it. The second column, “Scale Variance if Item Deleted,” shows the variance of the scale if the item is deleted. The third column, “Corrected Item-Total Correlation,” shows the correlation between each item and the total scale score after controlling for overlap. The fourth column, “Cronbach’s Alpha if Item Deleted,” shows the Cronbach’s alpha value of the scale if the item is deleted. In this case, both Satisfaction1 (question 3) and Satisfaction2 (question 4) have similar corrected item-total correlations, and if either of them is deleted, Cronbach’s alpha value will remain the same. In addition, section 2 further asks questions regarding how visitors rate the services. Eight items attempt to measure the same construct of service quality. These items are measured on a 5-point Likert Scale using adequacy levels as scale anchors. Therefore, in this case, Cronbach’s Alpha can be used to establish reliability. Table 10 shows the Cronbach Alpha test reliability results, and Table 11 shows the item total statistics.

Table 10: Cronbach Alpha Results

Cronbach’s Alpha	N of Items
0.577	8

Source: SPSS Output

Table 10 shows the results of Cronbach’s Alpha for how visitors rate service items in section 2 of the questionnaire. The Cronbach’s Alpha value of 0.577 is below the commonly accepted threshold of 0.7, indicating that the items are not highly correlated. This Alpha suggests that the items may be measuring different constructs or that there may be issues with the wording or response options. Further examination and refinement of the items are necessary to improve the internal consistency of this section of the questionnaire. Table 11 on items’ total statistics further examines each item.

Table 11: Item Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach’s Alpha if Item Deleted
SQ1 (Item 1)	22.20	25.269	.056	.622
SQ2 (Item 2)	21.97	24.171	.250	.554
SQ3 (Item 3)	22.00	20.621	.458	.483

SQ4 (Item 4)	21.67	20.437	.509	.467
SQ5 (Item 5)	21.87	20.947	.486	.478
SQ6 (Item 6)	21.80	19.959	.577	.445
SQ7 (Item 7)	22.40	25.834	.082	.601
SQ8 (Item 8)	22.27	26.892	-.030	.640

Source: SPSS Output

Table 11 presents the item-total statistics, and the most crucial column is Cronbach's Alpha value of the scale if the item is deleted. The results indicate that if the first, seventh, and eighth items are deleted, the Alpha will improve to 0.622, 0.601, and 0.604, respectively. After deleting these items, Cronbach's Alpha will increase to 0.763, suggesting that these items require further scrutiny and modification to improve the scale's reliability.

Visitors' Return Rate

The items in section 3 of the questionnaire measure one construct: willingness to return. These items are measured using a 5-point Likert scale with agreement levels as scale anchors. Therefore, the internal consistency of these items can be evaluated using Cronbach's Alpha. Table 12 displays the results of the Cronbach Alpha analysis, while Table 13 presents the item total statistics.

Table 12: Cronbach Alpha Results

Cronbach's Alpha	N of Items
0.893	6

Source: SPSS Output

Table 12 shows Cronbach's Alpha and the number of items for visitors' willingness to return questions. The value of Cronbach's Alpha is 0.893, and six items are in the set of questions. The Alpha indicates high internal consistency or reliability of the items in measuring the construct of return rate.

Table 13: Item Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Willingness1 (item 1)	17.00	26.483	.731	.872
Willingness2 (item 2)	16.73	29.099	.753	.878

Willingness3 (item 3)	17.33	24.989	.854	.853
Willingness4 (item 4)	16.87	22.326	.864	.849
Willingness5 (item 5)	18.13	27.913	.499	.908
Willingness6 (item 6)	17.27	24.547	.700	.879

Source: SPSS Output

Table 13 presents the item total statistics results, focusing on Cronbach’s Alpha if an item is deleted. The analysis indicates that the reliability of the section can only be improved by deleting or revising item number 5. Therefore, there is no need for further scrutiny of the items.

Health and Safety

The items in section 4 of the questionnaire measure one construct, namely health and safety. These items are measured using a 5-point Likert scale with agreement levels as scale anchors. Therefore, the internal consistency of these items can be evaluated using Cronbach’s Alpha. Table 14 displays the results of the Cronbach Alpha analysis, while Table 15 presents the item total statistics.

Table 14: Cronbach Alpha Results

Cronbach’s Alpha	N of Items
0.984	8

Source: SPSS Output

Table 14 shows Cronbach’s Alpha and the number of items for health and safety questions. The value of Cronbach’s Alpha is 0.984, and eight items are in the set of questions. The Alpha indicates the items’ high internal consistency or reliability in measuring health and safety.

Table 15: Item Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach’s Alpha if Item Deleted
HS1 (item1)	23.10	111.886	.892	.985
HS2 (item1)	23.53	102.189	.951	.980
HS3 (item1)	23.43	103.840	.931	.982
HS4 (item1)	23.47	98.809	.945	.981
HS5 (item1)	23.37	101.068	.948	.981

HS6 (item1)	23.47	98.533	.955	.980
HS7 (item1)	23.60	100.938	.941	.981
HS8 (item1)	23.63	98.792	.949	.981

Source: SPSS Output

Table 15 presents the item total statistics results. The analysis indicates that the reliability of the section can only be improved by deleting or revising item number 1. Therefore, there is no need for further scrutiny of the items.

Conclusion

The reliability analysis results indicate that the questionnaire items have generally high reliability, except for some items in section 2 that purport to measure service quality. These items do not exhibit high internal consistency and require further scrutiny. The items in section 3 measure a single construct and have high internal consistency. The reliability analysis provides important insights that can inform future questionnaire revisions.

4. Data Analysis and Discussion

Introduction

This section presents the findings from the data collected in relation to the research objectives. The section begins by analysis of demographic characteristics, then the descriptive characteristics. The results the engage in correlation analysis to test the hypotheses outlined in chapter 1.

Demographic Characteristics

Demographic analysis was performed to determine sample distribution in accordance to age group, marital status and education level.

Age Distribution

Majority of the respondents were between the age of 25-35 years (39.7%). Those who were between 18-25 years were 30.1% and those who were within the age group of 35-45 years were 20.5%. participants who were above 45 years represented 6.3% of the sample size while those who were under 18 years represented 3.5%.

Distribution by Gender

56.87% of the sample were males while 46.13% of the sample were female.

Distribution by Marital Status

55.17% of the sample were married, 36.90% were single while 7.93% were divorced.

Distribution by Education Level

39.11% of the sample had reached university level of education. 21.22% reached high school level, 21.22% had reached college level, 10.89% had reached masters degree level. The result also showed that 5.90% had reached middle school, 0.92 had reached PhD level and 0.74% had reached elementary level of education.

Service quality and Visitor Satisfaction Aspects

Attendance of Riyadh Seasons

87.3% of the sample indicated that they had attended Riyadh season while only 12.7% had not attended Riyadh season. Of the 87.3% who had attended Riyadh season, 55% used standard tickets while 33.9% used premium tickets. Only 11.1% used VIP tickets.

Satisfaction with Riyadh

Participants were asked to indicate the level at which they were satisfied with the Riyadh season. In accordance to service provision, 51.1% were satisfied while 19.2% were very satisfied. 26.8% were neutral. The result further showed that 1.8% were not satisfied and another 1.1% indicated that they were very upset with the service provision.

Additionally, the results showed that 37.3% were satisfied with the ticket cost and another 10.9% indicated that they were very satisfied with the ticket cost. 35.2% were neutral about the ticket cost. However, 0.9% were dissatisfied with the ticket cost, 12.2% were not satisfied with the same. Similarly, 0.2% were very dissatisfied and 3.3% were very upset with the ticket cost.

The result also indicated that majority of the participants (83.8%) would visit Riyadh season again. While 16.2% indicated that, they would not visit Riyadh season again.

Descriptive statistics on Riyadh Services and Ticket Cost

Participants were asked to rate the level at which they would describe different Riyadh services. Participants were presented with statements unto which they were to rate how they describe service provision and ticket cost in venues they visited during the Riyadh season. The findings are shown in the preceding subsections.

Access to services

Participants were asked to rate statements in accordance to the level at which they described services in the venue they visited. The findings is shown in table 16 below.

Table 16: Access to Services

Variable	Adequate	Enough	Excellent	Good	Reasonable	Not Enough
	%	%	%	%	%	%
Ease of identifying and reaching the event venue	0.6	40.6	10.5	14.4	22.5	11.4
Ease of access and navigation within the venue (disabled access and signage)	0.7	19.6	9.6	20.7	34.7	14.8
Knowledge of foreign language by staff members	0.7	27.9	9.8	20.3	30.6	10.7
Behavior and courtesy, availability of staff members	0.4	33.2	15.1	19.4	24.7	7.2
Competency of staff members	0.4	28.4	13.3	18.6	32.8	6.5
Staff members' ability to understand and provide customized and personalized services	0.4	26.6	13.3	17.7	35.6	6.5
The cleanliness of the sites	0.6	25.1	14.4	17.5	34.5	7.9
Food court's accessibility	0.7	23.4	14	20.5	36.9	4.4

Return Intention

Participants were asked to rate the level at which they agree or disagree with statements related to whether they are willing to attend the Riyadh venue again. The findings are shown in table 17 below.

Table 17: Return intentions

Variable	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	%	%	%	%	%
I will attend the event again if the number of attendees is reduced to manageable levels	8.9	22.9	29.3	28.2	10.7
I will attend the event again if the security personnel are empowered to screen attendees for contraband and deny entry to disruptive people	15.7	24.9	41	11.1	7.4
will attend the event again if there is an adequate deployment of security personnel	12.9	25.8	29	14	18.3
I will return for a similar event if the organizers adhere to health and safety protocols	14.6	22.1	33.9	20.5	8.9
I will return to an event if I receive a memorable experience and value for my money	17.2	24.9	28.2	19.7	10
I will attend the event again if organizers install appropriate signage, such as exit routes, and make adequate first aid and emergency arrangements	15.5	24.5	32.7	18.5	8.9

Health and safety on visitor's experience and satisfaction

Analysis was performed to rate the level at which participants agreed with health and safety preferences as indicated in the statements. The findings are shown in table 18 below.

Table 18: Health and safety on Visitors' experience and satisfaction

Variable	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	%	%	%	%	%
I am happy to attend events with meticulous emergency plans, proper public health protocols, turnstiles, and enough security personnel	15.7	29.5	19.4	25.5	10
I prefer events with onsite emergency responses, including fire extinguishers, alarm systems, and standby ambulances	17.2	29.9	27.9	14.2	10.9
I feel satisfied when organizers separate the spectators who can potentially clash using clear demarcations	15.3	26.6	26.2	19.2	12.7
I feel reassured when the event manager confirms that the event has insurance coverage to take care of any arising health risks	16.6	26.2	28.8	20.8	7.6
I will consider attending an event for which I have seen effective safety awareness campaigns and proper crowd management to prevent falling and being trampled upon	15.9	23.8	28.2	22.1	10
I am happy to attend an event for which a risk assessment has been conducted using a health and safety checklist to identify COVID-19, weather, fire, equipment, and other hazards	15.5	23.6	26.9	22.7	11.3
The best tourism event is family-friendly since I care about children's safety	15.7	25.3	32.3	20.7	6.1

I will only eat food at an event if I am assured that the catering company did due diligence to observe hygiene, handle allergies, and prevent foodborne illnesses	17.3	21.8	34.1	19	7.7
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Correlation Analysis

A correlation analysis was performed to understand the strength and direction of relationship between experience in service provision, ticket cost and customer satisfaction. The correlation analysis further sought to understand the association between ticketing and service provision with visitor’s likelihood of returning to Riyadh season.

Service Quality and Visitor’s Satisfaction

A correlation analysis was performed to determine the association between service management and visitors’ satisfaction. The findings are shown in the table 19 below.

5. Discussion

The results from analysis performed shed light on the quality of crowd management and its impact on experience of event visitors in Riyadh season. Data was collected from the Riyadh season visitors and as such the sample characteristics provided a highlight on the demographic characteristics of the visitors. In this case, the results indicated that majority of the visitors are within the age range of 18 – 35. Notably, the results showed that older people especially those who were 45 years and above had minimal attendance of Riyadh season events. It was deduced that people within the age range of 18 – 35 are more likely to socialize, explore and connect with others. Consequently, according to Gorbato and Chuvatkin (2020), they are more likely to attend events and visit attraction sites. Notably, as people grow older, their level of socialization gradually slows and the need to explore diminishes. This explains why older people, especially those who were 45 years and older had minimal attendance of Riyadh events. There was no significant gender difference among visitor of Riyadh events. The percentage of male population and female population was closely equal. In this case, the study deduced that attendance of Riyadh events is attractive to all despite gender. Besides, majority of the visitors were found to be married couples compared to those who were divorced or single. This shows that Riyadh events are more attractive to families than just individuals.

This explains why very few visitors of the event were divorced people. Besides, the proportion of single visitors was not close to those who were married.

The study further revealed that among those who visited Riyadh events, majority were at university level of education followed by college level of education. Very few visitors had completed their PhD level of education. The results from the education level confirms the findings that majority of visitors were within the age range of 18 – 35. At this age level, most individuals are at their university or college level of education. Accordingly, they love to explore, socialize and visit new places during their free time as indicated by (Latosińska & Ludwicka, 2010). Besides, individuals who are at their college or university level of education consider socialization and exploration important in their development and learning process. This explains why most visitors of Riyadh events were within college or university level of education. From the demographic analysis, it was thus clear that majority of Riyadh visitors are people within the age range of 18-35, were married and had college or university level of education. Notably, few visitors were 45 years and above. It was also noted that most visitors of Riyadh events paid for the standard ticket than premium or VIP tickets. Besides, the results revealed that more than half of the visitors paid for the standard tickets. Additionally, the result showed that very few visitors paid for the VIP tickets. Not even one eighth of the interviewed visitors paid for the VIP ticket. However, more than a quarter of the visitors had paid for the premium tickets. The results therefore indicate that majority of visitors preferred standard tickets and premium tickets than the VIP tickets.

Satisfaction to Riyadh events was analyzed in accordance to the quality of services as well as ticket costs. In essence, the study sought to understand the level at which visitors were contented with the quality of services provided as well as the cost of ticketing. The result showed that more than half of the visitors were satisfied with the quality of services provided at Riyadh events than those who were not satisfied. Slightly less than a quarter of the sampled population remained neutral about the quality of services provided at Riyadh events and those who were not satisfied were significantly low. Despite majority of the visitors being satisfied with the quality of services, those who remained neutral about the matter need to be treated as significant. In this case, event managers need to tighten quality of the services to ensure that the diverse needs of visitors are met. The result further showed that most visitors were satisfied with the quality of ticketing provided in Riyadh events than those who were not satisfied.

However, a significant proportion of visitors remained neutral on whether they were satisfied with the cost of ticketing or not. Besides, the proportion of those who remained neutral and those who were satisfied with the cost of were very close. The result thus explains a significant level of uncertainty on the satisfaction with ticketing costs at Riyadh events. Notably, the uncertainty with the ticketing cost could be further explained when majority of visitors go for the standard tickets than the VIP or premium tickets. It is therefore imperative for the event managers to seek further clarification on why most visitors feel uncertain about the quality of ticketing as well as why most visitors prefer standard ticketing. Despite the uncertainty of the ticketing cost, more than three quarters of the visitors indicated that they will visit Riyadh events again. The high likelihood of visiting the events can be explained by the satisfaction of service quality provided at the events.

Analysis was performed to determine service domain under which they felt were satisfactory as well as those that were unsatisfactory. A frequency analysis was performed to understand proportion of visitors that felt service quality was adequate or not enough. The results showed that ease of identifying and reaching the event venue as well as behavior and curtesy of staff members was adequate and satisfactory. However, ease of navigating within the venue, accessibility of food courts, cleanliness of the sites and staff's ability to understand and provide customized and personalized services were just reasonable. Additionally, knowledge of foreign language among staff members were also reasonable. The findings indicate that staff competence level was not adequate enough but only reasonable to provide services to customers (see table 16).

5.1. Discussion of Hypotheses

To test the hypotheses formulated in chapter one of the study, a correlation analysis was performed to determine the association between service quality and visitors' satisfaction, visitors' experience and return intentions as well as health and safety practices and visitors' satisfaction. The hypotheses tested included;

- Ha1.** Crowd management and service quality significantly affect visitors' satisfaction in Riyadh Season.
- Ha2.** Visitors' experience at the Riyadh Season significantly affects their return intentions.
- Ha3.** Health and safety practices adopted at the Riyadh Season significantly affect visitors' experience and satisfaction.

Service Quality and Visitors' Satisfaction.

Visitors satisfaction was measured using eight components (see table 19). Each component was measured in a Likert scale of 1 – 6 where 6 was the highest score and 1 is the lowest score. The lowest score indicated dissatisfaction and the highest score indicated high satisfaction. The results showed a weak positive relationship between ease of identifying and reaching the event venue and visitors' satisfaction ($\rho = 0.033$). However, the relationship was insignificant ($P > 0.05$). This shows that ease of identifying and reaching the venue had insignificant impact on visitors' satisfaction. Additionally, the result showed a significant strong positive relationship between access and navigating within the venue and visitors' satisfaction ($\rho = 0.171$). The relationship was found to be significant at 95% confidence level ($P < 0.05$). It was therefore deduced that access and navigation within the venue significantly impacted visitors' satisfaction with the event.

There was a significantly strong positive relationship between knowledge of foreign language and customer satisfaction ($\rho = 0.108$, $P < 0.05$). This shows that staff's knowledge of foreign language significantly impacted customer satisfaction at the Riyadh events.

The result also found an insignificantly weak positive relationship between staff behavior and curtesy and visitors' satisfaction ($\rho = 0.0082$, $P < 0.05$). The insignificant weak relationship shows that staff curtesy and behavior had insignificant impact on visitors' satisfaction of the events. The study further noted a significantly strong positive relationship between staff competency and visitors' satisfaction ($\rho = 0.159$, $P < 0.05$). The results indicate that staff competency significantly impact visitors' satisfaction at Riyadh events.

There was a strong significant positive relationship between staff ability to provide customized and personalized services with visitors' satisfaction ($\rho = 0.170$, $P < 0.05$). The result indicates that staff ability to provide customized and personalized services significantly impacted visitors' satisfaction. There was a significant strong positive relationship between cleanliness of the sites and visitors' satisfaction ($\rho = 0.156$, $P < 0.05$). This shows that cleanliness of the sites significantly impacted visitors' satisfaction at the events.

Finally, the result showed a significant strong positive relationship between food courts accessibility and visitors' satisfaction ($\rho = 0.129$, $P < 0.05$). This indicates that accessibility to food courts significantly influenced visitors' satisfaction at the events.

Out of the eight components of service provision that were analyzed, only two had insignificant impact on visitors' satisfaction with the events. In this case, it was deduced that service quality significantly impacted customer satisfaction during Riyadh events. However, the management should give limited focus on staff curtesy and ease of identifying and reaching the events since they had limited impact on visitors' satisfaction.

Experience and Return Intentions

A correlation analysis was performed to determine the association between visitors' experience at the events and return intentions. Six factors associated with customer experience was measured on a Likert scale of 1 – 5 where 1 was the lowest score and 5 was the highest score. The result showed a strong positive relationship between all the six factors and return intentions among the visitors ($P < 0.05$) (see table 20). This shows that the following factors significantly increase visitors return intentions to Riyadh events.

1. Number of attendees are reduced to manageable level
2. Security personnel are empowered to screen attendees
3. Adequate deployment of security personnel
4. Organizers adhere to health and safety protocols
5. Visitors receive a memorable experience and value for my money
6. Organizers install appropriate signage.

In short, it was found that visitors' experience at Riyadh season events positively influence their return intentions

Health and Safety on Visitors Experience and Satisfaction

Health and safety at Riyadh events are an important consideration to visitors. In this case, it was important to understand how adoption of health and safety measures affect visitors experience and satisfaction. Seven factors were used to measure health and safety preferences to visitors and understand the level at which they affect their experience and satisfaction at Riyadh season events. Similarly, the result showed a significant strong positive relationship between the seven factors of measurement and visitors' experience and satisfaction at the events ($P < 0.05$) (see table 21). This means that the following health and safety preferences enhance visitors' satisfaction and experience at the events.

1. Events with meticulous emergency plans, proper public health protocols, turnstiles, and enough security personnel

2. Events with onsite emergency responses
3. Events where organizers separate the spectators who can potentially clash using clear demarcations.
4. Events where there is insurance coverage.
5. Events with effective safety awareness.
6. Events with events with risk assessment plans.
7. Events that are family-friendly.
8. Events where food catering has done due diligence to observe hygiene

In this case, it was evident that health and safety practices adopted at Riyadh season events significantly enhance visitors' experience and satisfaction.

6. Conclusion

This section presented results and findings from the data collected. It was realized that service quality was important in enhancing visitors' satisfaction with Riyadh season events. Similarly, visitors were more likely to return to the events if they had better experience of the events. Notably the analysis indicated that adequate health and safety measures improved visitor's experience and satisfaction with the Riyadh season events. However, the result showed visitors' uncertainty with the ticket costing approaches. Most participants preferred the standard tickets that the premium and VIP tickets. It is important for the event management to consider their ticket costing approaches,

7. References

- Adinegara, G. N., Suprapti, N. W., Yasa, N. N., & Sukaatmadja, I. P. (2017). Factors that influences tourist's satisfaction and its consequences. *European Journal of Business and Management*, 9(8), 39-50.
- Al-Khaldy, D. A., Hassan, T. H., Abdou, A. H., Abdelmoaty, M. A., & Salem, A. E. (2022). The effects of social networking services on tourists' intention to visit mega-events during the Riyadh Season: A theory of planned behavior model. *Sustainability*, 14(21), 1-13. <https://doi.org/10.3390/su142114481>
- Barrionuevo, A. (2022, July 22). *Resilient in pandemic, Tomorrowland roars back to live action in Belgium*. Billboard. <https://www.billboard.com/pro/tomorrowland-2022-review-belgium-dance-festival/>

- Brains, C. L., Willnat, L., Manheim, J. B., & Rich, R. C. (2011). *Empirical Political Analysis* (8th ed.). Longman.
- Carlos Castro, J., Quisimalin, M., De Pablos, C., Gancino, V., & Jerez, J. (2017). Tourism marketing: Measuring tourist satisfaction. *Journal of Service Science and Management*, 10(03), 280-308. <https://doi.org/10.4236/jssm.2017.103023>
- Chen, X., Cheng, Z. F., & Kim, G. B. (2020). Make it memorable: Tourism experience, fun, recommendation, and revisit intentions of outbound Chinese tourists. *Sustainability*, 12(5), 1904. <https://doi.org/10.3390/su12051904>
- Cheng, Y., Hu, F., Wang, J., Wang, G., Innes, J. L., Xie, Y., & Wang, G. (2022). Visitor satisfaction and behavioral intentions in nature-based tourism during the COVID-19 pandemic: A case study from Zhangjiajie National Forest Park, China. *International Journal of Geoheritage and Parks*, 10(1), 143-159. <https://doi.org/10.1016/j.ijgeop.2022.03.001>
- Daye, A. S. (2019). Rising tourism in Saudi Arabia: Implications for real estate investment. *Cornell Real Estate Review*, 17, 98-105.
- Durán-Polanco, L., & Siller, M. (2021). Crowd management COVID-19. *Annual Reviews in Control*, 52, 465-478. <https://doi.org/10.1016/j.arcontrol.2021.04.006>
- Eisinga, R., Te Grotenhuis, M., & Pelzer, B. (2012). The reliability of a two-item scale: Pearson, Cronbach or Spearman-Brown? *International Journal of Public Health* 58(4) 637–642.
- Feliciani, C., Shimura, K., & Nishinari, K. (2022). Planning of mass gatherings and large events. In *Introduction to crowd management: Managing crowds in the digital era: Theory and practice* (pp. 237-259). Springer International Publishing. https://doi.org/10.1007/978-3-030-90012-0_8
- Gong, V. X., Daamen, W., Bozzon, A., & Hoogendoorn, S. P. (2020). Crowd characterization for crowd management using social media data in city events. *Travel Behavior and Society*, 20, 192-212. <https://doi.org/10.1016/j.tbs.2020.03.011>
- Jago, L., Dwyer, L., Lipman, G., Van Lill, D., & Vorster, S. (2010). Optimizing the potential of mega-events: An overview. *International Journal of Event and Festival Management*, 1(3), 220-237. <https://doi.org/10.1108/17852951011078023>

- Jin, X. C., Qu, M., & Bao, J. (2019). Impact of crisis events on Chinese outbound tourist flow: A framework for post-events growth. *Tourism Management*, 74, 334-344.
<https://doi.org/10.1016/j.tourman.2019.04.011>
- Kanaujiya, A. K., & Tiwari, V. (2022). Crowd management and strategies for security and surveillance during the large mass gathering events: The Prayagraj Kumbh Mela 2019 experience. *National Academy Science Letters*, 45(3), 263-273.
<https://doi.org/10.1007/s40009-022-01114-w>
- Kramer, G. P., Douglas, A., Bernstein, & Phares, V. (2009). *Introduction to clinical psychology* (7th ed.). Pearson Prentice Hall.
- La Macchia, S. T. & Winnifred, R. L. (2016). Crowd behavior and collective action. In S. McKeown, R. Haji, & N. Ferguson (eds) *Understanding peace and conflict through social identity theory: Contemporary global perspectives* (p. 89–104). Springer.
- Lei, Z., Duan, H., Zhang, L., Ergu, D., & Liu, F. (2022). The main influencing factors of customer satisfaction and loyalty in city express delivery. *Frontiers in Psychology*, 13, 1-9. <https://doi.org/10.3389/fpsyg.2022.1044032>
- Manangiuli, L., Sinulingga, S., & Sibarani, R. (2019). The influence of tourism product components and promotions on tourist destination image and the impact on revisit intentions to Lake Toba Area, North Sumatra. *Saudi Journal of Business and Management Studies*, 4(5), 472-480. <https://doi.org/10.36348/sjbms.2019.v04i05.011>
- Martella, C., Li, J., Conrado, C., & Vermeeren, A. (2017). On current crowd management practices and the need for increased situation awareness, prediction, and intervention. *Safety Science*, 91, 381-393. <https://doi.org/10.1016/j.ssci.2016.09.006>
- Moussaïd, M., Helbing, D., & Theraulaz, G. (2011). How simple rules determine pedestrian behavior and crowd disasters. *Proceedings of the National Academy of Sciences*, 108(17), 6884-6888. <https://doi.org/10.1073/pnas.1016507108>
- Munar, A. M., & Jacobsen, J. K. (2014). Motivations for sharing tourism experiences through social media. *Tourism Management*, 43, 46-54.
<https://doi.org/10.1016/j.tourman.2014.01.012>
- Nguyen Viet, B., Dang, H. P., & Nguyen, H. H. (2020). Revisit intention and satisfaction: The role of destination image, perceived risk, and cultural contact. *Cogent Business & Management*, 7(1), 1-20. <https://doi.org/10.1080/23311975.2020.1796249>

- Park, J. Y., Bufquin, D., & Back, R. M. (2019). When do they become satiated? An examination of the relationships among winery tourists' satisfaction, repeat visits, and revisit intentions. *Journal of Destination Marketing & Management*, 11, 231-239.
<https://doi.org/10.1016/j.jdmm.2018.04.004>
- Pozzebon, S. (2022, June 27). *At least 4 dead, hundreds injured after collapse at stadium in Colombia*. CNN. <https://edition.cnn.com/2022/06/26/americas/colombia-stadium-collapse/index.html>
- Ritter, N. (2010). Understanding a widely misunderstood statistic: Cronbach's alpha. Paper presented at Southwestern Educational Research Association (SERA) Conference 2010, New Orleans, LA.
- Showkat, S., Mehraj, D., & Qureshi, R. A. (2021). Analyzing the effect of tourist satisfaction on tourist revisit intentions. *UGC Care Journal*, 44(1), 41-49.
- Sukiman, M. F., Omar, S. I., Muhibudin, M., Yussof, I., & Mohamed, B. (2013). Tourist satisfaction as the key to destination survival in Pahang. *Procedia - Social and Behavioral Sciences*, 91, 78-87. <https://doi.org/10.1016/j.sbspro.2013.08.404>
- Thonhauser, G. (2022). A critique of the crowd psychological heritage in early sociology, classic phenomenology and recent social psychology. *Continental Philosophy Review*, 1-19.
<https://doi.org/10.1007/s11007-022-09566-z>
- Toneva, P. I. (2022). Health, safety, and security as a part of events management. In S. Živković, B. Krstić, & T. Rađenović (eds) *Handbook of research on key dimensions of occupational safety and health protection management* (pp. 302-322). IGI Global.
- Voellinger, R., Taffé, P., Cornuz, J., Durieux, P., & Burnand, B. (2010). Discriminant validity and test-retest reliability of a self-administered Internet-based questionnaire testing doctors' knowledge in evidence-based medicine. *Journal of Evaluation in Clinical Practice*, 17(3), 471-477. <https://doi.org/10.1111/j.1365-2753.2010.01451.x>
- Wee, S., & Suhartono, M. (2022, October 3). *Fans fled as police fired tear gas, causing deadly rush for exits*. The New York Times.
<https://www.nytimes.com/live/2022/10/02/world/indonesia-soccer-football-stadium>
- Yeginsu, C. (2022, June 15). *Hold onto your hats (and bags)*. *Travelers to Europe face chaos*. The New York Times. <https://www.nytimes.com/2022/06/14/travel/travel-europe-tips-summer.html>

Zhang, M., Yao, Y., & Xie, K. (2017). Prediction and diversion mechanisms for crowd management based on risk rating. *Engineering*, 9(5), 377-387.

<https://doi.org/10.4236/eng.2017.95021>

Živković, S., Krstić, B., & Radenović, T. (2022). Health, safety, and security as a part of events management. In *Handbook of research on key dimensions of occupational safety and health protection management* (pp. 302-322). IGI Global.

Gorbatov, S., & Chuvatkin, P. (2020). The Research Of Youth Travel Preferences. *European Proceedings of Social and Behavioural Sciences*.

Latosińska, J., & Ludwicka, D. (2010). Tourism activity among university students: a survey from Universities in Łódź.

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