

**GREEN PRACTICES OF WATER AND ENERGY
ON SUSTAINABLE TOURISM DEVELOPMENT:
A CASE STUDY OF 5-STAR HOTELS IN
HURGHADA AND MECCA**

ADEL MOHAMED MAHMOUD ABOUAMER

UNIVERSITI SAINS MALAYSIA

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by

ADEL MOHAMED MAHMOUD ABOUAMER

**Thesis submitted in fulfilment of the requirements
for the degree of
Master of Science**

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LIST OF ABBREVIATIONS

ARIJ	Applied Research Institute–Jerusalem
CSR	Corporate Social Responsibility
EMS	Environmental Management Systems
FGDs	Focused Group Discussions
GDP	Gross Domestic Product
GHRM	Green Human Resource Management
HVAC	Heating, Ventilating, and Air Conditioning
ICT	Information and Communication Technology
IHG	Intercontinental Tourism Group
KCS	Key-card Control Systems
SDG	Sustainable Development Goals
SSIs	Semi-Structure Interviews
SOPs	Standards of Procedures
UNESCO	United Nations Educational, Scientific, and Culture Organization
WTO	World Tourism Organization

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Appendix A ANNEXURE

**AMALAN HIJAU AIR DAN TENAGA TERHADAP PEMBANGUNAN
PELANCONGAN LESTARI: KAJIAN KES HOTEL 5 BINTANG DI
HURGHADA DAN MEKAH**

ABSTRAK

Kajian ini meneliti amalan hijau (air & tenaga) di hotel dan kesannya terhadap pembangunan pelancongan lestari di Mekah dan Hurghada. Kajian ini bertujuan untuk mengenal pasti amalan tenaga hijau dan air yang digunakan oleh hotel 5 bintang di Hurghada, Mesir, dan Mekah; menentukan cabaran yang dihadapi oleh hotel dalam melaksanakan amalan hijau yang mempengaruhi pembangunan keseluruhan pelancongan lestari; dan meneliti bagaimana pelaksanaan amalan hijau yang berjaya di hotel memberi manfaat kepada pembangunan pelancongan lestari pada tahap hotel 5 bintang. Kaedah penyelidikan kualitatif telah digunakan: iaitu, Perbincangan Kumpulan Berfokus (FGD) dan Temu Bual Semi-Berstruktur (SSI) sebagai teknik pengumpulan data. Jumlah sampel adalah (18) responden yang terdiri daripada pengurus, pemilik hotel, ketua jabatan yang terlibat secara langsung dalam operasi harian, dan beberapa penyelidik dari bidang yang sama. Respon yang diperoleh daripada FGD dan SSI kemudiannya diasingkan mengikut tema dan subtema yang berkaitan. Penemuan menunjukkan bahawa hotel 5 bintang di Hurghada dan Mekah melaksanakan pelbagai latihan berkaitan amalan hijau untuk kakitangan mereka, memaparkan papan tanda, mengurangkan penggunaan peralatan elektrik, menaik taraf kepada sistem tenaga suria, dan membuat jadual operasi untuk sistem pencahayaan dan penghawa dingin mereka. Mereka juga menetapkan suhu penghawa dingin mereka kepada mod biasa; memasang penghawa dingin yang menjimatkan elektrik di bilik mereka; menyesuaikan suhu kolam renang yang

dipanaskan, menghentikan pemanasan kolam renang sepenuhnya; dan menggunakan pemanas air berkuasa suria serta lampu sensor gerakan pada waktu malam. Sementara itu, taman-taman mereka ditanam dengan tumbuhan yang memerlukan sedikit air dan disiram melalui pengairan. Mereka juga mencatu penggunaan air di bilik mandi dan dapur serta menyediakan produk mesra alam yang mewah kepada tetamu tanpa pembalut plastik. Banyak hotel dan tetamu menyedari kepentingan amalan tenaga hijau dan air, namun, tetamu yang merupakan jemaah haji adalah yang paling kurang menyedari disebabkan oleh asal mereka dari negara membangun di mana alam sekitar kurang diutamakan. Mengamalkan amalan hijau bukan sahaja mengurangkan kos operasi (iaitu hampir 45%) tetapi juga menarik pelancong dari kawasan maju. Dasar peringkat kebangsaan mengenai pelaksanaan amalan hijau di hotel dan tapak pelancongan diperlukan dan kesedaran adalah faktor paling penting dalam pelaksanaan amalan hijau yang berjaya di hotel dan tempat umum. Selain itu, ia menyumbang secara praktikal dan teori kepada pengetahuan sedia ada dan pembuatan dasar kerana Wawasan Saudi 2030 adalah mengenai alam sekitar hijau, pembangunan pelancongan, dan pembangunan sosio-ekonomi yang lestari.

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ABSTRACT

The study examines the green practices (water & energy) in hotels and their effect on the sustainable tourism development in Mecca and Hurghada. The study aimed to identify the green energy and water practices that 5-star hotels in Hurghada, Egypt, and Mecca; determine the challenges they face hotels in implementing green practices affect the overall development of sustainable tourism; and examine how the successful implementation of green practices in hotels benefits the development of sustainable tourism at the 5-star hotel's levels. A qualitative research method was applied: namely, Focused Group Discussions (FGDs) and Semi-Structured Interviews (SSIs) as data collection techniques. The total sample was (18) respondents who were managers, owners of hotels, heads of departments directly involved in daily operations, and a few researchers from the same field. The responses obtained from the FGDs and SSIs were then segregated into the relevant themes and sub-themes. Findings showed that 5-star hotels in Hurghada and Mecca conduct different green practices-related training for their staff, display signboards, decrease the use of electric equipment, upgrade to solar-powered energy systems, and create operating schedules for their lighting and air conditioning systems. They also set the temperature of their air conditioners to normal mode; installed electricity-saving air conditioners in their rooms; adjusted the temperature of their heated swimming pools, ceased heating their swimming pools altogether; and used solar-

powered water heaters and motion sensor lights at night. Meanwhile, their gardens were planted with low-water requirement plants and watered via irrigation. They also rationed water use in their washrooms and kitchens as well as provided guests lush environmentally friendly products sans plastic covers. Many hotels and guests are aware of the importance of green energy and water practices, however, guests who are religious pilgrims are the least aware due to their belongingness from developing countries where the environment is least important. Adopting green practices not only decreases operational costs (i.e. 45% almost) but also attracts travelers from developed regions. The national-level policy on implementing green practices in hotels and tourist sites is required and awareness is the most important factor in the successful implementation of green practices in hotels and general places. In addition, it practically and theoretically contributes to the existing body of knowledge and policymaking because the Saudi Vision 2030 is all about the green environment, tourism development, and sustainable socio-economic development.

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Tourism is a sector of great importance for the socio-economic development of a country. Juvan and Dolnicar (2017) and WTTC (2018) state that around 10.4% of the overall Global Gross Domestic Product (GDP) is determined by tourism-related businesses which involve around seven percent of the world's exports and 10% of the overall employment through the tourism sector. On the other hand, tourism activities emit almost eight percent of greenhouse gases, which not only affects biodiversity but also harms human health (Lenzen et al., 2018). In this regard, hotels consume a high level of resources in their everyday business and function which adversely affects the global environment as well as the sustainability of tourism development (Verma & Chandra, 2016, 2018; Legrand et al., 2016).

Due to the growing awareness and consciousness of global environmental problems, more and more hotels, resorts, vacation homes, and tourism-related industries have been developing, implementing, and adopting green practices to ensure sustainability in the tourism sector without any adverse effects on biodiversity (Ibnou-Laaroussi, Rjoub & Wong, 2020). For this reason, the focus on environmental and tourism sustainability has risen and there is great interest in exploring problems in the marketing approaches of such corporations and industries that are engaged in tourism-related activities (Legrand et al., 2016). This is shown by the fact that more and more hotels are now combining green practices and methods in their everyday activities to attract consumers and also encourage the promotion of sustainable tourism (Moise, Gil-Saura & Ruiz Molina, 2021; Movano & Hughes, 2020). The

general reason for accepting and employing sustainable green practices is the environmental apprehension of guests, who make pro-ecological choices when traveling or booking hotels (Han et al., 2018). Baloch et al. (2020) assessed five Green Star hotels and found that the application of green practices was successful and Sustainable Development Goals (SDGs) 6, 12, 7, and 13 that were set had been achieved.

Similarly, the major purpose of the adoption and implementation of the Green Star Criteria (GSC) is to ensure commitment from hotels and the tourism sector to environmental preservation and tourism sustainability by taking pro-environmental steps to avoid harming the environment and biodiversity (Abdou, Hassan & Dief, 2020; Choy, Cheng & Yu, 2021). Moreover, hotels and tourism-related industries have taken the initiative in various ways to show their readiness for sustainability in the tourism sector. This includes eco-labels on daily used products, applying practices to accompany environmentally viable human conduct, and executing Environmental Management Systems (EMS) (Abdou, Hassan & Dief, 2020). If hotel-related businesses and firms do not integrate and commit to sustainability and the preservation of natural resources concerning their business traditions and culture, they will not be capable of moving forward. This will be evident in the future as environmental degradation such as the emission of greenhouse gases can potentially destroy all basis for tourism development and industry management (Abdou, Hassan & Dief, 2020; Fauzi, Hanafiah & Kunjuraman, 2022).

The implementation of green practices in hotels is believed to be one of the most important environmentally as well as ecologically friendly proposals that recommend the removal of harmful impacts on the natural environment by rescuing energy and water resources for example energy-efficient appliances, recycling, and

applying linen and towel recycling services, which are also environmentally friendly. Included in the proposal are also strategies for the waste organization such as using durable and long-lasting items rather than throwaway items which are less economical (Abdou, Hassan & Dief, 2020).

Similarly, in the year 2012, the World Tourism Organization (WTO), the United Nations Environment Programme (UNEP), and the World Meteorological Organization (WMO) declared that hotel businesses were liable for the release of green gases since 21 percent of all CO₂ releases correlated to the tourism and hotel sector. As tourists are progressively concerned about the environment, it is predicted that they will make more eco-friendly choices when deciding on a hotel. Subsequently, an expanding number of hotels, and holiday homes have retained eco-friendly practices and environmental approaches to attract more tourists (Jones, Hillier & Comfort, 2014; Movano & Hughes, 2020).

1.2 Present Research Context

Studies have shown that fast and rapid economic development has adversely affected the environmental vulnerability of the ecosystem (Azevedo et al., 2011; Gohar, 2017; Hassan et al., 2020; Baig et al., 2022; Abdou, Hassan & Dief, 2020; Cheng & Yu, 2021; Verma & Chandra, 2016, 2018; Movano & Hughes, 2020; Abu-Elhassan & Elsayed, 2020). Due to the emergence of Information Communication Technology (ICT), economic activities have increased including hotel businesses and tourism development. However, it can be stated that tourism and its related activities enhance a country's sustainable socio-economic development. For example, in the Kingdom of Saudi Arabia, the tourism and hotel sector is boosting rapidly after the

initiatives of Prince Mohamed Bin Salman's revolutionary investments in the tourism sector.

However, the efficient and timely implementation of green practices (water and energy) can impact sustainable tourism development generally, and it has also positively affected the tourism sector of Hurghada and Mecca. The more economic activities in the tourism sector the higher the chances of emitting greenhouse gases, environmental pollution, an increased quantity of non-renewable energy, polluted drinking water, and an increase in waste production, all of which harm the local coastal and aquatic biodiversity, and inadvertently pose risks to human health. This also leads to the country's wastage of water and energy resources. To overcome the issues and problems, the owners of hotels try to efficiently reduce the use of water and energy resources to promote the industrial and hotel sectors along with saving a huge amount in the tourism sector (Duric & Topler, 2021; Alhelal, 2015).

Each day in hotels a high frequency of excess water and energy resources are wasted due to inefficient and inappropriate usage of natural resources. There is also a shortage of water supply in many cities in Saudi Arabia and Egypt including the cities of Hurghada and Mecca. However, an adaptation of green practices, which include the recycling and reuse of water resources has minimized the wastage of water resources. For example, wastewater from hotels and mosques is reused after being filtered for gardening purposes. Similarly, hotels also use Lush products that are packed without plastics and rubber items. These include green soap, shampoo, and lotion. Moreover, the use of paper napkins, paper towels, and disposable cups are also installed in hotels to promote sustainable tourism development through practical green practices (Baig et al., 2022).

In addition to the above programs to save water, the hotels in Hurghada and Mecca also promote energy-saving strategies through the installation of energy savers, renewable energy sources, solar plants, switching lights off from midnight onwards, Key-card Control Systems (KCS), regulator-of every appliance in rooms, changing towels frequently, the display of green products, monitoring the heating, ventilating, and air conditioning in lobbies, covering the pools and hot tubs to diminish heat loss and also group re-lamping to save energy resources and efficient usage of energy resources.

Furthermore, to conserve limited water resources, hotels implemented methods such as reasonable-flow toilets, reduced-flow sinks, tidy tabs that recycled greywater, using water-effective appliances, and observing overall good sanitation. The transfer from traditional energy reserves to solar energy also encourages a natural-friendly method for the sustainable promotion of tourism. Despite the above programs and activities, it is more important to conduct training sessions for hotel owners and tourism sector employees to create awareness regarding the importance of green practices, which in turn can promote sustainable tourism development in Egypt, Saudi Arabia, and adjacent states.

The current research examines the impact of green practices (water and energy) on sustainable tourism development: a case study of 5-Star Hotels in Hurghada which is a famous city in Egypt; and Mecca which is the holy city for Muslims in Saudi Arabia. The tourism sector is increasing day by day in Saudi Arabia and Egypt and many big cities are now the hub and center for tourist destinations including Hurghada and Mecca. Therefore, in Egypt for example, the government has designed green policies for tourists in the cities. The government has

also issued Standards of Procedures (SOPs) for hotels to follow as a major part of the hotels' activities and routines.

It is a common fact that tourism is contributing to the economy of Hurghada and Mecca, however, the lack of awareness and proper management in implementing green practices can harm the environment and affect the usage of water and energy. Despite strict monitoring and effective SOPs, there are very less 5-star hotels that have adopted green practices (water and energy), which include the recycling of water, proper waste management systems where waste is reused, usage of clean and green energy to install energy savers, and the shift to solar electrical powers. However, the majority of them adopt green practices for their individual will which minimizes the operational cost of hotels where the power and water are already in shortage.

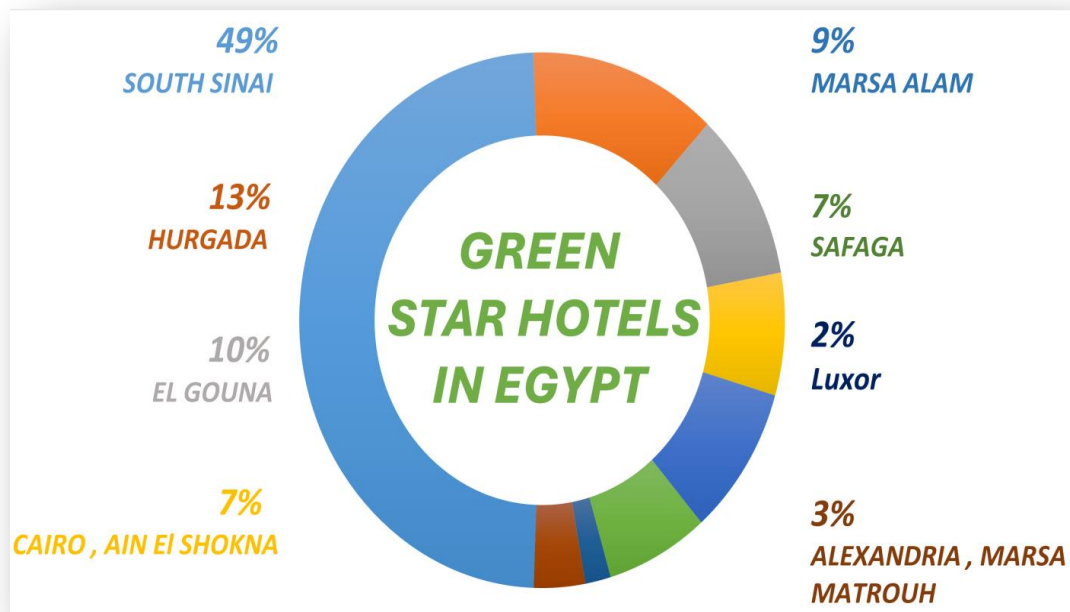


Figure 1.1 Green Star Hotels in Hurghada, Egypt.

Source: Green Star Hotels (2024)

The official data showed there are completely thirteen (13), 5-Star hotels that have adopted green practices out of the total figure of 52 hotels. However, these hotels, particularly implemented green practices. On the other hand, around 5 hotels have no concept of green practices. Moreover, there is a total number 4290 of rooms, and it covers tourists' accommodation of 12220 tourists.

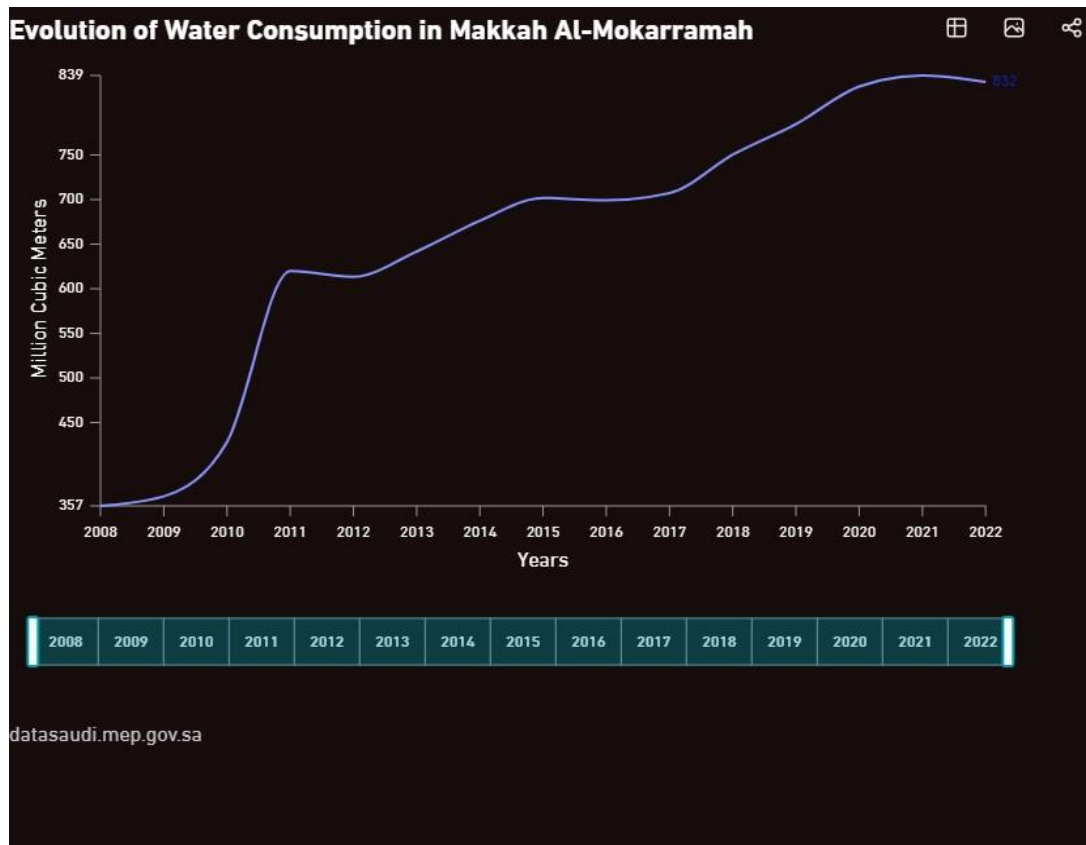


Figure 1.2 Water Consumption in Mecca

Source: Datasaudi.mep.gov.sa

The above data showed the water consumption from 2008 to 2022 in Mecca, which showed that the water consumption is increasing year by year.

The below graph shows the amount of electricity consumption in kWh in Mecca from 2017 to 2022. Consumption during winter and consumption during the rest of the year are differentiated.

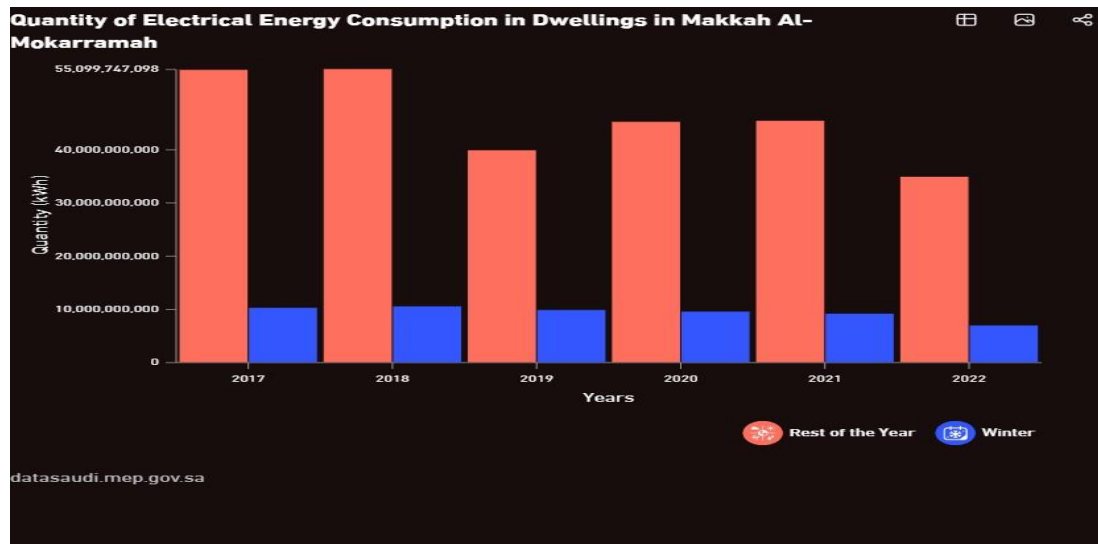


Figure 1.3 Energy Consumption in Mecca From 2017 to 2022

Source: datasaudimep.gov.sa

1.3 Problem Statement

In Hurghada and Mecca, the increased investment in hotels and the tourism sector has led to sustainable socio-economic development in both cities. However, it has negatively impacted energy, water resources, and water consumption and there is already a shortage of these resources in the said cities. Despite campaigns regarding the importance of green practices to protect the environment, hotels, and tourism sectors in Mecca and Hurghada are less likely to be serious about taking practical steps to reduce the overall negative impact and effects of climate change (Abou Amer, Mohamad & Roosli, 2023). However, to ensure the green practices many hotels charge some amount (tax) as per the direction of the state's authority, to aware the tourists about the importance of green practices in hotels.

Although many 5-star hotels have tried to implement small-scale green practices which were relived during fieldwork counted in numbers-they are not serious about implementing or adapting bigger green practices. For example, some

hotels have adopted green practices to overcome the wastewater from hotels and mosques that can be reused after being filtered into the gardens. They also use Lush products (green soap, shampoo, and lotion) which are without plastics and rubber posts as well as paper towels and one-use cups (Zaki & Abuzid, 2017; Quora & Ali, 2015; El- Latief, Fahey & Saleh, 2020).

Other green practices are the use of moderate-flow toilets, reduced-flow sink tanks, smart tabs to reuse greywater, water-efficient appliances, and practicing the directive of green policies. Other initiatives include shifting energy resources to solar and organizing sessions and activities for hotel owners and tourism sector employees to create awareness regarding the importance of green practices and sustainable tourism development in Saudi Arabia and Egypt (Abou Amer, Mohamad & Roosli, 2023).

1.4 Aim of the Research Study

The primary aim of the study is to demonstrate the overall impact of green practices in the sustainable development of tourism. This includes the negative impact and high cost of implementation, maintenance, and green practices from the perspective of water and energy. Sustainable green practices reduce the number of carbon emissions, decrease waste, and enhance productivity of the tourist organizations. The high cost of implementing green practices is one of the main factors that need to be resolved for the cities of Hurghada and Mecca to benefit from sustainable tourism development. The implementation of green practices is a constructive way to promote eco-friendly tourism, which could provide environmental and economic gains. This study has assessed and realized the negative

impacts of the costly implementation of green practices on the development and management of sustainable tourism in Hurghada and Mecca.

The implementation of green practices is a one-time that has a high cost but more return due to being environmentally friendly. The study has also highlighted the existing challenges faced by the hotel management, officers, tourism experts, and government departments to implement green practices in the cities of Hurghada and Mecca which are emerging as the hub of tourism. Furthermore, the study sheds light on the ways and means through which the possibility of implementing green practices in the tourism sector can be further improved. Furthermore, this study also supports the Saudi Vision 2030 the main objective of this vision is to promote tourism rather than oil and gas. In tourism, green tourism is more focused on the Middle Eastern countries.

1.5 Objectives of the Research

The current study examines the following objectives:

- i) To Identify green practices related to water and energy consumption are being implemented by 5-star hotels in Hurghada and Mecca.
- ii) To examine the existing challenges faced by the 5-star hotels in Hurghada and Mecca in the process of implementing green practices (water and energy).
- iii) To explore the benefits of successful implementation and adaptation of green practices (water and energy) in sustainable tourism development in Hurghada and Mecca.

1.6 Research Questions

The research questions of this study are:

- i) What are the green practices being implemented by the 5-star hotels in Hurghada and Mecca?
- ii) What are the challenges in the process of implementation of green practices and sustainable development of the tourism sector?
- iii) What are the benefits of the successful implementation of green practices (water and energy) in sustainable tourism development by 5-star hotels in Hurghada and Mecca?

1.7 Scope of the Study

The study has demonstrated that the high cost of implementation and maintenance of green practices (i.e., water and energy) are some of the biggest challenges that need to be addressed in Hurghada and Mecca if they are to benefit from sustainable tourism development. This study focused on 5-star hotels in both cities of Hurghada and Mecca and the target population were hotel owners, hotel general managers, and heads of departments who frequently interacted with tourists during their stay at the hotel. To create dependable and legitimate findings, a qualitative study design was used. Both focus group discussions and semi-instructed interviews were used as research instruments to collect data with the help of primary data collection techniques.

The purposive sampling technique was applied and is a form of non-probability sampling in which scholars depend on their judgment when selecting members of the populace to contribute to the assessments or data collection process.

Data collected were analyzed through a thematic analysis that fulfilled the research objectives. The Green Theory approach was utilized in this study. The study used a relatively novel topic containing impactful results for both the literature as well as society (tourism industry). Furthermore, results were divided into some major themes and sub-themes and research tools were designed after reviewing the relevant existing literature.

The reliability and validity of the instruments and techniques of the research were supported by the fieldwork and data collection. All the data which the respondents provided remained confidential and used only for the objectives of this study. Before starting the interviews, the purpose of the study was shared with the respondents. Data were assembled from respondents who accomplished the obligations of the research. While the findings of the research are based on the specific data and conditions of this study, certain results to some extent can be generalized.

1.8 Significance of the Study

The current research has both practical and theoretical implications and adds to the prevailing body of literature involving the proficient use of green practices (water and energy) and their effect on the promotion of tourism. Additionally, this study has exemplified practical ways of applying the outcomes for policy-making intentions in the development of tourism in Saudi Arabia. Sustainable tourism development varies based on the optimal usage of modern equipment, the well-organized usage of occurring resources as well and the effective utilization of human resources.

Sustainable tourism development is vital in ensuring a positive impact on the environment, society, and economy as a whole. It is critical to planning and developing tourism purposefully and sustainably and in balancing environmental and climate objectives. Customers need to be satisfied with sustainable tourism growth and management through the implementation of green practices. Hence, tourists must have a constructive and positive experience and a market consciousness concerning sustainability-related issues to ensure sustainable tourism practices in hotels.

This study explores the tourism industry, which is one of the most creative and competitive industries on the planet. Implementing green practices for water and energy usage is one of the major initiatives in the tourism industry to promote sustainable tourism development. This study will to some extent assist the tourism industry in both countries to identify the negative impacts of the costly implementation and maintenance of green practices in water and energy usage in the tourism industries of both selected cities, because both these cities are going to be hubs of tourism.

Academics will find the importance of implementing green practices, particularly for water and energy usage in the tourism sector which will inadvertently open opportunities for research in areas that have not been sufficiently addressed. The study has also provided a comprehensive explanation of the immediate need to resolve policy issues as well as the proper implementation of green tourism practices. The study has followed a rigorous methodology design which makes it a valuable addition to national and international literature and paves the way for future research.

1.9 Thesis Structure

The structure of the thesis is divided into different chapters which are then divided into themes or sections. The first section goes through the acknowledgment, list of acronyms, and abstract. Chapter One starts with a brief introduction and discusses the background of the study. The introduction includes the background of the study, the present research context, the problem statement, the aims, the research objectives, the research questions, the significance of the study, and the scope of the study.

The second chapter discusses the review of the relevant literature which identifies the following sub-themes: introduction, sustainable development goals related to green practices, green practices in the hotel industry, global perspective, operationalization of concepts, green practices catalysts, types of green practices, green practices in the hotel industry, green industry, and sustainable tourism development, water and its implementation in green practices, energy and its implementation in green practices, variables of green practices, water conservation, reuse of water, energy efficiency and the theoretical framework of the study.

Chapter three examines the overall research methodology which includes the following sub-themes: profiling of Hurghada and Mecca, research design, selection of research site and respondents, research instruments, sample size, and sampling techniques, data collection tools and techniques, data analysis technique, and ethics approval.

Chapter four reports on the results and findings of the study which were further divided into sub-themes: the green practices adopted in 5-star hotels in Hurghada and Mecca. challenges faced by the 5-star hotels in water supply and

energy management systems, sustainable tourism development in Hurghada and Mecca, etc. Chapter five examines the discussion section where the results and findings are compared with the existing literature.

Finally, chapter six analyzes the conclusion and recommendations based on the results, and at the end, references are included, and an appendix is attached.

CHAPTER 2

REVIEW OF THE LITERATURE

2.1 Introduction

Tourism is one of the world's most significant fields and also fast-growing sectors these days and this has led to an encouraging and positive influence on the overall national socio-economic growth of a country. However, it has had some adverse effects on the natural environment, biodiversity, and human health. According to the United Nations World Tourism Organization (UN-WTO), in 2016, worldwide travel and tourism including tourism-related corporations contributed to almost 10 percent of the global GDP and approximately seven percent of the global trade (UNWTO, 2017). Despite this positive contribution to global GDP and trade, it has negatively affected the environment and climate-related issues (Zhandildina et al., 2021; Abu-Elhassan, Elsayed & Soliman, 2016).

The growth of the travel industry has contributed to the release of greenhouse gases, an upsurge in the amount of environmental pollution in non-renewable energy, contaminated water usage, and waste production all of which have damaged the local coastal and water biodiversity and posed a threat to the sustainability and living of local people (Gohar, 2017). In 2012, UNWTO found that the expansion of the travel industry drastically caused the radiation of greenhouse gases and poisons in the water. In many advanced countries, wastewater is recycled and reused. These water-saving tools and techniques minimize water expenses, bring down the quantity of wastewater, overall overcome operational costs, and encourage efficient recycling of used water. It also reduces the managing costs; capital expenditures will also decrease due to lowering the overall number of pumps and water heaters in hotels.

As a result, water productivity and efficiency help tourism-related businesses save water for any future shortages (Wyngaard et al., 2018).

Similarly, sustainable tourism aims to have a positive impact on the environment, society, economy, and overall development. Over the past few years, the global economy has faced severe economic challenges, such as high poverty rates, an increase in the unemployment ratio, income inequality, high crime rates in urban areas, interstate conflicts, and low oil prices, which have negatively impacted industries and the production sector. In contrast, worldwide travel and the tourism industry have grown tremendously over the past two decades due to safe travel strategies and conveniences supplied by diverse travel agencies. There is an expanding number of different types of tourism such as adventure tourism, medical tourism, eco-tourism, environmental tourism, sustainable tourism, etc. In times of awareness for sustainable tourism, travelers nowadays prefer tourist locations knowing that they do not have any adverse impact on the environment and people (Conrady & Buck, 2007).

In addition to the above view, Kim et al. (2018) claim that applying green practices increases the number of businesses that are committed to the enhancement of environmental approaches. Similarly, the study by Kim et al. (2018) stated that green practices are a value-added business strategy and approach that provide numerous benefits to the hospitality industry and its operation. These practices involve participating in environmental protection initiatives with a positive approach towards climate change. These enterprises are the workable practice of natural resources and waste management systems, development of the general excellence of the environment, the protection of ecosystems and biodiversity constancy, climate transformation mitigation, and making the vacation environment better for

international tourists as they demand and search for environmentally friendly hostels and places for their stay in a healthy way.

Many studies such as Azevedo et al. (2011) have assessed the consequences of green practices in hotel or tourism-related businesses and their socio-economic development. Studies have shown that green practices have a positive impact on business efficiency due to a positive approach towards climate, customer loyalty to follow the rules and regulations, and productivity as well. Subsequently, a new green practice merging shared sustainability in green product development and inventions is in progress in the tourism sector. Global travel and the tourism industry have observed enormous global growth in the last two decades. Demand for all types of tourism like discovery tourism, medical tourism, ecotourism, geo-tourism, and green tourism is rising. In the past few years, tourism has increased globally through ecological travel and tourism practices. Tourists take accountability for their traveling and ensure they are not causing any harm to the natural environment, ecology, and civilization (Azevedo et al., 2011).

In the present period, there has been an increasing emphasis on promoting awareness and education about the importance of green practices through government regulations and policies. Government-led initiatives that promote green practices often involve the development and implementation of regulatory frameworks, incentive programs, public awareness campaigns, capacity-building exertions, and collaboration with stakeholders. Smith et al. (2019), stated that regulatory frameworks play an important role in setting environmental standards and requirements for businesses and industries. Similarly, incentive programs such as tax credits, subsidies, and grants have been found to arouse investment in renewable

energy, energy efficiency, and other environmentally friendly initiatives (Heal & Tarquinio, 2018).

Furthermore, public awareness campaigns are another important instrument used by governments to educate citizens about the importance of green practices and inspire behavior change. The study by Jones and Parker (2020) suggests that awareness campaigns can increase the overall public consciousness, mobilize support for environmental initiatives, and encourage individuals to adopt sustainable behaviors in their daily lives. However, there are numerous challenges and the most important is resistance from stakeholders, including businesses, industries, and individuals who may perceive environmental regulations as heavy or costly (Gupta & Sharma, 2017). Monetary barriers also pose an important challenge to the application of green policies. The upfront costs of accepting environmentally sustainable technologies and practices can be high for businesses and individuals, particularly in developing countries or in sectors with tight profit margins (Dasgupta & Roy, 2019).

Enforcement and obedience are additional challenges faced by governments in applying green regulations and policies. A study by Li et al. (2018) tourist attractions the position of healthy monitoring mechanisms, implementation agencies, and penalties for non-compliance to ensure that environmental regulations are effectively enforced, and violators are held accountable.

2.2 Sustainable Development Goals (SDGs 6 /SDGs 7 /SDGs 12) related to Green Practices

Tourism has the potential directly or indirectly to attain all the SDGs listed. Tourism development is multi-layered, and it can have constructive and destructive effects on economies and communities. As such, sustainability and SDGs have

become influential ideas for tourism expansion and development (Nhamo et al., 2020). SDGs seek to facilitate broad-based sustainable development through their focus on collaboration and cooperation. However, a lack of knowledge and awareness of the SDGs by shareholders poses challenges that are difficult to resolve. The actions taken incorporate the conservation of cultural and natural reserves for tourism purposes which is an advantage for future interventions. This allows environmental development in terms of philosophy and practices to be recognized and creates social awareness among tourism respondents and stakeholders (Özgit & Zhandildina, 2021).

The common view in the literature is that green and sustainable tourism can be both profitable and capable of preserving the environment and addressing social needs. A sustainable expansion is favorable for tourism, and sustainable tourism is seen as a move towards a sustainable development policy-making process, planning, and managing activities at tourism destinations. However, there are many continuing debates about the specific meaning of sustainable tourism and its significance. Questions arise on how to align and secure the aims of sustainable tourism with sustainable commercial and economic development, and who should be responsible for the performance and monitoring of these developments. (Rasoolimanesh et al., 2020). Furthermore, there is a dearth of theoretical and practical research that can inform shareholders' commitment to the progression (Movano & Hughes, 2020).

The World Tourism Organization favors the subsequent definition of sustainable development: “Sustainable tourism growth encounters the needs of present tourists and host regions while defensive and developing opportunities for the future tourism development (the formation and maintenance of a tourism industry within a specific location/settings). It is imagined as conducting the organization of

all reserves in such a way that economic, social, and cultural needs and wants can be met while continuing cultural truthfulness in the sector, necessary environmental processes, natural diversity among the clients, and life support systems”. Hence, it can be stated that green tourism is mostly concerned with tourism's environmental problems and cultural barriers (Ozgit et al., 2021).

A study by scientists at Sydney University found that tourism may be responsible for about eight percent of all carbon emissions (Lenzen et al., 2018). Green tourism has long been associated with a region's flora and fauna and its shared cultural heritage (Rashed & Shah, 2021). Sustainable tourism holds more than just environmentally friendly safety measures and SDGs. It is worth noting that environmental tourism's theoretical thought comprises economic, social, and ecological protection and safety. Due to tourism's substantial involvement and contribution to the SDGs, research on tourism sustainability and management is also continuing in the present year as well due to its importance in the current situation of climate change and negative implications in society (South Pacific Action Strategy for Green Tourism, 2017).

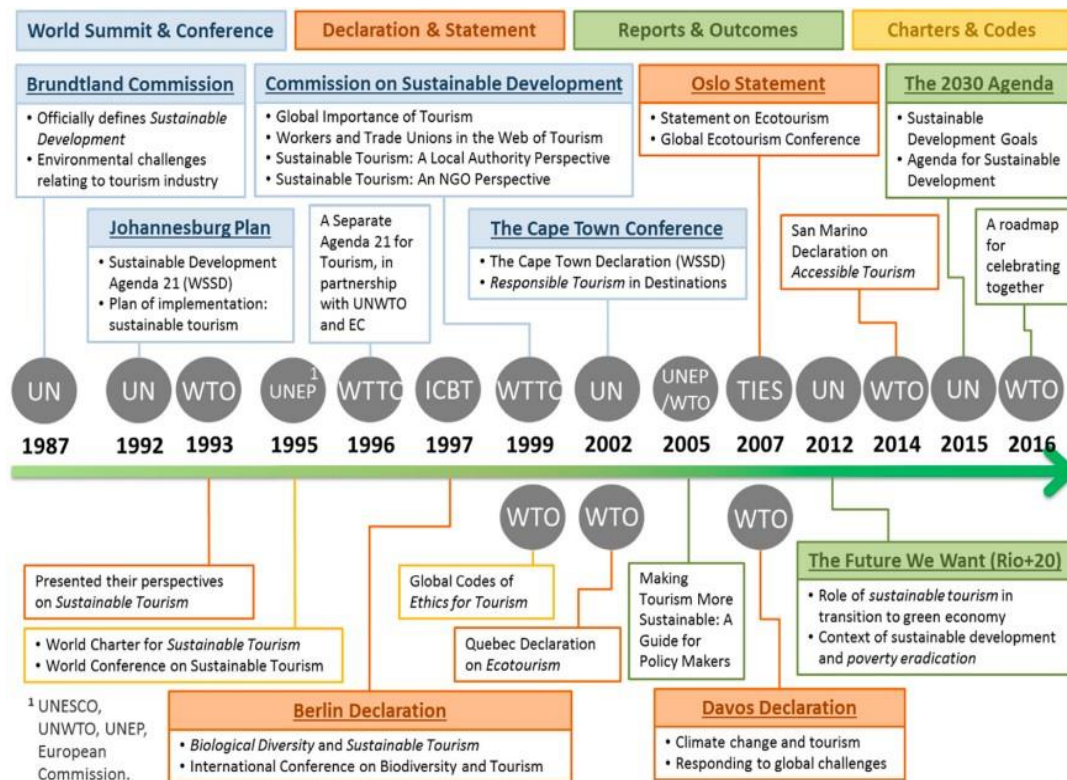


Figure 2.1 Relationship between Sustainable Tourism and Green Practices

Source: Palacios-Florence et al. (2021).

Green practices are naturally liable options pursued to decrease environmentally detrimental influences such as by conserving power levels and minimizing water utilization and usage. With the growth of businesses applying green practices, the hospitality sector has seen a move in customer interest. Green and sustainability promotions bring approximately 15 to 20 percent of businesses to smaller prestigious developments (Radwan et al., 2012). Green practices guarantee a long-term appeal of the location for tourists. Such methods are also the ideal way to preserve and conserve tourism areas with the limited natural resources available, which are the main benefits for visitors and tourists in the location (Striker, Sarnoff & Schultz, 2009). According to the outcome document (UNWTO), it is recognized as one of the ten sections capable of transforming areas into a green economy due to its emphasis on sustainability. This focus on sustainability is considered the main

interest in many tourism-related businesses, including the hospitality industry itself, which poses a challenge to industry growth (Shen et al., 2020).

2.3 Green Practices in the Hotel Industry: A Global Perspective

Movano and Hughes (2020) state that in the past fifteen years, tourism activities have increased significantly in countries where novel places are being discovered. As a result, third-world nations are experiencing a rapid development in tourism activities which in turn has seen an increase in GDP growth, international trade, and investment. Therefore, it is predicted that environmental effects will rise in such countries due to the overall expansion of tourism and travel of tourists from across the world. For instance, the coastal areas of Kenya and Tanzania, both located in East Africa have experienced unprecedented tourism growth. Nevertheless, most developing countries perceive tourism activities as posing challenges to the sustainability of their tourism industry.

There have been historical concerns regarding environmental issues and the power associated with businesses responsible for pollution due to their harmful activities. However, the increasing awareness of the impact of daily human activities on the environment has led to the recognition that all businesses should play a role in reducing ecological pollution and consumption. The tourism industry should not be excused from this obligation (Manisalidis, 2020). According to Sloan, Hughes et al. (2015), stakeholders, employees, and customers have a high expectation of the economic, social, and environmental accountability of the tourism and hospitality industry. The tourism sector has had many opportunities to become more sustainable and globally friendly. As for the hospitality industry, the tendency to be simpler is reflected in the adoption and appreciation of eco-friendly practices such as towel and

bed linen recycling and reprocessing (Chen, 2015). These practices are implemented by hospitality corporations as they are cost-effective, low maintenance, and have reusable benefits.

Green practices consist of technology applications that can mitigate harm, overexploitation, or depletion of natural resources. Instead, they focus on reducing energy consumption, producing recyclable goods, and minimizing waste and pollution during the process of production. In short, clean technology involves environmentally friendly design and management, production of green materials, and efficient use and disposal of waste with minimal environmental effect. Moreover, recycled resources in well-organized ways such as using disposable paper, and plastic, using reusable dispensers, for example, soap, and lotion, reprocessing containers and bins in guest rooms and lobbies, using durable items that are not throwaway products (for example, paper napkins, paper towels, and disposable cups) - these are all examples of green activities that enhance the overall productivity (Verma & Chandra, 2016).

Green marketing originated from the idea that human requirements should have the least damaging impact on the environment (Aqaba, 2017). Environmentally responsive products and services have become a growing public concern in the last decade. As society becomes more conscious of the impact businesses have on the environment, clients are keen and willing to buy goods or contribute to procedures that appear to help guard the environment. These include 'eco-friendly,' 'environmentally responsive,' and 'green' products. By buying and consuming such products, customers fulfill their societal and ecological responsibilities (Vermeer & Verbeke, 2006).