

The Impact of Covid-19 Pandemic on Green Hotel Management

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Abstract

Green Hotels are environmentally-friendly properties whose managers are eager to institute programs that help protect our earth, like saving water, saving energy, and reducing solid waste and pollution, while saving money too. The ongoing Covid-19 pandemic is having a devastating impact on the hotel industry worldwide. Thousands of hotel firms have been bankrupted by the crisis, with countless hotel bookings cancelled due to travel restrictions and fears of contracting the coronavirus. This research aims to focus on the impact of Covid-19 on green hotel management, highlighting the negative and positive aspects of the pandemic on the green hotel sectors such as human resources management, room division sector, and the energy used in hotels. Four survey questionnaires were designed for hotel managers and managers of the front office, food and beverages, and marketing and sales, with 120 forms. The results indicated that the Covid-19 pandemic has negatively affected all sectors of green hotels, low hotel occupancy rates, and many hotels have turned into quarantine hotels. The study represents the importance of activating crisis plan management in hotels, which contributes significantly to sensing the occurrence of the crisis before it occurs and developing appropriate plans to confront it.

Keywords: Green hotels; Green management; crisis management; Covid-19, pandemic

Introduction

Coronaviruses are viruses that can infect mammals, birds and humans. In recent years, this family of viruses has been responsible for several outbreaks of disease worldwide, including severe acute respiratory syndrome (SARS-CoV-2) in 2002-2003 and the Middle East respiratory syndrome (MERS-CoV) which was reported for the first time in the Kingdom of Saudi Arabia in 2012 (Jones & Comfort, 2020). On December 31, 2019, China notified the World Health Organization of cases of pneumonia in Wuhan. The disease spread rapidly in early 2020, first to other areas of China, and eventually to most of the world. The World Health Organization declared the global outbreak of Covid-19 a pandemic on March 11, 2020. Although the nature of the response to the crisis differed from country to country, all medical authorities and governments struggled to combat it (Neisdadt, 2020; Pereira et al., 2021). The Covid-19 pandemic is still ongoing worldwide. This has hampered the global tourism industry. There is a unique and growing public health crisis related to global health (Jones & Comfort, 2020). The Covid-19 pandemic has affected the tourism and hospitality industry around the world. Coronavirus is having a major impact on the travel and tourism industry in almost all countries around the world (Zukhri & Rosalina, 2020). Since the outbreak of this disease in various countries, many tourists have been forced to cancel or postpone their travel plans. The

tourists do not want to incur losses due to this pandemic as a business in the tourism sector is affected (Sun et al., 2021; Liu & Yang, 2021; Zukhri & Rosalina, 2020).

The United Nations World Tourism Organization (UNWTO, 2020) stated that the worldwide outbreak of the Coronavirus has brought the world to a halt and claimed that tourism has been the hardest hit of all major economic sectors. More specifically, a sudden and unexpected drop in tourism demand due to Covid19 is putting millions of jobs and livelihoods at risk while at the same time jeopardizing the progress made in sustainable development and equality over recent years (Chan et al., 2021; Jiang & Wen, 2020; Kumar, 2020; UNWTO, 2020). According to the World Travel and Tourism Council, "50 million jobs globally are at risk" due to the pandemic. Moreover, the travel and tourism sector is already facing collapse and is in a struggle for survival" due to the global health crisis Covid-19 (Jiang & Wen, 2020). The hotel industry is vulnerable to threats posed by unexpected disasters such as epidemics, natural disasters, and terrorist attacks (Chan et al., 2021; Jiang, 2020). Furthermore, it has become a global adversary due to the lack of an effective vaccine and limited medical capacity to treat diseases, non-medical activities are the primary approach to combat the pandemic. One of them is global travel restrictions and the recommendation to stay at home (Mangruwa, et al., 2021). This research examined the impact of Covid-19 on green hotel management, highlighting the negative and positive aspects of the pandemic on the green hotel sectors such as human resources management, room division sector, and the energy used in hotels.

Literature review

Measures to confront Covid-19 and mitigate its impact on the tourism sector

As an immediate response to the crisis, it is critical that governments, with the support of development partners, consider focusing on the impact of the tourism sector on the livelihoods and employment opportunities of millions of people around the world. Workers' rights must be protected, and efforts must be made to allow them to keep their jobs. The scale of the impact of Covid -19 on tourism and hospitality requires strong measures to ensure the survival of tourism and hotel establishments and the sustainability of jobs. For example, temporary waivers or rescheduling of taxes and other payments, special employment support schemes, and credit conditions tailored for tourism could be considered, both in the short and medium term, to preserve livelihoods and prevent bankruptcies. Aharon et al. (2021) indicate that in the United States of America, an intervention that had a positive effect on the hospitality industry was the \$100 billion Covid-19 aid package and confirmed that the hospitality sector required more meaningful and substantial government support, especially, due to the expectation that this industry would have a late recovery. Similarly, the package provided payments to firms that were explicitly linked to payroll or salaries.

The importance of green hotels in the hospitality sector and improvement of the environment

Environmental changes confirm that humans were destroying the environment, so many studies have provided a list of prohibited activities that hurt the environment (Kawamorita et al., 2020). Nowadays, the growing awareness of environmentally friendly behaviours are leading companies to think in a greener way than they used to. As environmental issues became more evident in the 21st century (Gyódi, 2021; Yarimoglu et al., 2020), consumers' intentions were negatively affected by the hotels' harmful environmental applications, so hotels started to follow green policies (Yufan et al., 2020; Firdaus et al., 2018). The green hotel is described as a hotel that provides environmentally friendly services, commitment to environmentally effective programs, which aim to protect the planet. Moreover, the aim of reduce the negative impact that their activities can have on the environment and ensure their benefits are maximized by promoting sustainable development programs and other actions that would be less harmful

to the environment (Demir et al., 2021). In addition, green hotels provide more effective and efficient use of energy, water and materials while providing high-quality services (Deraman et al., 2017; Evra & Begoña, 2008), which increase brand value, create a good image toward guests, reduce costs and responsibilities, and increase profits (Salama & Abdelsalam, 2021). Green hotels are hotels that respond directly to consumers who have an eco-buying behaviour. Where “green (or sustainable) consumption” refers to consumers willing to purchase the contents of environmentally friendly goods or services or production methods that have little negative impact on the environment (Torres et al., 2021; Firdaus et al., 2018; Gao et al., 2016).

Olawali (2020) notes that the hospitality sector has adopted environmentally friendly initiatives due to the growing concern for the environment by customers and other stakeholders, which has contributed to the development of green hotels. The hotel sector is a large commercial sector, which means that hotels can play a major role in changing the culture of environmental degradation practices in place to achieve sustainable growth where the needs of current generations are met without compromising the ability of future generations (Leena et al., 2014; Zhang et al., 2020). Surveys also revealed that 90% of hotel guests prefer to stay in a hotel that cares about the environment. Many guests have given positive responses regarding their intention to stay in green hotels (Iorgulescu & Răvar, 2013). The cognitive picture elements, such as attributes of value and quality, can have a positive impact on the emotional picture, the overall green image of the hotel, and the intention to stay in an eco-friendly hotel (D’Souza et al., 2021).

The demand for green hotels is increasing in recent times due to people's increasing understanding of their environment, and the environmental attitude of consumers in decision-making, awareness and acceptance of green goods and services is greatly affected. Although the guest of the green hotel understands that staying in this hotel is expensive, the cost does not prevent them from staying in an eco-friendly hotel because they are interested in bearing the cost of any harmless products and services (Demir et al., 2021). A common understanding of green hotel is that it commits to green practices in business operation, with green building design less emphasized as an important characteristic. According to the Leadership in Energy and Environmental Design (LEED), green rating systems use registered checklists to evaluate sustainable projects. Green features must be incorporated into the life cycle of buildings, from the planning stage such as site selection or building design to the operation stage (Hou & Wu, 2020; Salama & Abdelsalam, 2020).

Hayes and Ozretic (2014) noted that green hotel management offers many benefits: long-term cost reduction, environmental sustainability, and meeting the needs of a currently growing segment of customers looking for eco-friendly services. Besides quality brand management and trustworthy marketing communication, D’Souza et al. (2021) point out that green management contributes to brand value growth, positive image acquisition, differentiation from competitors, customer attraction and loyalty, and in this way enrichment of hotel service offerings. It is imperative for strategic positioning to consider the emotional and functional elements of hotel brands, to gather and stimulate the participation of all employees around green initiatives, and to initiate partnerships with the local community. Despite the growing concern about sustainable tourism, a large proportion of hoteliers remain unconvinced about investing in green practices. One of the obstacles suggested by Alonso-Almeida (2017) has been customer skepticism, as hoteliers have a perception that communicating green practices implemented in the hotel will negatively affect the Intent to visit clients (Iorgulescu and Răvar, 2013).

The effect of Covid-19 on green hotels management

Tourism has demonstrated a strong ability to adapt, innovate and recover from adversity. However, this unprecedented situation requires new approaches, a robust multi-level response and partnerships. Recent trends in Europe show that reopening borders and tourism activities are not without risks because in some places it has led to an increase in infections, leading to new local restrictions by governments (UNWTO, 2020). While addressing the direct social and economic impacts of Covid-19 on tourism and accelerating recovery to protect millions of livelihoods, this crisis is an opportunity for the sector to transform and become more resilient, inclusive, and sustainable (Denizci et al., 2021; Lemy et al., 2021; Sun et al., 2021; Yufan et al., 2020; Zukhri & Rosalina, 2020).

Chun et al. (2021) referring to the trend toward green hotels and helping to increase the competitive advantage and improve the sustainability of the hospitality industry during the Covid-19 pandemic is receiving more attention. As the hospitality industry is trying to absorb green marketing and move on the path of sustainable development. Yustisia et al. (2021) demonstrate that sustainable tourism is the most important aspect in the development of the tourism sector in the post-pandemic period. There will be a shift in the direction of tourism, and the demand for eco-hospitality hotels will continue as a result of increased urban congestion, pollution and concern for the natural environment. Ecotourism is a form of sustainable tourism based on nature, focusing primarily on experience, and learning about nature, landscapes, plants, animals and their habitats, as well as the culture of an area. Noting the positive impact of Covid on green hotels, it was expected that ecotourism would become more popular after the Covid-19 pandemic due to its ecological sustainability and the harmony it brings between people and nature (Šerić, 2021).

While the pandemic has turned the entire world upside down, it appears to have combined marketing and sustainability to strive together for a successful recovery of the hospitality business. For example, one recent study suggested combining marketing strategies with sustainability-oriented measures as a recovery and innovation strategy in the proactive phase of hotel pandemic crisis management (Yustisia et al., 2021; Šerić, 2021). Šerić (2021) refers to the effects of the green marketing orientation model on the sustainability of the hospitality industry, which can be improved towards sustainability in the Covid-19 pandemic. The current study aims to determine the impact of the Covid-19 pandemic on different green hotel departments; including the front offices, the food and beverage, and the marketing and sales, compared to other non-green hotels. The results of the research will help to validate the hypothesis that green hotels are necessary for the rapid prevention of crises affecting the global hospitality sectors.

Materials and methods

Four survey questionnaires were designed for hotel managers, front office managers, food and beverage managers, and marketing and sales managers. To determine the extent of the impact of Covid 19 on the management of green hotels in its different departments and the difference in the impact between green and non-green hotels. The forms were distributed by emailing the form link to a group of hotels in different countries. The obtained data were analyzed using the quantitative method of statistical analysis via Statistical Analysis of the Social Sciences (SPSS, version 25). The objective of the statistical analysis was to evaluate the questionnaire items using correlation and regression analysis among the study variables. Some abbreviations were used for easy presentation of the study variables, where the dependent variable in hotel managers' responses was ($GM_{C1,2,3}$), while the independent variable was indicated by the symbol ($GM_{V1,2,3}$), The dependent variable in the responses of front office managers was denoted by the symbol ($FO_{C1,2}$), while the independent variable was denoted by the symbol

(FO_{V1,2}), the dependent variable in the responses of food and beverage managers as indicated by the symbol (F&B_{C1,2}). while the independent variable was denoted with the symbol (F&B_{V1,2}), the dependent variable in the responses of marketing and sales managers was denoted by the symbol (M&S_{C1}), while the independent variable was denoted by the symbol (M&S_{V1}).

Results

Impact of Covid-19

The results indicate that most managers (82%) show that the current situation is very good and that they have overcome the Covid crisis compared to the peak of the pandemic. This is because the majority of them are within the classification of green hotels, which indicates the extent to which the management of green hotels can overcome crises compared to non-green hotels. While only 10% have shown that they are still experiencing the crisis of the Covid-19 pandemic to date, this may be due to poor crisis management planning, slow implementation of recovery strategies, and governmental restrictions, guidelines that delay them from overcoming these obstacles.

The results indicate that 37% of hotel managers confirmed that the hotel was severely impacted as a result of the Covid-19 crisis, the consequent restrictions on travel around the world and the imposition of a set of precautionary measures to reduce the number of infections around the world as shown in Figure 1. However, 56.7% of these hotels are still open and ready to receive guests, hoping that the crisis would unfold, and the global tourism movement would return.

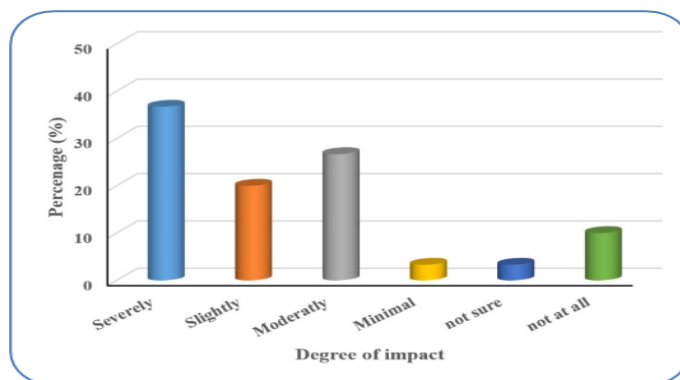


Figure 1. Percentage of the impact of Covid on green hotels.

The hotel managers (41%) confirmed that the current Covid-19 crisis is the worst compared to previous crises such as terrorist operations, the SARS virus crisis, or the global economic crisis. This crisis did not negatively affect the inbound tourism movement and occupancy rates in green and non-green hotels compared to the impact of Covid-19 on them. In addition, 66.6% of front office managers confirmed that the occupancy rate in hotels was severely affected, and about 60% of them indicated that the room rate price was negatively affected at the beginning of the crisis when the average room rate price was decreased to the ranges between \$101-150 by 40%. While 20% of front office managers offer a room rate price ranging between \$151-200 as shown in Figure 2A, as a solution for continuing to receive guests.

Most of the food and beverage managers (57%) in green and non-green hotels as shown in Figure 2B confirmed the negative impact of the coronavirus crisis pandemic on F&B profits because of lower sales and travel restrictions in the world resulting in lower occupancy rates in hotels. On the other hand, 67% of front office managers in green hotels and non-green hotels

indicated an improvement in the room occupancy rate during the current year (2021), compared to the previous year, this may be due to the support hotels received from various governments to overcome this crisis, in addition to the emergence of types of various vaccines that increase immunity against Covid-19 and prompt governments to gradually open travel and reduce restrictions, thus hotel occupancy rates have improved during this period.

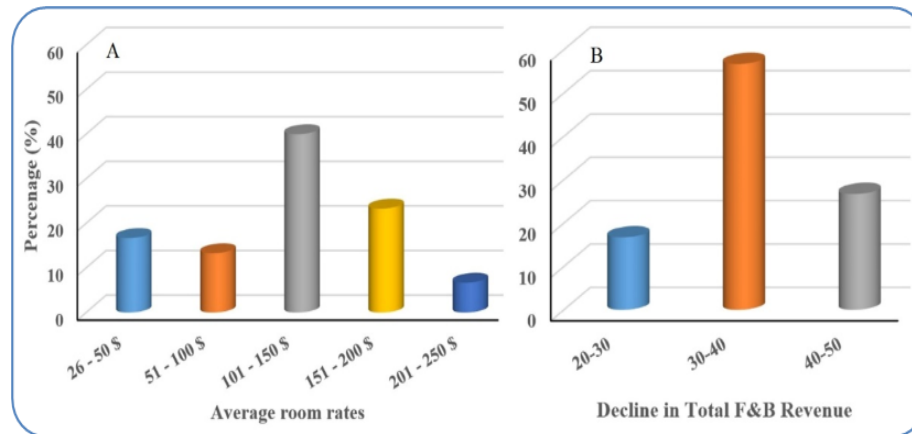


Figure 2. Percentage of average room rate and decline in total F&B revenue

Marketing and sales managers indicated the negative impact of Covid-19 on the movement of sales within hotels, the movement of raw materials supply to hotels and the direction of marketing activity towards tourism by 46, 53 and 67%, respectively. The reasons for all these effects may be due to the precautionary measures imposed by governments on travel, the fear of many moving to places that may be infected, and the delay in the emergence of vaccines.

Measures and strategies during the Covid-19 pandemic

The Ministry of Tourism of KSA has presented initiatives aimed at reducing the economic burden on the private sector, which include exempting tourist establishments from fees for issuing and renewing licenses, reducing the financial burden on hotel establishments, and providing financial flows to ensure the continuity of the hotel establishment. Reducing job losses because the hotel establishment does not falter. Where 48.3% of managers confirmed that governments have already supported them by paying workers to help hotels preserve their human resources for the post-Covid era. Managers noted that there are many forms of government support, with the most implemented being the reduction in licensing costs, wage subsidies, and utility costs by 20, 20 and 16%, respectively.

Most managers refer to a series of actions to reduce expenses and maintain an opening hotel. Figure 3A shows that 26% of hotel managers emphasized that they reduced hiring and working with fewer employees. While 67% of food and beverage managers support employee retention in times of crisis as shown in Figure 3B. With the reduction of part of their salaries until the end of the crisis, to preserve experience workers. Front office managers in green hotels indicated that they have implemented strategies that effectively encourage guests to visit hotels during the Covid-19 crisis as shown in Figure 3C. Where vouchers for future stays were 26.7% which gives them a stay free futurism in the hotel and enjoy the natural environment friendly to the environment. Regarding non-green hotels, 26.7% of the managers mentioned that they have implemented a strategy to reduce costs based on some policies that contribute to reducing expenses and compensating for losses resulting from poor occupancy rates as a result of the outbreak of the Covid-19 pandemic. As for online reservations, most of the front office managers (43.3%) confirmed that they relied on online reservations before the Covid crisis,

and this is due to the technological progress witnessed in the world, which contributed to the development of alternative solutions during crises.

Additionally, most front office managers in green hotels (56%) confirmed that they relied on increased marketing efforts to overcome the current difficult phase during the crisis, while 20% of non-green front office managers confirmed that they relied on revitalizing tourism services for travelers to compensate for the disruption of international tourism, where 50% of them indicated that they rely on the low room rate strategy as a good method in times of crisis as shown in Figure 3D. As mentioned previously, the production of vaccines, the multiplicity of their types and vaccination rollouts led to a reduction in travel restrictions, which has helped the recovery of the tourism sector. When asked about the measures taken by the room's management in preparation for recovery, 43.3% of them answered that the hotel management has taken a strategy to add other value-added facilities/services to the room as the first step towards its recovery. Although 33.3% of hotel managers indicated that they used the workspace model as a good way to bring in revenue back as shown in Figure 4A, 26% agreed to plan to use restaurants in an alternative way and 26.7% used a modified day model. To measure ongoing developments and improvements during the Covid-19 crisis.

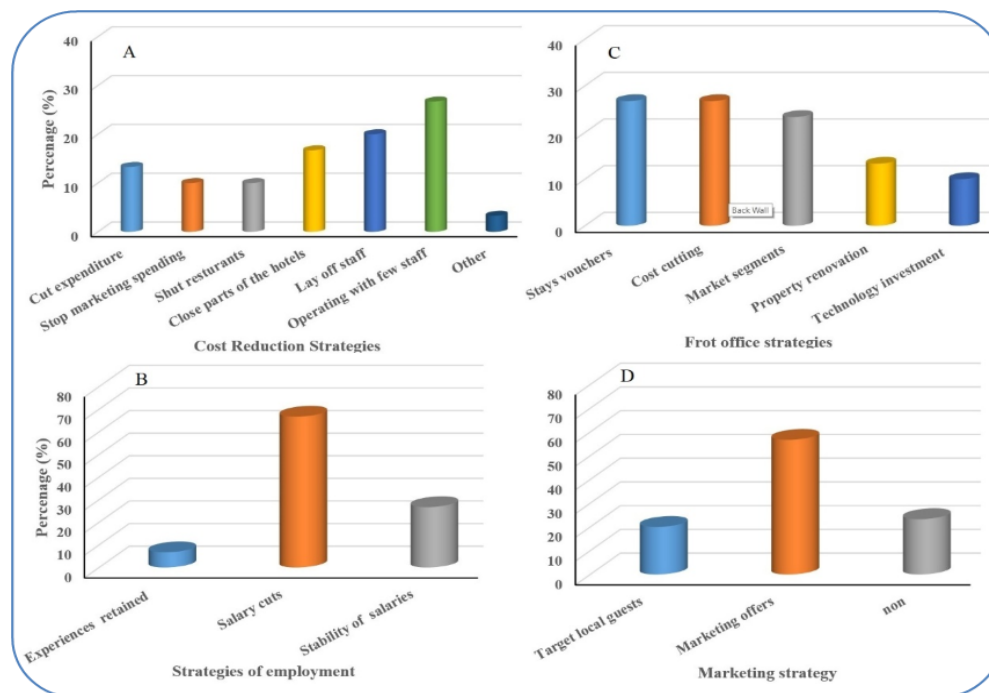


Figure 3. Different managers' strategies to overcome Covid-19.

Most of the food and beverage managers in green hotels (53.3%) confirmed that they have followed a strategy to reduce food waste by using modern technological means, and this is consistent with the principles of green management that are concerned with recycling food waste and converting it into energy as shown in Figure 4B. Food and beverage managers indicate updating their menus during the Covid-19 crisis, 43.3% of green hotels confirmed that they have already updated to keep pace with the critical period, which includes reducing costs for some dishes due to lack of operation and sales, while 43.3% of non-green hotels also indicated that they did not. She updates her lists and retains her number one position, hoping to recover quickly and return to normal life.

Focusing on the customers, you already have is the most important strategy implemented by marketing managers in green hotels during the Covid-19 crisis, 30% of them

confirmed it as shown in Figure 4C, which contributes to maintaining existing hotel customers during the Covid-19 pandemic.

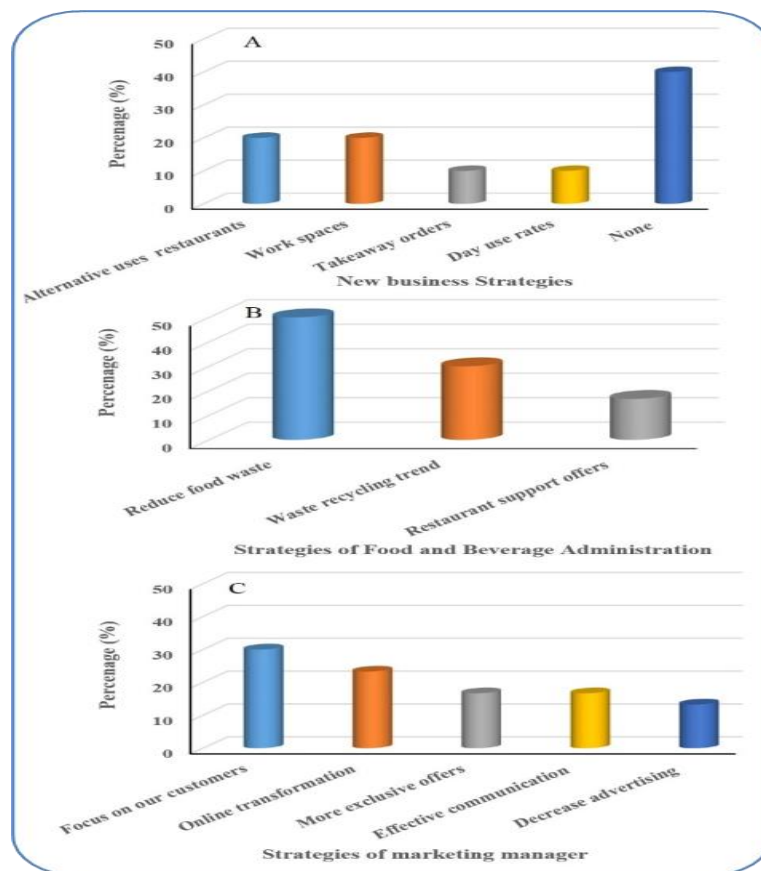


Figure 4. Percentages of all business strategies.

Most marketing and sales managers (40%) believe that the best way to face the expected smart competition in hotel marketing after the Covid-19 crisis is to try to understand the behaviour of guests after the epidemic and whether their behaviour will change or will remain the same after the epidemic, especially since home quarantine and travel bans may negatively affect the behaviour of guests. Most of the marketing and sales managers (60%) indicated that digital marketing is a good way to reach a large segment of customers, especially considering the restrictions imposed on travel and movement during the Covid-19 pandemic.

Coronavirus recovery plan

The manager responses (31%) believe that the hope of recovering from the Covid-19 crisis stems from the previous experiences of colleagues and how they dealt with various crises and their success in overcoming them. Where the majority (83.3%) agree to take advice and guidance from other managers to successfully pass this crisis. Therefore, both managers and front office managers at 41% and 46.7%, respectively, confirmed that the recovery plan is progressing at a good pace as a result of the virus downturn and that the occupancy rate will return to normal within 3-6 months as shown in Figure 5. This may be due to current data indicating that many countries have removed many of the restrictions that were imposed during this period of the past two years on travel and tourism, and therefore it is expected that life in hotels will return to its first form.

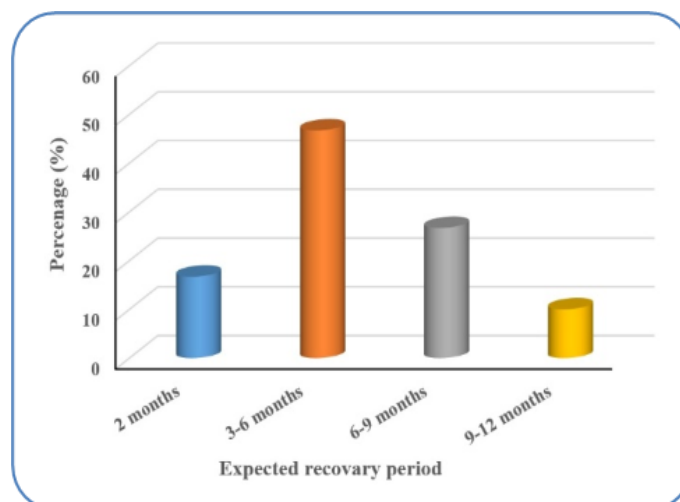


Figure 5. Percentage of the expected recovery period.

Referring to the Food and Beverage Department, the department managers explained that there are many recovery plans. Whereas more than 60% confirmed that the plan to operate restaurants and bars will change according to the decline in hotel occupancy and lack of sales of hotel food and beverages as a result of Covid-19 pandemic. While 57% indicated that the gift and certificate scheme is an important recovery plan for green hotels, as they see it as a good way to advertise the hotel and its policies and attract customers' attention. In addition, 43.3% believe that they can take advantage of the downtime caused by the Covid-19 pandemic, which has caused the suspension of most hotel activities in equipment maintenance, damage repair, replacement, and renewal of old and new equipment as well as hotel renovation work in general.

Correlation and regression coefficients for the study variables

Table 1 represents the regression coefficients for all forms of the study, where analyzing the regression coefficient between tackling the Covid-19 situation with immediate term constant 1 of the general manager's responses (GM_{C1}) as an independent variable and classified as a green hotel (GM_{V1}) as a dependent variable = 0.51.

Table 1. Regression Coefficient Analysis of The Study Variables

Model	B	Std. Error	Standardized Coefficients Beta	t	Sig.
GM_{C1}	0.748	0.200		3.744	0.000
GM_{V1}	0.212	0.067	0.514	3.174	0.000
GM_{C2}	-0.360	0.332		-1.084	0.000
GM_{V2}	0.291	0.039	0.815	7.441	0.000
GM_{C3}	0.831	0.281		2.958	0.000
GM_{V3}	0.591	0.094	0.765	6.295	0.000
$F\&O_{C1}$	-0.378	0.391		-0.978	0.000
$F\&O_{V1}$	0.816	0.803	0.832	7.932	0.000
$F\&O_{C2}$	1.333	0.694		0.922	0.000
$F\&O_{V2}$	0.500	0.273	0.327	1.833	0.000
$F\&B_{C1}$	1.651	0.249		0.644	0.000
$F\&B_{V1}$	0.298	0.068	0.639	1.399	0.000
$F\&B_{C2}$	4.250	0.463		0.177	0.000
$F\&B_{V2}$	0.523	0.204	0.435	4.557	0.000
$M\&S_{C1}$	4.537	0.302		5.122	0.000
$M\&S_{V1}$	0.793	0.090	0.858	0.028	0.000

Whenever the hotel is among the green hotels, as long as management can recover faster than the non-green hotel management, this may be due to the ease of environmental policies applied by green hotels, which aim for a clean environment free from epidemics and diseases, and which adopt the application of green policies in all its departments to achieve its main goal, which is to preserve the environment. By analyzing the regression coefficient between evaluation, the current situation of business (GM_{C2}) as an independent variable and evaluation of the future development of your business compared to your current situation (GM_{V2}) as a dependent variable, the regression coefficient $\beta = 0.82$. This is due to the many precautionary measures taken, as well as to the government aid granted, which led to the recovery of hotel occupancy to some extent, as well as the managers' view that the recovery is proceeding quickly.

The regression coefficient between the hotels tackling the Covid-19 situation within the immediate term (GM_{C3}) as an independent variable and the influence of the Covid-19 outbreak to continue the hotel's operating performance (GM_{V3}) as a dependent variable the regression coefficient $\beta = 0.77$. Refers to the success of the hotel administrations in the precautionary measures taken, the more the hotel administrations apply the necessary measures by taking measures to confront the crisis, the leads to the management's success in reducing the impact of the Covid crisis in the shortest possible time. There is a regression relationship between implementation strategies through Covid-19 pandemic constant 1 of the front office managers' responses ($F\&O_{C1}$) as an independent variable and occupancy level at last 12 months ($F\&O_{V1}$) as dependent variable the regression coefficient $\beta = 0.83$, it indicates that as a result of the outbreak of the Covid-19 epidemic, this led to the adoption of some strategies such as Vouchers for future stays. Cost-cutting contributed significantly to improving the occupancy rate compared to the previous period. By analyzing the regression coefficient between implementation strategies through the Covid-19 pandemic ($F\&O_{C2}$) as an independent variable and occupancy level at the last 12 months ($F\&O_{V2}$) as a dependent variable the regression coefficient $\beta = 0.33$, the manager indicates that the more modern strategies are applied in times of crisis, especially the Covid-19 epidemic, the more this will lead to a move towards recovery.

According to the regression coefficient between deployed new business models to bring in revenue ($F\&B_{C1}$) as an independent variable and the strategy adopted by the Food and Beverage Administration during a pandemic ($F\&B_{V1}$) as a dependent variable the regression coefficient $\beta = 0.64$. As a result of implementing a clear strategy aimed at overcoming the current crisis, including reducing food waste by using Winnow Solution Software as indicated by 30% of F&B managers. Winnow solution is a digital technology that can help mitigate for commercial kitchens by identifying patterns of waste and aiding in meal planning to prevent overproduction (Renda et al., 2019). The regression coefficient between employees laid off during the pandemic to save expenses ($F\&B_{C2}$) as an independent variable and percentage decline in Total F&B Revenue ($F\&B_{V2}$) as a dependent variable the regression coefficient $\beta = 0.44$. This is because as a result of the negative impact of the Food and Beverage Administration as result of the lack of revenues, this led to a move to ways to reduce expenses by retaining employees but reducing their salaries.

The regression coefficient between use the of digital marketing to improve existing demand ($M\&S_{C1}$) as an independent variable and Tips to Outsmart Competition in the post-Covid Hotel Market ($M\&S_{V1}$) as a dependent variable the regression coefficient $\beta = 0.86$, the results indicate the marketing department's keenness to fight smart competition in the field of hotel marketing and rely on e-marketing as a means of quick access to target markets in light of the travel and roaming ban imposed by the Covid 19 crisis on the whole world.

There is a strong correlation between the two study variables (Covid impact and Government assistance). A significant correlation (0.89 at 1%). This indicates that despite the suffering during the crisis period, managers' confidence in receiving government aid to stay afloat. The correlation coefficient between the hotels tackling the Covid-19 situation within the immediate term as an independent variable and the influence of the Covid-19 outbreak to continue the hotel's operating performance as a dependent variable. There is a strong correlation between the two study variables (F&B Revenue decline and Deployed new business models to bring in revenue). A significant correlation (0.55 at 1%). The relationship indicates that there is a link between adopting green hotel management or other new ways to increase income, which leads to reducing the negative effects of the Covid 19 crisis, which caused a lack of revenue. There is a strong correlation between the three variables (Impact on hotels sales, Impact on supply of raw materials and Local marketing as an alternative strategy). A significant correlation at 1%. The results indicate that there is a relationship between the three variables due to the impact of the Covid-19 pandemic on all marketing sectors and the negative impact of sales as a result of the lack of room occupancy as well as the lack of imports of raw materials due to the lack of hotel operation and finally the lack of tourist movement from foreign guests and also from the local population as a result of the precautionary measures imposed by it Governments to face the crisis of the Covid-19 pandemic as shown in Table 2.

Table 2. Correlation Matrix Relationship Impact on Hotels Sales and Impact on Supply of Raw Materials And Local Marketing As An Alternative Strategy.

		Impact on hotels sales	Impact on supply of raw materials	local marketing as an alternative strategy
Impact on hotels sales	PCA	1	0.893**	0.861**
	Sig. (2-tailed)	0.000	0.000	0.000
Impact on supply of raw materials	PCA	0.893**	1	0.921**
	Sig. (2-tailed)	0.000	0.00	0.000
Local marketing as an alternative strategy	PCA	0.861**	0.921**	1
	Sig. (2-tailed)	0.000	0.00	0.000

Discussion

The results indicate that the spread of green hotels in many countries of the world, which indicates that green hotels have become a global trend and not only at the local level, and the interest in green hotels is a result of the application of green environmental policies that contribute to preserving the environment. This is consistent with Demir et al. (2021) and Evra and Begoña (2008) who indicate that a green hotel is described as a hotel that has environmental favorable services that are established and abides ecologically effectual programs, which are aimed at protecting the planet. The aim of reduce the negative impact that their practices can have on the environment and ensure that their benefits are increased by activating sustainable development programs and other measures that will be less harmful to the environment, the results also indicate the diversity in the forms of green hotels from hotels, resorts, motels, and hostels. This indicates that green environmental policies have become a trend that includes all hotels of all kinds.

Green hotel managers and others confirmed that they have been negatively affected by Covid 19 crisis and people were struck by fear and anxiety as indicated by Khan (2021) that the steps taken by the government to confront Covid-19 include awareness of the virus and dissemination of information about precautionary measures and the importance of closures to limit the spread of the virus. The psychological aspects related to people's mental health have

been neglected. This disease negatively affects the mental health of a person, leading to depression and anxiety. This may be due, among other reasons, to the travel ban in many countries, as well as the imposition of some precautionary measures, including the ban on movement between regions to prevent the spread of the epidemic. Mangruwa et al. (2021), indicates that the impact of the coronavirus, which has become a global opponent due to the lack of a 100% effective vaccine and specific medical ability to treat diseases, additional non-medical activities are the primary approach to combating the epidemic.

One of them is global travel restrictions and the recommendation to stay at home, Aharon et al. (2021) also agree that closures had a consistently negative effect on the hospitality industry. The imposition of restrictions on domestic travel, the closure of public transportation, and the obligation to stay at home had a strong negative impact on the hospitality tourism industry which negatively affected its revenues of the industry. Such interventions have had a significant negative impact on the revenues of the industry. Gyódi and Kristóf (2021) indicated that hotel room supply decreased by 40% relative to 2019, hotels reopened in the summer months, and by September, 7% fewer rooms were than in 2019. This agrees with our results were about 66% of front office managers confirmed that there is an improvement in the occupancy rates for hotel rooms during 2021 compared to the occupancy rates for the year 2020. The changes in the number of rooms significantly differed across the analysed cities which affected the occupancy rate of hotels during this period, this is consistent with the United Nations World Tourism Organization (2020) which refer that recent trends in Europe show that the re-opening of borders and tourism activities is not without risks as it led in some places to rising infections, leading to new localized restrictions by governments. While hotel managers emphasize the ability of their management to overcome this crisis quickly and recover within a short period, green hotels could recover faster than others, and this may be due to several reasons as mentioned. While addressing the immediate socio-economic impacts of Covid-19 on tourism and accelerating recovery to protect millions of livelihoods, this crisis is an opportunity for the sector to transform and become more inclusive, resilient, and sustainable.

Hotel managers stress that the Covid-19 crisis is more serious than many previous crises, and this is due to the bad impact that the crisis had on the hospitality sector. Just as other crises affected the tourism sector before, as mentioned by Gautam (2021), the most serious crises that threatened the tourism and hospitality sector before are environmental risks/pollution and armed conflicts, and pandemics. The main events were the September 11 attacks in the United States, the 2004 Asian tsunami, the Fukushima nuclear disaster, the 2015/2016 drought in India, and the Avian flu. Mangruwa et al. (2021) report that the impact of the crisis on the hospitality industry has resulted in reduced hotel income and government restrictions that forced the hotel to cease operations. Which necessitated the government's intervention to provide aid to the hotel sector to keep it alive, which differed from one country to another. Aharon et al. (2021) indicate that the US intervention had a significant positive impact on the Hospitality industry as it was a \$100 billion aid package to get out of the Covid-19 crisis, and confirmed that the hospitality sector expected more meaningful and substantial government support, especially due to the expectation that this industry would have a late recovery. Similarly, the package provided Payments to companies that were explicitly tied to payroll but did not compensate the hospitality sector or related industries for their massive revenue losses as well as taking some administrative decisions in hotels aimed to reduce expenses, including reducing workers' salaries while maintaining them, and this is followed in times of crises, as international labour organization (2020) Presidency refers to Some measures taken during the Covid-19 pandemic that hotels can proactively close certain sections of their property to cut costs. This emergency plan includes closing restaurants and reducing staff depending on the current demand for infrastructure.

Green hotel managers continue to work hard to put in place new plans and policies that will recover quickly and stay afloat. This confirms by Chun et al. (2021) who refers to orientation to green hotels and it helps to increase the competitive advantage and improve the sustainability of the hospitality industry during the Covid-19 pandemic are receiving more attention. As the hospitality industry is trying to master green marketing and proceed in the line of sustainable development. Yustisia et al. (2021) show that Sustainable tourism is considered the most important aspect of the development of the post-pandemic tourism sector. Tourism patterns will witness a renewal, and the demand for good eco-tourism destinations will continue to grow because of pollution and crowding in cities and the demand for attention to the natural environment. It focuses primarily on learning and experiencing nature, landscapes, animals and plants, as well as culture, as well as the culture of the region.

Most of the front office managers stressed that the impact of the Covid-19 pandemic on occupancy rates is the worst they have experienced during their working periods, and the negative effects are a large number of cancellations, which have been due for a long time, that made the future unclear for hotel occupancy rate. This is in agreement with Gyódi and Kristóf (2021) who indicated the negative effects of Covid-19 on the hotel sector, including the service sector. According to Euro Control (2020), flight numbers fell 88% in April compared to the previous year. Tourism has almost stopped all over the world and in Europe: hotel occupancy fell to 85% in May from year to year, despite similarly large hotel price drops. They stressed that they used some strategies to help save expenses to keep them floating and from them, and that they also reduced room rates to attract the attention of those wishing to go to hotels during this period as well as their use of alternative means for reservations and official reliance on hotel reservations, and that they are still optimistic about getting over this crisis in a short period.

The directors of food and beverages stressed the negative impact on the hotel food and beverage sector, and that they have followed some strategies that aim to try to maintain the hotel activity, this consists with Rodríguez and Alonso (2020) who indicate that when crises situations such as Covid-19 happen, they force hospitality companies to change their operating strategies. These events generate high levels of anxiety and uncertainty and usually require quick reactions to limit negative effects. These strategies include reducing expenses by ensuring the application of some green environmental policies, including ensuring that waste is reduced from food leftovers and planning to recycle it to obtain energy, and this is consistent with Ertaş et al. (2021) who saw that the application of environmental policies contributes to reducing expenditures, and work to update the menus in line with the new work system considering the current crisis, as well as work to reduce expenses by maintaining workers and reducing their monthly salaries. Yustisia et al. (2021) indicated that employment income losses are decomposed according to three types of transitions through this crisis: (1) workers lose their job, or their contract is not renewed; (2) workers remain employed, but they enter temporary layoffs; (3) workers remain employed, but they work only a fraction of their usual hours. Losses are distributed by vulnerable subgroups who are more likely to experience income losses and vulnerable to poverty.

Marketing and sales managers agree with managers of other departments on the negative impact of the Covid-19 pandemic and rely on some strategies that contribute to maintaining hotel activity, including maintaining existing customers of the hotel by communicating with them and using them as an important marketing tool for the hotel, and working on modern marketing research with the aim of exposure to manifestations of change in the behaviour of the tourist consumer during the pandemic, as well as reliance on electronic marketing channels that are commensurate with the conditions of the precautionary measures applied in many countries. Green hotel marketing strategies help for recovery this consist of

Gössling et al. (2020), Salama (2021), Abdou et al., (2020) with the effects of the green marketing orientations model on the sustainability of the hospitality industry. It was suggested that the green marketing orientations of most hotel managers using the green-sustainable marketing trend model in the Covid-19 pandemic could be improved. Nevertheless, decision-makers need to be careful when they apply the model.

Conclusion

The Covid-19 pandemic has negatively affected all sectors of green hotels, low hotel occupancy rates, and many hotels have turned into institutional quarantine. Alternative activities, including its use of the Takeaway service, and hotel marketing were negatively affected by the crisis as a result of the failure of marketing campaigns and future marketing plans in the development of the hotel marketing sector. The study recommends the management of green hotels, and the necessity of activating crisis departments in hotels, which contribute significantly to sensing the occurrence of the crisis before it occurs and developing appropriate plans to confront it. The study also recommends that various hotel administrations develop plans and strategies that aim to confront the crisis promptly to reduce the negative effects if it occurs. Compliance hotels with laws implicitly contribute to the preservation of the environment even if the hotel is not classified as a green hotel.

The current study is concerned with the impact of the Covid-19 pandemic on green hotels in many Arab countries and measuring the impact of Covid-19 on the management of green hotels, the extent of recovery opportunities during the period 2020-2021, and the comparison of green hotel administrations with others that are not green in the possibility of recovery from the effects of the pandemic. It is possible that the future study will address the impact of the Covid-19 pandemic on the profitable sectors in hotels and their recovery opportunities future research avenues could use a multiple or mixed- methodology rather than questionnaires to gather further data.

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