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**ASSESSING THE IMPACTS OF COVID-19 ON MEGA  
SPORTING EVENTS: A CASE OF THE 2022 FIFA WORLD CUP  
IN QATAR**

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### Abstract

**Purpose:** The study sought to assess the impacts of covid-19 to the sporting industry, focusing on mega sporting events, a case of the 2022 FIFA World Cup in Qatar. The research focused on analysing the different stakeholders involved in these sporting events.

**Methodology:** The research adopted a cross-sectional research study with a sample size of 60 respondents, including FIFA and government officials, officials in the professional sports ecosystem, such as the players, broadcasters, owners of sports businesses, and fans. The study used both purposive and random sampling techniques to sample respondents from different categories. Insofar as data on health impacts of Covid-19 were concerned, the researcher adopted purposive sampling to select a few athletes and physicians from the pilot study. Also, the researcher purposively sampled FIFA and government officials to provide data on the economic and financial implications of Covid-19. However, respondents insofar as data on the social effects of Covid-19 was concerned were randomly sampled from individuals within Qatari population who were considered football fans. Data were collected by the use of online questionnaires sent to the respondents electronically. The data obtained was categorised in the form of economic impacts, social impacts, financial impacts, and health impacts of covid-19. The quantitative data collected was analysed through the comprehensive quantitative analysis and descriptive statistics by use of frequencies and percentages. The sample data was also subjected through a Chi-square test of significance. Posteriori tests were also conducted where necessary, with Bonferroni adjustments. The findings of the study were presented using tables and charts.

**Findings:** The research found out significant economic, social, financial, and health impacts of Covid-19 on mega sporting events. Regarding financial impacts, the results indicated that Covid-19 has adversely affected financial planning as well as budgeting of mega sporting events. Regarding the economic impacts, the findings revealed that Covid-19 has caused high unemployment for people working within the sporting ecosystem as well as players, leading to adverse effects of their living standards due to high cost of living. Also, the study found that most people feared attending the 2022 FWC due to Covid-19 as well as interaction with tourists from countries highly infected with Covid-19., thus undermining social interactions. Moreover, the findings on the health impacts were also significant, with most respondents agreeing that they were at risk of exposure to Covid-19 and also that athletes' physical and mental health was affected due to the uncertainty in the sports industry.

**Unique contribution to theory, practice and policy:** The study recommended that FIFA and governments should find measures to handle future pandemics to ensure the adverse impacts found out in this study are managed towards enhancing the resilience for mega sporting events during pandemics.

**Keywords:** *Covid-19, Mega Sporting Events, 2022 FIFA World Cup, Social Impacts, Financial and Economic Impacts, Health Impacts.*

## 1.0 INTRODUCTION

### Background and context of the research

The outbreak of Covid-19 took the world by surprise when the news broke out. The pandemic spread all over the world quicker than expected. This left most host cities unprepared for it and facing various consequences for both the ongoing and upcoming mega sporting events. The existence of the Covid-19 pandemic has left many host cities confused and struggling to handle many scheduled mega sporting events. This can be seen by the number of mega sporting events that have been cancelled since the Covid-19 pandemic<sup>1</sup>. The Tokyo Olympics was one of the events that took a significant hit and were postponed to 2021. The fear that the 2022 FIFA World Cup in Qatar could be delayed or postponed as well due to the pandemic is also looming. Reports have been documented and released in news media showing that it's only a matter of waiting to see how the Covid-19 outbreak will promote policy responses from organising bodies and organisations such as FIFA<sup>2</sup>. For instance, the South American FIFA World cup qualifiers were postponed by FIFA<sup>3</sup>. There have also been cases of workers infected with Covid-19 reported in the construction sites in one of the stadiums. However, constructions haven't been halted,<sup>4</sup> Thus putting the lives of the construction workers at risk each day. These conditions have caused

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<sup>1</sup>. "How The Coronavirus Is Affecting Sports Leagues And Events". 2020. *Los Angeles Times*. <https://www.latimes.com/sports/story/2020-03-09/coronavirus-latest-news-sports-world>.

<sup>2</sup>. "Coronavirus Could Majorly Impact 2022 Qatar World Cup: UEFA Official - Republic World". 2020. *Republic World*. <https://www.republicworld.com/sports-news/football-news/coronavirus-could-affect-2022-qatar-world-cup-uefa-football-news.html>.

<sup>3</sup>. "FIFA World Cup 2022™ - News - South American FIFA World Cup Qualifiers to Begin in October - FIFA.Com". 2020. *Www.Fifa.Com*. <https://www.fifa.com/worldcup/news/south-american-fifa-world-cup-qualifiers-to-begin-in-october#:~:text=Following%20consultation%20with%20the%20South,to%20start%20in%20October%202020>.

<sup>4</sup>. Post, The. 2020. "Global Airlines Less Hopeful on COVID-19 Recovery". *The Jakarta Post*. <https://www.thejakartapost.com/news/2020/07/29/global-airlines-less-hopeful-on-covid-19-recovery.html>.

concern by various non-governmental organisations and groups, such as the Business and human rights resource centre who researched the Covid-19 measures on these sites<sup>5</sup>.

Besides, the pandemic has also caused strains on the workers' finances, in addition to their meagre pay, as the strain of buying protective gear has been left to them by the construction companies<sup>6</sup>. Their jobs are also at risk in the case that the construction sites are closed with the increased spread of the virus. There is also concern about the public's support for mega sporting events in the future due to the pandemic. Research conducted by the BCW has suggested that fans are uncertain about their attendance and active support for mega sporting events. This could also affect the level of engagement of the fans in the 2022 FWC in Qatar. The survey also suggests that 78% of host cities agreed to suffer financial loss due to the cancellation of sporting events. Therefore, host cities have been pushed by this pandemic to focus more on social developments of mega sporting events. They are also rethinking methods of increasing support before mega sporting events by coming up with new sporting activities. With this, the belief is that mega sporting events will help overcome this crisis<sup>7</sup>. Qatar has also faced pressure to increase the environmental measures to create an eco-friendly world cup due to the Covid-19 pandemic. This, therefore, mean changes have to be put in place to enhance the safety standards that will subsequently enhance handling the spread of the Covid-19 in line of the 2022 FWC<sup>8</sup>. Covid-19, therefore, is deemed to have caused various impacts economically, socially, financially, and health-wise. Mega sporting events have also been known to be large and very public; this creates a considerable risk of transmission of the virus in the host cities.

### **Research Rationale**

With the many cancellations and postponements of mega sporting events due to Covid-19, it is only wanting that this pandemic is curbed before more damage is done. However, this cannot be done without first assessing the impacts that have occurred since it began. This, therefore, provided a basis for the analysis of impacts of Covid-19's on mega sporting events and their surrounding nature, to provide evidence-based recommendations for the successful hosting of

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<sup>5</sup>. "Press Release: COVID-19: Deep Concern for Construction Workers in Qatar & UAE after Firms Quizzed On Virus Response | Business & Human Rights Resource Centre". 2020. Business-Humanrights.Org. <https://www.business-humanrights.org/en/press-release-covid-19-deep-concern-for-construction-workers-in-qatar-uae-after-firms-quizzed-on-virus-response>.

<sup>6</sup>. Ibid, 5.

<sup>7</sup>. "The Host Cities' Perspective: The Impact Of COVID-19 On Sporting Events | WPP". 2020. Wpp.Com. <https://www.wpp.com/wpp-iq/the-host-cities-perspective---the-impact-of-covid-19-on-sporting-events>.

<sup>8</sup>. "Qatar: 'Climate Change Issue Demands COVID-19 Like Measures'". 2020. Aa.Com.Tr. <https://www.aa.com.tr/en/environment/qatar-climate-change-issue-demands-covid-19-like-measures-/1809519>.

these events, despite the existence of the pandemic. Mega sporting events have proven to be essential to the economies of host cities over the years<sup>9</sup>. The outbreak of the Covid-19 has, however, been a disruption to these economic, social, and financial benefits. Therefore, this study sought to assess the impacts of covid-19 to allow for the mitigation of the financial, social, and health challenges caused by the pandemic.

### **The aims and objectives of the research**

The study aimed to assess the impacts of Covid-19 on mega sporting events with the case study being the 2022 FWC in Qatar. The following objectives guided the researcher in achieving the aim of the study:

- To identify the financial, economic, social, and health impacts of Covid-19 on the 2022 FWC.
- Find out whether the impacts are significant.
- To establish recommendations to handle the impacts of pandemics on future mega sporting events.

## **2.0 LITERATURE REVIEW**

### **Theoretical framework**

The complexity of the novel coronavirus has proven to generate various theories to try and explain its impacts. Research by Faies Jafar<sup>10</sup>, suggests that the Complexity theory can be used to explain the political impacts of Covid-19 on the world. The study suggests that Covid-19's diffusion in the world takes the shape of the butterfly effect<sup>11</sup>. With this effect, it can establish changes in its impacts on various systems in the world. According to this research, the complexity theory incorporates other theories such as chaos theory. The chaos theory can be used to explain systems that change from their initial conditions each time its cycle of feedback ends, in this case, Covid-19. The chaos system deals with systems that are hard to predict and occur randomly. Both theories have been used in this research to explain the covid-19 pandemic since it occurred randomly, and it is complex. The concept of destination imagery<sup>12</sup> has also been used to explain the impact of Covid-19 on tourism impacts of mega sporting events, thus affecting the economy. The concepts explain how individuals' cognitive associations affect their

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<sup>9</sup> Tien, Chengli, Huai-Chun Lo, and Hsiou-Wei Lin. "The Economic Benefits of Mega Events: A Myth or a Reality? A Longitudinal Study on the Olympic Games", *Journal of Sport Management* 25, 1: 11-23, accessed Aug 6, 2020, <https://doi.org/10.1123/jsm.25.1.11>

<sup>10</sup>. Faies Jafar, "Applying Complexity Theory to the Coronavirus Crisis". 2020. *E-International Relations*. <https://www.e-ir.info/2020/04/18/applying-complexity-theory-to-the-coronavirus-crisis/>.

<sup>11</sup>. Lorenz, Edward. "The butterfly effect." *World Scientific Series on Nonlinear Science Series A* 39 (2000): 91-94.

<sup>12</sup>. Kock, Florian, Alexander Josiassen, and A. George Assaf. "Advancing destination image: The destination content model." *Annals of Tourism Research* 61 (2016): 28-44.



perception of a destination. Host cities are a victim of this as they have the crowding effect<sup>13</sup> and are subject to visits by tourists. Therefore, they are subject to image changes as a result of the Covid-19 pandemic.

### Conceptual framework

Miles and Shipway developed a framework for understanding international sporting events resilience to disasters<sup>14</sup>. The framework entailed the management of international sporting events and their venues. That to assess and mitigate against the impacts of disasters, the international sporting venues (ISVs) should be taken as critical infrastructure for resilience management of sporting events.



**Figure 1: Framework for understanding the impact of Covid-19 on sporting events<sup>15</sup>**

Fundamentally, the framework incorporates eight thematic areas, as seen in figure 1 above, to understand disaster management of international sporting events. The themes cover the resilience impacts of international sporting events and venues as well as different human behaviour during and post-disaster or crisis. The framework was used in this research through the analysis of human behaviour, i.e. those in the sports ecosystems as well as government and policymakers, on how Covid-19 has impacted their lives. It was also used to provide recommendations for disaster management with the wake of the Covid-19 pandemic.

### Impacts of Covid-19 on mega sporting events

Various impacts have been recorded by different research articles since the outbreak of Covid-19. The virus has since caused a great overhaul in the sporting events industry. A host city

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<sup>13</sup>. Tarlow, Peter. *Sports travel security*. Butterworth-Heinemann, 2017.

<sup>14</sup>. Miles, Lee, and Richard Shipway. "Exploring the COVID-19 pandemic as a catalyst for stimulating future research agendas for managing crises and disasters at international sport events." *Event Management* 24, no. 4 (2020): 537-552.

<sup>15</sup>. Ibid, 10.

survey of the impacts of Covid-19 by BCW sports<sup>16</sup> suggests that host cities agree to Covid-19 greatly affecting events planning for the year 2020. They, however, are optimistic about things getting back to normal in the coming year. The research also showed that host cities are aware of the financial impacts of Covid-19 in the year 2020 due to cancelled events. It also suggests changes in the budget in the next two years due to this pandemic. The host cities were, however, divided in their support for hosting future mega sporting events, but stated that sporting events would be a catalyst to bring people together to overcome the Covid-19 disaster. They, however, agreed to plans of not hosting international events, but local and national sporting events. The research overall suggests the negative impact of Covid-19 on mega sporting events in 2020 and the coming years. The United Nations also researched the impacts of Covid-19<sup>17</sup> on sports and its effects on social developments. The research states that the virus has created various economic and financial repercussions for the sports industry. This has been due to the many cancellations and postponement of major sporting events. The research states potential risks in job losses for sports professionals and also those in retail industries connected to sporting events such as tourism and travel, transportation industry, catering, and sports media broadcasting. The research also showed significant social impacts of the cancellation of sporting events. As mega sporting events have been known to foster social cohesion and ensure the social and emotional well-being of the fans, their cancellation takes host cities further from this goal. The recommendations made are to find innovative and new solutions to curb the negative impacts of Covid-19 to those in the sports ecosystems and create new models for future sporting events.

Research conducted on the impacts of Covid-19 measures on athletes in South Africa<sup>18</sup> suggested that Covid-19 had psychological, nutritional, and physical consequences on the health of athletes and their return to sports. The research performed a Chi-squared test on the data collected to test for significance between observed and expected values. A posthoc test with Bonferroni adjustments was also included. The research also found that the lack of opportunities and uncertainty in their financial and sporting futures significantly affected the athletes and the sports industry. The study suggests that sporting federations and governments have to support athletes and come up with guidelines and implementations to reduce the risk in a COVID-19

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<sup>16</sup>. "The Host Cities' Perspective: The Impact Of COVID-19 On Sporting Events | WPP". 2020. *Wpp.Com*. <https://www.wpp.com/wpp-iq/the-host-cities-perspective---the-impact-of-covid-19-on-sporting-events>.

<sup>17</sup>. "The Impact of COVID-19 on Sport, Physical Activity and Well-Being and Its Effects on Social Development | DISD". 2020. DISD. <https://www.un.org/development/desa/dspd/2020/05/covid-19-sport/>.

<sup>18</sup>. Pillay, Lervasen, Dina C. Christa Janse van Rensburg, Audrey Jansen van Rensburg, Dimakatso A. Ramagole, Louis Holtzhausen, H. Paul Dijkstra, and Tanita Cronje. "Nowhere to hide: the significant impact of coronavirus disease 2019 (COVID-19) measures on elite and semi-elite South African athletes." *Journal of Science and Medicine in Sport* (2020).

environment. Research in the sports-related impact on children in Africa<sup>19</sup> suggests that the impacts are associated with on-going sports and the absence of sports. The cancellation of sporting events may pose mental ramifications to the children who have prepared for these sporting events. These events being the Youth Olympics Games in Dakar 2022, the African Youth Games in Lesotho 2022, Africa U-17 Cup of Nations in Morocco 2021, and the ANOCA Zone V Youth Games in Egypt in 2021. In the case that the games are pushed into one year, it will also strain the athlete's training and cause further health problems. Moreover, on-going sporting events pose the risk of the spread of Covid-19 without extreme safety measures of the athletes. This, therefore, means athletes are at risk to catch the disease and also face the problem of stigmatisation by other players when infected. They recommended stakeholders of sporting events should take measures of ensuring the safety of athletes' health, both physical and mental, into their own hands.

Fundamentally, various research gaps were not covered by previous researches, therefore, they were covered in this study. For instance, a study on the impacts of Covid-19 by BCW sports<sup>20</sup> focused on assessing whether host cities perceived any likelihood of financial impacts of Covid-19 due to cancellation of sporting events. However, the study did not explore the specific financial impacts of Covid-19 on mega sporting events. Therefore, this study explored specific financial impacts such as undermining financial planning and budgeting. Besides, research by the United Nations on the impacts of Covid-19<sup>21</sup> on sports and its effects on social developments, as well as the study on the impacts of Covid-19 measures on athletes in South Africa<sup>22</sup> were based on a narrow scope by considering the impacts to only athletes and sporting industry. However, this study sought to fill this gap by exploring impacts to other industries, such as the tourism industry, as well as the general population.

### **Summary of the Literature Review**

As seen from the existing literary sources, the Covid-19 virus has proven to cause various negative impacts on mega sporting events. This has included the major stakeholders of the sports

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<sup>19</sup>. Burrows, Kirsty, Olawale Maiyegun, Daniel Rhind, and Dorothy Rozga. "An overview of the sport-related impacts of the COVID-19 pandemic on children."

<sup>20</sup>. "The Host Cities' Perspective: The Impact Of COVID-19 On Sporting Events | WPP". 2020. *Wpp.Com*. <https://www.wpp.com/wpp-iq/the-host-cities-perspective---the-impact-of-covid-19-on-sporting-events>.

<sup>21</sup>. "The Impact of COVID-19 on Sport, Physical Activity and Well-Being and Its Effects on Social Development | DISD". 2020. DISD. <https://www.un.org/development/desa/dspd/2020/05/covid-19-sport/>.

<sup>22</sup>. Pillay, Lervasen, Dina C. Christa Janse van Rensburg, Audrey Jansen van Rensburg, Dimakatso A. Ramagole, Louis Holtzhausen, H. Paul Dijkstra, and Tanita Cronje. "Nowhere to hide: the significant impact of coronavirus disease 2019 (COVID-19) measures on elite and semi-elite South African athletes." *Journal of Science and Medicine in Sport* (2020).



events as well as those in the sports ecosystem. Mega sporting events have been affected by changes in event planning that has also caused various financial impacts<sup>23</sup>. The financial impacts have significantly impacted on the economic statuses of different host cities that depend on income from sporting events. This includes the loss of employment for those in the sports industry and those affected indirectly by the organisation of mega sporting events<sup>24</sup>. The negative health impacts have also been recorded with participants in mega sporting events facing various mental and physical health issues<sup>25</sup>. However, social impacts are of a disparity, with certain scholars claiming the mega sporting events will help bring togetherness in host cities<sup>26</sup> while others claim the Covid-19, will hinder social cohesion<sup>27</sup>. Most researches, however, are qualitative with very few containing quantitative measures of the impacts of Covid-19 on mega sporting events. This, therefore, helps to provide a basis for this research by identifying the economic, financial, social, and health impacts of the pandemic on mega sporting events.

### 3.0 RESEARCH METHODOLOGY

This chapter discussed the research designs used to find the solution to the research problems as well as the methods of data collection. The methods of data analysis were also discussed with the research model obtained to answer the research questions. Various ethical considerations and research limitations were also discussed.

#### The research Design

The research employed a cross-sectional study research design, aiming to establish an association between mega sporting events and the impacts of Covid-19. The research design was used to because of its simplicity in establishing the prevalence of factors, i.e. impacts of Covid-

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<sup>23</sup> . "The Host Cities' Perspective: The Impact Of COVID-19 On Sporting Events | WPP". 2020. Wpp.Com. <https://www.wpp.com/wpp-iq/the-host-cities-perspective---the-impact-of-covid-19-on-sporting-events>

<sup>24</sup> . "The Impact of COVID-19 on Sport, Physical Activity and Well-Being and Its Effects on Social Development | DISD". 2020. DISD. <https://www.un.org/development/desa/dspd/2020/05/covid-19-sport/>.

<sup>25</sup> . Pillay, Lervasen, Dina C. Christa Janse van Rensburg, Audrey Jansen van Rensburg, Dimakatso A. Ramagole, Louis Holtzhausen, H. Paul Dijkstra, and Tanita Cronje. "Nowhere to hide: the significant impact of coronavirus disease 2019 (COVID-19) measures on elite and semi-elite South African athletes." *Journal of Science and Medicine in Sport* (2020).

<sup>26</sup> . "The Host Cities' Perspective: The Impact Of COVID-19 On Sporting Events | WPP". 2020. Wpp.Com. <https://www.wpp.com/wpp-iq/the-host-cities-perspective---the-impact-of-covid-19-on-sporting-events>

<sup>27</sup> . "The Impact of COVID-19 on Sport, Physical Activity and Well-Being and Its Effects on Social Development | DISD". 2020.

19 on the predictor variables, i.e. mega sporting events. It was also deemed more efficient because there was no need for a follow-up study with the same sample.

### **Sources of Data and Data collection method**

Data was collected by the use of sample questionnaires sent in the form of Google forms to various individuals. Both purposive and random sampling techniques were used to sample respondents from different categories. Fundamentally, the study adopted purposive sampling to select a few athletes and physicians from the pilot study to provide data on health impacts of Covid-19, as well as to sampled FIFA and government officials to provide data on the economic and financial implications of Covid-19. However, random sampling was used to select respondents on the social effects of Covid-19 from individuals within Qatari population. A pilot study was conducted with a few of the mentioned individuals first. This was to ensure the questions were comprehensive and simple enough to understand. After the pilot study and the questionnaire validated by the relevant authorities, the questionnaires were sent via email to the different respondents.

### **Method of Data Analysis**

The data collected was analysed by the use of a comprehensive quantitative analysis, involving descriptive analysis by use of frequencies and percentages. The sample data was also subjected through a Chi-square test of significance. Posteriori tests were also conducted where necessary, with Bonferroni adjustments. The quantitative data collected was analysed through the comprehensive quantitative analysis and descriptive statistics by use of frequencies and percentages and the findings of the study presented using tables and charts.

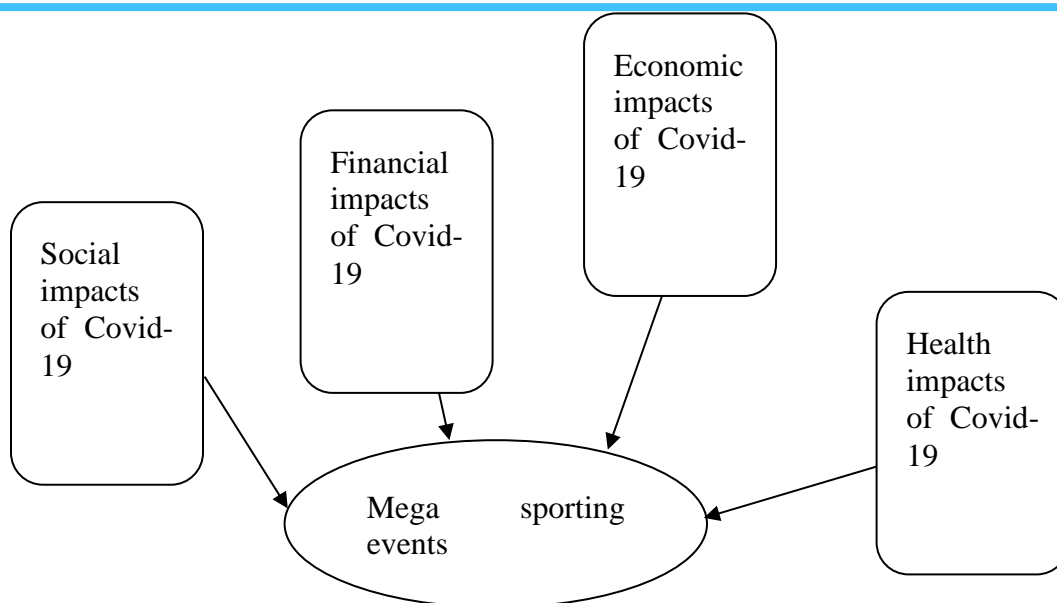
### **The research Hypothesis**

Hypotheses were created to establish the significant impacts of Covid-19 on mega sporting events. These included:

- There is no significant economic impact of Covid-19 on mega sporting events
- There is no significant financial impact of Covid-19 on mega sporting events
- There is no significant social impact of Covid-19 on mega sporting events
- There is no significant health impact of Covid-19 on mega sporting events

### **Research models**

The following research model indicate the primary components of the study insofar as the impacts of Covid-19 were concerned.



**Figure 2: Research model**

## 4.0 ANALYSIS, RESULTS, AND DISCUSSION

### 4.1 Descriptive Statistics

The descriptive statistics of the variable financial impact, social impact, economic impact, and health impacts of Covid-19 were analysed and presented below. The mean, standard deviation, and variance of the variables are estimated below.

**Table 1: Descriptive statistics**

	Descriptive Statistics				
	N Statistic	Mean Statistic	Std. Error Std. Error	Std. Deviation Statistic	Variance Statistic
Financial Impacts	60	1.6000	.05303	.41078	.169
Economic Impacts	60	1.4778	.04712	.36498	.133
Social Impacts	60	1.4000	.05865	.45432	.206
Health Impacts	60	1.1611	.06060	.46937	.220
Valid N (listwise)	60				

From the above table, the first observation that can be made is that respondents expressed strong agreement that Covid-19 has significantly affected mega sporting events insofar as financial, economic, social and health impacts are concerned. This observation is informed by the mean values for the four variable which are all less than 2, with the strongest agreement being with regards to social impacts. Besides, there were variations in responses across different variables as shown in health impacts which had the highest variation (Standard deviation of 0.46937). This that there was a strong disagreement among respondents regarding which aspect, financial, economic, social or health, has been greatly affected by Covid-19 in respect to mega sporting events.

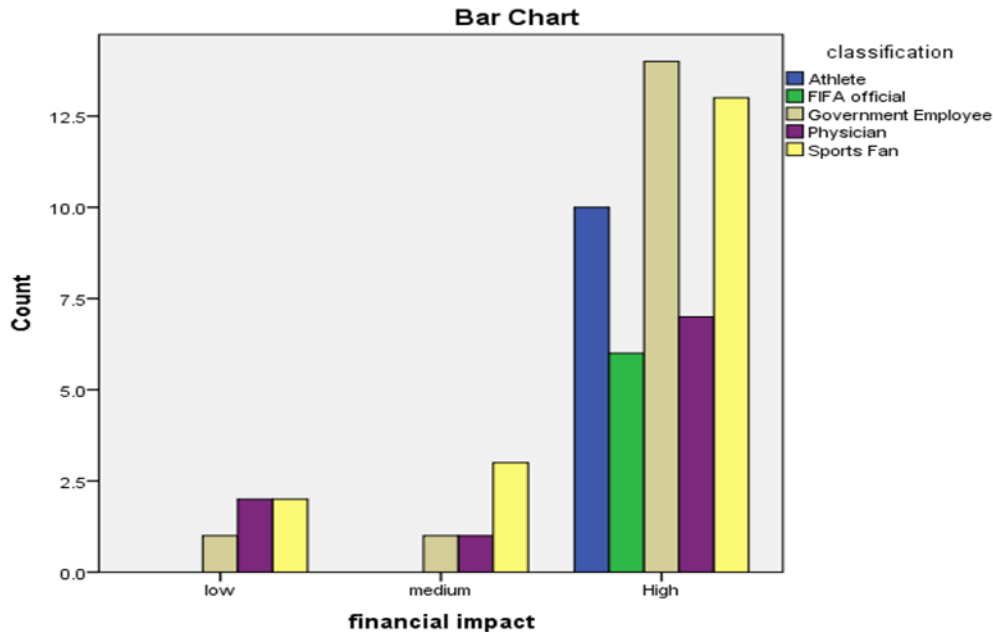
### Reliability and Correlation diagnostics

A reliability test was done using a Cronbach's alpha, and the sampling technique was found to be reliable with a Cronbach's alpha greater than 0.5<sup>28</sup>. The test for collinearity using spearman's correlation coefficients, also found that there was no collinearity with all the correlation coefficients less than 0.5<sup>29</sup>

**Table 2 Cronbach's Alpha and Spearman's correlation coefficients**

Cronbach's Alpha	Spearman's correlation coefficients
.513	.404

### Questionnaire Analysis



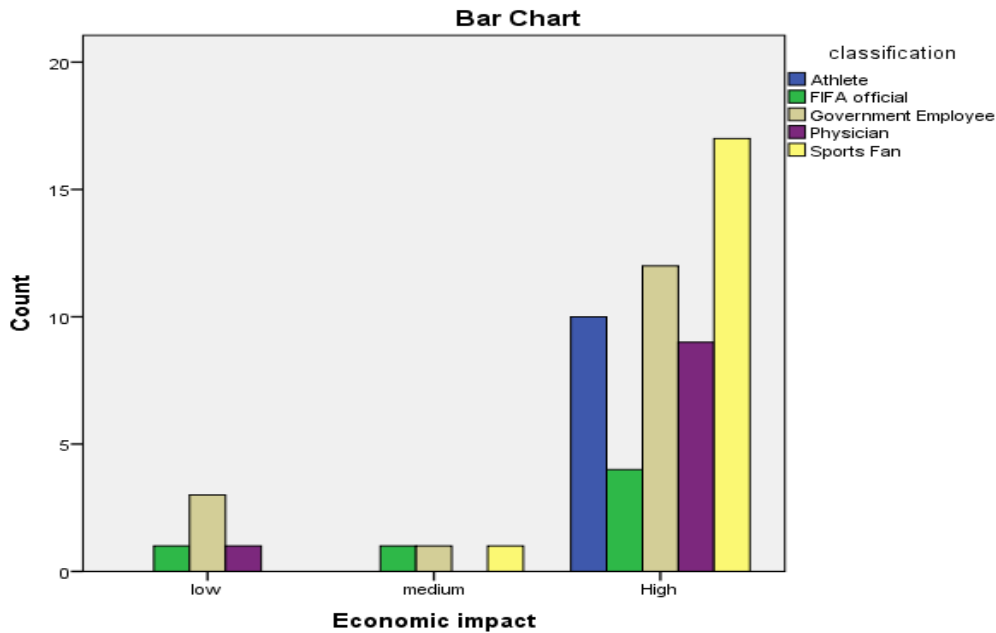
**Figure 3: Financial Impacts of Covid-19**

The questionnaire was used to analyse the different impacts of Covid-19 with responses from various demographic representation. Each of the respondents had different views on the categorised impacts of Covid-19. The impacts were recorded in three different levels from low to high, depending on the responses.

<sup>28</sup>. Nunnally, J. (1978). Psychometric methods. *McGraw-Hill, New York, NY.*

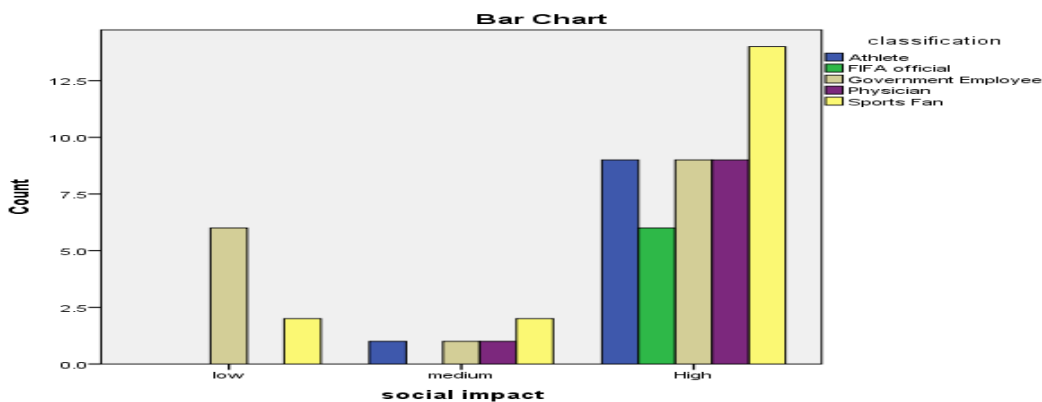
<sup>29</sup>. Hair JF, William CB, Barry JB, Rolph EA (2010). Multivariate data analysis 7th Edition.

Figure 3 shows financial impacts were high. This, therefore, means most respondents agreed to Covid-19, causing great financial impacts on the current and future financial plans of the 2022 FWC. The Economic impacts recorded were also high. Most of the respondents agreed with the high unemployment rates looking due to Covid-19. They also agreed to struggle in terms of consumption due to the economy’s imbalance due to Covid-19.



**Figure 4: Economic impacts**

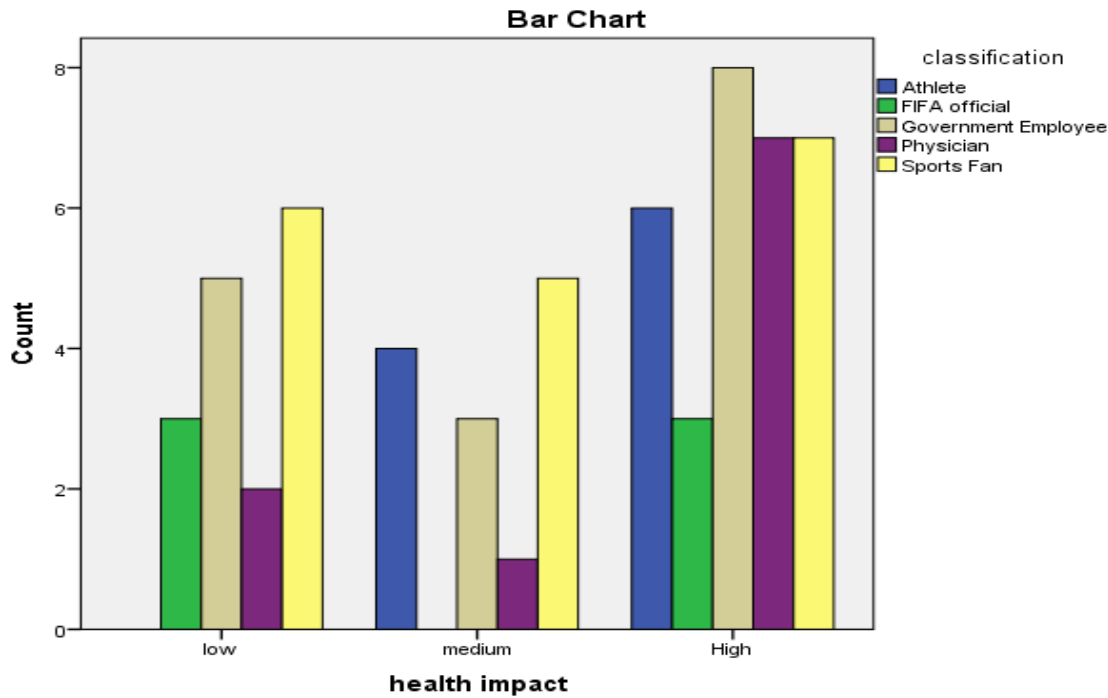
The social impacts of Covid-19 recorded were also high, showing the respondents agreed that they exhibited fear of attendance of the FWC due to Covid-19. They also had a fear of interaction with tourists from countries highly infected with the virus. However, they agreed that the FWC would create social cohesion after the Covid-19 pandemic.



**Figure 5: Social impacts**



There was minimal difference between the estimated high and low health impacts. A majority of the people agreed that there were higher health impacts of Covid-19 on 2022 FWC. However, a good number also disputed this. How physicians recorded higher health impacts of Covid-19, meaning the negative health implications of Covid-19 on the FWC were higher.



**Figure 6: Health impacts**

### Hypothesis testing

According to the null hypotheses recorded below, a one-sample Chi-square test was conducted on the variables measured:

- There is no significant financial impact of Covid-19 on mega sporting events
- There is no significant economic impact of Covid-19 on mega sporting events
- There is no significant social impact of Covid-19 on mega sporting events
- There is no significant health impact of Covid-19 on mega sporting events

The null hypotheses were all rejected at a 0.05 significance level. This, therefore, showed that there were significant financial, social, economic, and health impacts of Covid-19 on mega sporting events. These results can be seen in figure 7 below.

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of financial impact occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
2	The categories of Economic impact occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
3	The categories of social impact occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
4	The categories of health impact occur with equal probabilities.	One-Sample Chi-Square Test	.010	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

**Figure 7: Hypothesis tests results**

### Discussion of Findings

The study set out to assess the impacts of Covid-19 to mega sporting events, with the case study being the 2022 FWC in Qatar. The data from the questionnaires were analysed using descriptive statistics, the use of graphs, and using a one-sample Chi-square test to test the hypotheses. The first null hypothesis was no significant financial impacts of Covid-19 on mega sporting events. From the first hypothesis, it can be seen from its rejection and conclusion that significant financial impacts of Covid-19 impact on mega sporting events. These findings were similar to the research by BCW on the host cities' perspectives<sup>30</sup> on the impacts of Covid-19. They agreed to both current financial plans being affected as well as future budget plans of mega sporting events. The second hypothesis also found that there were significant economic impacts of Covid-19 on mega sporting events. This finding was similar to research by the UN that found that Covid-19 had significant economic impacts on the unemployment of those in the sports ecosystem, as well as affecting their cost of living. The social impacts of Covid-19 were found to be significant, which was similar to the research by BCW sports<sup>31</sup> as well as the UN<sup>32</sup>. The study found that most people feared attending the 2022 FWC due to Covid-19 as well as interaction with tourists from countries highly infected with Covid-19. They were however optimistic that the FWC would bring social cohesion in the wake of Covid-19. The health impacts were also significant, with most respondents agreeing that they were at risk of exposure to Covid-19 and also that athletes' physical and mental health was affected due to the uncertainty of the sports

<sup>30</sup>. "The Host Cities' Perspective: The Impact Of COVID-19 On Sporting Events | WPP". 2020. *Wpp.Com*. <https://www.wpp.com/wpp-ig/the-host-cities-perspective---the-impact-of-covid-19-on-sporting-events>.

<sup>31</sup>. Ibid, 23.

<sup>32</sup>. "The Impact of COVID-19 on Sport, Physical Activity and Well-Being and Its Effects on Social Development | DISD". 2020.

industry. This was similar to the research on sports-related impacts of Covid-19<sup>33</sup> that established that due to postponement of major sporting events, as a result of Covid-19, athletes suffered physically and mentally health-wise.

## **5.0 CONCLUSION, AND RECOMMENDATIONS**

### **Conclusion of the Findings**

The research concluded that there were significant impacts of covid-19 on mega sporting events. The first hypothesis rejected showed that respondents agreed significantly that Covid-19 caused high financial impacts on the financial plans of the 2022 FWC. The second null hypothesis solved for no significant economic impacts of Covid-19 on mega sporting events. This showed that most of the respondents agreed to major significant changes in the sports revenue, unemployment rate, and cost of living because of Covid-19. The third null hypothesis showed significant changes in social impacts. The conclusion proved significant changes in the social impacts of Covid-19. This was measured with fears of attendance of the 2022 FWC in Qatar and tourists during the 2022 FWC in Qatar, with most people agreeing to these fears. They, however, supported the 2022 FWC in Qatar will cause social cohesion in the wake of Covid-19. The last hypothesis tested for significant changes in the health impacts of Covid-19 on mega sporting events which were found to be positive. The majority of the physicians agreed to significant changes in the physical and mental health of athletes and risks on workers of the FWC construction sites due to covid-19.

### **Recommendations of the research**

Since Covid-19 is a new phenomenon to host cities, further research should be conducted to identify more of its impacts. Policymakers and government officials should work together to come up with policies that will allow mega sporting events to be sustainable with future pandemics. FIFA officials, as well as physicians, should find a way to support athletes and those in the sports ecosystem to avoid them being affected financially, economically, and health-wise because of such pandemics. A disaster management unit should be formed in the sports industry to handle the setbacks caused due to Covid-19 and future pandemics. The governments should also help to provide safety measures for those working in FIFA construction sites to avoid the health repercussions of transmitting the virus to workers and their families. The empirical findings of this research should guide future studies on the impacts of such pandemics on mega sporting events.

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