

Post COVID-19 Crisis: Muslim Holy Places' Hoteliers Are You Ready to Fully Reopen?

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Abstract:

Recent studies show the prevalence of 'fear factor' among religious visitors' use of hotels at Muslim holy places. This study investigates visitors' perceptions of the precautionary measures taken due to the COVID-19 pandemic. Objectives include 1) a critical review of the literature to identify preventive health practices, 2) surveying religious travelers finding their perceptions towards precautionary practices, and 3) developing recommendations about preferred health practices for hoteliers. Constructionism epistemology and an online survey were used utilizing the recent theoretical framework. Purposive and snowballing sampling techniques were adopted. Quantitative methods were used to surveying 390 respondents. The research found that Muslim travelers showed high intention to visit holy places upon reopening. Significant differences existed among age, gender, number of visits, and the five dimensions of precautionary practices. The research tried to afford a clearer picture about visitors' preferences and their prioritized health practices, which will help in re-building visitor's trust.

Keywords: COVID-19; Muslim religious travelers; holy places hotels; holy places dine-in experience; Fear appeal, Hospitality Health practices.

1- Introduction

The tourism industry was growing worldwide, and in March 2020, it was suddenly interrupted by the influence of COVID-19 as a watershed moment in tourism history (Higgins-Desbiolles, 2020; Algassim and Abuelhassan, 2021). The current limited medical capacity and no vaccine against the COVID-19 lead to the close of the majority of countries' economic activities. Almost one billion humans were forced to stay-at-home, and global travel restrictions were declared to contain the virus after severe warnings from the world health organization and intelligence services expectations of potential violence pandemic diseases (Gössling et al., 2020; Elsayed et al., 2021).

COVID-19 succeeded in damaging economies and spreading fear, which demanded innovative solutions to handle the lack of scientific data and deal with unpredictable challenges (Wickramatillake and Kurukularatne, 2020). Hoteliers are not immune to the adverse impact. Every day, tourism authorities declare new rules to let hoteliers operate their business after the expected full reopening. Gössling *et al.* (2020) stressed the massive need for researches to contribute to figuring out the future of the tourism industry after COVID-19. This research tried to explore the perception of Muslim religious travelers who intend to visit holy places - towards a set of health practices in hospitality enterprises.

The nature of tourism and hospitality products - as service industries - is intangible (Tasci and Gartner, 2007; Serravalle *et al.*, 2019; Hossain et al., 2020) and subject to risks and threats (i.e., epidemic diseases), especially the religious destination due to people gathering from different geographical areas. Such risks and dangers can tarnish the image of a tourist destination (Chew and Jahari, 2014; Becken *et al.*, 2017), in turn, the hospitality industry's image. The resultant impact creates difficulties for visitors to assess tourist sites' attractiveness as their travel decisions are more likely to rely on perceptions than reality (Kim and Richardson, 2003; Ngamsom and Chakraborty, 2009). The image is critical for the tourist destinations and hospitality managers since tourists' perceived image significantly portrays the actual status of destinations' attractions (Tasci and Gartner, 2007; Abdulla et al., 2020; Sigala, 2020).

In general, religious tourism - and especially the interest to visit Islamic holy places- is growing in the last decade (Utomo *et al.*, 2019; Collins-Kreiner, 2020). The healthy practices at holy places were identified as a critical part of safety concerns, as during some religious occasions, the number of people reached seven persons per square meters, which could increase the probability of the spread of diseases (Aldossari *et al.*, 2019). The concern related to medical treatment at holy places was raised by Utomo et al. (2019)

as a reason contributing to the satisfaction of travelers visiting sacred places and pilgrimages. After COVID- 19 pandemic, health and precautionary practices became severe universal concerns, and even Saudi Arabia closed the holy sites since March 2020 and sacrificed its peak Ramadan season. It was a substantial economic loss, and the consequent actions by the Saudi government were highly appreciated. They opted to keep people safe, even at a loss of nine million international arrivals than 2019 figures (Fitch Solutions, 2020).

The pre-COVID-19 practices at hospitality enterprises targeted compulsory closure, as they were identified as having the most critical and dangerous activities that could contribute to the spread of COVID-19. These enterprises had massive labor activities, a low level of educated employees, a very social atmosphere, and close interaction between humans. New practices and health precautions were required from these enterprises to reopen or continue operating (Gursoy *et al.*, 2020; McKinsey & Company, 2020; Gursoy *et al.*, 2021). The list of health and safety practices varied from county to country. Once the holy places open for visitors, Muslim religious travelers come from different locations throughout the world, which placed a greater need to investigate customers' preferences towards these practices to help hoteliers start successfully recover from the disaster.

This study tried to contribute to the body of knowledge at the following areas: first, this paper made a theoretical contribution by investigating the potential visitors' preferences for 38 different health and safety practices in the tourism and hospitality sectors. Simultaneously it examined the relationship of gender, age, and the number of visits to the practices and prevention needed to control the COVID-19 outbreak. Second, this study categorized the 38 practices into five health and safety dimensions. Third, this study reordered the 38 health and safety practices according to the potential visitors' preferences to contribute to tourism and hospitality literature and practice. Fourth, it provided an empirical assessment of the potential visitors' preferences regarding health and safety practices in the tourism and hospitality sectors during the COVID- 19 outbreak. Finally, this paper provided new insights into health and safety practices in the tourism and hospitality industry in holy places, such as Makkah.

2- Literature Review

2.1 Grouping Health practices and Precautions

Health practices were distinguished to be the core of the success formula during biological risks. Any gap in hoteliers preparation to reopen and to identify post-COVID- 19 religious travelers' needs and preferred health

practices could lead to detrimental influences on the destination image, guests' revisit intentions, decrease in revenues, loss of visitors' confidence, and destroying hospitality (Sönmez *et al.*, 1999; Chew and Jahari, 2014). The new guidelines related to guest contact in hotels and restaurants dine-in practices were grouped in this research after reviewing different health practices and updated precautions posted by governments or published peer-reviewed studies. Five dimensions were grouped, which cover hotels and restaurants dine-in activities, i.e., Guest Precautional Practices; Social Distancing, Advanced Precautions; Technology Applications in Use; and General Practices and Building Awareness.

2.1.1 Precautionary Practices

Precautionary practices include health and safety practices for ensuring customer safety, which may consist of checking COVID-19 precautions such as safe temperature, hand sanitization, and other safety measures. (Ministry of Tourism and Antiquities, 2020; ONA, 2020; Reopening Miami Beach, 2020; REUTERS, 2020; Saudi Center for Disease Prevention and Control, 2020). Thus, ensuring that the hospitality customers are free of infection and do carry any contaminants with them. These practices ensure the success of any hospitality business. Guests or tourists are vital players in any successful health precautions. Transferring COVID-19 disease from customer to another customer was confirmed in restaurants (Lu *et al.*, 2020). Huang *et al.* (2020) proved that visitors' satisfaction would be increased, and health risks will be reduced if visitors will be motivated to take sufficient health precautions.

2.1.2 Social Distancing (Physical and symbolic)

The COVID-19 imposed social distancing, which refers to the avoidance of crowded places or reduces social contact. This concept is new to the service industry and has not been studied before the COVID-19. Social distancing may impact tourists' perceptions of insecurity, unpleasant tourism/hospitality experiences, and health hazards (Sigala, 2020). The social distancing limits the occupancy to 25%, which affects the entire tourism, travel, and hospitality sectors. A recent study in a Chinese restaurant (Lu *et al.*, 2020), a customer with COVID-19 passed the virus to his tablemates and other customers sitting close to him within 1-meter space. Thus, social distancing is essential for any hospitality operation.

Social distancing was presented worldwide as a necessary precaution to stop the spread of COVID-19 (Zhao *et al.*, 2020). Guidelines for social distancing vary based on authorities. (Arabian Business, 2020; Ministry of Tourism, 2020; Ministry of Tourism and Antiquities, 2020; Ölcer *et al.*, 2020; ONA, 2020; Reopening Miami Beach, 2020). According to the WHO, a minimum social distancing is 1 meter (3 feet), and a safe distance is 1.83 meters (Zhao *et al.*, 2020). Face masks and gloves can be considered as symbolic social distancing

actions. Many researchers investigated the emotional consequence of covering the face, banning handshakes, and wearing gloves (Fred, 2015; Capraro and Barcelo, 2020). Social distancing, face coverage, and wearing gloves are among the most common recommended guidelines by previously mentioned organizations and by UNWTO (2020).

2.1.3 Advanced Precautions

Hotels and restaurants could be in need to take some extra efforts to reduce expected customers' fears. In this research, we tried to suggest extra precautions more than the regular spotted practice, e.g., Personal Protective Equipment (PPE), globally standard (Centers for Disease Control and Prevention, 2020; National Restaurants Association, 2020). Other industries went further. Due to the high risk of infection, the medical staff also used protective cloths (Protective coverall) and personal protective equipment (Sharma *et al.*, 2020). They were not alone, as a critical player in the tourism industry joined them. Fear of infection made IATA mention in June 2020, allowing cabin crew staff to wear overall cloths and further protective cloths, e.g., whole sleeves, aprons, gowns, goggles/ visors (IATA, 2020). The same preventive actions can also be requested one day at hotels and restaurants, dine-in spaces to reduce infection possibilities, and reduce Muslim holy places visitors' fears. This leads to investigating hotels and dine in customers' perceptions towards wearing protective coveralls, wearing long sleeves, trousers, and long skirts at hospitality enterprises. Medical researches gave this research an advanced precaution that can help to reduce fears, as they mentioned the possibility of transmitting COVID-19 in a range of up to 6 meters in the presence of wind (Zhao *et al.*, 2020). Increasing social distancing to reach 6 meters seems to be a poor economic solution, but it still can contribute to handling visitors' fears and needs to be examined.

2.1.4 Technology as a Smart Solution for the Dilemma

COVID-19 pandemic pushed in tourism and hospitality sectors to rely on technology solutions in managing the virus outbreak during the operations and customer-employee contact (e.g., crowding control technologies, contactless services technologies; Sigala, 2020). Given technologies is always a vital instrument to construct tourism and hospitality resilience in crisis (Hall *et al.*, 2017), this pandemic will further boost technologies' role in recovering the hospitality and tourism sectors (Sigala, 2020).

The technology provides an approach that contributes to reducing biological risks. The usage of a robot was a smart solution to afford service and keep social distancing at the same time. Despite the rapid evolution of robots since 1983 (Murphy *et al.*, 2017), no one expected it to be presented one day as a precautional health practice in hotels and restaurants. Currently, robots were presented at many hospitality guest interaction points to reduce human interaction. COVID-19 boosted robots used in restaurants and hospitality industries to replace humans several functions, e.g., making food, serving food, sanitizing surfaces, cleaning practices, concierge services, and a continuously expanded list of functions (Zeng *et al.*, 2020). In some cases, the surprise was guests preferred humanoid robots more than humans (Zhu and Chang, 2020).

Mobile hotel room check-in was noted as a technology that contributes to reducing the time of interaction, saving guests' time, and increasing their levels of satisfaction (Solichin *et al.*, 2019). Mobile payment and other ePayment methods were other practical tools to reduce the level of interactions between servers and guests (Esfahani and Ozturk, 2019), and was recommended by several authorities to reopen (ONA, 2020; Ministry of Tourism, 2020). Automation of restaurants and hotel services includes other features, e.g., using Conveyor in serving food (Chin *et al.*, 2019) and handling of QR codes (Quick Response Codes) (Bălăşescu and Dovleac, 2017). These two methods were expected to reduce the time of interaction between guests and servers. Kappa Create Co. and Hamazushi Co. suspended serving its famous Sushi items using Conveyor due to the COVID-19 crisis (Reidy, 2020). These findings led to several research ideas and investigations to what extent religious travelers prefer the advanced technology in hospitality sectors.

2.1.5 General Practices and Building Awareness

Building awareness of staff, managers, and customers were highlighted as a crucial issue by several authors (e.g., Kim *et al.*, 2005; Hung *et al.*, 2018; Huang *et al.*, 2020; Ministry of Tourism and Antiquities, 2020; Saudi Center of Disease Prevention and Control, 2020). Without building awareness, the hotel license itself could be revoked, as happened in an Egyptian resort after an individual family member made a pool party and violated the Egyptian hotels' reopening rules (Ahram, 2020; Egyptindependent, 2020)

New general preventive actions and health practices to reopen were announced almost everyday and repeated by several bodies and organizations around the world included: online payment features; gradually reopen, e.g. allowing only 25% hotel room occupancy; hand sanitizers should be located in all public areas; afford a regular cleaning (every hour) and sanitizing for all

public places; each room must be sanitized on a daily basis; furniture and fabrics were requested to be disinfected using steam machine; distinct sanitizing practices for rooms and public areas in hotels and restaurants; locating in house doctor 24 hours inside the hotel; sanitizing and cleaning air conditioning system; post awareness signs throughout the hospitality facility describing how to prevent virus infection and to post all these health requirements on the enterprise website to inform their guests before arrival; hand washing and sanitizing facilities should be available at guest public rest rooms and separate staff rest rooms; all staff should have renewed COVID-19 free certificate; and keep posting via website and social media their sanitizing practices and preventive actions (Arabian Business, 2020; National Restaurant Association, 2020; ONA, 2020; UNWTO, 2020).

2.2 Theoretical Foundation

In the COVID-19 era, tourists hold a high level of vulnerability to unsystematic COVID-19 danger due to the complex nature of the tourism industry, which includes a particular degree of risks and uncertainties which encourages tourists to take more protective behaviors during his trip in a specific destination (Quintal et al., 2010; Williams and Baláz, 2015). To understand and expect the potential visitors' health and safety preferences in the holy places hospitality industry, the Health Belief Model (HBM) was adopted in the current study. The five constructs of the HBM (Rosenstock et al., 1988; Gerend and Shepherd, 2012) suggest the potential visitors will increase their health and safety preferences in the hospitality sectors to avoid unfavorable health outcomes. The first construct is perceived susceptibility; potential visitors have the likelihood infection of COVID-19 during their visiting the holy places and experiencing the hospitality services, the second construct is perceived severity; they have significant perceptions of the seriousness of COVID-19 negative results on the health, the third construct is seen benefits; the potential visitors highly acknowledge potential advantages of implementing the proper COVID-19 health and safety measurements in preventing the unfavorable outcomes on their health, the fourth construct is perceived barriers; they also expect the likelihood of obstacles and challenges of implementing or existing the proper COVID-19 health and safety measurements at the holy places and hospitality business, the last construct is the cue to action; the repeated news regarding COVID-19 impacts and avoidances from governments, media, facility, and relatives encourage the potential visitors to emphasize on implementing the proper COVID-19 health and safety measurements at the holy places and in the hospitality sectors.

Along with HBM, there are three different theories that support the claim of COVID19 will impact the potential visitors' health and safety preferences;

subjective expected utility (SEU) theory, the theory of reasoned action (TRA), and protection motivation theory (PMT) (Weinstein, 1993; Floyd *et al.*, 2000). The four theories predict that the potential visitors' health and safety preferences will increase due to two keys reasons; (1) a perceived threat of COVID19 infection and the desire to avoid its negative outcomes, and (2) the benefits and costs of taking or ignoring health measurements. Accordingly, we suppose that the COVID-19 pandemic has an impact on the health and safety preferences of the potential visitors at holy places activities and in the hospitality industry, and the field study is planned to examine the following hypothesis:

H1: The COVID-19 pandemic has an impact on people's preferences of (a) “guest precautions practices”, (b) “social distancing”, (c) “advanced precautions”, (d) “technology implications in use”, and (e) “general practices and building awareness” in the holy places hospitality industry.

Wen *et al.* (2005) research pointed to tourists' age as a factor may have great influences on tourists' behaviours. In the of COVID-19 case, medical reports repeated and confirmed that the human body's immunity was marked as a decisive factor in reducing the negative effects of COVID-19 disease. It meant that elderly people were noted having weaker immune system than the youth, due to the age factor (Davies *et al.*, 2020). Thus, this study supposed that the tourists' age may influence potential customers' preferences of COVID-19 fighting related hygiene and safety dimensions.

H2: People's age has an impact on their preferences of COVID-19 hygiene and safety dimensions.

3. Research Methods

3.1 Item generation and construct formation

To boosting the validity of scale development, we adopted and followed the four stages model recommended by a variety of authors (e.g. Churchill, 1979 and Dedeoğlu, *et al.*, 2020). In the first stage (formatting constructs and generating their items), a number of 42 health and safe practices and precautions were collected from an extensive critical review of literature in the hospitality and tourism context from a wide array of authors and resources (e.g., Kim *et al.*, 2005; Fred, 2015; Hung *et al.*, 2018; Capraro and Barcelo, 2020; Huang *et al.*, 2020; Saudi Center of Disease Prevention and Control, 2020; National Restaurant Association, 2020; Ministry of Tourism and Antiquities, 2020; UNWTO, 2020; Zhao *et al.*, 2020). These health practices and precautions were illustrated at “Grouping Health practices and Precautions” section in this paper. The second stage was the items' purification. A pilot test was conducted with 36 online forms. This led to modify the format of certain questions to make it clearer to the reader and it helped to distill and develop the 42 health practices to be 39 practices under 5 dimensions.

In the third stage, 5 hospitality academics and 2 industry experts were invited to review the research online instrument that was contacted online for ensuring the readability of the 39 items in the designed versions in Arabic and English. The 7 individuals ensured the readability and understanding of the 38 items. The fourth stage was to distribute the research online instrument in different countries, i.e. Egypt, Saudi Arabia, Malaysia, and USA.

Based on the previous four stages, the distributed research instrument included the following items and dimensions. Each dimension and its supported references were illustrated in table 1.

Table 1: Research instrument's five dimensions, items and supported references

Dimensions and Items	Supported References
Dimension 1: Guest precautions practices	
GPP1: All potential guests should present free of virus certificates to reserve a room.	Huang <i>et al.</i> , 2020; Lu <i>et al.</i> , 2020; Ministry of Tourism and Antiquities, 2020; ONA, 2020; Reopening Miami Beach, 2020; REUTERS, 2020; Saudi Center for Disease Prevention and Control, 2020.
GPP2: All restaurants' guests need to present free of virus certificates to book they are dining in place at the restaurant.	
GPP3: Sanitizing Gate/ disinfection tunnel should be located at the hotel gate	
GPP4: At any restaurant, dine-in entrance working at the holy places, a sanitizing Gate/ disinfection tunnel should be located.	
GPP5: Hotels and restaurants should check guests' temperature at the entrance.	
GPP6: All hotel guests' luggage should be sanitized once they arrived at the hotel.	
GPP7: Any bag carried by any restaurant guests should be sanitized before he enters the dining room.	
GPP8: Hotels should perform a quick COVID-19 test to their guests before letting them check-in.	
GPP9: Restaurants should perform quick COVID-19 tests to their guest before letting them dine-in.	
Dimension 2: Social distancing and wearing face masks for guests and staff dimension	
SDGS1: All staff at restaurants and hotels must wear face masks.	Fred, 2015; Arabian Business, 2020; Capraro and Barcelo, 2020 ; Lu <i>et al.</i> , 2020; Ministry of Tourism, 2020; Ministry of Tourism and Antiquities, 2020; Ölcner <i>et al.</i> , 2020; ONA, 2020; Reopening Miami Beach, 2020; Sigala, 2020; UNWTO, 2020; Zhao <i>et al.</i> , 2020.
SDGS2: All guests at hotels and restaurants should wear face masks.	
SDGS3: Social distancing (1.5 M at least) should be applied at hotels' check-in, check out, and other direct contact hotel operations.	
SDGS4: Wearing gloves and face masks should be obligatory at all holy places for visitors entering any hospitality enterprise.	
Dimension 3: Advanced precautions	
API: All hotel staff should wear protective coverall.	

- AP2: All restaurant service staff should wear protective coveralls.
- AP3: All guests should wear coverall protective cloths in their movement inside the hotel
- AP4: All hospitality staff members should wear long sleeves, shirts, trousers & long skirts.
- AP5: Restaurant should afford private table dine in cabinets/ dine-in cabinet instead of regular meals (single cabinet with door or heavy sanitized curtains should be made around every table).
- AP6: Increase social distancing practices to reach 4 meters.

Centers for Disease Control and Prevention, 2020; IATA, 2020; National Restaurants Association, 2020; Sharma *et al.*, 2020; Zhao *et al.*, 2020.

Dimension 4: Technology implications

- TI1: Robots should replace human beings to serve customers at dining places.
- TI2: Robots should replace human beings in room service (e.g., room service, housekeeping, butler, etc.).
- TI3: Using Conveyor to serve food to restaurants dine-in customers like some Sushi restaurants.
- TI4: The Adoption of Q.R. Code (Using Mobile Phone to scan a code) ordering Technique in Restaurants instead of regular ordering via talking to the waiter.

Bălăşescu and Dovleac, 2017; Hall *et al.*, 2017; Murphy *et al.*, 2017 ; Chin *et al.*, 2019; Solichin *et al.*, 2019 Esfahani and Ozturk, 2019; ONA, 2020; Ministry of Tourism, 2020; Reidy, 2020; Sigala, 2020; Zhu and Chang, 2020; Zeng *et al.*, 2020.

Dimension 5: General practices and building awareness

- GPBA1: Online payment methods are adopted.
- GPBA2: Daily sanitizing should be adopted at hotel rooms & every hour, all public areas surfaces should be disinfected.
- GPBA3: Sanitizing practices should be adopted at restaurants (e.g., after every guest tables should be sanitized, and every hour all public surfaces should be sanitized).
- GPBA4: The doctor should be located 24 hours at the hotel.
- GPBA5: Air Conditioning systems in hospitality enterprises should be sanitized daily and adopt air purification technologies, e.g., Plasmacluster Ions Technology.
- GPBA6: Natural ventilation systems should be adopted in any hospitality enterprise working in holy places.
- GPBA7: Hospitality enterprises should post COVID-19 protection practices to customers at remarkable places in the enterprise.
- GPBA8: Alcohol hand sanitizer dispensers should be located and distributed at any public interaction points (e.g., reception, restaurant dine in hall, hotel corridors, etc.).
- GPBA9: Steam cleaning Machine should be used to sanitize curtains, mattresses, draperies, etc.
- GPBA10: All restaurants' dine-in spaces, should have guests restrooms equipped with hand washing & sanitizing facilities.
- GPBA11: Restaurants should have separate restrooms for staff, and it should be equipped with hand washing & sanitizing facilities.
- GPBA12: All staff working in hotels and restaurants should have continuously renewed COVID-19 free certificates.
- GPBA13: All hotels and restaurants should announce via social

Kim *et al.*, 2005; Hung *et al.*, 2018; Ahram, 2020; Arabian Business, 2020; Egyptindependent, 2020; Huang *et al.*, 2020; Ministry of Tourism and Antiquities, 2020; Saudi Center of Disease Prevention and Control, 2020; National Restaurant Association, 2020; ONA, 2020; UNWTO, 2020

media and public space all their COVID-19 fighting and precaution practices to keep their guests safe and healthy.

3.2 Sampling and data collection

Based on the objectives of the study, the online survey was selected as the most suitable research instrument. The online survey was designed using the 4 stages Scale Development Model. The research followed purposive and snowballing sampling techniques (Corbetta, 2003; Loveric, 2011).

The chosen instrument was distributed using three different but popular social media channels. A large sample of travel agents and their representatives serving Muslim religious travelers, academic scholars, and religious travelers were used. These prospective respondents were selected from different countries. The intent was to approach as far as possible to fetch a representative sample from the future travelers would visit solely for religious reasons. The main criteria for selection were to assess religious travelers' intent to visit Muslim holy places after reopening the travel business post-COVID-19. The total size of the sample consisted of 2846 individuals distributed in three elected channels with 1501 in LinkedIn; 342 in WhatsApp; and 1003 from Facebook Messenger. The online survey was distributed in Egypt, Saudi Arabia, Malaysia, and USA. A total of 388 online questionnaires were received, out of which 364 were useable. The respondents represented a wide array of nationalities (at least 24) with a diverse demographic mix.

3.3 Measurements

The online survey was built to investigate perceptions of intended Muslim holy places visitors. The study relied on the theoretical framework discussed in this research literature and included all previously mentioned health practices and precautions mentioned in this research. The grouping was made after reviewing different health practices and updated precautions posted by governments or previously published peer-reviewed studies. They were grouped into five dimensions covering hotels and restaurants dine in activities, i.e., Guest Precautional Practices, Social Distancing, Advanced Precautions, Technology Applications in Use, and General Practices and Building Awareness.

3.4 Data Analysis

The collected data were tabulated and analyzed using the SPSS Version 21 software. Cronbach's alpha (should be above 0.70) was used to check the construct reliability. Factor analysis -with varimax rotation- was used to test the construct validity. Mean comparison, standard deviation, one-sample t-test with test value 3 as an average score (for testing hypothesis 1) and ANOVA (for testing hypothesis 2) were used to test the study hypotheses. Furthermore, to ensure that the hypotheses' results were supported, t value (should be above 1.96) and p value (should be below 0.01) were adopted.

4. Analytical Results

4.1 Results and Discussion

The 364 participants in the current study belonged to 24 nationalities, i.e. 32.2% were Egyptian, 24.2% Saudi, 9.4% Indonesian and Malaysian, and 5% American and British. From the total number of the participants, 48.6 % showed their high willingness to travel to their holy places during the first four months after opening the holy places for visit, and 20.6 % had decided to travel after one year. These results indicated that the tourism demand on the holy sites would not be significantly affected by the COVID-19 crisis, and this type of tourism will recover very soon because spirituality and religion play a meaningful role in impacting people's thoughts and behaviours (Laurin *et al.*, 2012).

Construct validity and reliability were adopted as a first step in the analysis. The current study tested five dimensions namely "guest precautional practices", "social distancing", "advanced precautions", "technology applications in use", and "general practices and building awareness". Exploratory factor analysis with varimax rotation and Cronbach's alpha values were used to investigate construct validity and reliability. The results of factor analysis revealed that the whole items were loaded on their constructs without overlapping with factor loading values, which ranged from 0.50 to 0.93. This confirmed the construct validity. Meanwhile, Cronbach's alpha values for the five constructs, ranged from 0.83 "Social distancing" to 0.091 "general practices and building awareness". Thus, these findings supported the construct validity and reliability of the study questionnaire (Table 2).

Table 2: Construct Validity and Reliability

Items of Hypothetic dimensions	Factor Analyses					
	1	2	3	4	5	6
1. Guest Precautional Practices						
($\alpha = 0.88$)						
GPP1	0.64					
GPP2	0.68					
GPP3	0.69					
GPP4	0.72					
GPP5	0.63					
GPP6	0.60					
GPP7	0.66					
GPP8	0.68					
GPP9	0.61					
2 Social Distancing ($\alpha = 0.83$)						
SDGS1		0.81				
SDGS2		0.78				
SDGS3		0.60				
SDGS4		0.62				
3. Advanced Precautions ($\alpha = 0.84$)						
AP1			0.80			
AP2			0.79			
AP3			0.81			
AP4			0.47			
AP5			0.52			
AP6			0.50			
4. Technology Applications in Use ($\alpha = 0.85$)						
TI1				0.84		
TI2				0.87		
TI3				0.79		
TI4				0.59		
5. General Practices and Building Awareness ($\alpha = 0.91$)						
GPBA1					0.54	
GPBA2					0.64	
GPBA3					0.70	
GPBA4					0.47	
GPBA5					0.69	
GPBA6					0.58	

GPBA7	0.69
GPBA8	0.75
GPBA9	0.77
GPBA10	0.73
GPBA11	0.73
GPBA12	0.62
GPBA13	0.63

4.2 Testing Hypotheses

H1a states that the COVID-19 pandemic has an impact on people's preferences towards guest precautions practices in the holy places hospitality industry. Drawing on the findings of the one-sample t-test in Table 3, the levels of the potential visitors' preferences regarding guest precautions practices dimension (mean = 4.21) and its items are statistically ($t > 1.96$; $p < 0.01$) above 3 (average score) supporting H1a. Moreover, it is observed from Table 3 that the respondents gave higher preference to guest precaution practices at hotels more than at restaurants. For instance, for presenting free of virus certificates, the mean of Item GPP1 (at hotels, mean = 3.93) is higher than GPP2 (at restaurants, mean = 3.70). Also, sanitizing guest luggage/bags at hotels (GPP6, mean = 4.46) is preferred than at restaurants (GPP6, mean = 4.16). These results revealed that the respondents believed hotels are riskier than restaurants because they are lodging places. Chances are more for contacting people with minimal choices as alternatives, such as takeaway or food delivery from restaurants. The third case confirmed this conclusion. The mean of preferences for performing quick COVID-19 test to guests prior check-in process (Item GPP8, mean = 4.19) was higher than the same procedure when entering restaurants (Item GPP9, mean = 3.95).

Meanwhile, the most preferred items in this dimension to make people more feeling safe in visiting hotels and restaurants are Item GPP3 (sanitizing gates should be located at the hotel gate, mean = 4.57) and Items GPP4 (sanitizing gates should be located at the restaurant gate, mean = 4.54) respectively. These findings indicate that despite guests considering factors such as free of virus certificates, checking guests' temperature at the entrance, and sanitizing guests/customers' bags, and performing quick COVID-19 test is essential for both restaurants and hotels. The most preferred method is for having a "sanitizing gate" for guests to believe that cross-contamination among people is the most critical danger in spreading the virus.

Table 3: Means and Standard Deviations of Guest Precautional Practices Dimension and Its Items

Dimensions and Items	Mean	S.D.	one sample t-test	
			t	p
Guest precautions practices dimension	4.21	0.694		
GPP1: All potential guests should present free of virus certificates to reserve a room.	3.93	1.142	23.83	0.000
GPP2: All restaurants' guests need to present free of virus certificates to book they are dining in place at the restaurant.	3.70	1.235	18.58	0.000
GPP3: Sanitizing Gate/ disinfection tunnel should be located at the hotel gate	4.57	0.722	54.66	0.000
GPP4: At any restaurant, dine-in entrance working at the holy places, a sanitizing Gate/ disinfection tunnel should be located.	4.54	0.800	48.60	0.000
GPP5: Hotels and restaurants should check guests' temperature at the entrance.	4.36	0.914	38.75	0.000
GPP6: All hotel guests' luggage should be sanitized once they arrived at the hotel.	4.46	0.797	47.03	0.000
GPP7: Any bag carried by any restaurant guests should be sanitized before he enters the dining room.	4.16	0.970	32.70	0.000
GPP8: Hotels should perform a quick COVID-19 test to their guests before letting them check-in.	4.19	0.942	34.25	0.000
GPP9: Restaurants should perform quick COVID-19 tests to their guest before letting them dine-in.	3.95	1.063	26.08	0.000

H1b mentions that the COVID-19 pandemic has an impact on people's preferences of social distancing in the holy places hospitality industry. The findings of the one-sample t-test (Table 4) indicated that the levels of the potential visitors' preferences regarding social distancing dimension (mean = 4.27) and its items are statistically ($t > 1.96$; $p < 0.01$) higher than the average score (3), supporting H1b. Thus, the social distancing and wearing face masks were significantly essential factors to keep people safe from the infection by the COVID-19. As highly noticeable in Table III, the whole dimension means exceed 4.04. These findings contribute to our knowledge that COVID-19 disease had increased people's awareness and concern regarding the importance of social distancing and wearing face masks in protecting their health and safety.

For instance, for Item SDGS1 (mean = 4.43, the highest mean in the dimension), the respondents indicate high importance on staff's face masks at restaurants and hotels, that showed the respondents much acknowledge the danger from contacting restaurants and hotels' staff because they were more susceptible of contacting COVID-19 patients, primarily due to job duties that obligate them to reach people from different nationalities. Meanwhile, the respondent's also placed considerable importance on Item SDGS3 (mean = 4.42) concerning keeping social distancing during hotel check-in and check-out, which are relatively crowded in hotels at holy places. Also, wearing gloves and faces masks by guests at hotels and restaurants (SDGS2, mean 4.20) and the sacred sites (SDGS4, mean = 4.02) were considered preferable items.

Table 4: Means and Standard Deviations of Social Distancing

Dimension and Items	Mean	S.D.	one sample t-test	
			t	p
Social distancing and wearing face masks for guests and staff dimension	4.27	0.757		
SDGS1: All staff at restaurants and hotels must wear face masks.	4.43	0.851	43.22	0.000
SDGS2: All guests at hotels and restaurants should wear face masks.	4.20	0.991	32.75	0.000
SDGS3: Social distancing (1.5 M at least) should be applied at hotels' check-in, check out, and other direct contact hotel operations.	4.42	0.717	50.99	0.000
SDGS4: Wearing gloves and face masks should be obligatory at all holy places for visitors entering any hospitality enterprise.	4.04	1.100	26.68	0.000

H1c reports that the COVID-19 pandemic has an impact on people's preferences of advanced precautions in the holy places hospitality industry. Based on the findings of the one-sample t-test in Table 5, the levels of the potential visitors' preferences regarding advanced precautions dimension (mean = 3.33) and its items are statistically ($t > 1.96$; $p < 0.01$) greater than 3, which supports H1c. As noted, the implication of wearing protective coveralls had quite a similar means (3.37 and 3.38 respectively) for Item AP1 (for hotels' staff) and Item AP2 (for restaurants' staff) but declined substantially in Item AP3 (for guests, mean = 2.82). These means indicated that guests may prefer or accept this type of advanced precaution for hotels and restaurants' staff but as well as prefer for themselves. Item AP5 (offering a private and separate cabinet for dining) was considered as an excellent option to isolate people safely; thus, it received the highest mean (3.83) in this dimension, followed by Item AP4 (all hospitality staff members should wear long sleeves shirts, trousers & long skirts, mean = 3.81). In contrast, Item AP6 (increase social distancing practices to reach 4 meters) received a moderate mean in this dimension (2.96).

These findings can contribute to hospitality makers, managers, and scholars' awareness and knowledge that, however, people allocate a moderate preference to advanced precautions in general, but they prefer the hospitality staff wearing protective coveralls but not preferred for them. Moreover, it is essential to acknowledge that providing long staff clothes and private and separate cabinets for dining was necessary.

Table 5: Means and Standard Deviations of Advanced Precautions

Dimension and Items	Mean	S.D.	one sample t-test	
			t	p
Advanced precautions (dimension average)	3.36	0.893		
AP1: All hotel staff should wear protective coverall.	3.37	1.278	12.96	0.000
AP2: All restaurant service staff should wear protective coveralls.	3.38	1.298	12.88	0.000
AP3: All guests should wear coverall protective cloths in their movement inside the hotel	2.84	1.286	5.10	0.000
AP4: All hospitality staff members should wear long sleeves, shirts, trousers & long skirts.	3.81	1.042	24.00	0.000
AP5: Restaurant should afford private table dine in cabinets/ dine-in cabinet instead of regular meals (single cabinet with door or heavy sanitized curtains should be made around every table).	3.83	1.121	22.58	0.000
AP6: Increase social distancing practices to reach 4 meters.	2.96	1.153	7.68	0.000

H1d states that the COVID-19 pandemic has an impact on people's preferences of technology application in use in the holy places hospitality industry. The results of Table 6 (the one-sample t-test) highlighted that the levels of the potential visitors' preferences regarding technology implications dimension (mean = 3.46) and its items are statistically higher than 3. Based on these findings, H1d was accepted. Comparing the findings in Table 5 and Table 6, however, the two dimensions of "technology applications in use" and "advanced precautions" had moderate means (3.46 and 3.33, respectively). Still, the former is more preferred than the latter among the respondents. Notably, in the "technology applications in use" dimension, Item TI2 (mean = 2.94) and Item TI1 (mean = 3.03) received fair means referring to that using robots in service was not necessary for the respondent's in the hospitality properties. On the other hand, TI3 had a higher rating (mean = 3.49, almost 3.50) than previous items. The last item, TI4 (mean = 3.84), in this dimension had achieved the most significant means, and they were very close to being preferred for people. In terms of practical, managers and employers should focus more on affording conveyor service and QR code, respectively, in hospitality operations.

Table 6: Means and Standard Deviations of Technology Applications in Use

Dimension and Items	Mean	S.D.	one sample t-test	
			t	p
	3.33	1.004		
Technology implications dimension	3.03	1.334	7.54	0.000
TI1: Robots should replace human beings to serve customers at dining places.	2.94	1.339	6.26	0.000
TI2: Robots should replace human beings in room service (e.g., room service, housekeeping, butler, etc.).				
TI3: Using Conveyor to serve food to restaurants dine-in customers like some Sushi restaurants.	3.49	1.182	16.05	0.000
	3.84	0.963	26.56	0.000
TI4: The Adoption of Q.R. Code (Using Mobile Phone to scan a code) ordering Technique in Restaurants instead of regular ordering via talking to the waiter.				

H1e mentions that the COVID-19 pandemic has an impact on people's preferences of general practices and building awareness in use in the holy places hospitality industry. The findings (Table 7) revealed that the levels of the potential visitors' preferences regarding general practices and building awareness dimension (mean = 4.43) and its items are statistically higher than 3, supporting H1e. "General practices and building awareness" dimension had the highest mean (4.43, almost powerful) in the whole survey dimensions, more importantly, though, 6 out of 13 items' means exceed 4.50 (robust mean) to reach 4.57 in Item GPBA8. Meanwhile, the lowest mean was 4.21 for Item GPBA6, which reflected that the entire dimension items were more than preferred. These findings highlighted two crucial pieces of information. First, the COVID-19 epidemic increased people's awareness regarding the importance of general health practices and promoted awareness of epidemics outbreak among people. Second, the whole dimension items were critical factors for making people feeling safer in the hospitality sectors.

Table 7: Means and Standard Deviations of General Practices and Building Awareness

Dimension and Items	Mean	S.D.	one sample t-test	
			t	p
General practices and building awareness dimension	4.43	0.502		
GPBA1: Online payment methods are adopted.	4.33	0.783	44.63	0.000
GPBA2: Daily sanitizing should be adopted at hotel rooms & every hour, all public areas surfaces should be disinfected.	4.46	0.736	50.81	0.000
GPBA3: Sanitizing practices should be adopted at restaurants (e.g., after every guest tables should be sanitized, and every hour all public surfaces should be sanitized).	4.55	0.685	57.03	0.000
GPBA4: The doctor should be located 24 hours at the hotel.	4.39	0.794	45.48	0.000

GPBA5: Air Conditioning systems in hospitality enterprises should be sanitized daily and adopt air purification technologies, e.g., Plasmacluster Ions Technology.	4.34	0.767	45.73	0.000
GPBA6: Natural ventilation systems should be adopted in any hospitality enterprise working in holy places.	4.21	0.854	38.24	0.000
GPBA7: Hospitality enterprises should post COVID-19 protection practices to customers at remarkable places in the enterprise.	4.37	0.710	50.28	0.000
GPBA8: Alcohol hand sanitizer dispensers should be located and distributed at any public interaction points (e.g., reception, restaurant dine in hall, hotel corridors, etc.).	4.57	0.615	64.18	0.000
GPBA9: Steam cleaning Machine should be used to sanitize curtains, mattresses, draperies, etc.	4.53	0.636	60.84	0.000
GPBA10: All restaurants' dine-in spaces, should have guests restrooms equipped with hand washing & sanitizing facilities.	4.51	0.634	58.56	0.000
GPBA11: Restaurants should have separate restrooms for staff, and it should be equipped with hand washing & sanitizing facilities.	4.52	0.623	61.94	0.000
GPBA12: All staff working in hotels and restaurants should have continuously renewed COVID-19 free certificates.	4.50	0.706	54.11	0.000
GPBA13: All hotels and restaurants should announce via social media and public space all their COVID-19 fighting and precaution practices to keep their guests safe and healthy.	4.32	0.704	49.46	0.000

H2 suggests that people's age has an impact on their preferences of COVID-19 hygiene and safety dimensions. The findings of the ANOVA test presented that the three age groups were statistically (p values < 0.01) different in their preferences in the three dimensions of "guest precautional practices," "technology applications in use," and "general practices and building awareness." The findings in table 8, highlight that the youngest age group had the highest preferences' means (4.34, 3.66, and 4.54 respectively) among the three dimensions, followed by the middle age group (4.23, 3.21, and 4.43 respectively), while the oldest age group had the lowest means of preferences (4.01, 3.13 and 4.30 respectively). The findings of multiple comparisons analyses revealed that the differences between the two younger groups (the youngest [mean = 4.34 and 4.54 respectively] and middle [mean = 4.23 and 4.43 respectively] age groups) were not statistically (p values > 0.05) significant in the dimensions of "guest precautional practices," and "general practices and building awareness," meanwhile, the younger groups' means were statistically (p values < 0.05) higher than the oldest age group means (4.01 and 4.30 respectively).

Table 8: Different Responses Among the Different Age Groups

Dimensions	Youngest age (n= 110) Mean	Middle Age (n= 162) Mean	Oldest Age (n= 92) Mean	Sig
Guest precautions practices	4.34	4.23	4.01	0.003
Technology implications	3.66	3.21	3.13	0.000
General practices and building awareness	4.54	4.43	4.30	0.003

Youngest Age (24 and below); Middle Age (25 - 44); Oldest Age (45 and above).

These results show that people aged 44 and below have higher preferences and intention to implement the items of "guest precautional practices" and "general practices and building awareness" dimensions than the people who are 45 years old and above. In terms of "technology applications in use" dimension, the findings found that the youngest group had a preference's mean (3.66) that was statistically (p values < 0.01) higher than the mean of the middle-age group (3.21) and oldest-age group (3.13), meanwhile, no statistical differences (p values > 0.05) between the two elder groups. The youngest people are more interested in using modern technology as safety and hygiene methods against COVID-19 disease more than older people.

4.3 Conclusion

The tourism and hospitality industries in the Muslim holy places will recover very soon from the COVID-19 pandemic. The majority of the investigated sample – from 24 nationalities - expressed their strong willing to visit holy places, once they can travel to it, but they had certain preferences regarding COVID-19 preventive health precautions. The research revealed that potential visitors will primarily place the highest preferences in the tourism and hospitality sectors on "general health practices and building awareness," "social distancing," "guest precautions practices," "advanced precautions," and "technology implications in use" dimensions' items respectively. The research found that tourists' age impacted their preferences, as the study investigated three different age groups and ANOVA test highlighted significant differences between them and their preferences. The research findings will lead to further implications at various aspects, which will contribute in decreasing post COVID-19 religious tourists fears.

4.4 Implications for Practice

When virus epidemics outbreak in the tourist destinations, tourists have an extreme fear of disease transfer risk, which may lead to loss of life (Ngamsom and Chakraborty, 2009), thus, knowing and implementing tourists' preferences of hygiene and safety in the tourist destination are essential to attract tourists and satisfy their needs. The tourists' perceptions of safety and security are considerable motivation for tourists' decisions to travel (Wang *et al.*, 2019; Huang *et al.*, 2020). The COVID-19 had created diffuse perceived fear and deteriorated the hospitality industry of the COVID-19- infected countries and non-infected areas. Thus, it was essential to investigate potential tourists' perceptions of the perceived COVID-19 risk in the holy places' tourism and hospitality industries (such as one of the most important tourist destinations) to detect practices to diminish the range of the deterioration created by this negative perception. Therefore, this study pursued to examine the effect of such perceived COVID-19 epidemics on potential holy places visitors' preferences

regarding the future visit to the holy sites.

The hotel and restaurant sectors must acknowledge that their customers' hygiene and safety preferences have changed after the COVID-19. Thus, they have to redevelop their hygiene and safety plans, designs, strategies, and budgets not only to meet the global and domestic criteria of pending the COVID-19 outbreak but also to meet their customers' needs of hygiene and safety, especially the potential customers with 44 years old and below.

Notably, during and after the COVID-19, hotel and restaurant operators will compete to build a strong rapport with their customers by ensuring the safety of their cash liquidity, brand image, customers, and employees to survive, succeed and grow in the hospitality market (Brito, 2020; Sigala, 2020). To restart successfully hotel and restaurant business, the hospitality operators should adopt post COVID-19 hospitality experiences by re-designing their strategies which should include (1) re-designing services & guests' experiences (to be contactless as possible) such as: using online booking, e- payments, QR code or mobile apps at restaurants and hotels, (2) upgrading their cleaning, hygiene and safety procedures, and adopting the governmental guidelines, in addition to the guests most preferred COVID-19 preventive precautions in relation to employees- and customers, (3) providing adequate social distancing, (4) ensuring intensive employee training to these procedures and measurements, (5) market & announce the enterprise adopted health protocol, with more efforts needed from hotels, as this research found guests were concerned more about health practices in hotels as they afford full lodging services not just food & beverage like restaurants, (6) and finally, to implement the COVID-19 measurements, the hospitality operators require to use standard & new innovative methods in such confirming management of health profiles and implications.

Meanwhile, the findings also highlight that increasing hotels and restaurants' prices were not welcomed. Thus, the hotel and restaurant sectors should be economical when developing their new effective plans and strategies to meet the customers' needs of hygiene and safety practices, and customer offer and promotion have to be adopted consistently with competitors' offers (Froyd, 2020). Previous studies confirmed that the media plays a primary role in increasing or decreasing people's perception of risks regarding epidemics in tourist destinations and has a significant impact on making a travel decision (Cavlek, 2002; Tasci and Gartner, 2007). Thus, hotels and restaurants should launch campaigns to announce their hygiene and safety measures and their offers and promotion to build customers' trust in their hygiene and safety services and products. Moreover, the findings highlight the priorities of hygiene and safety practices from potential customers' perspectives by using means to help the hospitality sector reform and launch efficient plans and strategies.

5. Limitations and Future Research

The present paper includes some limitations which can lead to substantial future research directions. The current study targeted potential Muslim visitors to the Muslim holy places, and it was conducted in the COVID-19 outbreak to reveal their preferences of hygiene and safety practices in the hospitality sector. Thus, in future research, scholars can repeat conducting the current study after the COVID-19 to ensure their stability. Moreover, scholars can measure potential or actual tourists' perceptions of the five hygiene and safety dimensions in other tourist destinations to check the validity of the five hygiene and safety dimensions' items and generalize the study results. After COVID-19, much research was needed to measure the impact of the COVID-19 hygiene and safety measurements adopted in the hospitality industry on customers' attitudes, behaviors, and intentions, and its impacts on the industry itself. Finally, new technology implications are suggested to be among the most critical techniques to face such epidemics (Brito, 2020; Sigala, 2020); future research should identify where, how, and when these implications are successfully implemented?

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