

Review of Religious Tourism in Kingdom of Saudi Arabia During the Covid-19 Pandemic

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Abstract

Purpose: The presence of pandemic Covid-19 has brought many negative consequences to many human activities. With physical distancing being implemented and large gathering of people is temporarily suspended, the typical implementation of hajj activities may need to be revised. In this systematic review, the strategies that have been taken by the Kingdom of Saudi Arabia are compiled and evaluated.

Methodology: The study collects articles that have focused on the mitigation plans during the hajj seasons in the year 2020 and 2021, the years where the pandemic affected the hajj activities so far. A total of 8 articles have been finalized for inclusion and these articles have become the primary data source to answer the research questions.

Results: Results have shown that the articles are mostly designed as derived research method where data come from official reports. On the other hand, strategies that have been taken by the kingdom are medical strategy, logistic strategy, digital technology strategy and awareness strategy. The strategies are in fact found to be successful because no case of Covid-19 has been reported. In addition, the religious tourism can be maintained and minimize the economic loss.

Practical implications: This systematic review study has collected guidelines that can be adopted by any organization when dealing with public health crisis. In specific, any organization can plan ahead of crisis on its mitigation plan based on guidelines that have been presented in this paper.

Originality/Value: The study is considered valuable because the findings have gathered strategies that have been taken by the Kingdom of Saudi Arabia in managing the hajj gathering during the pandemic. This can contribute to developing frameworks for dealing with public health crisis while maintaining or minimizing the economic loss.

Keywords:

Systematic review; Covid-19; pandemic; mitigation strategies; hajj management

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1. INTRODUCTION

Kingdom of Saudi Arabia (KSA) has long been recognized as the religious centre for Muslim nations around the world. This is due to the country that houses two of the three holy mosques in Islam which are the Masjidil Haram in Makkah (مكة المكرمة) and Masjidil Nabawi in Madinah (مدينة المنورة). In addition to the history that these two holy places have, the two lands are significant for all Muslims because they are the place where the fifth pillar of Islam which is the pilgrimage or Hajj is performed. Hence, many Muslims will travel every year to the kingdom in order to fulfil their obligations i.e., performing Hajj that takes place once a year and Umrah which is known as mini hajj that can be performed anytime. The presence of many Muslims around the world in the kingdom for the purpose of hajj and umrah provides an opportunity for a religious

tourism to flourish. Religious tourism is defined as travels that someone makes to specific destination which the journeys have been motivated by religious factor (Santos, 2003). Examples of such include pilgrimage as evident in Islam which is identified to be one of the oldest forms of tourism (Tala & Padurean, 2008). According to Romanelli et al. (2021), religious tourism can increase the social and economic growth of the local communities. In fact, recent data has shown that the income generated through hajj and umrah is estimated to be around \$12 billion annually which is 20% of the total GDP of the kingdom (Nur Alam et al., 2021). According to Maher (2012), the annual occasion of hajj as well as the umrah have grown to become one of the primary financial assets to the kingdom that has been long known for great dependency on the oil. In 2011, the Chamber of Commerce in Makkah has reported some \$10 billion to be generated through 10-day hajj season alone.

Some of the major economic activities through hajj and umrah that generate the income are visa fee, accommodation, transportation and goods being sold to the visitors. These activities in fact have enabled many economic sectors to grow as a result of hajj and umrah visits. Among the lucrative businesses are hotels that can charge higher rate of stay per night to the visitors if they stay close to the mosque (Masjidil Haram). Consequently, many new hotels with different living experience are constructed. In addition, souvenir that visitors can buy to bring back home is also an example of lucrative business activity (Maher, 2012). Arab News (2017) reported that the high number of visitors has boosted the sales in Madinah particularly through the sales of ready-made garments, perfumes, gold, jewelry, dry food particularly dates and electronic items.

Clearly, hajj and umrah as a signifier of religious tourism provides the kingdom with a stable and in fact, sustainable income. This is mainly due to the position of hajj in Islam (which is compulsory) as well as the history of Makkah and Madinah as the holiest cities for Muslims which consequently makes many Muslims around the world strive to go there at least once in a lifetime. The economic activity generated through this religious tourism also provides the kingdom with a great opportunity to move from its greater dependency on oil as primary source of income which is consistent with the Vision 2030 that aims to achieve non-oil transition (Abuhjeelah, 2019). Hence, efforts to improve the religious tourism especially in terms of its quality of services are actively being placed by the kingdom. Evidences are found in many central activities such as the expansion of Masjidil Haram and rapid train connecting the two cities. According to Qurashi (2017), the Saudi government has placed efforts to enhance the hospitality and telecom sectors as well as transform Mecca's tourism infrastructure that clearly will impact the pilgrims. These efforts indicate the importance of religious tourism to the kingdom's economic growth.

However, the outbreak of Covid-19 in the late 2019 until it is declared as a global pandemic on March, 2020 by the World Health Organization (WHO) has brought a negative impact to the hajj and umrah activities. According to Aishath and Zakariya (2021), the hajj and umrah activities have been severely jeopardised by the Covid-19 which consequently resulted in economic, religious, psychological and social effects to the Kingdom and many other Muslim nations. This is because, hajj and umrah primarily involve a large gathering of Muslims from various places around the world and such presence in one place can increase the risk of spreading the infectious virus (Hoang et al., 2020). Following the preventive measure to stop the spread of the virus, it is crucial for any mass gatherings around the world including the hajj and umrah to be suspended (Memish et al., 2020).

Consequently, the kingdom announced the suspension of umrah which is the optional pilgrimage starting February 27, 2020 to all domestic (those residing in the kingdom) and international pilgrims (Alshammari et al., 2021). The barring of umrah activities has also been applied to activities in Madinah such as visiting the Prophet's Mosque (France24, 2020). On the other hand, hajj given its position in the religion which is obligatory has not been cancelled rather open to domestic pilgrims only which caused the number of pilgrims to be significantly reduced. According to Chitwood (2020), this dramatic scaled down has not only caused grief to international pilgrims but also brought massive hit to the kingdom's economic standing. However, such action is necessary to avoid greater negative public health consequences (Zumla et al., 2020).

Okello (2020) reported that the kingdom could potentially lose about 4 billion dollars in revenue due to the impact of Covid-19 to the hajj season. Similarly, Masud (2020) in the BBC News reported that the virus has negatively caused many workers to suffer economically. These include taxi company and taxi drivers who previously rely on transporting pilgrims around, farmers, butchers as well as accommodation-related businesses. This does not count the impact that it has brought to many travel agencies around the world that prior to the pandemic period rely on incomes coming from the management of pilgrims to the kingdom.

Given the unfavourable situation especially from the economic perspective, it is important for the kingdom to strategize itself in order to recover from the losses or minimize the negative impacts. In the last couple of years, a number of studies have been conducted to report or evaluate strategies that have been implemented by the kingdom in order to restore the hajj and umrah activities while at the same time, contain the spread of the virus.

Taking this as a point of departure, the present study intends to conduct a systematic review on studies that have reported on the strategies adopted by the kingdom to address the critical situation. Specifically, this systematic review study aims to answer the following research questions:

- a) What is the demographic information of articles being published on strategies employed by the Kingdom of Saudi Arabia to contain the spread of Covid-19 during the hajj gathering?
- b) What are the strategies adopted by the kingdom in maintaining the religious tourism (hajj and umrah) in the time of pandemic Covid-19?
- c) Have the strategies employed been successful in containing the spread of the virus during the hajj gathering?

2. MATERIALS AND METHODS

2.1 Inclusion criteria

The data source for this systematic review is articles that have been published on religious tourism with specific focus on hajj and umrah in the time of Covid-19 pandemic. As such, the term religious tourism in this article is narrowed to the hajj and umrah only. In addition, the included articles are limited to articles conducted in the Saudi Arabia only. This is reasonable because hajj and umrah are specific activities performed in the country and it also suits the interest of the present study that aims to study the strategies adopted by the kingdom in managing the religious tourism that has been impacted by the pandemic. Articles that employ any research designs; either quantitative or qualitative are considered for inclusion. All methods of measurement such as questionnaire, interviews or observation are suitable. However, the inclusion is limited to articles that are published in English language only.

2.2 Exclusion criteria

Since the present study is designed as a systematic review, previous studies within the similar approach are not considered. This includes another type of library research which is meta-analysis. Other kinds of publication that are not considered for review are university's thesis as well as publication in non-scholarly platforms such as blog, online newspaper or social media writings. However, these publications are referred to and cited for the purpose of providing background to the present work and supporting information presented in this article such as the statistical information.

2.3 Search strategy for the identification of articles

Following the inclusion and exclusion criteria, articles are searched online through several websites which are Google Scholar and Web of Science. The articles are searched through the following keywords:

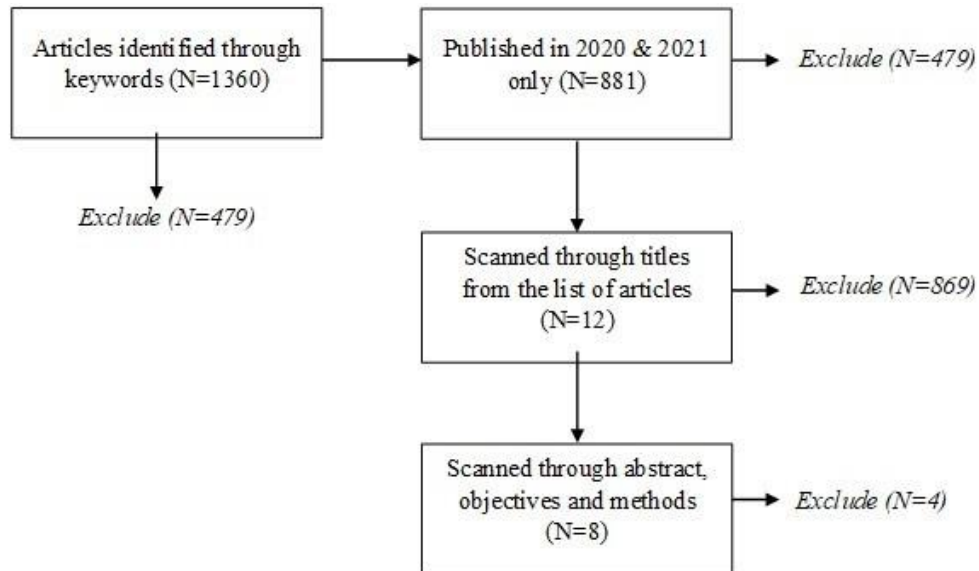
- i. Religious tourism
- ii. Hajj and umrah
- iii. Covid-19
- iv. Covid-19 pandemic
- v. Saudi Arabia
- vi. Economic growth and religious tourism
- vii. Hajj/umrah suspension

In doing the searches, the Boolean operators such as and as well as punctuation symbol semicolon (;) were used to combine the keywords in one particular search.

Through this search strategy, initial search has produced a total of 1360 articles. After the first filter is applied which is the year of publication to range from 2020 to 2021 only, the total number of articles is reduced to 881 articles. The reason for this systematic review to focus on articles that are published within the period of 2020 and 2021 is due to the outbreak of Covid-19 that began in the late 2019 and was officially declared in 2020. Once finalised, the articles are further narrowed down by looking at the titles. Articles within the area of medicine or that highlight the impacts of Covid-19 are not considered. In addition, articles that talk about the impact of hajj and umrah cancellation are also removed. Similarly, articles that inform on the Covid-19 cases in the kingdom, strategies that are taken by the kingdom but not within the context of hajj and umrah and articles that are published in a non-research article style are not counted. Through these filters and review of all titles listed on the web pages, the number of articles is significantly reduced to a total of only 12 articles. Finally, the 12 articles are further scanned through their abstract and if necessary, the

research objectives and methods in order to further consider their inclusion into the present study. After such step, a total of 8 articles are finalised and considered suitable after one has been eliminated due to being designed as a review paper, one is a study that reviewed strategies for pilgrims coming from Bangladesh, one is a book chapter and another one is a postgraduate's thesis. Figure 1 shows the selection process.

Figure 1. Flow chart on the selection of suitable articles process



From Figure 1, it can be seen that the final number of articles being included in this systematic review is 8 (N=8). Details of each study are provided in Table 1.

Table 1. Details of the study included in the systematic review

No.	Authors and year of publication	Focus of the study	Research objectives	Methods	Findings
1.	Jokhdar et al. (2021)	Mitigation plan during the hajj season	To report on the mitigation plan employed by the Ministry of Hajj during the hajj season	Derived research method	Four main measures: a. Safe bubble and tracks b. Health officers on duty c. Hajj community to comprise of the pilgrims, officers and others related to hajj only d. Preventive method such as sterile, pre-packed
2.	Basahel et al. (2021)	Management of hajj in the time of Covid-19	To highlight the success of containing the spread during hajj gathering	Derived research method	The methods to manage the hajj include wearing face mask, domestic pilgrims only and reduce the number of pilgrims to 6,000 only The methods have been successful and the hajj has not contributed to the spread of Covid-19
3.	Hashim et al. (2021)	Response to the Covid-19 pre- and during hajj season	To highlight the efforts that have been taken by the kingdom to mitigate the spread of Covid-19 during the hajj gathering	Derived research method	The kingdom has set eligibility criteria for potential pilgrims Pilgrims were tested prior to their journey to Makkah and re-tested when they arrived Pilgrims were asked to stay in quarantine before the journey, once they arrive and when they return home
4.	Ebrahim et al. (2021)	Accommodating religious event during the pandemic	To report on the disease mitigation during the religious rituals	Derived research method	The mitigation plan includes: a. creating safety bubble b. frequent screening to selected service providers such as barbers and butchers The outcome of the mitigation plan was no covid case was reported

5.	Khan et al. (2021)	Digital technology and the control of pandemic	To explore how the kingdom has utilised the use of digital technology to contain the spread	Uncontrolled before- and after-study with qualitative and quantitative approach for data collection	A number of mobile applications has been developed such as <i>Tawakkalna</i> and leveraged Social media was used frequently such as Twitter to communicate information to the pilgrims Contact tracing application was developed The use of digital technology is found to be successful when a person is tracked, the close contact is minimized and the person is prevented from attending a gathering
6.	Mohammad et al. (2021)	Vaccination for Covid-19 and health awareness during the hajj gathering	To survey on the vaccination requirements and health awareness among the pilgrims	Quantitative research through questionnaire to 106 respondents	Vaccination is viewed as one preventive measure Awareness on taking the vaccine should be increased The health awareness is important during the hajj
					gathering and the use of interactive tool to increase the awareness is recommended
7.	Zumla et al. (2020)	Decision making by the Saudi authorities	To report on the public health action taken by the kingdom before the hajj season	Derived research method	The kingdom has barred pilgrims from other countries The number of pilgrims was scaled down to small number (1,000 pilgrims) The kingdom has set specific rules during the hajj rituals such as no touching of Kaaba, kissing the black stone, keeping distance and wearing masks The age of pilgrims is set to be between 18 and 50 years old only
8.	Algaissi et al. (2020)	Response to Covid-19 and experience of the kingdom dealing with MERS-COV	To review the response to Covid-19 by the kingdom To see the connection between the responses and experience of MERS-COV	Derived research method	A number of extreme measures has been imposed before cases rise to 100 which can help to flatten the curve quickly

3. RESULTS

The results to the research questions that have been developed earlier are organised according to three main information; the demographic information of published articles on strategies adopted by the kingdom, the strategies employed by the kingdom to contain the virus during hajj gathering and the assessment of success following the taken measures or strategies.

3.1 Demographic information of the published articles

This systematic review article has finalized a total of eight articles (N=8) and the articles have been considered for inclusion into the study. All the articles are selected primarily because they have highlighted, analyzed and studied the strategies employed by the Kingdom of Saudi Arabia to contain the spread of Covid-19 while having the hajj gathering.

In terms of focus, all articles have focused on various aspects of strategies but solely for the hajj activities. No article has specifically highlighted strategies relevant to umrah activities. Such is understandable because umrah has been made limited or cancelled for certain period of time while hajj is prioritized due to its obligatory position in Islam. Hence, it is reasonable to see that many articles have focused on hajj specifically. In addition, studying strategies on hajj can provide information that will be relevant to make arrangement for umrah because umrah is considered as mini hajj.

Another worth highlighting aspect of the published studies is the objectives that these articles have had. From the total of eight articles, six articles have been found to be merely a report-based study (article number 14 and 7-8). On the other hand, article number 5 is to investigate the use of digital technology by the kingdom during the pandemic time while article number 6 is to survey on the health awareness and vaccination requirement among the pilgrims attending the hajj. Consequently, most studies have employed a derived research method to indicate that the data source has come from various reports published by the authorities that are responsible for the implemented strategies. For article number 5, a survey on various digital applications has been made through various resources while article number 6 which is designed as survey research has distributed a questionnaire to collect the data.

From this brief analysis on the demographic information of the published studies, it can generally be said that the articles are rather homogeneous. The articles are similar in the focus or aspect of investigation and the method employed to collect the data and produce the results are consistent as well.

3.2 Strategies employed by the kingdom to contain the spread of virus during the hajj period

From the articles that have been published, this systematic review can generally group the strategies into four themes. The strategies are medical strategy, logistic strategy, awareness strategy and digital technology strategy.

First, the medical strategy primarily refers to the pilgrims' status of vaccination, frequent testing on the status of pilgrims' Covid-19 as well as following the recommendation of putting on a facial mask. The kingdom has set that only pilgrims that have been vaccinated especially with vaccines that are acknowledged by the kingdom can be eligible for hajj. This is because, vaccines have been viewed as one crucial preventive measure to slow down the transmission of the virus. Another medical aspect is the frequent testing on the pilgrims as well as officers' status on Covid-19. For this particular strategy, the kingdom has allocated a number of medical officers to be on site during the hajj period for them to frequently conduct the test.

In addition to the two medical strategies, the kingdom has also set the age limit for pilgrims who wish to be part of the hajj activities. It is reported that only pilgrims who are in between the age of 18 and 50 years old are allowed to perform hajj. Such is set due to antibody of someone within the age that is considered strong to fight the virus. Other medical related rule such as wearing a facial mask and constant sterilization are implemented as well.

The second strategy that the kingdom has taken is within the aspect of logistics. Logistic strategy refers to preparation that the kingdom has done in areas where hajj rituals will be performed. Within this aspect, only pilgrims who are already in the kingdom are allowed to perform hajj while international visitors are barred from entering the country. This action is believed to further stop the potential virus transmission. On the other hand, for pilgrims who are already in the cities for hajj, standard protocols as guided by the WHO's recommendation such as to keep distance from one another for at least 1 metre and avoid crowded places are put in place. This is evident in markers that have been placed on the floor of Masjidil Haram so pilgrims stay within the recommended distance from one another. The number of pilgrims has also been significantly reduced to only around 1,000 to 6,000 pilgrims only. More importantly, the pilgrims are placed in their own

bubble where they are not mixed with other people during the hajj period which consequently contribute to the concept of hajj community. Other element of logistic strategy is quarantine. Pilgrims are required to stay in home for 10 days prior to their traveling for hajj and when they reach Makkah, they have to first be in quarantine for few days. The quarantine includes them to be frequently screened for Covid-19. Once hajj is over, they are again required to be in isolation when they return home.

The next strategy is digital technology. As many other countries, the kingdom has also developed a number of applications that are aimed to assist in matters related to the Covid-19. Such applications that have been developed are Tawakkalna which is a contact tracing app that can trace, detect and avoid risk of transmission. The app also is a platform that can be used by users to apply for permits to perform hajj, umrah or travel around the kingdom. On the other hand, given the high number of social media users, the kingdom also has taken the digital platform to communicate necessary information. Twitter, WhatsApp and other applications have been utilized by the government officials to broadcast any update and spread health awareness to the general public.

Finally, identifying pilgrims' awareness is also necessary and this has been the last identified strategy as reported in the published studies. The health awareness among the pilgrims is important in order for them to self-care and follow the recommended guidelines. In the survey conducted by Mohammad et al. (2020) has shown that majority of pilgrims is aware on the health protocols and opts for interactive tools to further increase the awareness level.

In general, the strategies that have been adopted by the kingdom to control the spread of Covid-19 during the gatherings are grouped into four main themes which are medical, logistic, technology and awareness strategy.

3.3 The assessment of the implemented strategies

As reported by Ebrahim et al. (2021), there has been no case of Covid-19 reported that can be linked to the hajj activities. This has been a clear indicator that the strategies implemented by the kingdom have been efficient and successful in containing the spread of Covid-19 especially when there is mass gathering like the hajj and umrah. This is also evident in the acknowledgement that the kingdom has received from WHO on the efforts by the kingdom to successfully implement health and safety measures resulting in zero case of Covid-19 among the pilgrims (WHO's Media Centre, 2021).

In the words of WHO representative in Saudi Arabia, "WHO greatly appreciates the high level of coordination and collaboration that was adopted by all sectors throughout the hajj season, using a collaborative and multisectoral approach" (United Nations Saudi Arabia, 2021). Hence, it can be generally concluded that the strategies have led to the success of hajj activities measured through zero case being reported among the pilgrims.

With such success, it can be said that the kingdom has managed to maintain the primary religious tourism activity which is hajj even though umrah has been suspended. This does not repeat the history of hajj being cancelled in the previous decade due to pandemic as well. By proceeding with hajj despite having it scaled down, the obligatory act is continued by selected pilgrims and the economic loss can be minimized. Such ensures continuity of businesses and workers that rely on religious tourism to sustain.

4. DISCUSSION AND CONCLUSION

The present systematic review has generally described the strategies that have been taken by the Kingdom of Saudi Arabia to contain the spread of Covid-19 during the hajj period that usually involves large gatherings of pilgrims. Even though history has shown that hajj had been cancelled a number of times before (Chitwood, 2020), the decision to proceed with hajj during the pandemic of Covid-19 time can reasonably be thought to contribute to a significant increase in the number of cases. However, the completion of hajj in the 2020 and 2021 seasons have shown that such is not the case (Abueish, 2021).

Much of the success can be attributed to the strategies that have been taken by the government officials were careful planning and execution have made the hajj possible during these two years. As reported in the result section, the strategies can be grouped into four main themes which are medical strategy, logistic strategy, technology strategy and finally, awareness strategy. The medical strategy that includes vaccination requirements, facial mask and sterilization as well as covid tests are in line with recommendations provided by global health authority which is WHO. In fact, many countries around the world are implementing similar medical strategy in order to slow down the rate of transmission.

In addition to that, the use of digital technology to assist the controlling and monitoring of covid cases is also found to be efficient. The development of suitable app that can ensure someone's safety is consistent with the idea of mobile government (M-government) that aims to fully utilize the digital resources. It can be said the use of digital technology can help to maintain low transmission rate due to its ability to trace contact and monitor quarantine (Whitelaw et al., 2020). As in the case of the kingdom that develops apps such as Tawakkalna, they can be evidence of future public health that increasingly becomes digital as well as shows advancement in machine learning or utilization of digital technology in everyday life (Budd et al., 2020).

In summary, this systematic review has been conducted to identify the strategies that have been implemented by the kingdom in order to ensure the safety of pilgrims during the hajj seasons in the pandemic time. The assessment of such strategy is made by looking into the number of cases resulting from the hajj activities. However, since many of the published studies are designed as derived research methods, the following recommendations can be made in order to comprehensively assess the strategies and evaluate the outcomes. The recommendations are:

Employing other research designs such as experimental, survey or exploratory research can further provide information from the direct sources instead of published reports. One example can be to interview government officials on the strategies as well as challenges. Surveying the pilgrims can also be useful in order to gather their feedback on the hajj activities.

To evaluate the effectiveness of digital technology tools, future study may conduct an experiment such as to compare the outcomes between control and experimental groups. This again can further strengthen the effectiveness of digital apps in helping the kingdom or any governments around the world to fight the virus.

Since many studies obtain information from the government officials who implement the strategies, it is also recommended for future study to gather feedback from the ones who experience the strategies i.e., the pilgrims. Such information can in fact provide inputs to make necessary adjustment to the implemented strategy.

Nonetheless, the findings that have been presented here are deemed to benefit policy makers or organizations that handle mass gathering to strategize their approach when dealing with critical situations such as the pandemic. These findings can be used a standard framework or guidelines on how to handle the situation quickly and efficiently in order to minimize loss or prevent further negative consequence. In addition, the findings can also benefit medical organizations to evaluate current strategies and their success rate in order for them to put emphasis on strategies that can bring the most positive impact while strategies that are proven to be less effective can be modified or re-strategize.

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References

1. Aishath, M., & Zakariya, M. (2021). Covid-19: Its impact in hajj and umrah and future direction. *Journal of Islamic Accounting and Business Research*, 12(5), 661-679.
2. Algaissi, A. A., Alharbi, N. K., Hassanain, M., & Hashem, A. M. (2020). Preparedness and response to Covid19 in Saudi Arabia: Building on MERS experience. *Journal of Infection and Public Health*, 13(6), 834-838.
3. Abuhjeelah, M. (2019). Rethinking tourism in Saudi Arabia: Royal Vision 2030 perspective. *African Journal of Hospitality, Tourism and Leisure*, 8(5), 1-16.
4. Alshammari, S. M., Almutiry, W. K., Gwalani, H.M., Algarni, S. M., & Saedi, K. (2021). Measuring the impact of suspending umrah, a global mass gathering in Saudi Arabia on the Covid-19 pandemic. *Computational and Mathematical Organization Theory*.
5. Basahel, S., Alsabban, A., & Yamin, M. (2021). Hajj and umrah management during Covid-19. *International Journal of Information Technology*, 13, 2491-2495.
6. Chitwood, K. (2020, June 23). Hajj cancellation due to coronavirus is not the first-time plague has disrupted this Muslim pilgrimage.
7. Ebrahim, S. H., Ahmed, Y., Alqahtani, S. A., & Memish, Z. A. (2021). The Hajj pilgrimage during the Covid19 pandemic in 2020: event hosting without the mass gathering. *Journal of Travel Medicine*,

- 28(2), 1-3.
8. France24.com (2020, April 4). Saudi Arabia suspends umrah pilgrimage due to coronavirus fears. France24.
 9. Hashim, H. T., Babar, M. S., Essar, M. Y., Ramadhan, M. A., & Ahmad, S. (2021). The hajj and Covid-19: How the pandemic shaped the world's largest religious gathering. *The American Journal of Tropical Medicine and Hygiene*, 104(3), 797-799.
 10. Hoang, V., Gautret, P., Memish, Z. A., & Al-Tawfiq, J. A. (2020). Hajj and umrah mass gatherings and Covid-19 infection. *Current Tropical Medicine Reports*, 3, 1-8.
 11. Jokhdar, H., Khan, A., Asiri, S., Motair, W., Assiri, A., & Alabdulaali, M. (2021). Covid-19 mitigation plan during hajj 2020: A success story of zero cases. *Health Security*, 19(2), 133-139.
 12. Khan, A., Alahmari, A., Almuzaini, Y., Alturki, N., Aburas, A., Alamri, F. A., Albagami, M., Alzaid, M., Alharbi, T., Alomar, R., Abu Tayli, M., Assiri, A. M., & Jokhdar, H. A. (2021). The role of digital technology in responding to Covid-19 pandemic: Saudi Arabia's experience. *Risk Management and Healthcare Policy*, 14, 3923-3934.
 13. Maher, A. (2012, October 25). The economics of hajj: money and pilgrimage. BBC News.
 14. Masud, F. (2020, July 29). Saudi Hajj coronavirus curbs mean "no work, no salary, nothing". BBC News.
 15. Memish, Z. A., Ahmed, Q. A., Schlagenhaut, P., Doumbia, S., & Khan, A. (2020). No time for dilemma: mass gatherings must be suspended. *The Lancet*, 395(10231), 1191-1192.
 16. Mohammad, N., Abdul, N., & Abdul Karim Zamri, N. (2021). Mandatory of Covid-19 vaccination requirements for health vitality on prospective hajj pilgrims: An innovative of interactive video and e-poster. *The Journal of Academic Social Sciences*, 11, 1449-1457.
 17. Nur Alam, G., Sinaga, O., Roespinoedji, D., & Fuad, A. (2021). The impacts of Covid-19 to Saudi Arabia's economic sector and hajj pilgrimage policy of the Kingdom of Saudi Arabia. *Turkish Journal of Computer and Mathematics Education*, 12(8), 463-472.
 18. Okello, C. (2020, July 29). Saudi tourism suffers from Hajj pilgrimage under pandemic. RFI.
 19. Qurashi, J. (2017). Commodification of Islamic religious tourism: from spiritual to touristic experience. *International Journal of Religious Tourism and Pilgrimage*, 5(1), 89-103.
 20. Romanelli, M., Gazzola, P., Grechi, D., & Pollice, F. (2021). Towards a sustainability-oriented religious tourism. *Systems Research and Behavioural Science*, 38(3), 386-396.
 21. Santos, M. (2003). Religious tourism: Contributions towards a clarification of concepts. In C. Fernandes, F. Mcgettigan and J. Edwards (Eds.). *Religious Tourism and Pilgrimage*. Portugal: Atlas Special Interest Group.
 22. Tala, M. L., & Padurean, M. (2008). Dimensions of religious tourism. *Amfitratu Economic*, 10, 242-253.
 23. Zumla, A., Azhar, E. I., Alqahtani, S., Shafi, S., & Memish, Z. A. (2020). Covid-19 and the scaled-down 2020 Hajj pilgrimage – decisive, logical and prudent decision making by Saudi authorities overcomes pre-Hajj public health concerns. *International Journal of Infectious Diseases*, 99, 34-36.