

# Impact of Covid-19 on Tourism and Hospitality concerning Design of Public places in Dubai

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## Abstract:

The travel and tourism industry contributes to socio-economic and cultural development along with the creation of jobs, The COVID-19 pandemic has severely affected the tourism and hospitality sector on a global scale. The present study focus light on the adverse effects of the COVID-19 pandemic on tourism and hospitality in public places in Dubai. The study explores the settings of design of architecture in public places of Dubai, both in urban tourism and outdoor avenues. Particular emphasis was provided on the architecture and design of public spaces such as space, green buildings, interior spaces, and risk-mitigation measures. To set it back to the normal position of the tourism and hospitality industry of Dubai, this study recommends short trips to remote destinations, health and safety measures, wellness tourism, certification schemes, temporary halts, tourism models, and local tourism with their priorities and Government support.

## Keywords:

*COVID-19 pandemic, Design, Dubai, Economic crisis, Hospitality, Public spaces, Tourism*

## 1. Introduction

Public spaces are owned by the public for free use and accessible without a motive of benefit. It includes open spaces, public facilities, and streets with avenues, boulevards, squares, plazas, pavements, passages, lanes, and bicycle paths (NSW, 2021; Domljan & Jankovi, 2022). The COVID-19 pandemic has impacted the economic and healthcare sectors with financial losses and exerts severe impacts on the tourism and travel sector (Abbas et al., 2021). According to McKinsey and Company (2020), severe economic impacts on international tourism and hospitality, along with the health crisis are caused by the COVID-19 pandemic.

Tourism is the fastest-growing economic sector, and source of employment and is a significant source of employment, government revenue, and foreign exchange earnings (UNCTAD, 2020; Habiba et al., 2021). Tourism contributes significantly to job creation and socio-economic and cultural development worldwide (UNWTO, 2019; Stephenson, 2013). It is the most vulnerable industry and plays a critical role in the Gross Domestic Product (GDP) of many countries along with economic activities and customer satisfaction (McCabe & Qiao, 2020; Wondirad et al., 2021).

Preventive measures suggested to minimize the spread of the pandemic along with lockdown and closure of borders have impacted tourism and hospitality (OECD, 2020). According to UNWTO (2020), the tourism industry faced tremendous economic loss and job cuts. Almeida et al. (2022) demonstrated that In Portugal, the pandemic exerts a negative financial impact on the tourism and hospitality industry due to a drop in the number of international tourists. Kaveh et al. (2021) stated that the COVID-19 pandemic had hampered the tourism sector in Famagusta, Northern Cyprus due to the global lockdown. Though the pandemic has affected the tourism sector severely, the literature available on the impact of COVID-19 on the tourism and hospitality industry is scanty (Dube et al., 2021).

Sharmin et al. (2020) recorded that due to the COVID-19 outbreak, Italy, Spain, the USA, Mexico, and China, faced substantial economic losses in tourism and hospitality (Dogan & Christina, 2020). As a result, the tourism economy has experienced an immediate and immense shock (UNCTAD, 2020). COVID-19 has interrupted global value chains (GVCs) and disrupted the global economy causing the deepest recession (UN, 2020; Jordi et al. 2020).

Justin & Dutt (2022) reported that the pandemic caused significant disruptions in the travel and tourism industry due to repeated lockdowns and social distancing practices. It has impacted the hospitality industry mainly because of the decision to shut down hotels, restaurants, theme parks, cinemas, and Travel, affecting worldwide tourism (Jiang & Wen, 2020; Dong-Shang & Wu, 2021). The COVID-19 pandemic has presented unprecedented circumstances for the fragile tourism and hospitality industry (Kaushal & Srivastava, 2021). Habiba et al. (2021) demonstrated that in Oman, the pandemic results in financial loss and a reduction in customer demand. Similar results were reported in the tourism enclave of the Savannah region by Ophelia et al (2021). Saher & Mishra (2021) noticed the lowering of global GDP and loss of jobs for millions.

SARS-CoV-2 is primarily transmitted via respiratory droplets and due to contact with the infected person (WHO, 2020a; 2020b; 2020c). According to Jordi et al (2020), interior spaces have to be primarily shaped by minimum distances and minimum distance should be maintained in hallways, corridors, urinals, and

classroom seats (Kaya, 2020), resulting in greater demand for smaller green spaces or neighborhood parks (OECD, 2020; Hourakhsh & Olugbenga, 2020; Barbara, 2021). COVID-19 has seriously impacted the services of travel and tourism and urban tourism in every major city in the world has suffered. As a result, restricted access to parks and other outdoor venues was implemented (ADB & UNWTO, 2022).

During a pandemic, designers have to imagine new interior design solutions for a safe environment that minimizes the spread of viruses in public places. The design of public places should be made to protect the environment for people (Noha, 2020). Domljan & Jankovi (2022) proposed the design of a conceptual modular building to socialize safely in a healthy environment (WHO, 2020).

United Arab Emirates (UAE) has been one of the most prominent locations globally for tourism. The UAE has sun, sea, sand, sports, top-class hotels and restaurants, traditional culture, unbeatable malls, pristine desserts, and not to mention a safe and welcoming environment (Harith et al., 2020). The UAE is one of the most favorite tourism destinations in the world and Dubai and surrounding areas offer a wealth of interest for sightseers and photographers (DTCM, 2021).

The present study, Architectural Design of Public Places (Urban and Outdoors) in Dubai is focused concerning:

1. Facilitation of sustainable tourism and hospitality.
2. Diverse policy interventions and design the public places of tourism and hospitality.
3. Changes in the design of infrastructure and risk-mitigation measures.
4. Green spaces for energy efficiency, materials, and design in public places.

## 2. Materials and Methods

### Study Area:

Dubai (25° 16' 37.1532" N to 55° 17' 46.4964"E) with a population of 3.49 Million as of 2021 (official Dubai Government website). Dubai has 35 sq. km of the city area (Fig. 1). Most residential and commercial establishments are established in Bur Dubai (Harith et al., 2020). On average, Dubai experiences only five days of rainfall per year. The temperature range is 10–48°C, whereas the relative humidity remains between 50% and 60%.

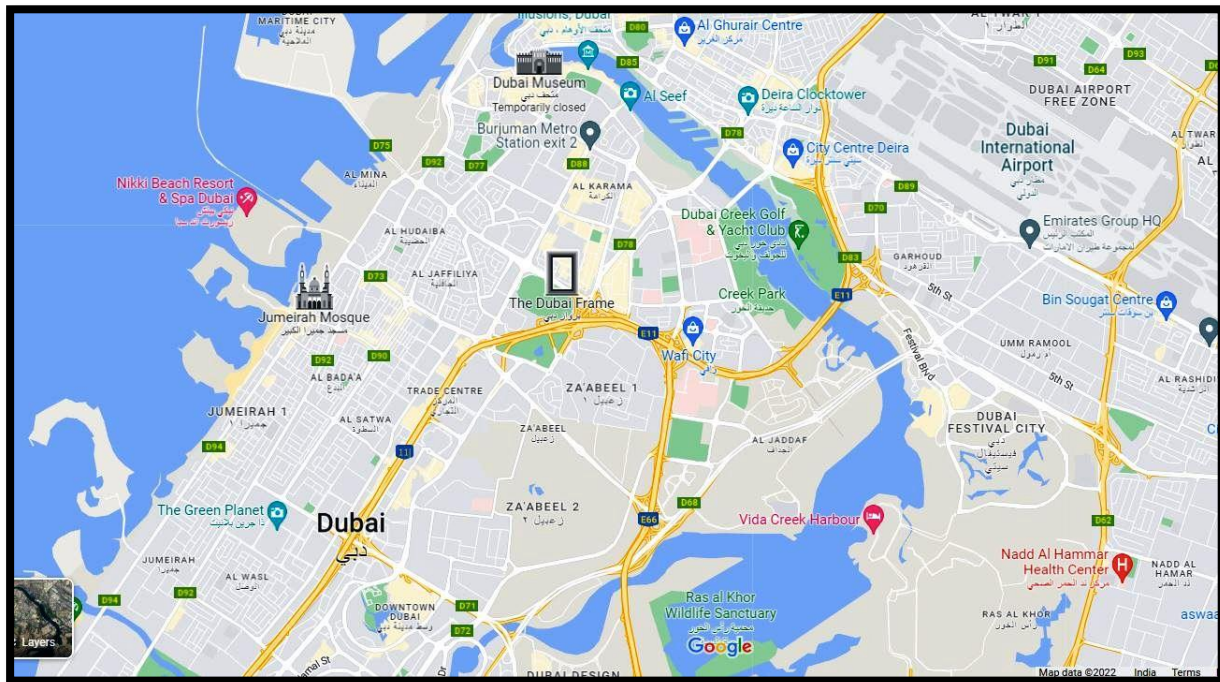


Fig. 1: Geographic location of the Public places in and around Dubai city  
(Source: Google Map).

### Study Location:

For the present study, public places in Dubai such as Burj Khalifa, Burj Al Arab, Global Village, Dubai Mall, Ski Dubai, Desert Safari, Dubai Garden Glow, Palm Jumeirah, Dubai Miracle Garden, Dubai Frame, Dubai Marina, Dubai Dolphinarium, Jumeirah Mosque, Dubai Aquarium and Underwater Zoo, Wild Wadi Water Park, Atlantis Aquaventure Waterpark were selected based on their strategic locations.

### Research Methodology

The present study was conducted using personal visits and the collection of secondary data to capture the role of tourism in Dubai. Primary data was collected by networking with Government officials from sectors like Tourism, Aviation, Hospitality, Designers, and Architects and also through in-depth telephonic interviews and Online meetings using the Zoom application with stakeholders.

The review method was adopted for the collection of secondary data from the scientific literature. Keywords used for reviewing the literature using "tourism and hospitality" combines WHO Protocols, architectural design, ambiance, materials, furnishings, colors, lighting, and interior for a literature search. Secondary data was also supported with articles from Trade publications, Government Reports, Newspapers, Magazine articles, Policy documents, etc. (Harith et al., 2020).

### Data Presentation

Collected primary and secondary data reveals that designers are haunted by many questions regarding public places' outdoor and indoor architecture. Designers have yet to put a comprehensive blueprint for designing new public places and redesigning existing public places. Given the constraints of time and protocols of social distancing, the nature of data is preliminary but indicative of the likely changes in the design of public places in Dubai as a fallout of the COVID19 pandemic.

### 3. Results and Discussion

Public places improve our quality of life and well-being. They create healthier, happier, and more resilient communities. Public spaces that delight and support communities are increasingly important as our cities and towns grow (NSW, 2021). Harith et al. (2020) reported that in Dubai, the tourism industry is flourished due to infrastructure, strategies, and culture along with Burj Khalifa, the tallest building in Dubai and the world.

During the present study, data collected from Government officials and stakeholders in Tourism, Aviation, Hospitality, Designers, and Architects regarding Design solutions in Pandemic Architecture and Space re-setting at public places and outdoor avenues of tourism and hospitality reveals that as per customer requirements, alternative solutions can be created to meet the technical requirements. By using actual studies and simulations, the final design solution should be developed (Noha, 2020; Tokazhanov et al., 2020).

#### **Architecture and Design of Space of the Public Places:** (James, 2019)

According to the feedback received from the stakeholders, public places should be designed by considering the following standard protocols:

- Social Distancing Solutions for Interior spaces layout: Partitions for safe circulation.
- Indoor Quality: Choice of surface material for easy disinfection, coating surfaces with germicides and germ-resistant materials. Self-cleaning of furniture, clothing, and fabrics.
- Automation Independence Indoor Spaces: Use automated systems to avoid public contact and maintain hygiene.
- Smart and Sanitize Entryway: Use contactless self-service experience (voice recognition, face recognition, radar sensor, signature recognition, etc.).
- Digital transformation of building to tackle design problems and environmental challenges.

#### **Design Requirements for Public Places**(Domljan&Jankovi, 2022)

- Aesthetically simple, contemporary, modular, and prefabricated.
- Use of wood and laminated wooden beams in construction for sustainability.
- Resistant to potential vandalism.
- Allow for resting, dancing, yoga, reading, music, and socializing.

- Wood in construction for protection and resistance to weathering.
- Spatial application to the design.

### **Design of Green Buildings** (Bonda & Sosnowchick, 2007)

For the benefit of climate, human health, and ecological prosperity, green buildings should be designed and constructed with the following considerations:

- Sustainable use of natural energy sources.
- Improve Energy efficiency and increase its usage.
- Recycling of rainwater to control water usage and conservation.
- Utilization of recycled building materials.
- Quality indoor environment by intelligent control of air quality and temperature.
- Environmentally Sustainable Interior Design.

### **Design of Interior Spaces:** (Roige et al., 2021)

New sights should be adapted by interior designers to develop eco-friendly patterns to meet human psychological needs, maintain good environmental quality, and be well for human health.

- Simple plans, separate sanitize entry, and less energy demand.
- Good air quality and futuristic living spaces.
- Control devices for security and surveillance systems; Automated and remote controlled systems.
- Hygienic antibacterial material; advanced cleaning and nano-solutions.

### **Risk-mitigation Measures**(UNWTO, 2020)

- A design solution to mitigate virus spread and transmission is using Ultraviolet (UV-C) light technology to neutralize pathogens.
- Sensor-controlled Self-cleaning devices in bathrooms and toilets.
- Maintain the workflow in public spaces.
- Sanitation to infrastructure.
- Scale up vaccination to achieve herd immunity.
- Use digital technology and leverage it to support tourism.
- Avoid over tourism to protect travelers, communities, and the environment.

This study is the original research investigating the effect of the pandemic. Results of the study will help in better understanding architectural design in public places of tourism and hospitality in Dubai after the COVID -19 pandemic.

### **Conclusion**

This study recommends short trips to un-crowded destinations. Safety should be the new "Brand" for Travel.

Wellness tourism, leverage certification schemes, a temporary halt in tourism, implementation of

regenerative tourism models, and support local tourism organizations to facilitate tourism and the hospitality industry.

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