

**BUSINESS SUSTAINABILITY THROUGH
ENVIRONMENTAL AND OPERATIONAL
MANAGEMENT IN FIVE- STAR HOTELS
IN AMMAN, JORDAN**

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Doctor of Philosophy - Business

By

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Statement of Authentication

The work presented in this thesis is, to the best of my knowledge and belief, original except as acknowledged in the text. I hereby declare that I have not submitted this material, either in full or in part, for a degree at this or any other institution.

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(Signature)

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List of Abbreviations

CSR	Corporate Social Responsibility
DESA	Department of Economic and Social Affairs
EFTA	European Free Trade Association
EIA	Environmental Impact Assessment
EMAS	Eco-Management and Audit Scheme
EMP	Environmental Management Program
EMS	Environmental Management System
ESCWA	The Economic and Social Commission for Western Asia
F&B	Food and Beverage department
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Green House Gas
H	Housekeeping department
HREC	Human Research Ethics Committees
IFC	International Finance Corporation
IHG	Intercontinental Hotel Group
IRENA	International Renewable Energy Agency
ISO	International Standards Organisation
IUSN	The International Union For the Conservation of Nature
JHA	Jordan Hotel Association
JWPC	Jordan Wind Project Company
K	Kitchen Department
MDA	Ma'an Development Area

MNC	Multi-National Corporation
MS	Maintenance and security department
NEAF	National Ethic Application Form
NEPCO	National Electric Power Company
NGO	Non-Governmental Organisation
NTS	National Tourism Strategy
P	Purchasing department
PPA	Power Purchase Agreement
RSCN	Registered State Change Notification
SD	Sustainable Development
UAE	United Arab Emirates
UK	United Kingdom
UN	United Nations
UN DESA	The United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Program
UNEP	United Nations Environmental Program
UNESCO	The United Nations Educational Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNHCR	United Nations High Commissioner for Refugees
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in Near East
UNWTO	The United Nations World Tourism Organisation
US	The United States of America
USAID	The United States Agency for International Development

USSR	Union of Soviet Socialist Republics
WSU	Western Sydney University
WTTS	World Travel and Tourism Council
USP	Unique Selling Point

Abstract

Tourism is one of Jordan's major sources of foreign currency. Jordan attracts tourists from all around the world due to its political stability, religious toleration, high quality of life, better healthcare and education compared with surrounding areas. The exquisite cuisine, friendly and welcoming people, together with a reasonably liberal social and economic environment also enhance its destination image. In Jordan, the hospitality and tourism (H&T) industry makes a substantial contribution to the Jordanian economy.

According to the World Travel and Tourism Council, the total contribution of Travel & Tourism to GDP was 23.0% of GDP in 2014 (WTTC 2015). Employment in the tourism cluster, including direct and indirect employment, was estimated at around 130,000 (11% of the workforce). The Jordanian government, noticing a crucial role of tourism expansion in economic development, is eager to promote tourism internationally. The economic pressures on Jordan's economy caused by the influx of Syrian refugees are substantial. As of October 2015, the total number of Syrian refugees in Jordan is 630,000. While it may be too early to determine the full impact of this influx on long-run macroeconomic outcomes, a number of socio-economic indicators already provide a grim picture. This includes demands on already limited water and natural energy resources in addition to food and housing supply.

Moreover, environmental protection and conservation have become important to the hotel industry from the perspective of government, consumers and the industry itself. Rapid economic development has caused environmental pollution and destruction. As a result, the government, industry, and consumers are highly concerned about

environmental conservation. The hospitality industry is one such example, having faced significant concerns about managing the performance towards the environment and the need to adopt sustainable practices. The sustainable performance of business activities is highly essential for businesses whether in the manufacturing or services industry. This focus on sustainability is particularly significant in developing tourism and hospitality destinations. Developed and Developing economies have adopted environmental and operational management as a key focus of their hospitality and tourism enterprises.

Thus, the purpose of this research is to investigate sustainable environmental performance in five-star hotels in Amman, Jordan. The study involved respondents from all 13 five star hotels in Amman, Jordan. The respondents were managers, senior executives, supervisors, and employees from five different operational departments including Maintenance and Security (MS), Food and Beverage (F&B), Kitchens (K), Purchasing (P) and Housekeeping (H). A total of 65 surveys and 13 interviews were conducted for the purpose of this study. The primary objective of the study is to determine the impact of business and operational practices of five-star hotels in Amman, on Environmental and Operational Sustainability.

Moreover, there is some suggestion by scholars that Maintenance and Security and Purchasing are support departments because they are non-revenue producing. In the context of this study however, Maintenance and Security and Purchasing were defined as operational core (Primary) business units integral to environmental and operational sustainability as their contributions to operational roles in the business were vital for the enterprise to succeed.

The methodology applied to this study adopted the qualitative method, using semi-structured interviews as the primary source for collecting extensive data among employing quantitative instruments in data collection survey, and non-participatory observation as a back-up to the qualitative method in collecting the data. Also, data triangulation (methodology – using survey and interviews) was applied to aid in corroborating information. The research design employed involved the use of the Environment Management System and Environmental Impact Assessment “EMS/EIA“ survey, semi-structured interviews, and participatory research through field visits. Data was coded and analysed using thematic analysis.

The overall aims and objectives of the research study were to examine the impact of operational business practices on environmental sustainability in five-star hotel properties in Amman.

The findings from empirical and qualitative data showed that all five-stars hotels applied different sustainable practices in their daily operations to achieve sustainable environmental performance. Most of the respondents from the five-operational departments acknowledged that proper use of water and energy saving were the most common and preferred choice when they were asked about sustainability in the hotel. Seventy-seven (77%) of the MS participants, 62% of the F&B participants believed that sustainability means proper use of water and energy.

Findings of this study show that water saving in the hotel industry can be achieved through applying different ways such as using the dual-flush system for toilets and using water saving shower heads. Also, technology can play a significant role in water

recycling using recycling units or desalination plants. Jordanian hotels have already applied many techniques to save water according to the respondents from different operational departments such as using water catchment techniques to secure hotel water use, applying water efficient tools and educating employees and customers of the importance of water conservation. Water scarcity has become a greater challenge over the last two decades for Jordan as the population has doubled and climate change has made rainfall more uncertain and variable. Water supply has been highlighted by respondents as a major problem especially in the hotel industry because hotels consumed large amounts of water and energy. Respondents expressed their fears and uncertainty about water shortage in Jordan and how that affects travel and hotels.

The research findings provide recommendations to the hotels in Amman to enhance sustainable environmental and operational practices. These recommendations include recommendations to policy makers to establish connection with the industry and enhance their policies and regulations. The study also provides recommendations for the hospitality industry in Jordan to enhance the environmental sustainability performance and attain the benefits that result from implementing environmental performance. A set of recommendations are also provided for future researches which include implementing the study on a bigger sample to include four and three stars hotels in different cities in Jordan.

Chapter 1 INTRODUCTION

1.1 Introduction

The focus of this study is to examine business sustainability through the management of environmental and operational practices of five-star hotels in Amman, Jordan. Environmental management is gaining significant recognition among businesses all over the world. Attaining positive and favourable environmental and operational performance mainly drives the activities of businesses. As indicated by Kirk (1995), the concern related to the management of environmental performance is mainly associated with industries such as tourism, which account for direct pollution from their business practices. However, during the 1990s, the subject of sustainable and better operational environmental performance has led to the expansion of sustainability of business in various other industries. Environmental protection and conservation have become important to the hotel industry from the perspective of government, consumers, and the industry itself. Rapid economic development has caused environmental pollution and destruction. As a result, the government, industry, and consumers are highly concerned about environmental conservation. The hospitality industry is one such example, having faced significant concerns about managing the performance towards the environment and the need to adopt sustainable practices. The sustainable performance of business activities is essential for businesses whether in the manufacturing or services industry. This focus on sustainability is particularly significant in developing tourism and hospitality destinations. Developed and

Developing economies have adopted environmental and operational management as a key focus of their hospitality and tourism enterprises. Europe, in particular, has a variety of globally recognised environmental schemes and includes the European Eco-Management, the International ISO-14001, Audit Scheme (EMAS), and European Eco-label scheme.

Some hotels are still resistant to “greening behaviour” such as investing in environmental protection initiatives and introducing environmental protection measures. These hotel companies believe that these efforts require considerable capital investment; they do not bring any significant financial benefit to the hotel (Kang et al. 2012). Furthermore, some scholars have found consumers to be ambiguous about purchasing environmentally friendly products (Han et al. 2010).

The tourism sector is one of the crucial and fast developing global industries (Neto 2003). The United Nations Department of Economic and Social Affairs (DESA) discussion paper raised questions regarding the rapid growth in some global tourist destinations. The report states that detrimental socio-cultural and environmental effects accompany increased tourist numbers. Similar sentiments were highlighted in a study by Suntikul et al. (2016), claiming that although tourism offers some benefits to the host nation, which include significant contributions to local economies through job creation and investment opportunities, its fast growth has led to adverse social, environmental, and economic effects. For these reasons, global sustainability agenda is urgently required to curb the local environmental impact of the unprecedented tourist appetite for travel.

Clark (2007) recognised the need for global sustainability releasing relevant guidelines to regulate the growth and development of the sector. A recent research study on hotels and sustainability in Amman focused on analysing the sustainable performance of hotels (Ali et al. 2008). The study identified that Jordan could face many challenges in trying to meet the growing concern for environmental needs if it failed to reduce the adverse impacts. Also, the study provided a snapshot of the state of environmental practices in the Jordanian hotel industry but did not provide a complete picture of the efforts that are needed to regulate the practices.

Erdogan and Baris (2007) indicate that the hotel industry accounts for the consumption of substantial quantities of energy, burning of fossil fuels such as coal, oil and natural gas, water and non-durable products including food and beverages which cause a significant level of threat over environmental performance and contributes to global warming.

The heavy consumption of natural resources in the hotel industry ultimately adversely influences the overall financial and sustainability performances of such sectors. The environmental impacts on hotels incorporate site planning and facility management, excessive consumption of water and energy, and emissions into the air, degradation of water and soil and loss of natural habitat (Wyngaard and De Lange 2013).

A variety of perspectives and players will be considered when identifying stakeholders in the process of hotels and environmental management. The primary stakeholders in tourism are the government authorities, the higher board of tourism, and private

companies (Byrd 2007). A breakdown of the key stakeholders in Jordan, is highlighted in figure 1.1.

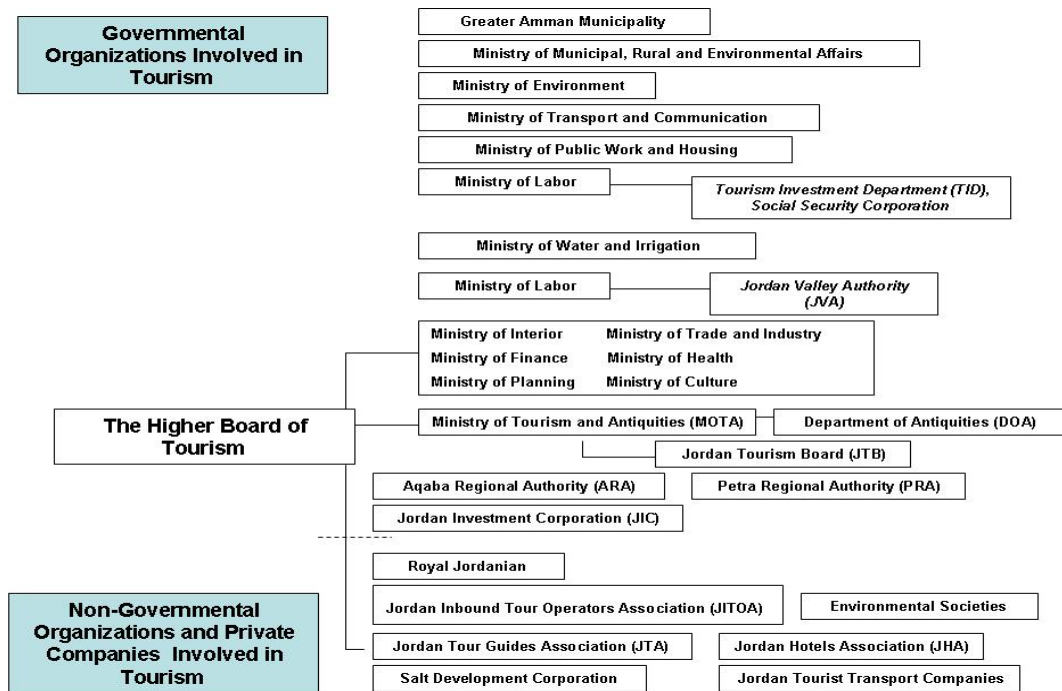


Figure 1.1: Main Actors and Stakeholders involved in developing tourism in Jordan (Source: Shdeifat et al. 2006).

Thus, the focus of this research is on analysing the operational and environmental performance of five-star hotels across Amman, Jordan. Data analysed included ways in which Jordanian hotel business practices impact the environment, business, and operational initiatives undertaken by hotels to manage these impacts. For example, energy consumption is one of the major concerns in all five-star hotels in Jordan. Illustrations from significant investments in state-of-the-art; water, energy saving, and waste management technologies as well as initiating comprehensive action plans focused on nurturing unique cultural and environmental elements in each of the five-star hotel's locations will be examined in the thesis.

1.2 Statement of Purpose

The purpose of this research is to investigate sustainable environmental performance in five-star hotels in Amman, Jordan. The primary objective of the study is to determine the impact of business and operational practices of five-star hotels in Amman. The problem being investigated in the study is that of operational and environmental sustainability in five-star hotels in Amman, Jordan.

Data collection for the thesis included surveys and interviews with hotel managers, and staff members of five functional departments such as Maintenance and Security (MS), Kitchens (K), Food and Beverage (F&B), Housekeeping (H) and Purchasing (P). Additional secondary data was also collected through artifacts and observational research at the properties.

1.3 Definitions of Terms

For this research, terms that need to be defined include:

- Five-star hotels: are hotels that have the highest rating or classification based on a given set of criteria for determining excellence (Denizci Guillet and Law 2010)
- Operations practices in hotels: include the functions, processes and services performed in hotels (Rutherford and O'Fallon 2007).
- Operational sustainability: is a process of assessing whether a business can maintain present practices without placing potential future resources at risk. Sustainability refers to three main pillars which are environmental, social and economic resources (Scherrer et al. 2011).

- Environmental sustainability: is the ability to maintain the qualities that are valued in the natural environment. Environmental sustainability includes actions to decrease the use of physical resources, increase the adoption of renewable resources use rather than depletable resources, redesign of production processes of products and services to eliminate toxic materials, and ensure protection and restoration of natural habitats and environments valued for their livability or beauty (Sutton 2004).
- Stakeholder Theory is a theory of organisational management that describes the corporation as a collection of cooperative and competitive interests possessing intrinsic value. Stakeholder theory has three aspects: descriptive accuracy, instrumental power, and normative validity. This theory was initially detailed by R. Edward Freeman (1984) in the book *Strategic Management: A Stakeholder Approach* (Donaldson and Preston 1995).
- Strategic Management is the management of an organisation's resources to achieve its goals and objectives. Strategic management involves setting aims, analysing the competitive environment, evaluating strategies and ensuring that management rolls out the policies across the organisation. Also, strategic management involves identifying how the organisation performs compared to its competitors and recognising opportunities and risks facing an organisation, whether they are internally or externally present. (Oslen and Roper 1998)
- EMS: An Environment Management System (EMS) is a tool to monitor the organisation's environmental performance. This tool aims to manage the impacts of an organisation's activities on the environment. It also provides a

structured approach to planning and implementing environment protection measures (Eng Ann et al. 2006).

- EIA: An Environmental Impact Assessment (EIA) is a tool used to evaluate and identify the possible environmental, social and economic impacts of an organisation (Bailey 1997).

1.4 Methodology

A qualitative research framework used for data collection. The research methods used include:

1. Paper and Pencil Survey.
2. Field Visit and Semi-Structured Interviews.
3. Secondary data analysis of artefacts and media.

Data Sources for the thesis include:

Five Star Hotels in Amman, Jordan

Amman, Jordan has 14 five-star hotels. These include:

1. Kempinski Hotel Amman, Jordan
2. Le Meridien Amman
3. Sheraton Amman Al Nabil Hotel
4. Landmark Amman Hotel & Conference Centre.
5. Amman Marriott Hotel,
6. InterContinental Amman, Jordan

7. Regency Palace Amman
8. Millennium Hotel Amman
9. Four Seasons Hotel Amman
10. Holiday Inn Amman
11. Crown Plaza Amman
12. Bristol Hotel
13. Le Royal Amman
14. Amman Rotana

Figure 1.2 shows the map of five-star hotels, in Amman, Jordan.

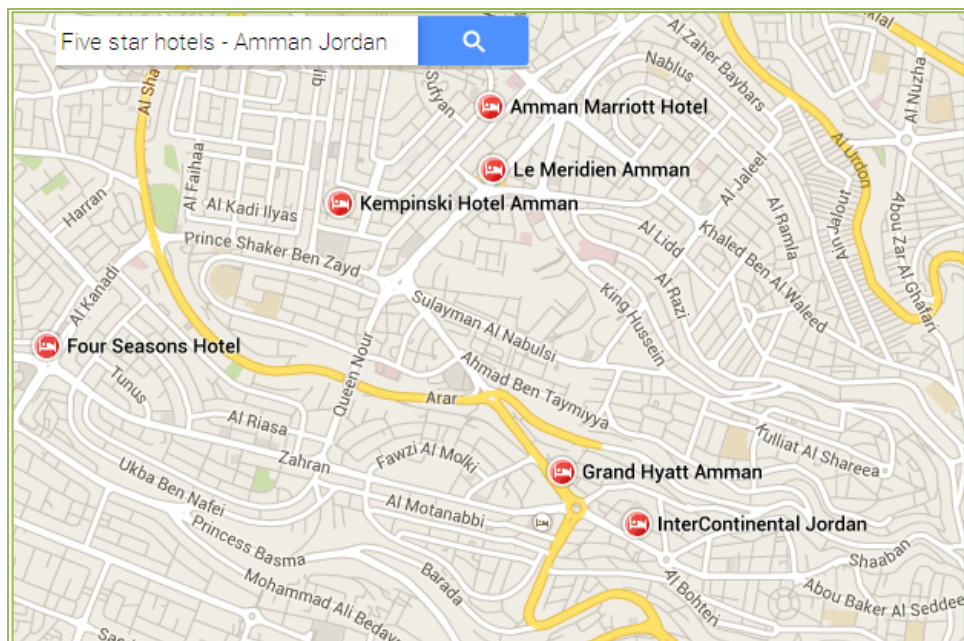


Figure 1.2: Main: Five star Hotels in Amman, Jordan (Source: Google Maps).

1.5 Research Questions

The primary research question is:

What business and operational practices are followed by five-star hotels in Amman, Jordan to achieve sustainable environmental performance?

Secondary Research Questions include:

1. What are the levels of awareness and attitudes of management and stakeholders toward environmental sustainability measures in five-star hotels in Amman, Jordan?
2. How are environmental audits practised by five-star hotels in Jordan?

1.6 Significance of the Topic

The importance of sustainable environmental performance is crucial for the hotel industry as a whole. Recent statistics place tourism at the helm of fastest growing sectors across the globe (Cvelbar and Dwyer 2013). According to the World Travel & Tourism Council (WTTC) 2015 report (pp. 3-14), travel and tourism created approximately 1.8 million jobs in 2015, representing 2.5% of the overall employment globally. These jobs created include airlines, travel agents, hotels, passenger and cargo transport services in addition to other tourist supportive industries such as leisure and restaurant services. In the Middle East, the 10-year forecast indicates the travel and tourism sector will create approximately 2,416, 000 jobs by 2024 equivalent to 3.1% growth per annum for the next ten years (WTTC 2015).

Therefore, when the concept of sustainable tourism is applied to a developing destination like Jordan, it achieves a particular value as they battle to improve its economic status and establish itself as a tourism destination in the Middle East. The Hashemite Kingdom of Jordan has a pivotal role in the Middle East. Shunnaq et al. (2008) point out Jordan's lack of oil unlike its neighbours to the East and South means a reliance on phosphates and agricultural produce. As well as Services, Tourism, and Foreign Aid, of which the bulk is provided by the US, Jordan prides itself on its health service, one of the best in the region and has a population of approx. 6.5 million people.

In Jordan, resort properties that operate in places like Aqaba, Petra, and the Dead Sea are particularly vulnerable to environmental degradation and the loss of the natural environment. Abu Taleb (2000) notes worrying trends related to water, energy and land degradation related to the tourism industry in Jordan. The importance of mitigating adverse impacts on the environment in which hotels operate is also gaining momentum (Spenceley 2005). Further, as suggested by Molina-Azorin et al. (2009) commitment towards the natural environment is an important variable within the current competitive scenario and environmental initiatives by organisations can lead to the attainment of competitive advantage and improved performance levels. There are various possible benefits through adopting sustainable practices, but the issue of long-lasting threats includes impacts on fragile eco-systems, flora and fauna, as well as competition with local people for scarce resources especially energy and water. Hence, it is imperative that the government and hospitality providers manage environmental performance through sustainable practices ensuring the long-term viability of the tourism and hospitality industry.

Berezan et al. (2013) suggest that apart from environmental imperatives sustainable operational practices are equally important. In their view, consumers are highly aware of the business practices carried out by hotels and higher levels of consumer awareness with respect to environment conservation has further increased the level of pressure on hotels to perform in an environmentally friendly manner. Global initiatives to manage environmental and climate change also mean that the Jordanian hotel and the tourism industry, which are still in an infancy stage, need to develop their facilities and properties to (or “intending to”) demonstrating their understanding and commitment to such initiatives and their national interests. There is a need to show respect for the environment and methods of operation through compliance, benchmarking (Van de Ven and Poole 1995). Moreover, developing eco-friendly practices will not only achieve sustainability but can also be used as a Unique Selling Point/Proposition (USP) when advertising tourism in the Middle East.

In summary, adopting best practices that foster protection of the environment combined with operational measures is crucial towards the achievement of organisational and broader societal goals in Jordan. H el ene Genot, Oshani Perera and Michael Woos (2001) suggest that creating environmental awareness within an organisation has several benefits both within and outside of the organisation. These benefits include a reduction in the consumption of resources, operating costs, compliance with environmental legislation, and customer loyalty. All these benefits have the profound effect of improving the public image, avoiding penalties from environmental authorities, enhancing global competitiveness, and attracting and retaining dedicated staff, in addition to other long-term benefits. These benefits are

crucial to the organization regarding protecting the environment, the development of sustainability, and being good stewards of the communities in which they operate.

1.7 Contribution of This Research

This research contributes to knowledge in this field by identifying the actual sustainable performance of five-star hotels in Amman, and the ways in which sustainable practices can contribute positively towards allowing hotels to achieve better performance towards the environment. Because of higher concerns of threats to the environment by the hotel industry, the findings of this research are useful in allowing the hotels to deal better with the environmental issues that are as a result of the nature of their business. The research findings also provide necessary recommendations to the hotels in Amman in achieving sustainable performance from their regular business practices and increasing overall performance.

Governments are advised to nurture a stable political environment to attract tourists. According to Ghaderi et al. (2016) security and safety issues directly influence the choice of holiday destinations by tourists; tourism establishment in these countries should not take the safety issues for granted, but on the contrary invest much more in creating a safe environment for tourists. Initiatives should be directed towards creating and promoting crime-free, safe and secure destinations. In an earlier study, Ali et al. (2012) indicate that “the Arab Spring” of 2011 boosted tourist arrivals in Arab states perceived to be politically stable. Arab countries such as Jordan and the United Arab Emirates recorded 10% growth in tourist arrivals in 2011 to 2012 at the height of unrests spreading across the Arab world from Tunisia, Egypt, and Syria. Jordan is poised to benefit from positioning itself as a preferred tourism destination given its unique location in the region. The relative political stability and rich historical past of

Jordan mean that it is a magnet for domestic and neighbouring countries for tourism and recreation and as such can build a very successful industry to supplement its national economy.

The relative paucity of tourism and hospitality studies in Jordan also makes it ripe for investigation. Some studies previously completed on Jordan focused on monitoring air pollution from industrial emissions, vehicles, and residential activities and solid waste management (Alawi et al. 1996).

An additional contribution of this research includes consideration of the growing national interest in attracting Jordanians in the Diaspora back to work in Jordan to innovate and invigorate industry, primarily service based ones like hospitality and tourism. It is hoped that the Diasporic Jordanians will bring in much-needed skills and knowledge and contribute through funds earned overseas, but repatriated into the Jordanian economy. This influx of knowledge and expertise are seen as vital to growing the hospitality and tourism sector as a serious source of national income for Jordan.

1.8 Outline of the Thesis

This Thesis is divided into six chapters. Chapter one provides an outline of the broad context of the study by identifying the statement of purpose, definitions of the terms as well as the research secondary and primary questions. Chapter tow reviews the current literature related to environmental sustainability within tourism and hospitality in Jordan. Also, this literature review chapter covers prominent issues in relation to sustainable performance through the hospitality industry in Jordan. These topics include the issue of water scarcity in Jordan and its impact on the hospitality industry,

the importance of tourism to the Jordan economy, the concept of sustainability in five-star hotels in Jordan and the impact of sustainable practices on hotels performances. This chapter also examines the theoretical orientation of the study.

Chapter three describes the research methodology. It commences with the research approach and explains the qualitative methods employed as the primary research tools for data collection. A discussion of the data collection and analysis tools, in addition to the research validity and reliability follows. Chapter three concludes with highlighted limitations of the study as well as a summary of the chapter.

Chapter four examines the results and findings from empirical data used for the purpose of this study. This chapter starts with reviewing the demographics characteristics of the participants from five different operational departments. Using descriptive analysis to analyse the surveys data, the researcher then proceeds to introduce the environmental sustainability practices within each operational department.

Chapter five explores results and findings from the qualitative semi structured interviews which are the study primary tools for data collection. A thematic analysis approach is used to analyse the qualitative data and identify the key themes and areas of concerns as identified through the participants' responses. This chapter introduces the operational and business sustainability practices followed in each operational department among the thirteen five-star hotels in Amman.

Chapter six provides discussion and conclusions of the qualitative and empirical data findings in relation to the study primary and secondary questions. Moreover, this chapter offers recommendations for future researches, for policy makers and the hospitality industry in Jordan. Limitations are also acknowledged and identified in this chapter. Appendices and Reference List complete the thesis.

Chapter 2 LITERATURE REVIEW

Below is a list of abbreviation to remind the reader of vital acronyms mentioned in the text.

CSR	Corporate Social Responsibility
DESA	Department of Economic and Social Affair
EFTA	European Free Trade Association
EIA	Environmental Impact Assessment
EMAS	Eco-Management and Audit Scheme
EMP	Environmental Management Program
EMS	Environmental Management System
ESCWA	The Economic and Social Commission for Western Asia
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Green House Gas
HREC	Human Research Ethics Committees
IFC	International Finance Corporation
IHG	Intercontinental Hotel Group
IRENA	International Renewable Energy Agency
ISO	International Standards Organisation
IUSN	The International Union For the Conservation of Nature
JHA	Jordan Hotel Association
JWPC	Jordan Wind Project Company
MNC	Multi-National Corporation
NEAF	National Ethic Application Form
NEPCO	National Electric Power Company
NGO	Non-Governmental Organisation
NTS	National Tourism Strategy
PPA	Power Purchase Agreement
RSCN	Registered State Change Notification
SD	Sustainable Development

UAE	United Arab Emirates
UK	United Kingdom
UN	United Nations
UN DESA	The United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Program
UNEP	United Nations Environmental Program
UNESCO	The United Nations Educational Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNHCR	United Nations High Commissioner for Refugees
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in Near East
UNWTO	The United Nations World Tourism Organisation
US	The United States of America
USAID	The United States Agency for International Development
USSR	Union of Soviet Socialist Republics
WSU	Western Sydney University
WTTC	World Travel and Tourism Council
USP	Unique Selling Point
IUCN	The International Union for the Conservation of Nature
MDA	Ma'an Development Area

2.1 Introduction

The focus of this section of the thesis is to explore findings in the existing literature on different aspects of achieving sustainable performance in the hotel industry in Jordan. Since the research focuses on analysing the sustainable performance of hotels in Amman, the literature review mainly focused on the definition of sustainable performance in hotels, the need for considering the environment by hotels in performing their daily activities/operations, sustainable practices followed by hotels and the impact of such sustainable practices on their performance. It also examined the limited literature on environmental practices in Jordanian hotel and tourism sectors.

Tourism is often cited as the world largest industry and continues to expand at a rapid rate (Ballantyne and Pickering 2013). Tourism is also a profitable economic endeavour which makes it an economically enticing industry and a form of development for many countries around the world. The hotel industry is considered as a significant division of the hospitality industry, and if not managed sustainably, it has the potential to be harmful to the social and natural environments within which it functions and operates. Hotels are also resource intensive and to reduce their impact on the environment, it is crucial to go “green!” (Graci and Kuehnel 2011, Sloan et al. 2012).

Tourism is one of Jordan’s major sources of foreign currency. By attracting tourists from all around the world due to its political stability, religious tolerance, a higher quality of life, better healthcare and education compared with surrounding areas, exquisite cuisine, friendly and welcoming people, together with a reasonably liberal social and economic environment, Jordan is a preferred travel destination in the Middle East (ALsarayreh et al. 2011). In Jordan, the industry makes a substantial contribution to the Jordanian economy. Kreishan (2011). noted that it accounted for 10.6% of the Jordanian GDP in 2009. Employment in the tourism cluster, including direct and

indirect employment, was estimated at around 130,000 (11% of the workforce). The Jordanian government has lately noticed a crucial role of tourism expansion in economic development and is eager to promote tourism internationally.

2.2 The Hashemite Kingdom of Jordan

The Emirate of Transjordan became the Hashemite Kingdom of Jordan in 1946 when Jordan gained independence from the British mandate authorities (Robins 2004). According to Robins (2004), for most of its history since independence from British administration in 1946, Jordan was ruled by King Hussein (1953-99) a pragmatic leader, who expertly navigated competing pressures from the major powers (US, USSR, and the UK), various Arab states, Israel, and a large internal Palestinian population, through several wars and coup attempts. In 1989, he resumed parliamentary elections and gradually permitted political liberalisation. In 1994, a formal peace treaty was signed with Israel. King Abdallah II - the eldest son of King Hussein and Princess Muna - assumed the throne following his father's death in February 1999. Since then, he has consolidated his power and established his domestic priorities, including an aggressive economic reform program. Jordan joined the World Trade Organization in January 2000 and signed free trade agreements with the United States in 2000, and with the European Free Trade Association in 2001.

Geographically, Jordan is located in the Western Asia region; it has a surface area of approximately 90,000 km². Most of Jordan's territory is classified as desert. Jordan is a very sunny country with average daily sunshine hours ranging from six to seven hours in winter and as much as twelve to thirteen hours in summer. Although summer temperatures are high in the desert, the heat is usually moderated by low humidity and a stiff daytime breeze while the nights are cool and pleasant. The annual rainfall varies

from little more than 30 mm in desert areas up to 572 mm in the mountainous north-west of Jordan. Almost all precipitation falls between October and May. In the Jordan Valley, winters are mild, and summers are hot, with limited rainfall throughout the year (Ministry of Environment 2009).

Jordan's boundary lies along the Eastern Banks of the Jordan River bordering Israel to the West, Syria to the North, Iraq to the North East, and Saudi Arabia to the East (See Fig. 2.1). The Kingdom is governed as a constitutional monarchy after gaining its independence in 1946 from British command. It has a population of about 6.6 million people, with a population growth rate of 3.5%. The Kingdom is subdivided into 12 governorates with Amman as its capital (Library of Congress 2006).



Figure 2.1: Map of the Hashemite Kingdom of Jordan (Library of Congress 2006).

Despite its limited resources such as oil, water, and other natural resources, causing the economy of Jordan to be listed as the smallest compared to other Middle East

States, Jordan boasts close ties with Europe. It is an active member of the European Free Trade Association (EFTA) since 2001. From 2003, Jordan has witnessed a steady improvement of its economic growth with 2012 GDP estimates standing at \$31.24 billion (Ministry of Industry & Trade n.d.). The Kingdom's manufacturing sector contributes about 26% of its GDP while 70% is from the service industry. Tourism, transportation, and real estate are among the key sectors that have witnessed steady growth in the recent past, largely due to the Kingdom's liberalised economy and privatisation of its industries, which have attracted an influx of foreign direct investments in these sectors (Comolet 2014).

King Abdullah has taken the lead in pushing forward rapid economic reforms to expand opportunities for Jordanians. Export growth, a strong driver of job creation, benefitted from King Abdullah's leadership in making the structural changes necessary for Jordan's acceptance into the World Trade Organisation, as well as through new economic partnerships with the United States, the European Union, and neighbouring countries. Economic growth has also benefitted from the King's focus on innovation, infrastructure development, and privatisation. The Aqaba Special Economic Zone, which generated close to \$8 billion in investment in 2006 alone, is being rolled out as a model in development zones nationwide (e-Government 2015).

2.2.1 The Kingdom's Water problem

Jordan suffers from water scarcity (Hadadin et al. 2010). According to Hadadin et al (2010), the crucial environmental challenge that Jordan faces today is the scarcity of water. While water resources in Jordan are very limited and have swung around a stationary average, the country's population has continued to rise. In Jordan water is

supplied from three primary sources. The first is ground water (about 53%) while surface water contributes about 36% and the remainder is from treated wastewater.

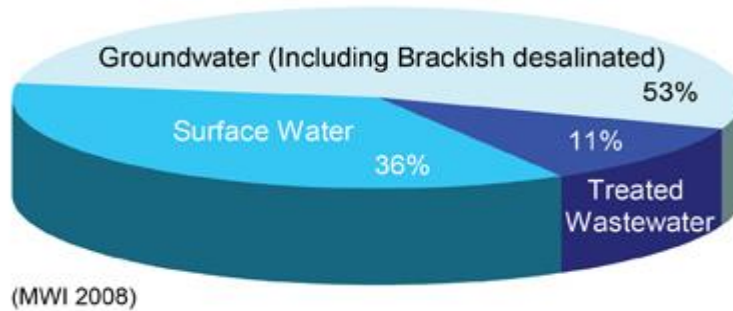


Figure 2.2: Tyh The Kingdom Water Sources 2008 (Source: Atlas of Jordan, <http://books.openedition.org/ifpo/4866?lang=en>).

Water resources in Jordan are directed toward four different sectors: agriculture, domestic/municipal supplies, industry, and tourism. The increasing gap between the demand for water use and the supply of water has resulted in considerable competition between sectors (Jiries 2011). Domestic/municipal water is specified as the highest priority. Conventionally industry in Jordan has focused on extractive industries, such as mining and quarrying (phosphate and potash) and the industrial production of cement, fertilisers, and refined petroleum (Denny et al. 2008).

Tourism is a rapidly growing sector of the national economy, with significant developments in Amman and Aqaba and small concentrated developments on the shores of the Dead Sea at Sweimeh and Zara. The water demands associated with tourism are not simply the demands of humans but also include demands from the need to maintain attractive landscapes. With careful planning and the development of water allocation strategies water of different qualities and different sources should be used to meet these demands. For example, good quality treated

wastewater is an appropriate source for many landscaping needs and used as such in Aqaba and Dead Sea Resorts (Mohsen 2007).

A high rate of natural population growth, combined with periodic massive influxes of refugees, has transformed a comfortable balance between population and water in the first half of this century into a chronic and worsening imbalance in the second half. The water scarcity situation is aggravated by the fact that Jordan shares most of its surface water resources with neighbouring countries, whose control has partially deprived Jordan of its fair share of water.

The Kingdom is ranked among the poorest globally regarding water resources, while its population is rising at approximately 3.5% annually. More than three-quarters of Jordan's population lives in urban areas, and this number is rising due to factors such as population growth and the move to cities to search for employment. The water scarcity problem in Jordan causes a serious challenge that will affect all sectors unless addressed with reasonable efforts. "Our Water situation forms a strategic challenge that cannot be ignored. We have to balance between drinking water needs and industrial and irrigation water requirements. Drinking water remains the most essential and the highest priority issue ". H.M. King Abdullah II November 7, 1999.

Jordan has very limited water resources. According to Hadadine et al.(2010), the demand exceeded resources by 638 MCM/year and the allocations exceeded Resources by 73 MCM. Annual per capita water availability is 145m³ /year in 2007. Jordan is far below the international poverty line of 500 m³ /year. On a per capita basis, Jordan has one of the lowest levels of water resources in the world. Annual per capita water availability declined from 3600m³ /year in 1946 to 145 m³ /year today.

Most experts consider countries with a per capita water production below 1,000 cubic meters per year to be water-poor countries (Al-Jayyousi 1995 pp315).

Neighboring Israel's historical near monopoly over the Yarmouk River, coupled with a rapidly increasing population have been the main reasons for acute water problem other than the current refugee crisis. At present, the influx of refugees from Syria's ongoing crisis is raising concern on Jordan's water resources. Al-Amir's (*Asharq Al-Awsat* news editor) interview with Jordan's Water Minister revealed some initiatives aimed at tackling the perennial water scarcity problem. Some solutions proposed are examined in the next paragraph.

Disi Basin project serves the Karak and Tafilah provinces, an extension of the regional water network at the cost of over 500 million Jordanian dinars particularly to the north of the country. This area is currently witnessing massive refugee influx and increasing the capacity of wastewater treatment plants to boost the much-needed water for agriculture and industry has been highlighted (Al-Amir 2014). The water problem in the region led to a rare gesture of unity, when Israel, the Palestinian Authority, and Jordan signed a water-supply agreement to meet the rising cross-border demands.

The water-supply agreement is one of the few regional cooperation projects surviving from the heyday of the Israeli-Palestinian peace process in the 1990s when many predicted the Middle East would be re-made by economic interdependence. The agreement is crucial for Jordan, one of the world's poorest countries regarding water resources, which is straining to absorb hundreds of thousands of refugees from neighbouring Syria's civil war (Mitnick 2013).

2.2.2 Jordan-Israel peace treaty

The Hashemite Kingdom of Jordan and Egypt are the only two Arab States that have signed a peace accord with Israel, and enjoy cordial relations with Britain, the United States, and other European nations. The unique bilateral ties of Jordan make it an important regional mediator in resolving persistent problems in the region (Comolet 2014).

The peace treaty signed between Jordan and Israel in October 1994 at the southern border crossing of Wadi Araba raised hopes for both sides to enjoy warm relations among their citizens. The treaty guaranteed Jordan the restoration of its occupied land (approximately 380 square kilometres), as well as an equitable share of water from the Yarmouk and Jordan rivers. Moreover, the treaty defined Jordan's western borders clearly and conclusively for the first time, putting an end to the dangerous and false claim that "Jordan is Palestine."

Kanovsky (1994) pointed out the possibility of Israel-Arab world peace translating to increased foreign private investments hence stimulation of Arab economies, creating jobs, and raising income levels as well as improving living standards of their citizens. Nonetheless, wide-ranging factors have contributed towards deteriorating public opinion about the peace agreement. The majority of Jordan's residents have close ties with Palestine. Thus, 1994 treaty flying the Israel flag publicly in Amman is a political impossibility for its citizens. This resuscitated the famous "Normalisation" versus "Anti-Normalisation" public discourse (Scham and Lucas 2001).

2.3 The Impact of Refugees Influxes to Jordan

Jordan is painted as the island of peace in the Arab world. However, instability in Arab States surrounding the kingdom involving clashing religious intolerance, and current politically linked protests in nations like Syria and Iraq impact on the kingdom.

Jordan's stability is attributed to its unique ideologies and policies in contrast to its neighbours. The Jordanian government and its people are highly and rightfully concerned about the potentially serious economic and social effects of the massive influx of refugees from unstable neighbouring countries.

Jordan has always viewed hosting refugees through a utilitarian political lens. More than 2 million registered Palestine refugees live in Jordan. Most Palestine refugees in Jordan, but not all, have full citizenship. There are ten recognised Palestine refugee camps throughout the country, which accommodate nearly 370,000 Palestine refugees, or 18% of the country in total. Jordan hosts the largest number of Palestine refugees of all the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) fields (Tiltmes and Khawaja 2002).

Moreover, Jordan offered peace and stability treating Iraqi refugees humanely. The Iraq crisis represents the largest disarticulation and displacement in the region's history since the Palestinian crisis and one of the largest caseloads ever dealt with by the United Nations High Commissioner for Refugees (UNHCR). Iraqis began fleeing in large numbers in two primary waves. The first wave arrived in the 1990s as the consequences of the War. Most of them were upper-middle class, including doctors, intellectuals and teachers. The Jordanian immigration authority has provided the

numbers of Iraqi nationals entering and leaving Jordan since 1990 up to March 2007, estimating them at 547,000 (Sassoon 2008).

Jordan continues to show hospitality despite the significant strain on national systems and infrastructure. Jordan has played a vital role since the eruption of the Syrian conflict in March 2011. According to United Nations High Commissioner for Refugee (UNHCR), there are currently about 616,000 Syrian refugees in Jordan, of whom more than 500,000 live in Jordanian communities outside camps.

The influx of refugees has placed growing pressure on Jordan's infrastructure and resources. The impact of flows of refugees on the Jordanian labour market includes a fall in average wage levels, lower employment opportunities, harsh working conditions, and rising child labour as well as an expansion of the informal labour market.

In addition, Syrian refugees have a significant impact on the water sector in Jordan. Groundwater depletion was found to be a major concern for Jordan's water resources before the refugee influx, as water extraction rates exceeded the renewable water amount placing additional strains on an already precarious resource (Zeitoun et al. 2012).

2.4 Importance of Tourism to Jordan

“Through tourism, we can open people's eyes to what a magnificent land and nation we have here, and the tremendous surprises and treasures that Jordan holds.” (H.M. King Abdullah II).

The Hashemite Kingdom of Jordan warmly welcomes all international guests. It is particularly attractive to Arab guests who feel culturally comfortable and catered for. Tourists visit Jordan from worldwide to enjoy the natural scenery, exceptional climate conditions and holy sites. Jordan also offers a wide variety of tourist experiences – from the rugged desert and lush spring wildflowers, urban Amman to tiny, rural villages, from wild mountains to beach resorts (Eco Jordan Map 2014).

Tourism is one of the most important sectors of Jordan's economy. It is considered as a service industry with enormous potential and has become an essential element of Jordan's economy. Recently the tourism sector has shown significant growth regarding revenues, rising by 9% in the first quarter of 2010 (Orieqat and Saymeh 2015). The tourism industry in Jordan is considered the second fastest growing economic sector in the kingdom and being the largest export sector and is a major employer. In recent years, Jordan has witnessed massive development projects in tourism infrastructure with a plethora of luxury hotels and resorts mainly in Aqaba and the Dead Sea, advanced transport infrastructure, a wide range of activities and cultural events, spas and various tour operators operating in the country. The capacity of Jordan's tourism sectors has significantly improved and expanded. The tourism industry is working closely with some key tourism education centres to update facilities, upgrade programs, improve training and skills of trainers, and enhance the marketing of Jordan as a tourist destination. The tourism sector in Jordan has raised its competitiveness within the region and worldwide.

Jordan's hospitality and tourism firms have started paying more attention to improving its position on the global tourism map. Tourism is currently the largest export sector in the Kingdom of Jordan, the leading foreign exchange earner, and the second largest private sector employer. The sector's contribution by December 2013 was over \$800 million accounting for 10% of GDP.

According to The National Tourism Strategy (NTS) for 2011-2015 (Minister of Tourism and Antiquities 2010), Jordan is steadily marketing itself as a prominent destination for both investors and visitors. The NTS (2011-2015) is private sector-led with public sector partnerships in responding to the industry's new realities both at regional and global levels. Also, the blueprint tourism strategy is built on crosscutting themes of sustainability and business competitiveness (Abuamoud et al. 2014, pp 154). The development of the tourism sector has helped create and increase thousands of small- and medium-sized businesses around the Kingdom. It has also influenced important changes in Jordan's work culture. Growth has also been reflected in the educational structure, where hospitality is becoming a favourite subject of study at tertiary level for many students. Graduates pursue a specialised education at the Jordan Applied University College of Hospitality and Tourism, in addition to a number of the Jordanian universities that teach the Hospitality speciality (Masadeh 2013). Jordanian universities that are teaching Hospitality and tourism include, and not limited to, The University of Jordan, Yarmouk University, Jordan Applied University college of Hospitality and Tourism Education, and The Hashemite University.

2.4.1 Jordan's Main Types of Tourists

The Kingdom has effectively marketed the tourist attraction sites to domestic regional and global visitors (Alshawagfih, Alananzeh and Jawabreh 2015). The major tourist attraction sites include the world famous Petra, the Jordan River, Mount Nebo, Madaba, and other attractive destinations in Jordan.

Here is a brief description of each type of tourism in Jordan:

**Culture Tourism:* There are many historical and archaeological sites in Jordan. The most important sites are Petra, Jerash, Karak Castle, Rabd, Umm Qais and the Roman amphitheatre.

**Religious Tourism:* Jordan is blessed by the presence of the holy sites that present the three monotheistic religions: Islam, Christianity, and Judaism. The country is part of the Holy Land in the Middle East which links the lives of many prophets and messengers. Jordan is characterised by a large number of pilgrimage places. Tourism based on pilgrimage and visiting the holy sites became famous in Jordan, especially after the four visits of the four Popes of The Vatican in 1964, 2000, 2009 and 2014 (Bader and Hopfinger 2012). The numerous medieval mosques and churches are popular destinations for pilgrims. For example, Mount Nebo and the Mosaic Map in Madaba are attractive to Christian tourists.

**Medical Tourism:* Travel for healing and recreation became one of the primary purposes of tourism and is very popular in Jordan. Health tourism is not exclusive to those who have a body disorder, but also include others who want to relax, recover liveliness and for mental rest as well as physical and spiritual fitness. The medical tourism sector is a vital contributor to Jordan's economy. The World Bank ranked Jordan as the Middle East and North Africa's top health tourism destination. In 2010,

Jordan was listed by the World Bank as the fifth in the world as a medical tourism destination. Many of the recipients of Jordanian hospitals are Palestinian and Iraqi refugees. Syrians, Yemenis, Libyans, and South East Asians working in Jordan are also frequent visitors (Harahsheh 2002).

**Leisure (and Spa) tourism:* one of the prominent Jordanian destinations that attracts the tourist from all over the world is the lowest point on the face of the earth. The Dead Sea area offers rejuvenation and restoring of tourists mind, body, and soul. The unusually warm and incredibly mineral-rich waters have attracted visitors from all over the world. The leading attraction at the Dead Sea is the warm, soothing, super-salty water itself, which is rich in chloride salts of magnesium, sodium, potassium, bromine and several others (Gertman and Hecht 2002). A chain of world-class luxury hotel and spa resorts combined with the splendid health and fitness facilities line the coast of the Dead Sea which are perfect venues for those seeking to escape the stress and anxieties of everyday life.

2.4.2 Jordan's Tourism Attraction Sites

A visitor's first glance at Jordan's topography and culture carry symbols similar to other Middle Eastern nation. However, two main characteristics that differentiate Jordan are its lack of oil and its significant historical and cultural heritage. The Kingdom is a historical treasure linked to a host of religious prophets who travelled or lived in Jordan. Examples include Noah (Nuh), Lot (Lut), George (El-Khadr), Abraham (Ibrahim), Aaron (Harun) with his tomb in Petra, Moses (Musa) his death near Mount Nebo, David (Dawud) his shrine near Kerak (Mazar Al-Shamali),

Solomon (Sulayman), John (Yahya), Jesus (Eesa), and the Prophet Mohammad. (Alhroot 2014).

Spectacular landscapes are evident from Petra's unique red rose city (described in more detail below) , the Jerash ruins, remarkable desert Umayyad palaces vestiges which includes Qusayr 'Amra, Qasr al-'Azraq,Qasr Burqu', Qasr al-Hallabat. In addition to scenic Wadi Rum (The valley of the moon), among other important tourist attraction sites (see Figure 2.3 below).



Figure 2.3: Jordan's Tourist Attraction sites (Source: <http://www.atlastours.net/jordan/sites.html>).

Petra, the Red- Rose City which is named due to the colour of the stone out of which is carved. The capital of the Nabataean Arabs, it is located 240 km south of the capital Amman and 120 km north of the Red Sea town of Aqaba.(see figure 2.4).

Petra is a UNESCO world heritage site and one of the most famous archaeological sites in the world. The site is accessed by walking through a kilometre-long chasm (or Siq), the walls of which soar 200 meters upwards. Petra's most famous monument, the Treasury, appears dramatically at the end of the Siq. The towering facade of the Treasury is only one of a myriad of archaeological wonders to be explored at Petra that fascinates visitors from all corners of the globe (Auge and Dentzer 2006, Bevan 2003, Waltham 1994).

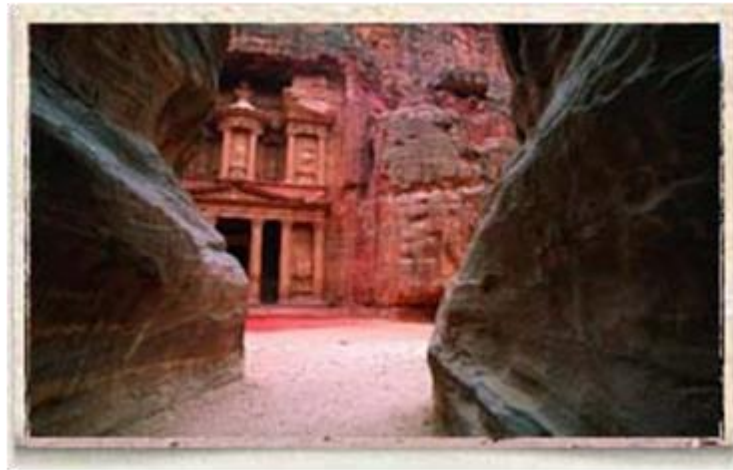


Figure 2.4: Petra city (Source: <http://www.visitjordan.com/>).

Jerash: A close second to Petra on the list of preferred destinations' in Jordan (see figure 2.5), located 48 kilometres north of Amman is the city of Jerash. Jerash is sited in a quiet valley among the mountains of Gilead, and it is considered one of the largest and most well-preserved sites of Roman architecture in the world outside Italy. The history of Jerash is a combination of the Greco-Roman world of the Mediterranean basin and the ancient traditions of the Arab Orient. It's collonaded streets, baths, theatres, plazas and arches remain in exceptional condition (Al Bayari 2005). VisitJordan.Com highlights "Visitors to Jerash in late July or early August can enjoy the Jerash Festival of Culture and Arts and exciting celebration of both Jordanian and

international culture. The ancient Roman amphitheatre comes to life once more as dancers, musicians, acrobats, theatrical troupes and others from all over the world come to celebrate the link between the ancient and modern culture in Jordan” (source:visitjordan.com).



Figure 2.5: Jerash city (Source: <http://www.visitjordan.com/>).

The Dead Sea is also called the Salt Sea. The Dead Sea is a Salt Lake bounded by Jordan to the east and Israel and the West Bank to the west. The surface and shorelines of the Dead Sea are 423 meters (1,312ft) below sea level, making it Earth’s lowest elevation on land ([visitjordan.com](http://www.visitjordan.com)).

The Dead Sea area has become a major centre for health research and treatment for several reasons (see figure 2.6). The Dead Sea water is specified with many characteristics which include the mineral content of the water, the very low content of pollens and other allergens in the atmosphere, the reduced ultraviolet component of solar radiation, and the higher atmospheric pressure.



Figure 2.6: Dead Sea (Source: <http://www.visitjordan.com/>).

Aqaba is Jordan's window on the Red Sea and is a combination of history, nature, and city life surrounded by picturesque mountains and blue sea. Aqaba port at the Red Sea plays a vital role in the economic life of Jordan. (see figure 2.7).



Figure 2.7: Aqaba City (Source: <http://www.visitjordan.com/>).

Amman is the capital and most crowded city of Jordan; it is the Kingdom's economic, political and cultural centre. The seven hills of Amman are an enchanting mixture of ancient and modern. Most of Amman's remarkable historical sites are gathered in the downtown area, which sits at the bottom of four of Amman's seven hills; the greatest charm of Amman, however, is found in the hospitality of its residents who are multicultural, well-educated and extremely hospitable. Visitors to Amman are

continually surprised by the genuine warmth with which they are greeted. "Welcome to Jordan" is a phrase visitors will not soon forget (see figure 2.8).



Figure 2.8: Amman City (Source: <http://www.visitjordan.com/>).

2.5 Sustainability Development

Forsyth (2003) argues that the concept of sustainable tourism is the product of the concept of sustainable development (SD). According to him, sustainable development refers to development that addresses the current requirements without compromising the ability to meet the future generations' needs. However, this explanation fails to capture the complexities of making the concept operational and there are a lot of contesting issues of sustainable development mainly on the definition and scope of sustainable approaches and the industries in which they operate. For example, sustainable practices for a hotel aimed at maximising profitability through full occupancy is vastly different from sustainability in an ecologically or culturally sensitive attraction where constraints on numbers have to be imposed to prevent overuse and degradation of the site.

Hammer and Townsend (1993) believed that in the past, the attention was mainly on increasing tourism. However, in the contemporary world, attention is now on the relationship between the environment and tourism. According to this study, both tourism and other economic activities can lead to adverse impacts on the environment if unchecked.

According to Genot et al. (2001), in the UNEP report ‘Sowing the seeds of change: an environmental teaching pack for the hospitality industry’, the uncontrolled and excessive development of tourism in a country may result in alteration of the environmental equilibrium, which in turn, will lead to a degradation and depletion of natural resources. This report was prepared with an operational focus in mind as it is a joint publication with the International Hotel and Restaurant Association and the International Association of Hotel Schools.

Dunlap (2000) discussed the view that seasonality in tourist destinations results in a concentration of tourists in popular places. These concentrations in some periods of the year create pressure on the processes of waste production, disposal of water and energy, and marine and atmospheric pollution. The mass occupancy of the tourist in particular areas creates devastation of the natural eco-systems leading to diseases, destruction of the equilibrium balance, and death of marine life.

Recently, the environmental preservation theme has been gaining support among many hotel operators especially in the resorts and historically significant areas like Aqaba, Dead Sea and Petra in Jordan (Gradus 2001, Kliot 1997, Amr et al. 2004, Al-Weshah and El-Khoury 2000, Gharaybeh 2013, Scott et al. 2003). The reason behind this is

that many tourist activities are built on the environment, which constitutes the core value and the ground on which the activities take place.

According to Boniface et al. (2006), tourism is one of the environmental resource-intensive sectors of the economy. Among the variety of tourism components, the hotel industry poses the greatest threat to the environment, as a result of the industry's high consumption regarding water, energy, and non-recyclable products (Bohdanowicz 2005, Kasim 2009, Chan et al. 2009, Mensah 2006). Moreover Hadadin et al. (2010) assert that Jordan is one of the countries that have endured water resource deficits since the beginning of the 1960s. According to Abu Taleb (2000), by 2025, the per capita water supply in Jordan will decrease from 145 m³ per year to 91 m³ per year. This will render the country in a state of absolute water shortage. However, this effect may come much earlier than anticipated because of concerns of increased global warming across the world and the continuation of the Syrian war and influx of refugees.

In addition, the hotel's location is often close to, or within tourist attraction sites and offers accommodation, drinks, food, and other recreational services to the customers. Hotels consume an enormous amount of water, energy, and other non-durable goods within its functional zones such as laundry, kitchen, swimming pools, public toilets, and guest rooms (Chan et al. 2009). They eventually discharge an array of waste into the environment, which significantly results in pollution. Bohdanowics (2005) asserts through evidence that hotels contribute to environmental degradation through water and air pollution, generation of waste, and the introduction of energy emissions into the environment. Because of this, countries that formulate regulatory policies that do not consider environmental variables are doomed to fail (Park 2009).

The Economic and Social Commission for Western Asia (ESCWA) (2007) reveal that the first formulation of sustainable tourism was envisioned in both the Manila Declaration (1980) as well as in the accord between United Nations Environmental Program (UNEP) and the World Tourism Organization (WTO) (Ryan 2002). According to WTO and UNEP (2014, pp 3), “sustainable tourism is tourism that results in resource management in a way that social, economic, and aesthetic needs are accomplished while at the same time maintaining essential ecological processes, life support systems, cultural integrity, and biological diversity”. According to them, sustainable tourism products refer to those products operated in accord with the community, cultures, and the local environment so that the products benefit permanently from the development as opposed to being victims and exploited by the hospitality and tourism industry. An analysis of all environmental and operational concerns and findings as revealed in the existing literature have been proceeding as a framework to guide the researcher in collecting data and researching the hotel industry and sustainability in Jordan.

2.6 Ownership Structures of Five Star Hotels in Jordan

This section of the review examines five-star hotel ownership structures in Jordan with the specific purpose of relating the information to the thesis. While sustainability measures exist for global brands and properties they are being reiterated to make explicit how Jordanian properties adapt taking into account local conditions and contexts.

This examination is necessary because many international hotel chains have sustainability measures built into their policies and procedures; however, these have to be “localised” in order to be applicable according to the conditions of the country and its constraints in resources. Hotel Kempinski’s ownership was diluted in 2004 when it went into a partnership with Thailand Crown Property Bureau, which now has a majority of the shares (Kempinski 2013). Both Le Meridien Amman and Sheraton Amman and Al Nabil Hotel are affiliate brands of the larger Starwood Hotels & Resorts Worldwide, Inc., which is among the global leading hotel and leisure companies. The Marriott hotel is a franchise founded by J. Willard and Alice S. Marriott in 1927. Currently, Bill Marriott is the hotel’s Executive Chairman. The hotels are located in more than 3,700 places in 75 countries (Marriott 2013). The InterContinental Hotel was established by Juan Trippe, in 1946 but is currently owned by the InterContinental Hotels Group (IHG), which runs over 183 hotels and resorts in over 60 countries in addition to Holiday INN Amman, Bristol Hotel, and Crown Plaza Amman. The Regency Palace Amman is a subsidiary hotel of the larger World hotels, which has over 500 properties in 65 countries and 250 destinations globally (Worldhotels 2013). The Millennium Hotel Amman is an affiliate owned by Millennium Hotels and Resorts. Other hotels under its umbrella include Grand Millennium Hotels, Kingsgate Hotels, and Copthorne Hotels (Hotels & Resorts 2013).

The Four Seasons Hotel Amman was a family owned company until 2007 when it became a partnership between Prince Al-Waleed bin Talal and Microsoft’s Bill Gates who are major shareholders. Opened in Sept 1984 in Boulevard Royal, the Le Royal Amman is owned by the General Mediterranean Holdings Group. Therefore, it can be seen that most hotels belong to large consolidated Multi-National Corporations (MNC)

operating chain hotels, a common feature among five-star hotels across the world. This has consequences for the level of sustainability measures as many of the MNCs attempt to achieve world standards regardless of their location in the world. However, local conditions do not always allow for these standards to be achieved and adjustments have to be made to account for these domestic prevailing conditions, for example Jordan and water scarcity.

The section below discusses an overview of the four central themes in the literature. These themes include concepts of sustainability in hotels; the need for achieving sustainable performance in the hotel industry; sustainable measures adopted by hotels and the impact of sustainable practices on the hotel's overall performance.

2.7 Concept of Sustainability in Hotels

Sloan, Legrand and Chen (2012) discuss the concept of sustainability. According to them, the concept of sustainability performance in the hospitality business can be best described as an operation concerned with the management of its resources in a manner that leads to the maximisation of the social, economic and environmental benefits. It, therefore, efficiently allows meeting out the needs of the present generation, and at the same time, it also ensures the protection and enhancement of opportunities for future generations. In respect to hotels, sustainable or green hotels aim at reducing their impact on the environment and society. As stated by Robinson and Lashley (2007), the American Hotel and Motel Association describe green hotels as those that are

environmentally sustainable properties and managers of such properties are highly eager to institute programs that are helpful in achieving savings of water and energy, and allow for achieving reduction of solid waste.

According to Chen (2012), sustainable business practices are all about maximising the business potential without degrading the environment in which the business operates. It implies that businesses should aim at working in a harmonious manner with society and the community in which it operates. The practices on the hotels are termed as sustainable when they have little or no impact on the environment. Additionally, the activities must be undertaken in a manner that ensures the preservation of natural environmental resources to the maximum extent possible in the most efficient manner available. By ensuring better performance towards the environment, businesses can achieve better sustainability in their operational activities.

These sentiments are in tandem with His Majesty King Hussein's views wherein a Letter of Designation to the Prime Minister on June 19, 1991. He asserted a commitment to environmental conservation "The conservation of the environment is not a luxury but a national and human duty because of its direct connection with humanity's livelihood, progress, and even survival. Therefore, we must accord it the priority it deserves in all state activities and make it one of the components of our national culture" (McEachern 1991).

As reported by UNEP issued in 2001, creating environmental awareness within an organisation has several benefits both within and out of the organisation. These benefits include reducing resources consumption, meeting compliances, increased

customer loyalty and brand awareness when the environmental status is part of the marketing. All these benefits have the profound effect of improving the public image, avoiding penalties from environmental authorities, enhancing global competitiveness, attracting and retaining dedicated staff, in addition to other long-term benefits. Long-term benefits include those where buildings become carbon neutral and create energy that can be sold back to the grid. Lend Lease Corporation evidences examples of these best practices in the construction of commercial building spaces in their constructions at the Barangaroo site in Sydney (<http://barangaroo.sydney/>). For the hospitality industry, this aspect also includes things such as the installation of water recycling, vertical gardens/herbariums and even growing fresh vegetables on roof spaces (Wyngaard and De Lange 2013).

Amr et al. (2004) touch on ideas of nature conservation in Jordan as part of this sustainability approach. These encompass flora, fauna and ecosystems of this ancient land with four distinct “biogeographical zones (Mediterranean, Iran-Turanian, Saharo-Arabian and Afrotropical” (ibid. p. 467). The authors believe that nature provides the solutions to environmental issues and, therefore, needed to be sustained. They are also the resource that keeps tourists returning to both cultural and environmentally sensitive areas in Jordan like Petra and the Dead Sea.

2.8 The Need for Achieving Sustainable Performance in the Hotel Industry

The existing literature indicates the significant level of need for achieving sustainable environmental and operational performance by the hotel industry across the world for a large number of reasons. For instance, studies conducted by Molina-Azorín et al. (2009) indicate that sustainable performance allows hotels to achieve competitive advantage over others. These benefits are financial savings, better publicity profiles, increased loyalty, and return visitation based upon the ‘eco-friendly’ credentials of properties. In addition to this, legislation has been enacted in various countries to force compliance by operators on issues of environmental sustainability (Wyngaard and De Lange 2013).

Jordan has adopted a number of legislative regulations, directives, environmental laws, and other measures, such as ISO having standard characteristics, which are to be applied and monitored by the government. This legislation seeks to address the challenges facing the preservation of the environment. The legislation has been in existence since the early 1950s (Al-Zubi 2011). According to a study conducted by Dwyer et al. (2009), environmental management system (EMS), is one of the core initiatives that precedes sustainable tourism. This is because the approach calls for the conscious environmental resources management in the tourist destination in ways that reduce any adverse effects. Thus, in order to achieve a competitive position against the competitors, it is essential that hotels should aim at achieving sustainable performance from their operations. According to Mensah (2006), these sustainable activities include reduction of waste using biodegradable products, and an increase of consumer knowledge on dumping and generating landfill. Chan et al. (2009) affirm that sustainable activity in the hotel industry may also include activities such as recycling

of waste materials instead of releasing to the environment. Further, grey water should be used to water gardens instead of tap water.

Mensah (2006) identified that another significant factor that necessitates hotels to take initiatives in attaining sustainability over their daily practices is the better overall recognition by their customers.

Five-star hotels in Amman need to position themselves as ‘green’. A study by Kang et al. (2012) sought to analyse the willingness of consumers to pay for green initiatives as undertaken by the hotels. Their study found that customers are willing to pay higher or premium prices, for the services available to them in hotels that practice green activities in their regular business conduct.

It is not only higher customer satisfaction and better firm performance that can be achieved from undertaking sustainable practices in hotels, but the customer intention to return are also significantly higher from the green and sustainable practices practised by firms as found by Berezan et al. (2013). According to them, the satisfaction of customers with the hotel services and its green practices makes them loyal. However, they note that this trend is evident in customers with a predisposition to green activities and cannot be generalised to all hotel guests. Another significant study conducted by Xuchao et al. (2010) indicate that the nature of the hotel industry makes it essential for hotels to concentrate on higher levels of sustainable performance. For instance, the hotel industry often accounts for excessive use of energy and water resources, and such an industry is mainly accountable for higher levels of production of waste materials on a daily basis.

This waste comes from rooms, facilities such as air conditioning, electronic equipment, heating water and artificial lighting. According to Mensah (2006), the increased use of artificial heating and cooling, in turn, contributes towards global warming and that is because of the emission of the excess greenhouse gas emitted in electricity generation, transmission, distribution and other related processes. Hotels need to respond appropriately in order to ensure efficient consumption of energy and water. The scarcity of fresh water makes it essential for hotels to pay a higher level of attention towards making sustainable use of this valuable resource (Xuchao, Priyadarsini & Eang 2010). This factor is particularly applicable in the context of the current study in desert areas like the Middle East where fresh water is scarce and desalination plants essential for supply.

Food waste is another significant issue associated with the hotel industry, and it demands hotels apply sustainable practices to minimise waste, expenditure, and costs. A study by Wyngaard and De Lange (2013) indicates that one of the foremost features associated with the performance of hotels is that most the hotels provide food and restaurant services, apart from lodging and other primary services such as recreation, convention, and entertainment facilities. Resort properties are particularly vulnerable to this, especially when they are located in remote or hard to access areas as the ‘food miles’ are racked up in sourcing and delivering the product. Food miles is a term which refers to the distance which food is transported from the stage of its production until it is delivered to the customer. Food miles are one factor used when assessing the environmental impact of food, including the impact on global warming (Engelhaupt 2008).

In the case of large hotels, food services account for large volumes of overall waste production of the hotel, and disposal of such waste raises significant issues affecting the image of the hotel. Buffets, in particular, where poor or no portion control and greed of patrons is endemic contribute disproportionately to food waste. Inappropriate, incorrect disposal of waste including dumping that arises from hotel operations requires the hotels to pay a higher level of attention in achieving effective food waste management to achieve sustainability as well as maintain an image of being environmentally sensitive.

According to a study conducted by Webster (200), higher levels of awareness amongst the public also force businesses to focus on achieving sustainable performance. The research revealed that environmental-conscious customers prefer to pay higher prices to the organisation that adopts greener practices. The study by Mensah (2006) agrees with this finding as for the need by environmentally conscious customers to purchase from green companies along with the growth opportunities has been the primary driving factor to hotels in achieving environmental friendly and overall sustainable performance. Webster (2000) goes on to highlight the public relations value of promoting sustainability measures. Publishing sustainability metrics in reports and mentioning their significant proactive measures in enhancing their overall environmental and sustainable performance are an added bonus.

The analysis above indicates that the hotels should maintain high levels of sustainability in their performance to achieve success. Various other factors are identified as the principal driving factors in encouraging sustainability among hotels.

The next part of the literature review focuses on the ways in which hotels adopt sustainable measures.

2.9 Sustainable Measures Adopted by Hotels in their Operations

An examination of the existing literature indicates that there are various crucial measures undertaken by hotels across the world. These measures are intending to enhance their overall environmental performance. According to Sloan, Legrand and Chen (2012), an increasing number of hotels and restaurants are becoming more sustainable as they employ a large number of measures aimed at reducing their overall impact on the environment. The literature indicates that it is around 80% of the hotels across the European region involved in activities that are oriented towards the environment. In the opinion of Sloan, Legrand and Chen (2012), the major environmental protection measures undertaken by the hotels include energy saving measures, water saving measures, green purchasing and waste minimisation practices.

A study by Erdogan and Baris (2007) on environmental protection programs and conservations practices in hotels across Ankara, Turkey indicate various necessary measures adopted by hotels in order to achieve sustainable performance. An analysis of the study indicates that the solid waste management is performed by hotels through a separate garbage room. The primary volume of waste as produced by hotels is paper and food waste, and they have a daily collection schedule whereby the waste is stored in garbage room/s, and is finally disposed of through municipal governmental and recycling firms.

Apart from this, the sustainable measures as adopted by hotels are also identified with respect to the purchasing practices performed by them. Purchasing activities and considerations such as buying recyclable materials versus single-use materials, encouraging seller firms to partner in recycling, purchasing from local firms, purchasing less hazardous cleaning materials and purchasing energy saving equipment are all practical demonstrations of environmental sustainability. By focusing on these areas, hotels aimed at achieving sustainable performance can then apply transformative measures to the entire performance of the hotel.

Another major area of concern to the hotels is with respect to their higher energy consumption levels. Hotels across the world take different measures in order to ensure that energy consumption levels are reduced significantly so that cost can ultimately be reduced. In an attempt to reduce their energy consumption, hotels make use of energy saver systems like key cards that control every appliance in the room. Other practices like the installation of energy saving light bulbs in guest rooms are another crucial feature of energy conservation by hotels.

Various other initiatives include wastewater treatment, energy saver control systems in guest rooms, use of treated wastewater in garden irrigation discharge of treated wastewater to the environment and use of solar and other green energy. In addition to this, asking guests to consider minimising washing of bed and bath linens, sorting and washing according to levels of soiling and deciding on the number of cleaners to use are crucial initiatives (Erdogan and Baris 2007).

Another increasingly popular trend among hotels and restaurants is the establishment of the kitchen and vertical gardens to supply their own produce or in some instances partnering with local farmers (reducing food miles and focussing on seasonality). Another trend is for hotel chains to have both backward and forward integration into the value chain. Examples of backward integration include the purchase and diversification into farming and cattle rearing. Forward integration, on the other hand, involves using excess produce to develop and sell products through on site shops or some other retail outlet (Lashley et al. 2007).

A study on the environmental management practices within hotels in Accra, Ghana revealed many identical findings of sustainable measures adopted by hotels. The presence of environmental policy, having a dedicated manager in charge of environmental management, using natural ventilation and discouraging the use of air conditioning, installing dual flush toilets, encouraging guests to be eco-friendly and assisting hotel managers in achieving green performance were all practised. The use of recycled paper products, producing environmentally friendly initiatives information for guests and most importantly supporting the local community in which the hotel operated were measures used to achieve sustainability. The hotels can establish awareness campaigns to help the local community understand the importance of keeping the environment clean (Mensah 2006, Berezan et al. 2013).

2.10 The Impact of Sustainable Practices on Hotel Performance

The existing literature includes a critical analysis. Berezan et al. (2013) aimed at analysing the impact of sustainable practices adopted by hotels and their impact on

guest satisfaction and their intention to return. There are various benefits gained as a result of enhancing "environmentally friendly" consumption of energy in Amman's hotels and other tourism establishments. These measures include a reduction in resource consumption thereby resulting in reduced costs. In addition to this, companies benefit from customer loyalty as well as an enhanced public image. Based on the research conducted by Wyngaard and De Lange (2013) the findings imply that customers highly favour the sustainable practices as adopted by hotels and their higher satisfaction level make them loyal towards the hotel with repeat visitation being a direct effect. Keeping existing guests and repeat visitation is a constant theme when discussing profitability in the service industry. The cost of finding new customers is also an operational area that impacts on the bottom line of hotels and restaurants. Guests are becoming increasingly attracted to hotels that have gone 'green' and are seen to be employing active environmental conservation measures. In the case of Amman, this is particularly pertinent given the scarcity and cost of water. According to Kang et al. (2012), consumer willingness to pay a premium for green initiatives are significantly higher making an investment in green practices attractive to hoteliers.

The literature has found many studies that investigated the impact of good environmental practices on the social, environmental and financial performance of five-star hotels (Lashley et al. 2007, Font and Cochrane 2005, Molina-Azorín et al. 2009). They carried out in-depth analysis of how hotels in the developed world have significantly reduced operational expenses through effective management of issues such as water, energy, sewerage, and waste (Font and Cochrane 2005). Moreover, Molina-Azorin et al. (2009) further asserted the beneficial aspects compliance with sustainable performance has for hotels. They refer to the sustainable practices as being

a motivating factor for customers in promoting the consumption of hotel services. Generally, hotels practising effective sustainability programs improve their sustainability rankings and stand a better chance of gaining global recognition such as Green Globe certification. The Green Globe certification is a designed assessment of the environmental sustainable performance of travel and tourism businesses and their partners (greenglobe.com).

2.11 Sustainability Initiatives in Jordan

The scarcity of resources in the country leads Jordan's government and its people to realise how important is to carry various initiatives toward sustainable adoption practices. Some initiatives include supporting a range of policies and programs aimed at achieving greening initiatives such as the complete removal of subsidies for oil in 2008, the adoption of renewable energy law and fiscal intensive package in renewable energy and energy efficiency equipment in 2010 , and the establishment of the eco-city forum , the eco-financing seminar and the Zarqa River rehabilitation project. In addition, the government 2010 executive program highlights its pursuit of green economy development by documenting the need to “ launch program for green service industry to meet the requirement for adhering to environmental standards and turning Jordan into a regional centre for greening services and industry” (EnConsult 2011, pp1). Section 2.11.1 will highlight a number of environmental initiatives in Jordan.

2.11.1 National Environment Strategy for Jordan

The country's scarce resources and fragile ecosystems necessitate a practical and ongoing program of action covering all aspects of environmental protection in order to maintain a viable resource base for economic growth, as well as to preserve the region's natural heritage. Jordan became the first country in the Middle East to adopt a national environmental strategy (UNFCCC 2010, pp 9).

In May 1992, a team of over 180 Jordanian specialists completed a practical and comprehensive working document entitled National Environment Strategy for Jordan with help from the International Union for the Conservation of Nature (IUCN) (UNEP 2016a). The document offers over 400 specific recommendations concerning a wide variety of environmental and developmental issues. Moreover, the Jordanian government and the International Union for the Conservation of Nature (IUCN), mainly aimed to create a long-term environmental blueprint to protect and preserve the environment for future generations.

Furthermore, the strategy outlined a number of planned initiatives for facilitating and institutionalising long-term progress in the environmental sphere to giving sectoral priority to water conservation and slowing Jordan's rapid population growth and promoting public awareness of environmental protection programs.

2.11.2 UNEP Green Economy Advisory Services

A study commissioned by the UNEP in partnership with the Jordanian Ministry of Environment, 2011 offered policies and recommendation towards conservation of Jordan's environmental, economic, and social priorities (UNEP 2016b). The study

aimed to increase efficient resources utilising in different sectors in the Jordanian economy.

The study also discussed three key challenges in Jordan which are unemployment, energy, and water. According to the study, these three challenges are affecting the whole process toward a green economy in Jordan. Unemployment in Jordan is constantly high, ranging between 12.3 and 15.3% percent, and despite economic growth, and this percentage is expected to increase. The labour market suffers from severe structural unemployment due to a mismatch between the skills of job seekers and the demand in the labour market (UNEP 2016b).

Water is the central point for greening. Up to 51 percent of the country's water is wasted and around 35 per cent of households are not connected to a sewerage system. Thus, there is an enormous potential to recover the conservation and resourceful use of water. A rehabilitation of wetlands and better distribution of water to relevant economic activities could optimise the economic efficiency of water.

The third challenge is Energy. According to the scoping study, roughly 13 percent of Jordan's GDP in 2009 was spent on energy, of which 96 percent was imported. Its heavy dependence on oil imports has adverse impacts on the growth of industrial production. Furthermore, Jordan's energy use generates approximately 14.9 million tonnes of greenhouse gas (GHG) emissions, with over 13 per cent of GDP spent on energy imports. It is essential to balance up the development of alternative energy sources and to improve energy efficiency in potential to improve the conservation and

efficient use of water. A rehabilitation of wetlands and better allocation of water to relevant economic activities could optimise the economic productivity of water.

Jordan adopted a number of initiatives and policies such as Renewable Energy Law, which contains requirements for a renewable energy and energy efficiency fund and the creation and maintenance of renewable energy infrastructure. Such policies could be expanded to other sectors of importance, along with greater government spending to target the most prominent environmental challenges.

2.11.3 Tafila Wind Farm

The Tafila wind farm is the first commercial utility-scale wind power project in the Middle East. The project was developed by Jordan Wind Project Company and officially inaugurated by his Majesty King Abdullah II in December 2015. The wind farm was developed by an association of Jordanian and International Companies (Jordan Wind Project Company, "JWPC") with experience in the design, construction, and operation of conventional and renewable power facilities. Jordan Wind Project Company (JWPC) is an international coalition that includes, InfraMed Infrastructure Fund (France), Masdar (UAE) and EP Global Energy (Cyprus).

The project aims to create enough electricity to power 83,000 homes. The project expects to displace almost 235,000 tonnes of CO₂ emissions per year. Moreover, it will account for approximately 6.5% of Jordan's 1,800MW renewable energy target for 2020 (World Bank 2016).

2.11.4 National Agenda for Jordan 2007-2017

The fundamental purpose of the National Agenda for Jordan is to achieve sustainable growth through a transformation program that puts Jordan on a path toward fast economic growth and better social inclusion. The National Agenda has phases and themes aimed to realise social, economic and political development as well as evaluate and monitor the progress of its implementation according to specific performance indicators.

The many topics under discussion in the National Agenda include water, energy, postal services and transportation sectors. The agenda also highlights the issue of environment sustainability while facing challenges such as regulatory and institutional framework, waste management, air pollution and the natural resources and land use.

The National Agenda focuses on emphasising legislative and institutional framework for environmental sustainability and enforcing relevant legislation. Also, it aims to develop solid waste management policies, reduce wastewater discharge outside the sewage system and increase sewage treatment capacity, improve management of natural reserves and develop a master plan for land use and ensure its implementation. Moreover, the agenda seeks strengthening mechanisms to ensure pollution monitoring, reduction and control in urban and industrial areas (World Health Organisation 2016).

2.11.5 The National Climate Change Policy of the Hashemite Kingdom of Jordan 2013-2020

The National Climate change policy has been supported by Global Environment Facility (GEF) and the United Nations Development Program (UNDP). This policy demonstrates that Jordan maintains a strong pledge to the objectives developed by the

international community for the integrated environmental and economic response to the threat of climate change. The National Climate Change Policy also reveals that Jordan recognises its responsibility, as a country, and will support and energetically contribute and engage in new international cooperation in this regard, both globally and regionally (El Hanandeh 2015).

The long-term goal of the Climate Change Policy is to achieve and to remain with a low carbon but growing economy, with healthy, sustainable, resilient communities as well as sustainable water, agricultural resources, and productive ecosystems in the path towards sustainable development (Ministry of Environment 2016).

2.11.6 Jordan’s Water Strategy 2008-2022

Jordan’s water strategy outlines a strategic and inclusive approach to the sustainable management of the water resources. The strategy describes the Jordanian vision toward having sufficient, clean, safe and secure drinking water supply. It also highlights the need to understand and manage the groundwater and surface water resources effectively. The strategy focuses on the importance of sustainable use of water resources and fair implementation in order to have accessible and affordable water cost (Ministry of Water and Irrigation 2016).

2.11.7 IRENA “Jordan Profile”

The International Renewable Energy Agency (IRENA) is an intergovernmental organisation founded in 2009, mandated by governments worldwide. IRENA aims to promote adoption of the sustainable use of all forms of renewable energy, including bioenergy, geothermal, hydropower, ocean, solar and wind energy, in the pursuit of

sustainable development, energy access, energy security and low-carbon economic growth and prosperity. The agency provides the principal platform for international cooperation. It is also considered as a centre of excellence repository of policy, technology, resource and financial knowledge on renewable energy. Each country profile contains analysis by IRENA's expertise with the most recent available country data and additional information from a wide range of sources (IRENA 2016).

Jordan joined IRENA in 2009 and implemented a number of renewable energy projects such as The Sahara Forest Project and The Tafila Wind Farm. Jordan profile at IRENA shows the latest developments in the field of renewables in the country.

2.12 Theoretical Orientation

This section of the thesis aims to identify suitable theoretical and conceptual frameworks that are applied to the research. Various theories explain the material aspects related to sustainability performance. This study has its foundation on two theories, which include the Stakeholder Theory and Strategic Management Theory. The Stakeholder Theory explains that there are various relevant parties such as the public, distributors, suppliers, customers both internal and external and macro-environmental factors such as the environment, which are directly affected by the performance of the company (Phillips 2011). The decisions taken within the organisation should consider the interest of all the parties and represent their stakeholder equity.

Phillips, Freeman, and Wicks (2003) assert that the beginning of the stakeholder theory/approach can be traced to organisational management and ethics. According to them, Freeman in 1984 first proposed this concept. According to Freeman, the characteristics of an organisation lie in its relationship with several groups and individuals known as Stakeholders (Tkaczynski et al. 2010). The first step toward the development of a community is the identification of stakeholders. As soon as the stakeholders are identified, they can be included in the tourism development processes. The sustainable development of tourism may include all stakeholders to be successful and effective as the stakeholders play a main role in any phase of the development even if they are not part of the process, they should be identified and understood (Byrd 2007). Stakeholders in this context include the local community, the employees, guests, competitors, government and other agencies, the hotel properties themselves and their business partners like tour guides, attractions, retail, transport .

The stakeholder framework can be further expanded to include shareholders in the hotel industry, national and regions NGO's, and employees of supportive services to the hotel industry such as cleaning and recreational companies (Crane and Matten 2007). The major challenge for the hotel industry is instilling change in their business operations. A major area of concern is training, informing and guiding behavioural change among guests and employees as it is hard to control the actual behaviour of saving water and turning off lights.

As per this stakeholder theory, the community and the society in which the organisation operates is one of the most significant stakeholders and initiatives need to be undertaken in order to enhance the overall performance towards these important

stakeholders of the organisation. Hotels operate with the primary motive of improving their profitability performance and ultimately to achieve a higher level of growth, but at the same time, the nature of the hotel industry is that, through their regular routine hotel activities, a significant level of threats is posed to the environment as hotels consume resources in vast quantities. Hence, it is becoming increasingly important that hotels consider stakeholders like the community, government, society and the environment, in addition to their own ascribed goal of profitability. Jensen (2001) extends these stakeholders to include competition, consumers, employees and the media.

A number of studies have attempted to build models that explain sustainable development. Ismail (2009) and Crane (2010) described sustainability by relating the functional theory to stakeholder and relational theories. However, their proposals did not offer a concrete explanation to address how sustainability and organisational change can be integrated. In an earlier study, Van de Ven and Poole (1995) suggested a theoretical model that explains change and innovations in corporate organisations. Studying the business sustainability topic from an organisation change viewpoint helps us to understand better why efforts by stakeholders best intentions in implementing sustainable development realise success partially from the sustainability perspective (Blomme et al. 2010).

The second theoretical perspective to be applied is that of Strategic Management Theory in the discussion of environmental and operational management practices in the hotel industry. Moutinho (2000) created one of the first frameworks based on strategic management theory referred to as the Socio-Cultural, Economic, Physical,

Technical, International Communications Administrative, and Legal/Political (SCEPTICAL) analysis. This approach with the inclusions of Administrative and International Communications is a variation of the classic PESTEL/R model (Political, Economic, Socio-Cultural, Technological, Environmental, and Legal/Regulatory approach (Thompson et al. 2013). Strategic Management Theory approaches are particularly appropriate as they consider the macro and micro environmental aspects in which hotels exist which is particularly applicable to the case of resorts, cruise ships and other destination hotels where the natural environment is one of the major attractions.

As the name suggest, strategic management theory revolves around the management of activities in a strategic manner that leads to the accomplishment of overall efficiency. As per strategic management theory, the performance of an organisation towards it's various main activities should be undertaken in a strategic manner, as this will lead to improvement in management (Blomme et al. 2010). According to Thompson et al. (2013), Porter's Five Forces model and the need to understand competitive pressures from competitors, new entrants to the market, substitute product, customers both internal (employees) and external, buyers and sellers are part of the strategic management approach. In respect of hotels, the strategic management of performance and operations imply that hotels should undertake sustainable initiatives aimed at enhancing their efficient performance and at the same time, lead to better overall performance towards the environment in which they operate. Operational decisions such as the management of waste and consumption of various significant natural resources, design, and human resource practices should be undertaken in a manner that leads to their strategic use and advancement in the overall efficiency of hotels (Hill et al. 2014). Both Stakeholder Theory and Strategic Management Theory

and approaches canvassed in the literature and the research methods to examine their role in the environmental sustainability of Five Star Hotels in Amman, Jordan are utilised in this research.

Strategic management theory provides overall direction to the organisational initiatives around sustainability of operations and environment for the business and involves specifying the organisation's objectives, developing policies and plans designed to achieve these objectives, and then allocating resources to implement the plans. Academics and practicing managers have developed numerous models and frameworks to assist in strategic decision making in the context of complex environments and competitive dynamics.

A stakeholder approach can assist managers by promoting analysis of how the company fits into its larger environment, how it's standard operating procedures affect stakeholders within the company (employees, managers, stockholders) and immediately beyond the company (customers, suppliers, financiers).

Despite the growing interest in environmental sustainability in the hospitality and tourism sector, Blomme et al. (2010), claim 'the concept of integrating sustainable development into business strategy remains a challenge to most stakeholders in the sector'. The authors elaborate on their claim by asserting that at present, most hotel chains in the higher star levels (four and five stars) are more actively engaged in initiatives that address issues directly linked to environmental sustainability.

In a later study, the authors further justified their prior claim stating that most of the hotels in these segments focuses on energy saving measures and have designed benchmarking systems for reporting the success of their sustainability policy such as

the Global Reporting Initiative standard (GRI) (Van Rheede and Blomme 2013). However, in an earlier study, Falck and Hebllich (2007) demonstrated how the notion of strategic CSR could be linked to the stakeholder theory. From their viewpoint, and as mentioned earlier, wealth maximisation is a key driver for stakeholders' adoption of sustainability in business strategies. As was the case with strategic management theory, the authors claim provision of incentives by shareholders plays a critical role in encouraging managers 'to do well by doing good. Nonetheless, the CSR reporting by most hotels only focuses more on the commitments towards sustainability and less on measures that ensure target goals are achieved (De Grosbois 2012).

It is evident from the research studies described in the above paragraphs and from a literature review by Groennern et al. (2010) that the tourism and hospitality sector is actively engaged in sustainable development initiatives. However, from an environmental and operational management perspective, the efforts are only reported when they directly lead to the economic success of the hotels.

The goal of the present study is to apply EMS/EIA tool in understanding sustainable development from an operational performance perspective. This helps in envisioning the greater impact of sustainability on tangible results measured through profitability, cost reduction and increased brand value recognition.

Chapter 3

METHODOLOGY

3.1 Introduction

This chapter of the research document outlines and discusses the research design, methodology, framework, and implementation of the data collection techniques. Methods used include Semi-Structured Interviews, Surveys, Fieldwork observation and analysis of secondary data from printed materials and artefacts. A review of related literature before the development of the research instruments also informed the choice and rationale for research design, methods, pilot study prior to data collection and the framework of the study.

The purpose of this study is to investigate sustainable environmental performance in five-star hotels in Amman, Jordan. The primary objective of the research is to determine the impact of business and operational practices contributing to sustainability of five-star hotels in Amman, Jordan. The secondary objectives are to investigate what environmentally sustainable practices are operationalised by five star hotels in Jordan, to examine the efficiency of these operational environmentally sustainable practices, to gauge levels of awareness of individual hotel managers in Jordan towards environmental issues in the practice of their operations, and to analyse and evaluate hotel waste management (HWM) programs in Jordan.

Results addressing the primary and secondary questions were determined by collecting data from key stakeholders identified as hotel managers and workers who were drawn from five operational areas in the hotels.

Research Questions

The primary research question is:

- 1) What business and operational practices are followed by five-star hotels in Amman, Jordan to achieve sustainable environmental performance?

Secondary research questions include:

1. What are the levels of Awareness and Attitudes of Management and Stakeholders toward Environmental Sustainability Measures in Five-Star hotels in Amman, Jordan?
2. How are environmental audits practised by five-star hotels in Jordan?

In order to answer the research primary and secondary questions, qualitative methods were chosen; using semi-structured interviews and surveys. Additionally, the use of semi-structured interviews supports the validity of the empirical approach, and allows for data triangulation, facilitates discussion and reporting of findings in-depth (Holiday 2007).

A study by Garci and Kuehnel (2011) on how to improve operational bottom line in the hotel sector by going green, was used to assist in the design of the survey tool. The authors explain that other more polluting industries and departments exist, but hotels can incur waste and consume an enormous amount of resources which creates unnecessary operational cost.

In this chapter, the researcher discusses:

Section 3.2: The research approach;

Section 3.3: The qualitative method;

Section 3.4: Data Sources

Section 3.5: Research tools;

Section 3.6: Pilot of the research questions;

Section 3.7: Sampling;

Section 3.8: Data collection;

Section 3.9: Data analysis;

Section 3.10: Research reliability and validity considerations,

Section 3.11: Ethical consideration.

Section 3.12: Limitation

Section 3.13: Summary

3.2 Research Approach and Design

Many definitions of research design have been established by different authors, such as Creswell (2013) who define the research designs as types of inquiry within qualitative, quantitative and mixed method approach that provide specific direction for procedures in a research design (Creswell 2013a).

The selection of appropriate research methods is essential from the view of performing the entire process of data collection in a comprehensive and efficient manner. Two

approaches to research are available to the researcher; Inductive and Deductive research approaches (Veal 2005).

According to Thomas (2006), there are two general approaches to reasoning which may result in the gaining of new knowledge: inductive reasoning commences with the observation of specific instances, and seeks to establish generalisations; while deductive reasoning commences with generalisations, and aims to see if these generalisations apply to specific situations. Most often, qualitative research follows an inductive process.

In this research on analysing sustainable and operational performance in five-star hotels in Amman, the researcher followed the inductive research approach for the collection of data. This approach commenced with secondary data collection from the evidence in the literature. This was followed by primary data collection using semi-structured interviews, surveys and collection of artefacts like photographs and brochures. The research design milestones are demonstrated in Figure 3.1.

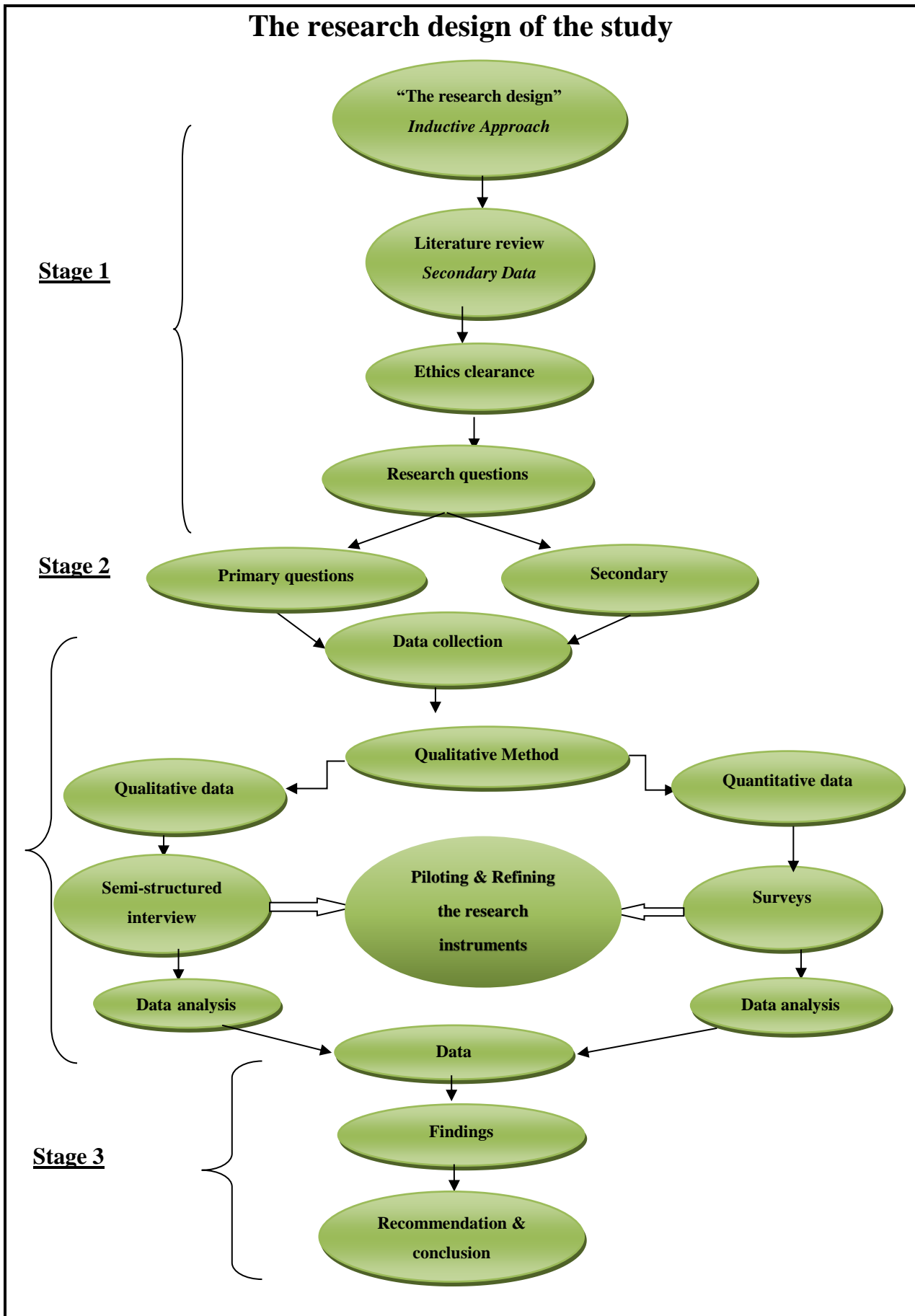


Figure 3.1: The Research Design of The Study.

As illustrated in Figure 3.1, the researcher has integrated three stages in this study to answer the research primary and secondary questions. These stages are described below:

Stage one: the researcher has conducted a comprehensive analysis of the literature which concentrates on previous studies and theories that are mainly related to sustainability practices in hotels. Since the research focuses on analysing the sustainable performance of five star hotels in Amman, the literature review primarily focuses on the definition of sustainable performance in hotels daily activities/operations, and the impact of sustainable practices on their performance. The limited literature on environmental practices in Jordanian hotel and tourism sectors and in the Middle East more generally, created the ‘gap’ in the research being addressed in this thesis. The identified gap led to the framing of the primary research question around business and operational practices of five-star hotels in Amman. Additional in-depth data was sought through the two secondary questions related to the awareness and attitudes of hotel management toward sustainable practices in the hotel and the type of environmental auditing measures of environmental sustainability employed in the Jordanian tourism industry. The “so-what” question of the purpose of this research was also answered by the literature which revealed that sustainability is a major concern to developing countries like Jordan if they are to maintain and grow their tourism and hospitality businesses.

Western Sydney University Human Research Ethics Committee (WSU HREC), approved a National Ethics Application Form prior to the commencement of data collection. This was necessitated by the use of surveys and semi-structured interviews

both of which collected demographic and attitudinal data. Additionally, ethical considerations had to be justified as the data was collected overseas. Informed consent, data confidentiality and the ability to withdraw from the study were all considered before approval was granted. See Appendix 1

- **Stage 2:** the data collection procedures in this study adopted a qualitative approach, with additional quantitative elements in the form of a survey to validate the research findings. This combination allowed for data triangulation with the semi structured interviews conducted with senior hotel staff from the functional departmental areas. It also assisted in establishing validity of the data from respondents. The surveys were converted to Arabic to enable ease of administration.

A pilot test of both the survey and semi-structured interview checklist allowed for refinement of the instruments. These revisions were then used to collect primary data in Stage 3.

The paper and pencil survey instrument were targeted to the following operational departments and their supervisors at the five- star hotels.

1. Maintenance and Security/ Manager/Equivalent
2. Food and Beverage/ Manager/Equivalent
3. Kitchen/Executive Chef/Equivalent
4. Purchasing/ Manager/Equivalent
5. Housekeeping/Executive Housekeeper/Equivalent

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The interview question list was divided into two main sections. The first section included general questions asked of all participants who were drawn from different operational departments. The general question section included questions about environmental sustainability definitions, sustainability promotion responsibility and general ranking of the hotel's environmental performance from the participant's perspectives. The general questions section allowed exploring the extent of understanding and awareness of the hotel's employees and managers of environmental sustainability. It also revealed the extent of employees' involvement in the hotel's environmental policies and program.

The second section of interview list of questions is a group of specific questions for each operational department. The specific questions for Housekeeping department participants focus on environmental sustainability practices in the hotel guest rooms, public areas and laundry facilities, such as asking whether they use equipment/tools to reduce water and energy consumption. Specific questions to Food and Beverage participants were focused on practices in the kitchen such as using organic menus, reusing and recycling programs. Regarding the questions which were asked to the Kitchen Department, the questions emphasised practices such as food waste management, food waste, measures to reduce smoke emissions as a result of cooking as well as employee's health and safety. The questions which have been designed for Maintenance and Security participants focused on the extent of maintaining and repairing of durable products at the hotel and the environmental management practices that contribute to security and a healthy workplace for employees. Specific questions have been asked to Purchasing department participants. These questions focused on the hotel's sustainable standards in procurement and about their perspectives about

involving green energy purchasing and adoption of sustainable procurement standards. (see Appendix 2: Checklist of the Interview Questions).

Stage 3: Data was collected in person by the researcher in Jordan. Descriptive statistics were applied to analyse the quantitative demographic data. Interpretative and thematic analysis approach was used to analyse qualitative data (semi-structured interviews). For the qualitative thematic analysis, the data was first transcribed from Arabic to English and then clustered based on themes identified through the literature prior. Once the data was collated, findings were discussed, conclusions elaborated and recommendations emerging for industry, further studies and Jordanian tourism more generally were written up.

3.3 The Qualitative Method Approach

According to (Creswell 2013b), qualitative research is “an inquiry process targeting understanding of the human and social problem, by building a complex, holistic picture, formed with words, and reporting the detailed views of informants, as conducted within a natural setting”. This approach suited the present study, which targeted exploration, analysis, description, evaluation, and explanation of sustainable business and environmental practices by five-star hotels in Amman, Jordan. The qualitative approach integrated complexity and richness of gathered information regarding the phenomenon under investigation from multiple evidentiary sources (Yin 1994).

Complexity within the present research context covers comparison and comprehension of actions and attitudes of hotel managers, staff, and guests towards sustainable business practices (Bryman 2006, Creswell and Plano-Clark 2006). This was evidenced by the collection of data from five distinct operational areas of the hotels.

3.4 Data Sources

A variety of research techniques were used to gather information for a better understanding of issues, scenarios, priorities and perspectives that five-star hotels in Amman, Jordan encounter in their business sustainability efforts. Data collected from multiple sources, included:

1. Semi-structured interviews (qualitative data).
2. Surveys (quantitative data)
3. Non-participatory observation and
4. Secondary sources document reviews and other artefacts.

3.4.1 Semi-Structured Interviews

Baloglu and Assante (1999) argue that interviews are essential techniques in the collection of data from the respondents directly. The use of interviews allows the researcher to collect ‘deep’ data. The scope of collecting relevant data is appropriate to this research using interviews; because this technique interacts directly with the respondents. Interviews are classified into three different types such as structured, semi-structured and unstructured interviews (Bruce and Berg 2001). Based on the nature of the research and the information sought from respondents a choice was made

about the parameters ranging from open/unstructured to closed/structured interview types.

For this research project on the sustainability of five-star hotels in Amman, semi-structured interviews are the key method of data collection; the researcher conducted 15 semi-structured interviews with managers and employees from different hotels departments separately.

In this research, the focus was on collecting in-depth data appropriate to the study, and this was efficiently performed through following a semi-structured interview whereby the researcher provided a list of questions but was also able to probe (Veal 2005).

According to Drever (1995), semi-structured, interviews are the most flexible way of data collection in small-scale research, where the researcher has grounded questions about specific topics to cover and discuss with interviewees and allows the interviewee to follow their thoughts and beliefs. The ability to provide reliable, consistent qualitative data was an added benefit, particularly as the interviewer was fluent in both English and Arabic and could probe deeply when respondents wanted to express ideas more fully (Cohen and Crabtree 2006).

The research came up with detailed information on the state of five-star hotels business sustainability practices. Results will be utilised to develop best practice approaches to environmental and operational aspects.

The interviews were carried out with an open framework, which allowed for conversational and focused two-way communication. Semi-structured interviews are

usually used to retrieve and offer information. Unlike surveys, where detailed questions are formulated ahead of the process, semi-structured interviews begin with more general topics (Rowley 2012).

The main aim of such interviews is to get profound qualitative information from a sampled population by letting both the interviewee and the interviewer possess the flexibility to ask for details or elaborate on issues. It also aims at getting the information necessary to specific issues and gains some insights into specific topics. Also, the major benefits of using semi-structured interview include the statistic that it is less invasive to interviewees as it encourages two-way communication. It also confirms what is already in the public domain as well as provides an opportunity for learning (Rubin and Rubin 2011).

Each interview lasted between 20-30 minutes. However, not all interviews were conducted as initially planned, as the researcher intended to interview senior management but some of them were busy or unavailable. This then led to them referring another person to interview within the organisation and this became a form of snowball/referral sampling technique (Biernacki and Waldorf 1981, Atkinson and Flint 2001). Contingency plans are a necessary part of any research process, and in this instance, the researcher had to travel to Aqaba city to conduct some of the interviews with participants who were working in Amman five-stars hotels but lived in Aqaba. This was to suit the convenience of the interviewees and reduce the attrition rate of the respondents. This flexibility allowed confirmation that the participants were sourced from equivalent properties of the five-star hotels in the city of Amman from five different operational departments.

The researcher recorded brief notes during and after the interview, trying to build in revisions /checking with interviewees in the last 5-10 minutes of the interview duration for clarification and correction of information where it has been misconstrued by the researcher (Enz 2009).

A checklist of the interview questions was piloted initially and the resulting data analysed to ensure that all data was being captured. The Pilot Study and its results are explained further in section 3.5. Checklists of the interview questions are included in Appendix 2.

3.4.2 Quantitative Data (Surveys)

The survey provides an opportunity for the researcher to assess individuals' accounts or attitudes of their behaviour and collect demographic data (Veal 2006, Brunt 1997). The survey data for this research involved both demographic data collection regarding gender, educational levels and other personal information in addition to using the Environmental Impact Assessment "EIA"/ Environmental Management System "EMS" questionnaire modified from (Sarantakos 2012). While the same instrument was used, it was customised to represent the departmental orientations of the respondents which in turn impacted on their practices of both operational and environmental issues. EMS/EIA was used as the base for the survey questions as a better, well developed research tool that would add to the validity and reliability of the data. Appendix 3 presents the actual Survey used in this research project.

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A number of academic resources and studies were scoped in the literature review to help design the study survey. Items were developed to ensure participation of the respondents even if they had limited knowledge of the sustainable practices in the hotel. Respondents were required to read and sign the Informed consent sheet and given time, approximately 1-2 weeks, to complete the survey which was then collected by the researcher himself.

The survey was useful to this study because validity, reliability and credibility of the data could be cross-checked against the qualitative data (semi-structured interviews) and correlated to secondary data. During the survey distribution, additional observations were added to the researcher's field diary.

The survey incorporating the EMS/EIA survey was the secondary method of data collection for this project. However, the survey was modified for each operational area identified and contained specific questions relevant to the area, for example (raw food wastage in the kitchen, laundry practices in housekeeping and local purchasing by the Purchasing Department).

Initial contact was made through the telephone with the hotels public relations department coordinators in May and June 2015 prior to data collecting which took place in July and August 2015. The researcher then visited the properties and handed out the surveys. After a period of about two weeks, the surveys were collected. A total of 80 surveys were distributed, and 65 usable surveys were returned. This represents a response rate of (81.2%) (Bryman 2004, Denzin 1973).

3.4.3 Non-Participatory Observation (Field Visit)

Qualitative data assemblage methods, like observation, interviewing, and document analysis, have been put under one umbrella term “ethnographic methods” in the recent past (Schensul, Schensul, and LeCompte 1999, Berg 2012). Observation can be termed as the general description of behaviours, artefacts, and events in the social setting picked by the study. Observation helped this research to be described as utilising the five senses (sight, sound, touch, taste and feel), and providing documentation through artefacts like photos, guest literature and other print materials provided by the hotels (Pawar 2004).

Non-participant observation tool is one of the primary methods used by anthropologists when conducting their work. It entails active viewing, informal viewing, improving memory, writing detailed field notes, and patience. The process enables the researchers to learn more about people’s activities via seeing but without participating or taking part in their activities. It gives the context for the development of interview guides and sampling guidelines. Non-participant observation can also be seen as the learning through exposure to the daily activities of participants in the target setting of the researcher (Ostrower 1998).

Through the field visits to five-star hotels in Amman, the researcher engaged in informal and natural conversation with employees from different levels and various departments, involved in the daily routine activities, to have an insider perspective and more rich and deep information.

One of the great benefits of using non-participatory observation through the field visits is that the researcher can uncover important factors for a comprehensive understanding of the research problem that were unknown when the study was designed (Mulhall 2003).

3.4.4 Secondary Sources

According to Jacobsen (2011, p.98-113) , there are main steps of assessing secondary sources. The main criteria are credibility, authenticity, representativeness. Authenticity is the consideration of how genuine the source is concerning its authorship and soundness. Credibility touches on the extent of distortion of the source, which will affect its accuracy and sincerity. Representativeness refers to the consideration of how typical or untypical a source being used is, and it limits the drawing conclusions.

Shdeifat et al. (2006) suggest secondary sources of data such as publications, government reports, web publications and electronic books are significant information sources for the research. They also emphasise that the sources have to be checked before their usage to identify their admissibility. Things such as credibility, authenticity, representativeness, and meaning are the hallmark for secondary sources. The other main point about the use of secondary sources is their currency in contemporary times. Additionally, Jordanian Arabic and English newspapers such as; Jordan times, BBC Jordan, Al Anbat and other current sources specific to Jordan such as Petra (Jordan News Agency) provided valuable contributions toward understanding the current issues with regards to the sustainability of hospitality and tourism in Jordan.

3.4.4.1 Media Reporting

Barrows and Powers (2008) identify the four approaches of conducting content analysis. According to them, the first stage is formal content analysis. This refers to the general sample of texts in the research and classification systems devised to find out different aspects of the text that are then counted with a focus on reliability and objectivity. The second approach is thematic analysis. The point behind this is the notion to internalise the encoding procedure, especially the intentions that lie behind the creation of mass media contents. Textual analysis is the third approach and refers to the utilisation of phrases and words within a text and the thoughtfulness of if and how phrases and words may be used to affect the reader. It often involves semiotics, which is the analysis of signs. The fourth and last approach is the audience analysis which touches on the response of the mass media audience, whether they reject or accept the content and what it means to them.

Mass and popular media is a basis of information about recent and past events and public attitudes and opinions. However, there is some level of subjectivity—political, personal—of both the audience and the author; therefore, its validity and reliability are obviously questionable (Matthes and Kohring 2008). Nevertheless, media reports whether newspaper, online, audio-visual or in the form of reports provide a valuable source of both contemporary and archival information. The interpretation and veracity of these are the realms of the reader and hence it is important to scholarly research that media sources when used need to be thoroughly analysed (Barrows and Powers 2008).

There are various media publications in Jordan (see Appendix 4), such as Shehan and Al Liwaa that report on the environmental impacts as well as environmental management by five-star hotels in Amman, Jordan. However, information contained in these reports is at most times distorted and may not represent the actual situation on

the ground. The researcher evaluated various media reports such as Petra News (Petra 2016) before considering their data. These media reports were then analysed focussing on information about five-star hotels in the region. Formal content analysis, thematic analysis, textual analysis, and audience analysis were all considered when interpreting data from these media sources.

3.5 Research Tools

The use of an established survey instrument (EMS/EIA) with sound psychometric properties provided empirical data, which in turn could generalise to other hotel businesses in the Middle East. Craik (2008) suggests that the Environmental Impact Assessment (commonly abbreviated as EIA) is one of the most suitable ways of assessing the impact of different sectors on the environment.

The Environmental Management System (EMS) is another valuable tool that helps organisations in becoming efficient and environmentally proactive (Emilsson and Hjelm 2002). The British Standard Institute (BSI) developed the first EMS in 1992 as BS7750. Since then a number of countries have designed different EMSs. According to BSI, EMS can be defined as the organisational structure, practices, responsibilities, processes, procedures, and resources that determine implementation of environmental policy (Netherwood 1998). The establishment and use of the best EMS by itself cannot lead to impact reduction on the environment. However, it serves the purpose of both educating users, i.e., 'edumatic' (Gething 1991, 1994) and also raising awareness of environmental issues among respondents.

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The adaptation and customisation of the surveys using EMS and EIA as a basis for determining the levels of awareness among hotel employees are of particular importance for this study. The customisation of the items to reflect the department orientation, e.g., food waste for food and beverage departments, local sourcing for purchasing, allows for reflection of both the operational imperatives and also the Jordanian particular context.

Netherwood (1998) suggests that the link between EMS and EIA and the environmental management program (EMP) shows the project life cycle as a small part of the firm structure, and its bilateral ties and the environment. For the aim of these impact assessments, most hotel activities are portioned into four categories, namely laundry facilities, building and energy considerations, paper works and sewage systems. Each activity uses different ecological sources, each of which is of great use.

Companies that establish EMS/EIA are able to demonstrate to their clients and the general public how they are actively involved in environmentally sustainability activities. Implementation of EMS by organisations such as hotels helps in reviewing or auditing their adopted environmental policies. This allows organisations to demonstrate compliance to legislative pressures, increasing ethical concerns, public pressure, and exploiting green marketing opportunities (Netherwood 1998).

Hotels are at the helm of the tourism industry, and it is one area of tourism in which activities like landscaping, construction of buildings, disposal of waste, cooking, use of water and energy tends to impact the environment negatively if not well managed. Hotels, restaurants, and resorts have inherent traits, which exacerbate their effects on

the environment. According to Honey (2002, p. 44), hotels include heterogeneity time perishable capacity, labour intensity, and customer involvement in the process of production. The size of the hotel structure affects its impact on the environment. For example, the effects of a fifty-room limited service hotel will be different from those of a three-hundred room full-service hotel.

Rivera (2004) identified the institutional forces, such as regulatory and stakeholder pressures that lead to apply proactive environmental behaviour by hotel facilities as well as participating in certification Awards for Sustainable Tourism. In the Jordanian context, many forces exert pressure on hotels in Amman to be more environment-aware. The forces include the changing consumer demands, government regulations, international organisations, and initiatives by NGOs as well as professional associations promoting sustainability. The Jordanian legislation seeks to achieve the goals of environmental protection and the improvement of its elements in a sustainable way by set environmental conservation policies and designing the necessary plans and project to accomplish sustainability (Environmental Protection Law of 2006).

The goal of the EIA assessment is to determine the adverse environmental effects from operational activities of five-star hotels in Amman, Jordan. The main objective is to ensure the hospitality sector observes environmental assessment processes as set out by the National Government on sustainable development. Based on Alshuwaikhat (2005), strategic assessment is the most effective means of pursuing pervasive and long-term EIA processes, and it can help in solving the failure of environmental impact assessment in developing countries.

Hotels are expected to incorporate business sustainability in the planning stage as part of the major resource allocation and utilisation responsibilities at all operational levels (local, regional, and national levels). In Jordan, one area that requires emphasis is the creation of a legal basis for EIA implementation. EIA implementation will outline the operational procedures that ensure streamlined environmental assessment processes in the tourism and hospitality sector. As earlier stated, the primary stakeholders include the public, government, hotel owners, and guests. These groups were targeted in designing EIA “models” for five-star hotels in Jordan. As part of the survey tool, EIA will address the following questions:

- How the assessment scope can be narrowed by focusing only on essentials, reducing costs, and minimising administrative workload?
- How different players in the tourism and hospitality sector can harmonise their assessments each with their own sustainable business missions?
- How five-star hotels have factored sustainability in their operational management?
- How to self-assess and report outcomes of EIA policy?

The Environmental Management System (EMS) is another important tool that helps organisations in becoming efficient and environmentally proactive. The EMS model has four main processes as illustrated in Figure 3.2 bellow.

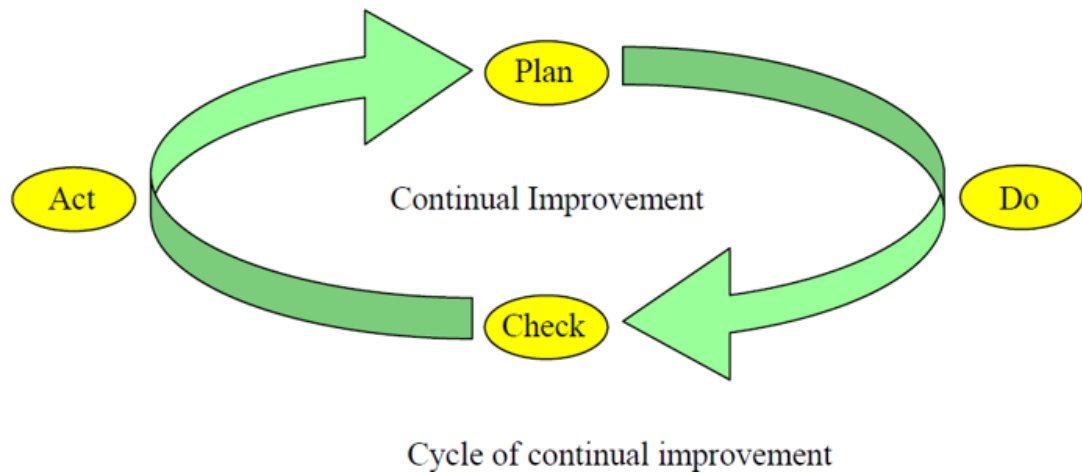


Figure 3.2: The logical EMS/EIA model, adapted from (Roberts 1998).

The planning phase targets desired outcomes which in this case is sustainable development; the other phases involve implementing the plan, checking if the plan works, and making corrections or improvements on the plan (Roberts 1998).

3.6 Piloting the Research Methods

A pilot study carried out to test inconsistencies, problems, or possible misunderstandings in the survey allow the researcher to correct the inadequacies and weaknesses before undertaking the actual data collection (Brunt 1997, Sarantakos 2012).

It was essential to pilot test the paper and pencil surveys and test information to be collected through the field visit, and pilot test the semi-structured interview before the field research commenced in order to check credibility and validity of the questions in this study through the feedback obtained.

According to Zikmound et al. (2010), the pilot study is a small-scale experimental research method that the researcher uses to test the instruments of collecting data without applying rigorous standards.

The pilot test was carried out by getting some academic colleagues in both Sydney and Jordan to examine and review the instrument for clarity and veracity. Additionally, the survey was distributed to hospitality and tourism students from the University of Jordan to test whether the instrument was understandable and the data emanating from it would meet the objectives of the research.

The researcher obtained some valuable feedback regarding the content and the nature of the questions and some comments were received on wording and grammar. According to Cooper and Schindler (2008), people feel frustrated when they have to decipher a question that has been phrased in a complex way. Moreover, the difficulty of understanding long and complex sentences or involved phraseology aggravates the problem further; therefore, the researcher dealt very carefully with comments regarding wording and grammar. This aspect was given further attention to ensure that the translations from English to Arabic actually reflected what information was being sought in order to meet the validity and reliability of the measures.

The data from the pilot instruments were analysed and modifications made to the instrument (such as rewording a few questions to ensure clarity and clearness) before the data was collected from respondents.

Feedback from the pilot test showed that most participants were comfortable with the length of the survey. Participants were informed that they were participating in a pilot study, and also that any information provided by them would not be included in the research analysis, but rather would assist in updating the final version of the research collecting data instruments.

3.7 Sampling

According to Trochim and Donnelly (2001, p.19) “Sampling is the process of selecting units (e.g., people, organisations) from a population of interest so that by studying the sample we may reasonably generalise our results back to the population from which they were chosen”.

A convenient sample was employed for this study. 13 five star rated hotel properties in Amman, Jordan was approached to be part of the study. This form of Systematic sampling was employed to give the right mass for the empirical data collection using the EMS/EIA surveys (Veal 2005). Due to logistical and financial constraints, the research study was confined to Amman.

3.8 Data Collection

The researcher applied a particular process in performing the collection of data from the managers and stakeholders in the 13 five star hotels in Amman, Jordan. The first step of the process was including emailing/phoning the properties to get names of the relevant managers. The following step was sending an introductory letter in writing,

explaining the purpose of the research and requesting their participation, (Appendix 5 shows the approval letter from the Jordan Hotel Association JHA). Follow-up phone calls were made to encourage participation. Appointments were set up based on the convenience of the managers and stakeholders and therefore the researcher had to travel to Aqaba City to conduct four interviews with participants who live in Aqaba but work in Amman hotels.

The semi-structured interview approach during the field visit was favoured because of its flexibility in allowing the complexities surrounding the phenomenon to be appropriately explored. For the paper and pencil instrument an option to have the survey in Arabic was offered. During the field visit both English and Arabic were used to seek out answers to the semi-structured interview, depending on the interviewee's comfort levels in either language. See Appendix 6.

All data was de-identified including the surveys and interviews prior to analysis with coding employed to represent the departmental code only. The only exception is where standard publicly available forms are presented as artefacts e.g. guest laundry price lists. Responses to interview questions were recorded as notes by the researcher, and participants were assured of anonymity and confidentiality of the provided information. The collected information was carefully transcribed and coded manually. Coding rules as described in Richards and Morse (2012), regarding descriptive coding, topic coding, and analytic coding were adhered to.

The self-administered survey either involved participant's responses to written questions by providing answers as statements or just marking the preferred ratings of

statements. This approach makes it quicker for respondents as they do not need to think of responses. In the open-ended items the disadvantage compared to interview-based surveys include incomplete responses and frivolous or biased responses (Veal 2006).

The surveys were personally delivered by the researcher to participants so that they can be addressed appropriately. Responses to the survey were then collected in person by the researcher and used as an opportunity to schedule a field visit. In these ways, the researcher ensured maximising the benefits of labour and time intensive interviews to collect data. Furthermore, the research involved respondents from all the 13 five star hotels in Amman, Jordan and stakeholders from five operational departments.

Contact had been initiated with each property once the NEAF National Ethics Application Form was approved and permission given to start the data collection. Data was collected in July 2015 with the researcher physically handing over the survey and collecting the completed surveys. Participants of the semi-structured interview were also approached regarding the researcher conducting a field visit and collection of artefacts during the researcher's visit to the property. Appointments were made prior to enabling this. Data was then analysed from the three sources:

1. Paper and Pencil Survey
2. Field Visit and Semi-Structured Interviews
3. Analysis of artefacts and field notes (photos, forms provided by the hotel/managers).

This particular inductive approach helped in collecting most relevant data appropriate to solve the research aims of the project, and to answer the research question.

3.9 Data Analysis

In order to gain richer data that helps to answer the primary and secondary questions, the current research combined qualitative method “in-depth semi-structured interviews”, with quantitative elements “survey” and participatory observation through field visit was taken by the researcher.

3.9.1 Qualitative Data Analysis

Qualitative data is collected through semi-structured interviews and participatory observations (Patton 2005). Qualitative data usually appears in the form of words rather than numbers, and it has always been considered to be a source of well grounded, rich description and explanation of processes in identifiable local contexts (Miles and Huberman 1994).

The data collection was conducted and managed in order to assist the starting stage of the analysis. The researcher transcribed 13 interviews as the first step of the analysis procedure. According to Patton (2005), transcribing is considered as part of managing and preparing data, it provides a shifting point between data collection and data analysis.

Also, several copies of the transcribed data were saved in secure places for safe keeping so they could not be lost or destroyed.

After transcription, the data, short ideas, and concepts were summarised in order to make sense of the collected data. According to Creswell (2013b), interpretation

involves making sense of the data. The interpretative procedures contributed to the development of codes. In coding methods, the researcher made decisions about which data chunks to code, which patterns best summarise some pieces that evolve a story to tell (Miles and Huberman 1994).

3.9.2 Quantitative Data Analysis

All the data collected through surveys were entered and arranged into an electronic spreadsheet using Microsoft Excel. This spreadsheet contained several sub sheets for each operational department's specific questions (Maintenance and Security, Housekeeping..., etc.). For each respondent, data were recorded for demographics such as age, gender, experience, salary and educational level. The surveys were analysed using descriptive and thematic frequency counting. Before commencing the analysis, each of the completed surveys was coded into keywords. The use of coding ensured capturing detailed data as per participant's responses to the survey. This coding allowed for grouping of information e.g. by Department (Kitchen/Housekeepers).

The study findings are presented as follows:

1. Tables and Graphs for responses on EMS/EIA descriptive data.
2. Thematic analysis is collating information from the interviews broadly categorised under environmental and operational aspects of business sustainability.
3. The inclusion of photographs and other artefacts used to provide data.

3.10 Research Validity and Reliability

These significant factors need to be considered by the researcher in ensuring the collection of relevant data appropriate to the research. Research validity and reliability are crucial factors that determine the effectiveness of the collected data and the relevance of the entire research results (Berg 2012). The use of a psychometrically tested instrument like the EMS/EIA for the study ensured validity and reliability. Here, the ability to triangulate data (through interview transcripts, surveys, artefacts and secondary data sources like annual reports) mitigated some of the reliability and validity criticisms levelled at qualitative research methods. The reduction of bias and administrative errors also has been considered through the consistent approach of the researcher collecting all the data and conducting all the interviews himself. Reducing bias in the data collection process resulted in higher reliability of the received data. Also, the researcher prepared a checklist for reference to ensure maintenance of a level of consistency and comparability from the field visits, back of house tours and artefacts collected (Jennings 2001).

Data triangulation was used in the study to test the reliability and validity and illuminate some ways to maximise the validity and reliability of a qualitative study (Golafshani 2003). The current research depends more on the deepness and richness of the data gathered, data triangulation techniques were used by combined multiple data sources to determine the credibility and trustworthiness of the findings and help facilitate deeper understanding (Lincoln and Guba 1985).

According to Patton (1999, p.1192) “Triangulation of data sources within qualitative methods means that different kinds of data have captured different things, and so the

analyst attempts to understand the reasons for the differences. At the same time, consistency in overall patterns of data from various sources, and reasonable explanations for differences in data from different sources contribute significantly to the overall credibility of findings”.

3.11 Ethical Considerations

Ethical consideration is one of the factors that required attention on the part of the researcher to ensure efficient performance of the research, in order to achieve accuracy and reliability of the collected data. The ethical values mainly imply that the research activities should be performed in a manner that does not harm another (person, animal or environment) in the conduct of the research. This ethical compliance was monitored by completing and receiving an approval letter from the Human Research Ethics Committee on my National Ethics Application Form (NEAF). Additionally, this provided safeguards for the researcher and increased the credibility of the research. For this project, limitations arise regarding commercial in confidence information and managers required the researcher to sign non-disclosure clauses on a particular consent form purposely designed for this study ;see Appendix 7 for the consent form used. The ethical processes outlined not only the anonymity of the respondents and confidentiality but also relate to matters such as the storage of the data.

Every participant in both surveys and semi-structured interviews (employees and managers from five-star hotels in Amman, Jordan) was aware of what the research involved and about the actual reason for the research and the potential benefits to be gained from it (Creswell 2013b).

Data have been also coded to ensure anonymity, and this was made explicit to participants. Managers and stakeholders were also assured that data would only be utilised for research purposes. This approach was likely to yield better overall research results. Ethical considerations also applied to secondary data collected for this research including the appropriate acknowledgement of sources and accuracy as far as possible in interpretation. In these ways, a higher level of ethical value is likely observed throughout the data collection process in the given research; the ethics approval notification letter is included in the appendixes.

3.12 Limitations of the study

Although the research was well prepared and already reached its aims, there were some unavoidable limitations realised. The difficulty of generalising the findings of the current study to the Jordanian hotel industry is one of its limitations. However, in place of this generalisation, the study tries to find empirical evidence that will motivate academic researchers and students to conduct further investigation. Although the sample that was chosen for the survey did not represent the whole population of all hotels in Jordan, it provided a sample that could result in meaningful data that might serve as a pilot to a larger scale study. In all higher degree research, there is always an element of time and financial constraints present and this study was no exception especially as field investigations involved considerable investments of time and money. Furthermore, the limitations of the study will be discussed in more details later in chapter 6.

3.13 Summary

The purpose of this chapter was to describe the research methodology of this study. It explained the study design and the sample selection and described the procedure used in developing the instrument and collecting the data. This chapter also discussed the limitations of the research methodology used.

The methodology applied to this study adopted the Qualitative method, using semi-structured interviews as the primary source of collecting extensive data among employing quantitative instruments in data collection “survey”, and participatory observation as a back-up to the qualitative method in collecting the data. Also, the data triangulation technique was applied to aid in answering the research questions.

The overall aims and objectives of the research study were to examine the impact of operational business practices on environmental sustainability in five-star hotel properties in Amman.

The research design employed involved the use of the EMS/EIA Survey, semi-structured interviews, and participatory research through field visits. Data was coded and analysed using methods like thematic analysis. Ethical perspectives and the approval for the study were granted through completion of the NEAF.

A preliminary review of the literature revealed the term sustainability mainly implies the performance of business activities in a manner that ensures the most efficient utilisation of organisational resources with minimal impact on the environment. It is concerned with utilising resources that ensure the sustainability of resources for the

future generations. The literature explained that there is a higher level of need and importance to conduct hotel practices in a sustainable manner mainly because of the consumptive nature of essential resources such as energy, water, and the production of huge amounts of waste that characterise the hotel industry. A higher level of awareness among the public concerning environmental issues and their willingness to visit and pay premium prices for hotels that focus on green practices provides an incentive for hotels to attain green credentials and improved performance. The review of the literature revealed that hotels across the world follow green initiatives in a number of ways including policy and procedures, dedicated staff to monitor and manage sustainability, recycling and encouraging guests and employees alike to be eco-friendly. The support for the local community and benefits achieved from publicising sustainability measures on both the environment and profits were also canvassed. Finally, it was identified that sustainable practices have a positive influence on the hotel's performance, profitability and long-term reputational benefits.

Chapter 4 EMPIRICAL DATA FINDINGS

Below is the list of acronyms used in this chapter:

MS : Maintenance and Security Department

F&B : Food and Beverage Department

H : Housekeeping Department

P : Purchasing Department

K : Kitchen Department

4.1 Introduction

This chapter reports the findings from the data collected through the paper and pencil surveys delivered from the 13 Five-Star hotels in Amman, Jordan. Each hotel of the 13 five-star hotels in Amman received five surveys for each of the operational departments (Maintenance and Security, Housekeeping, Kitchen, Purchasing, Food and Beverage) to complete. A 100% return rate resulted with 65 surveys completed and returned. The surveys played a crucial role in this study as a complementary back up tool to the primary data resource which involved the qualitative semi-structured interviews with senior management from each of the departments.

Descriptive statistic tools were used to organise and present the data collected from the paper and pencil surveys. This chapter commences by introducing the empirical data gathered from the five operational departments which are Maintenance and Security (MS), Food and Beverage (F&B), Housekeeping (HK), Purchasing(P), and Executive Chef/Kitchen (K). Results are presented in the form of tables with means

and frequency counts. The chapter concludes with a summary comparing the responses between the five operational departments.

4.2 Demographic Characteristics

Demographic characteristics measured include Gender, Age, Educational Levels obtained, Salary and Experience in the hospitality industry.

Gender characteristics were defined as Male/Female. Age was divided up into <25, 25-35,35-45,45-55 and 55+. Educational levels were defined as HSC (Year 12), VD (Vocational Diploma), ADV (Advanced Vocational Diploma), BACH (Bachelors), PG (Post graduate). Salary ranges were defined as <1000JD, 1000-1500 JD, 1500-2000 JD, >2000 JD. Experience was measured in terms of years of employment and two categories were used. Less than five years and more than five years. Section 4.3 commences with describing the results of the survey from the Maintenance and Security Department.

4.3 Maintenance and Security Department (MS)

This section presents the findings of data collected from surveys completed by Maintenance and Security departments (MS) in the 13 five-stars’ hotels. Table 4.1 summarise the demographics characteristics of the (MS) participants.

4.3.1 MS participant’s demographics characteristics

Gender		Age		Education		Salary		Work Experience	
Male	13 (100%)	<25	1 8%	HSC	4 31%	<1000 JD	8 62%	< 5 Years	5 38%

Female	0 (0%)	25-35	6 46%	VD	0 0%	1000- 1500JD	2 15%	>5 years	8 62%
		35-45	6 46 %	AVD	5 38 %	1500- 2000JD	2 15%		
		45-55	0 0%	BACH	4 31%	>2000JD	1 8%		
		55 +	0 0%	PG	0 0%				

Table 4.1: MS participant’s demographics characteristics (n=13).

As Table 4.1 shows, the entire MS department was male,100%. Some reasons why this gender inequity is present might be related to limited numbers of women with the qualifications required to work in this area as well as restrictive social norms (Jamhawi 2015). The age of MS participants ranged between 25-35 years old. This shows the relative youthfulness of persons engaged in this department and is attributable to the educational requirements where school leavers complete trade qualifications and are then employed into these areas. The absence of older workers may be ascribed to the older workers leaving and opening their own businesses or retiring. The level of education for MS participants varied between high school certificates HSC 31%, advanced vocational diploma AVD 38% and 31% bachelor degree holders. 62% of MS members salaries were less that 1000JD monthly.While 15% of the participants have monthly salary 1000-1500JD , only 18% of the participants has more than 2000JD monthly salary. 62% of the MS participants have more than five years experience in the industry, while 38% have less than five years work experience.

4.3.2 Environmental Sustainability within Maintenance and Security Department

This section represents the environmental sustainability understanding, practices and ranking within the MS Departments.

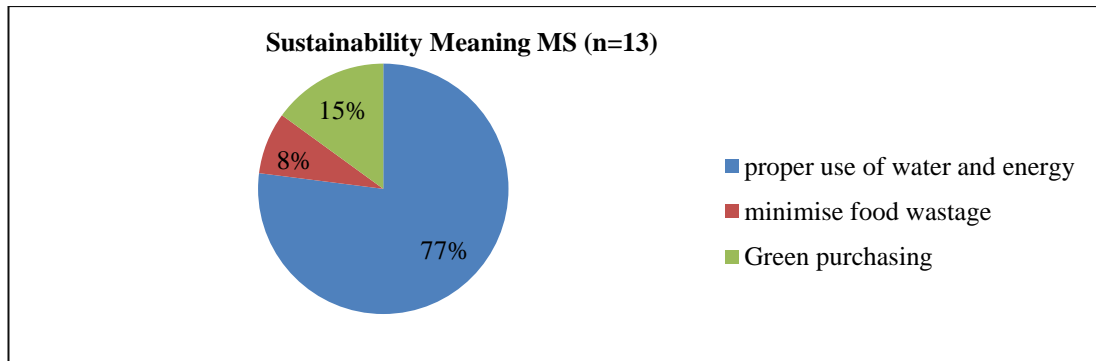


Figure 4.1: Sustainability meaning (MS).

As figure 4.1 shows, 77% of the MS participants believed that sustainability means proper use of water and energy. While 15% of the participants understand sustainability in the hotel industry context as following green purchasing, only 8% of the participants agreed that sustainability means minimising food wastage in the hotel's setting (n=13).

Table 4.2 presents MS participants' categorising sustainability practices carried out in their hotels. These practices related mainly to energy saving, green purchasing, water saving, waste minimisation and solid waste minimisation. The results showed that MS participants emphasised energy saving practices (61%), and water-saving practices with a percentage (54%) as significant priorities. Forty-six (46%) of MS participants categorised solid waste management practices as the least priority practices carried out in their hotels.

	Energy Saving	Green Purchasing	Water Saving	Waste Minimization	Solid Waste Management
1= very low	0 0%	0 0%	0 0%	1 8%	6 46%
2 = low	0 0%	0 0%	0 0%	0 0%	1 8%
3 = medium	1 8%	3 23%	1 8%	4 31%	4 31%
4 = high	4	7	5	6	2

	31%	54%	38%	46%	15%
5 = very high	8 61%	3 23%	7 54%	2 15%	0 0%
Total n = 13					

Table 4.2: Sustainability practices priority MS.

There were several questions in the surveys designed to determine the environmental practices applied in the hotel, with 100% (n=13) of MS participants claimed that using energy saving bulbs is one of the environmental practices followed in their hotels among other practices such as low flush toilets and towel reuse programs. Also, 100% of MS participants advised that their hotels followed green purchasing practices such as; recycling materials e.g. use of bed linen for cleaning rags, purchasing from local companies e.g. locally grown food or flowers, purchasing energy saving materials e.g. solar panels and buying less hazardous material e.g. organic cleaning chemicals.

The Maintenance and Security participants were asked to rank the benefits which result from adopting the sustainability practices. The results are shown in Table 4.3.

	Financial Saving	Better Recognition by Customers	Long Term Benefits	Customer Retention
1= very high	1 8%	2 15%	4 31%	3 23%
2 = high	9 69%	6 46%	7 45%	7 45%
3 =low	3 23%	4 31%	2 15%	3 23%
4 = very low	0 0%	1 8%	0 0%	0 0%
Total n = 13				

Table 4.3: The benefits results from adopting sustainability practices in MS.

Table 4.3 shows MS participants ranking of the advantages ensuing from adopting sustainability practices in their hotel. The benefits are (financial saving, better

recognition by customer, long term benefit, and customer retention), considering 1 = very high importance, to 4 being very low importance. The table shows that 69% (n=13) believed that financial savings is the highest benefit achieved by adopting sustainability practices in their hotels, while 45% of the participants found that customer retention is a vital benefit attained from applying sustainable environmental practices in their hotels.

Regarding the barriers that hamper environmental conservation in the hotel industry. 69% of MS respondents (n=13) claimed that high costs are the major obstacle that hinders environmental preservation in the hotel industry. However, 23% believed that the absence of strict regulations hinders environmental conservation in Jordanian hotels. Only 8% claimed that a lack of awareness of environmental sustainability practices impacted on the hotel industry.(Ref Figure 4.2).

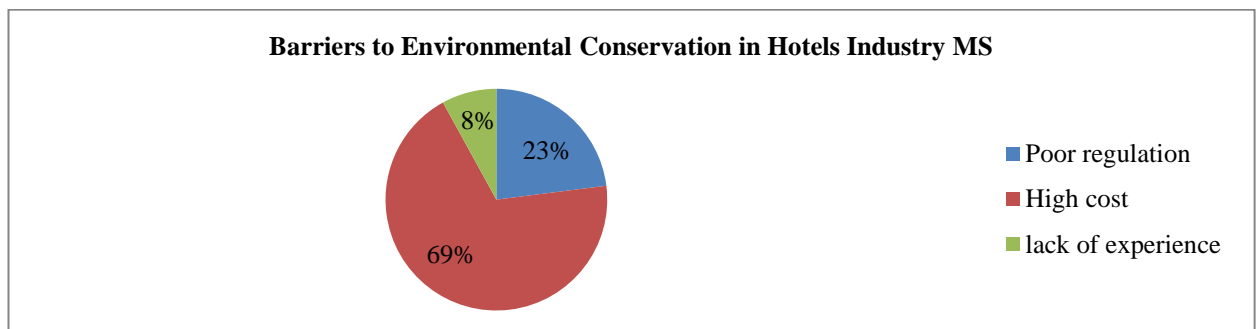


Figure 4.2: Barriers to environmental conservation in hotels industry as reported by the Maintenance and Security Department respondents.

Training is a learning process that expands knowledge and fosters skills. Also, training enhances employee performance. A set of questions was specifically designed to identify the ways that Jordanian hotels follow to educate and train staff on the source of reduction and recycling practices. In response to that, 69% advised teaching about

recycling and source reduction practices occur on the job, and in training situations through daily operations and routines. The other 31% identified that employees receive direct instructions and education from the department supervisors and head managers. 100% of MS participants advised that following health and safety policies are environmental management practices that contribute to security and safe working environments which in turn prevent costly mistakes and faults from having to be fixed. The entire sample of MS respondents agreed that (100% of respondents) that their hotels measure water and energy use per department or division. Also, they reiterated the hotel commitment to using alternative forms of energy such as solar power to heat the hotel pool and skylights in public areas to minimise electric light use. The results are shown in Table 4.4.

Environmental Sustainable Practices	Yes	No
Measuring energy consumption	13 100%	0 0%
Measuring water consumption	13 100%	0 0%
Using alternative forms of energy	13 100%	0 0%
Energy star rated equipment	12 92 %	1 0%
No financial support from state is a barrier to sustainability	13 100%	0 0%
Insufficient return hinder sustainability	12 92 %	1 0%
Sustainability strategy	10 77 %	3 23%
Sustainability is an issue in Jordan	11 85 %	2 15%

Table 4.4: Environmental sustainable practices MS.

As shown in Table 4.4, 92% of participants stated that their hotels practice the replacement of old equipment by energy rated equipment as a strategy. The primary objectives behind using energy rated equipment are to reduce energy consumption and protect the environment. Energy rated equipment installed in five-star Jordanian hotels include key card systems to switch off electricity in guestrooms, energy saving light bulbs and electric appliances with high energy efficiency rating.

Another set of questions explores the MS participants' opinion on sustainability issues within the hotel's context. 100% of the participants agreed that without financial support or tax incentives from the city or the state a barrier to sustainability initiatives occurs. Moreover, 92 % of the participants believed that insufficient return on investment hinder sustainability efforts. 77% found that a sustainability strategy would give the hotel competitive advantages vs. competitors who do not implement sustainability initiatives. Furthermore, 85% of the participants agreed that sustainability in the hotel industry is still an issue in Jordan, while the other 15% believed that there are awareness and initiatives toward sustainability in the Jordanian hotel industry.

The MS survey includes questions about the awards or accreditation that has been won by the hotels. The options for these awards and accreditations included Eco-Label, Green Globe, The Certification for Sustainable Tourism and The ISO 14000. Eco-Label is a voluntary method of environmental performance certification and labelling that is practised around the world (Font 2002). Hotels have an option for applying for one or more of these certifications which they may then use on their marketing brochures and materials if awarded the accreditation. An explanation of what the

different awards are and their usage in the Five Star Hotels in Amman are described below.

An ‘Eco-Label’ identifies the products or the services that demonstrate environmentally preferable outcomes. Green Globe is the global certification for sustainable tourism for members who are committed to making positive contributions to people and the environment. The Certification for Sustainable Tourism is one of the first systems to achieve the integration of the principal elements of sustainable tourism. This certification focuses on analysing effective management practices, the environmental and social impacts of services, as well as the client's perception of the image. The ISO 1400 family of standards provides practical tools for companies and organisations of all kinds looking to manage their environmental responsibilities.

The responses of the MS participants revealed that the Eco-Label and the Certification of Sustainability were the least used accreditation's (8%). Green Globe was the most popular at 46% and ISO 1400 (38%) were the preferred systems of accreditation.

Respondents were asked to give their opinion about who they believed was responsible for promoting sustainability practices in the hotel industry in Jordan. As figure 4.3 illustrates, 31% thought that it is the hotel's owner's responsibility to promote sustainability practices; another 31% believed that it is the hotel management's responsibility with 15% claiming that it is the government's responsibility to support and advance sustainability through legal regulation and legislation.

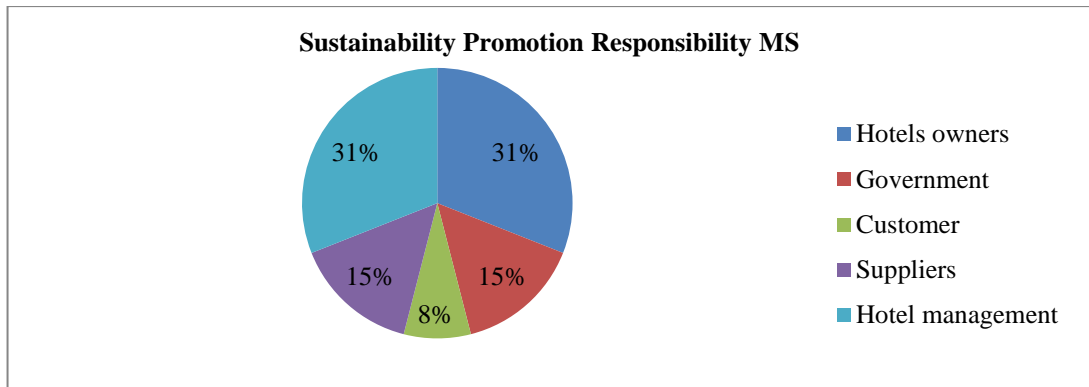


Figure 4.3: Sustainability promotion responsibility MS.

Moreover, the participants provided additional comments to highlight environmental conservation in the Jordanian hotel industry, 77% of MS participants emphasised the importance of recycling and waste management specifically. Twenty-three (23%) of the participants offered feedback about energy saving practices in the Jordanian hotel industry and its benefits in saving costs and reducing energy consumption regarding heating, cooling and lighting.

The last question was about innovative practices in environmental conservation that are unique to the Jordanian hotel industry. Water re-use and water management practices and the use of solar power were both seen as equally important with 46% of respondents identifying them as areas of innovative sustainability measures. Only 8% believed that energy saving was an area of concern as practices were already well advanced in these properties. Figure 4.4 shows the results in this regard.

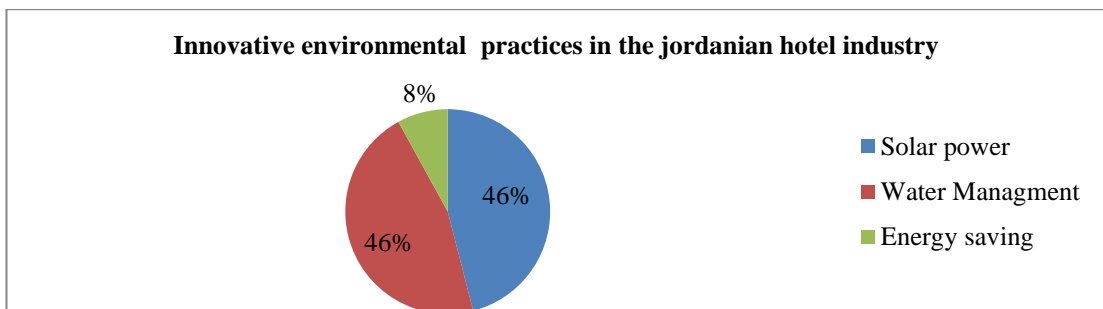


Figure 4.4: Innovative environmental practices in the Jordanian hotel industry.

It is evident from the results explained above regarding the MS department that employees were well aware of and using sustainability measures in their properties. However, they identify areas of improvement and where more could be done to promote the sustainability agenda. The next section (4.3) describes the responses of those in the Food and Beverage Department.

4.4 Food and Beverage Department (F&B)

This section presents the finding from participants in the Food and Beverage Department. Table 4.5 summarise the demographics characteristics of the (F&B) participants:

4.4.1 (F&B) participant’s demographics characteristics

Gender		Age		Education		Salary		Work Experience	
Male	13 (100%)	<25	4 31%	HSC	0 0%	<1000 JD	8 62%	<5 years	5 38%
Female	0 (0%)	25-35	4 31%	VD	4 31%	1000-1500JD	2 15%	>5 years	8 62%
		35-45	4 31%	AVD	3 23 %	1500-2000JD	2 15%		
		45-55	1 8%	BACH	6 46%	>2000JD	1 8%		
		55 +	0 0%	PG	0 0%				

Table 4.5: F&B participant’s demographics characteristics (n=13).

Table 4.5 reveals that again similar to the MS department all respondents to the survey were male. In the case of F&B this is atypical of world wide trends but typical in

Middle Eastern and other more traditional cultures where there is limited contribution of women in front line positions involving direct interaction with guests. Other complications such as working hours do not suit Jordanian traditions and customs. The age of F&B participants ranges between 25-45 years old. Most of the Jordanian student start their working life after university education whenever a job becomes available. However, in many cases, it takes a long time to secure employment because often they are required to have experience to get a job particularly in Five Star properties. Their limited exposure to work means that it becomes difficult as supply far exceeds demand for hotel jobs which are seen as desirable.

The level of education for F&B participants varied between Vocational Diploma VD 31% Advanced Vocational Diploma AVD 23% and 46% Bachelor Degree holders. Moreover, F&B department requires some degree of education and experience because the F&B in the hotels make a significant portion of revenue, and that is what make this department require a high level of education and expertise for the role. Sixty two (62%) of the F&B respondents had more than five years experience and that is reflective of the experience factors cited above as a requirement for getting F&B jobs in five star hotels. However, 38% of the respondents had less than five years experience.

62% of F&B participants salaries were less than 1000JD monthly, 23% of the participants, have a monthly salary of 1000-1500JD. Only 15% of the participants received between 1500-2000JD monthly salary. In Jordan, the income between 1000-2000JD is considered to be at the upper end and working in a Food and Beverage Department in Five-Star hotels in Jordan is considered prestigious with a rewarding position and monetary value.

4.4.2 Environmental Sustainability within Food and Beverage (F&B)

This section presents the environmental sustainability understanding, practices and ranking within the Food and Beverage (F&B) departments.

Figure 4.5 show that 62% of the F&B participant believed that sustainability means proper use of water and energy. Also, 38 % of the participants understand sustainability in the hotel industry context as following green purchasing. Respondents reflect the understanding for sustainability from the Jordanian context as water and energy savings. Jordan faces challenges in water and energy supply, thus, respondents translated the sustainability meaning from the Jordanian perspective into shortage of water supply; this tends to be a common problem in Jordan.

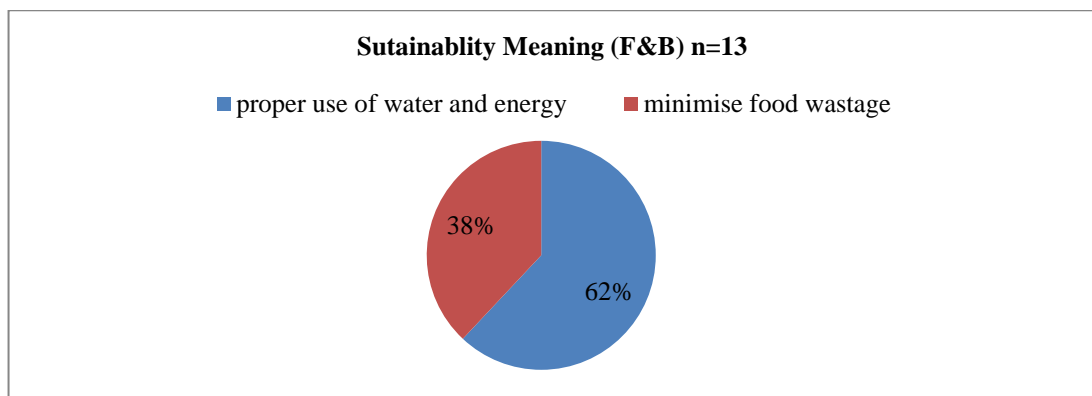


Figure 4.5: Sustainability meaning (F&B) department.

In response to the question about staff engagement and sustainability, terms regarding the teamwork, energy savings, following hotel policy and getting environmental awards for sustainability were mentioned. Thirty one (31%) respondents expressed that energy conservation is the most significant area of sustainability. Thirty eight

(38%) claimed that cooperation and teamwork both inter and intra departments is vital to achieve and deal with sustainability. (See Figure 4.6).

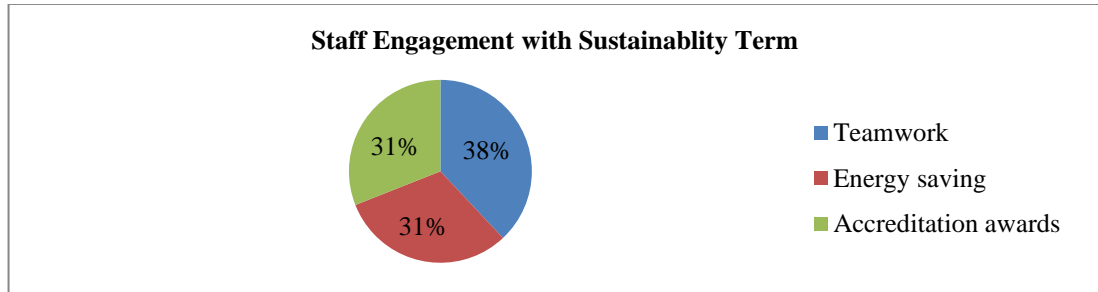


Figure 4.6: Staff engagement with sustainability term (F&B) department.

The F&B department consumes a huge amount of energy and water in their operations. Therefore, cooperation among the staff is highly required to maintain a level of cooperation to achieve sustainability.

A set of questions in the F&B departments survey was designed to investigate the environmental practices within the F&B department. The majority of the participants asserted that their hotels encouraged the use of the organic ingredients in catering. Seventy seven (77%) of F&B participants indicated that they followed green practices in their operations including reusing food packaging, containers and borrowing, renting or sharing infrequently used items. Eighty five percent (85%) of the participants indicated that their hotels sold or gave away excess edible items rather than bin them.

Environmental Sustainable Practices	Yes	No
Offering organic menus in catering	12 92%	1 8%

The hotel encourages the use of organic menus	13 100%	0 0%
Reuse food bag, containers, and other items	10 77%	3 23%
Borrow, rent or share items used infrequently	10 77 %	3 23%
Sell or give away edible items instead of throwing them	11 85%	2 15%
Financial support from city or state is a barrier to sustainability	9 69%	4 31%
High costs a hindrance to sustainability	12 92%	1 8%
Return on investment hinders sustainability initiatives at F&B department	12 92%	1 8%
Sustainability in the hotel industry still an important issue in Jordan	12 92%	1 8%
Measure the energy consumption by department	12 92%	1 8%

Table 4.6: Environmental practices in F&B department.

Part of attaining environmental sustainability in the hotel industry is sourcing resources “locally”, which leads to minimising the energy used in production, transportation and storage. Local sourcing can also support local farmers, sustainable agriculture and local communities. Minimising packaging and food waste is also a key. The food preparation in the hospitality industry is responsible for a significant part of this waste (Peregrin 2011).

There are notable trends in the F&B departments for adopting environmental practices which reflect the awareness of F&B department to the environment, with the majority of the respondents showing their hotels offering organic and locally sourced menus. The organic menu plays the primary role in attracting customers with a passion for organic food. Hotels may promote the organic menu as a decisive advantage to attract organic and health conscious food lovers.

A high percentage of the respondents reflect the new trend in Jordanian hospitality industry toward the environment. It also shows the improvement of the way that Jordanian hotels are tackling the environmental issues as well as the limited resources. Moreover, the results reflect the extent of understanding of the sustainability in Jordanian hotel contexts.

When asked about government contributions to the sustainability agenda 69% of the respondents indicated that the lack of financial support from the city and government proved to be detrimental. However, 31% of the participants do not believe that financial assistance from city or state should be a barrier to sustainability in the F&B department. These results reflect the importance of financial support and leadership being sought by hotels from government to implement sustainable practices from F&B participants perspective.

Ninety-two (92%) of F&B staff participants believed that high costs are a hindrance to sustainability initiatives in their department. Only 8% thought the high cost did not consider it as a barrier. The ISO 14000 family of standards provides practical tools for companies and organisations of all kinds looking to manage their environmental responsibilities. to achieving sustainable environmental performance. The results show that respondents believe that implementing sustainable practices can be expensive to the hotels. However, according to Tzschentke et al. (2004), the cost of sustainable and green practices such as using solar energy are affordable to hoteliers. An insufficient return on investment (ROI) may hinder sustainability initiatives. Ninety-two (92%) of the participants agreed that insufficient return on investment hinders sustainability efforts at F&B department. In the short run, this result can be

justified, but in the long term the return on investment would be very high and cost efficient. The investment in some sustainable practices such as involving the staff members in some sustainability programmes will take time to see the result, but this can be an excellent investment and money saving when the team members embrace the value of sustainable practices in their daily working routine.

The result shows that 92% of the participants from F&B departments, believed that the sustainability in the hotel industry is still an issue in Jordan, while only 8% of the participants thought that it was not a problem. The respondents expressed a high level of awareness in regards to sustainability in the hotel industry as a crucial and vital element to keep the sector competitive.

Regarding environmental management practices at the hotel as contributing to security and good workplace for employees, 100% of the participants from F&B department replied that following the hotel policies is critical to keep the workplace sustainable, and the workers feel safe and secure in doing their jobs.

About measuring energy consumption by the department, the result shows that 92% of the participants answered that their hotels measure the power consumption by the department, and that can help to adopt specific sustainable measures to reduce the energy in each unit separately.

Ranking of the benefits which result from adopting the sustainability practices from F&B participant's perspective are shown in Table 4.7.

	Financial Saving	Better Recognition by Customers	Long Term Benefits	Customer Retention
1= very high	12 92%	1 8%	2 15%	1 8%
2 = high	1 8%	11 85%	5 38%	8 62%
3 =low	0 0%	1 8%	6 46%	3 23%
4 = very low	0 0%	0 0%	0 0%	1 8%
Total n = 13				

Table 4.7: The benefits results from adopting sustainability practices in F&B department.

Table 4.7 shows how participants from the F&B department have ranked the benefits that result from adopting sustainability practices in their hotel. The proposed benefits are (financial saving, better recognition by customer, long term benefit, and customer retention) considered 1 = the very high important, to 4 being very low important. Table 4.7 shows that 92% (12 participants, N=13) ranked the financial saving as high important benefits which can be achieved by adopting environmental sustainability practices in their hotels. 85% of the participant believed that “Better recognition by customers“ is a benefit from adopting sustainability practices. 62% of F&B department members thought that customer retention is an important benefit resulting from adopting environmental sustainability practices. The financial saving in the hotels tend to be the first priority but the further advantage is getting more attention with customers seeking sustainable hotels.

Ranking the performance of sustainable practices within Jordanian hotels from F&B perspectives is shown in Table 4.8.

	Waste Management	Energy Saving	Water Saving	Green Purchasing
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1= very high	5 38%	7 54%	6 46%	4 31%
2 = high	2 15%	6 46%	6 46%	7 54%
3 =low	3 23%	0 0%	1 8%	1 8%
4 = very low	3 23%	0 0%	0 0%	1 8%
Total n = 13				

Table 4.8: Ranking the performing of the sustainability practices in Jordanian hotels F&B.

As shown in Table 4.8, 54% of the participants ranked energy saving practices as very high performance in the Jordanian hotels, while 46% of the participants ranked energy conservation practices as very high performance. Water saving and energy saving tend to be the best practices in Jordanian hotels. As the result shows, waste management has been ranked as lowest performance within the Jordanian hotels from F&B participant’s perspectives.

The next section illustrates responses from the accommodation sector of the property. Housekeeping staff responsible for both room and public area cleaning and maintenance were asked in a survey to illustrate sustainability measures adopted by them.

4.5 Housekeeping Department (HK)

This section presents the findings of data collected from surveys completed by Housekeeping departments (HK) departments in the 13 five-stars hotels. Table 4.9 summarise the demographics characteristics of the (HK) participants.

4.5.1 HK Participant’s Demographics Characteristics

Gender		Age		Education		salary		Work experience	
Male	12 (92%)	<25	4 31%	HSC	1 8%	<1000 JD	9 69%	<5 years	10 77%
Female	1 (8%)	25-35	3 23%	VD	5 38%	1000-1500JD	3 23%	>5 years	3 23%
		35-45	6 46%	AVD	2 15 %	1500-2000JD	1 8%		
		45-55	0 0%	BACH	5 38%	>2000JD	0 0%		
		55 +	0 0%	PG	0 0%				

Table 4.9: HK participant’s demographics characteristics (n=13).

Table 4.9 represents the demographic characteristics for the HK department. The male gender still prevailed in the department as 92% of the respondent were male, just 8% in the respondents were female. Previous researchers highlighted gender inequity status about management within the Jordanian hospitality and leisure industries due to both structural and cultural constraints (Aitchison, Jordan and Brackenridge 1999). The gender inequity in the Jordanian workforce tends to be problematic, as the cultural and traditional aspects in Jordan play a primary role in handling the gender diversity in the workplace.

In regarding the age range for the HK department, 46% of the respondents were in the age breakdown of 35-45 while 23% between 25-35 and 31% under 25 years old. The housekeeping department is traditionally responsible for the cleanness and setting up of the guest’s rooms. The education for the HK department shows that 38% of the respondents had the Bachelor degree, most of them in supervision roles. Another 38%

have a vocational diploma and just 8% have a high school certificate. Graduate students from the hospitality discipline found the housekeeping department is good to start jobs in hospitality as there is not a great expectation of experience prior to being employed unlike in the Food and Beverage department.

Regarding salary averages, the results indicated that 69% of the respondents earned less than 1000 JD. Housekeeping staff are traditionally paid less than other departments because the skill requirements are considered less than those of other functional departments in a hotel. New graduates, refugees and other persons with little or no experience often use the Housekeeping department to commence their hospitality careers. The 15% of respondents getting between 1500-2000 JD were in senior supervisory roles. In terms of experience also 77% of the respondents had less than five years experience, and just 23% had more than five years.

4.5.2 Environmental Sustainability within Housekeeping (HK)

This section represents the environmental sustainability understanding, practices and ranking of priorities within the Housekeeping (HK) department.

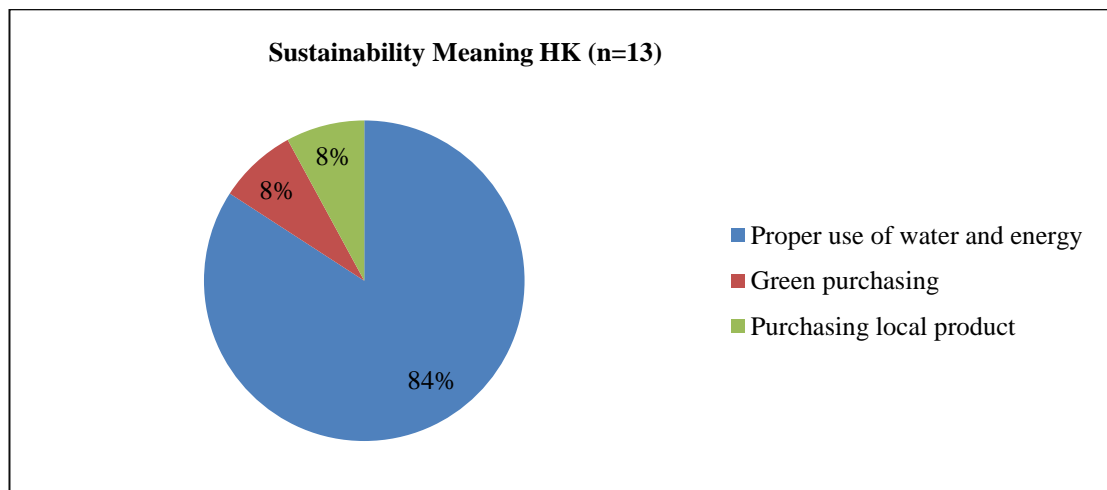


Figure 4.7: Sustainability meaning (HK) department.

Eighty-four (84%) of the respondents from HK departments in the 13 five stars hotels in Amman considered that sustainability means the proper use of water and energy, while 16% of the respondents claimed that sustainability meaning could be translated into green purchasing and buying local products from domestic firms. The results showed that housekeeping staff were particularly concerned with efficient use of water and energy as sustainability practices. This concern is directly attributable to the high usage of water and electricity in cleaning processes and in on-site laundry facilities. Both purchasing of ‘green’ products and local products were measured at 8% respectively. These practices could refer to chemicals that were less harmful to the environment and also decorative items that were representative of the local area and made by local artists in the décor of the rooms and public areas.

Table 4.10 shows HK participant perspectives regarding sustainability practices carried out by their hotels.

	Energy Saving	Green Purchasing	Water Saving	Waste Minimization	Solid Waste Management
1= very low	0 0%	1 8%	0 0%	1 8%	2 15%
2 = low	0 0%	1 8%	0 0%	1 8%	3 23%
3 = medium	3 23%	3 23%	2 15%	8 62%	4 31%
4 = high	4 31%	4 31%	4 31%	2 15%	1 8%
5 = very high	6 46%	4 31%	7 %	1 8%	3 23%
Total n = 13					

Table 4.10: Categorising sustainability practices carried out in the hotel (HK).

Table 4.10 presents the classification of sustainable practices according to HK department participants (with 5= very high priority to 1= very low). As it is shown in Table 4.10, 46 % mentioned that the energy saving has very high priority as a sustainable practice carried out by their hotel. Twenty-three percent (3 participants, total n =13) believed that the solid waste management has priority as a sustainable practice carried out by their hotels. The focus on reducing energy bills and moving away from fossil fuel consumption were also mentioned as necessary sustainability practices.

Table 4.11 shows the results of HK responses to specific housekeeping related operational issues.

Sustainability Practices followed at the Hotel	HK
Solar power	5 38%
Reuse towel/linen	6 46%
Water saving	1 8%
Energy saving and waste recycling	1 8%
Total n=13	

Table 4.11: Sustainability practices followed at the Hotel (HK).

Table 4.11 shows that 38% of the participants stated that solar power is a sustainability practice followed at their hotel. 46% of the participants replied that “reuse towel/linen” is the leading sustainable practice followed in their hotels. 8% of the participants claimed that energy saving and waste recycling are in the top of sustainability practices followed in their hotel. 8% replied that the sustainability practices at their hotel are water and power saving.

Chapter 4 – Empirical Data Findings

The housekeeping department respondents were asked a set of questions regarding the environmental practices followed in the department to achieve the sustainability goals and to try and estimate the level of awareness about sustainability practices. Another set of questions focused on the extent of the understanding of environmental sustainability within housekeeping units among five-star hotels in Amman. Table 4.12 shows HK participant's responses.

Environmental Sustainable Practices	Yes	No
Heard the term sustainability used at the hotel	9 69%	4 31%
Worked for “sustainability“ programs in the hotel	3 23%	10 77%
Practicing smoking policy in the hotel rooms	12 92%	1 8%
The hotel supporting local charities	8 65%	5 35%
Key activated lighting system in rooms	13 100%	0 0%
The rooms have master switch at entrance	13 100 %	0 0%
The rooms have digital thermostat	13 100 %	0 23%
The hotel encourages the use of Energy Star-labeled appliances and equipment	12 92%	1 8%
Use low-flow and dual flush system in toilets	12 92%	1 8%
The hotel has low flow tap fixture	13 100%	0 0%
The hotel has implemented linen/towel re-use program	11 85%	2 15%
Financial support from city or state is a barrier to sustainability in the hotel	10 77%	3 23%
Insufficient return on investment hinders sustainability initiatives at MS Department	11 85%	2 15%
Sustainability strategy would give the hotel competitive advantage vs. Competitors who do not implement sustainability initiatives	11 85%	2 15%
Sustainability in the hotel's industry gaining considerable attention	9 69%	4 31%
Total n=13		

Table 4.12: Environmental sustainable practices (HK).

Table 4.12 shows that 69% of the respondents have heard the term ‘sustainability’ referred to as “Estidamah” in Arabic. However, 31% were unfamiliar with sustainability/ “Estidamah” in their hotel's programs or policy. The exposure to the expression may also reflect the number of years of employment in the hotel with newer employees citing unfamiliarity. Respondents elaborated on this; just 23% of the respondents were involved in sustainability programs, while 77% had never been in a sustainability program. The results reflect the negligence from the hotel's management in failing to keep their staff from different departments and levels updated with such sustainability agendas.

65% of the respondents reported that their hotels support the local charities while the 35% replied the hotels are not donating to any local charity groups. 100% of HK respondents believed that the hotel was energy conscious having installed activated lighting system in the rooms controlled by a master switch at the entrance. The result reflects that hotels focus more on reducing energy consumption practices because of the increasing of energy costs in Jordan. Affordable and simple practices can save operational cost to the hotels with the right appliances with 92% of respondents asserting that their hotel encourages the use of Energy Star labelled appliances and equipment. Energy star marked machines used in hotels may include refrigerators, dishwashers as well as heating and cooling appliances. These appliances save energy, produce less emissions and reduce operational expenses. Additionally, they enhance performance while performing the dual role of protecting the environment from harmful emissions and damage.

The use of low flush and dual flush systems were seen as significant water reduction strategies by 92% of the respondents. The high level of response reveals the awareness and understanding of the problematic water shortage issues in Jordan. It also shows that the environmental sustainability understanding among five star hotels staff centring on water and energy is fairly well established. Respondents unanimously confirmed that the hotels have low flow tap systems. The high percentage reflect the relatively low cost of these water-saving appliances as well as their easy installation. These simple practices help to reduce the consumption of the water in the hotel and encourage the customer to be more water sensitive as Jordan struggles to meet the water demand.

Eighty-five (85%) of the respondents believed that hotels implementing linen/towel re-use programs resulted in saving water and energy for cleaning. This is standard practice in hotels right around the world and customers are already educated about this aspect of sustainability and contribute towards reducing water wastage through re-use of linen. However, 15% of respondents stated that their hotels do not implement these re-use principles believing it reduces the comfort and leisure of their guests. Sustainability strategy would give the hotel competitive advantage against competitors who do not implement sustainability initiatives as it would prevent them from having operational and financial cost and time savings. Eighty five percent of respondents agreed that the sustainability plan benefits the hotel and improves the hotel's economic outcome as well as attracting customers and developing a better reputation.

It was evident that employee’s involvement with the environmental program and initiatives in the hotel were well publicized with 69% agreeing that the environmental sustainability issue is gaining considerable attention among five-star hotels in Jordan.

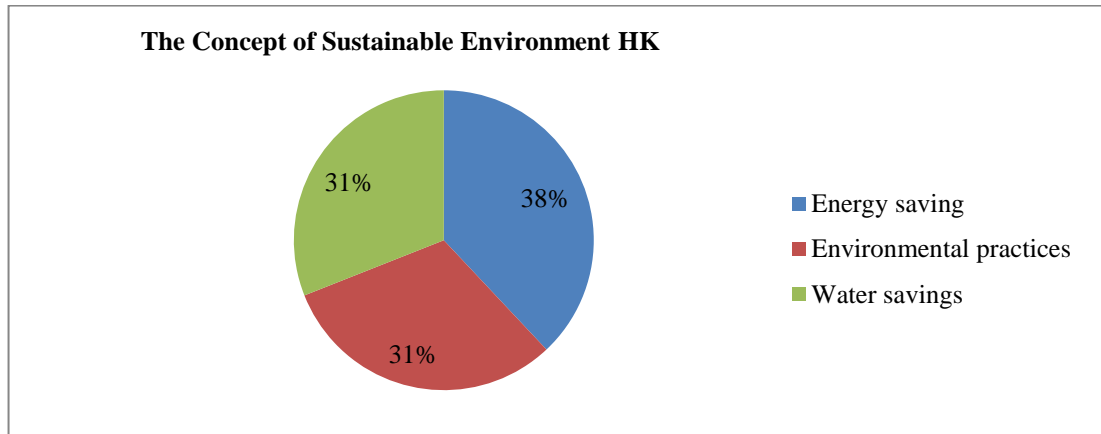


Figure 4.8: The concept of the sustainable environment (HK).

In regarding the description on environmental sustainability, 38% of the respondents described the term of environmental sustainability as energy saving, while another 38% described it as water saving. The results also show the importance of energy saving and water saving among employees. However, there is a lack of understanding and awareness of environmental practices such as waste and solid waste management. Hotels are responsible for a huge amount waste (water, food, solid and chemical waste).

Housekeeping participants have been asked to rank the benefits which result from adopting the sustainability practices. Table 4.13 shows the ranking results.

	Financial Saving	Better Recognition by customers	Long Term Benefits	Customer Retention
1= very high	2 15%	3 23%	7 54%	4 31%
2 = high	9 69%	5 38%	4 31%	5 38%
3 =low	2 15%	3 23%	2 15%	3 23%
4 = very low	0 0%	2 15%	0 0%	1 8%
Total n = 13				

Table 4.13: Benefits result from adopting sustainability practices (HK).

Table 4.13 shows how participants from the HK Department have ranked the benefits that hotels can achieve from adopting sustainability practices. The benefits are (financial saving, better recognition by customer, long term benefit, and customer retention) considered 1 = the very high important, to 4 being very low important. As the results show, 69% stated that the financial saving is a high importance benefits which can be achieved by adopting sustainability practices in their hotels. 54% of the participant believed that “long term benefits“ is the very high importance achievements results from adopting sustainability practices.

The next section of the thesis describes responses from the purchasing and procuring area of the hotel. Important decisions are made by employees of this area regarding price and cost matters. They play a significant role in operational measures by the ways in which they select, purchase and store items.

4.6 Purchasing Department (P)

This part presents the findings of data collected from surveys completed by purchasing departments (P) in the 13 five-star hotels. Table 5.14 summarise the demographics characteristics of the (P) participants.

4.6.1 Participant’s Demographics Characteristics (P)

Gender		Age		Education		salary		Work experience	
Male	12 (92%)	<25	3 23%	HSC	2 15%	<1000 JD	7 54%	<5 years	7 54%
Female	1 (8%)	25-35	7 54%	VD	4 31%	1000- 1500JD	3 23%	>5 years	6 46%
		35-45	3 23%	AVD	5 38 %	1500- 2000JD	1 8%		
		45-55	0 0%	BACH	2 15%	>2000JD	0 0%		
		55 +	0 0%	PG	0 0%				

Table 4.14: Purchasing department participant’s demographics characteristics (n=13).

Table 4.14 shows the demographic characteristics for purchasing departments. The breakdown of gender for (P) indicates that 92% of respondent are male while there is only just one female among the (P) department participants. The male gender is still dominant in the purchasing departments. Moreover, the results show diversity in the age groups within the (P) departments with 23% of the respondents under 25 years old, while most of the respondents come from the 25-35 age groups with 54%, and the rest of the respondents (23%) come from the group age of 35-45-year-old.

The education for the (P) departments shows that 15% of the participant hold HSC qualification while 31% hold VD. 38% of the respondents own AVD and just 15% have a bachelor degree. Usually, purchasing departments in hotels focus more on the

extent of experience that the candidate has rather than just the qualification because the purchasing department role requires negotiations and public relations to getting the most and best deals for the hotel. The salary breakdown shows that 54% of the respondents come under less than 1000JD while 38% is receiving 1000-1500JD, just 8% getting between 1500-2000JD; the salary reflects the salary range in the private sector in Jordan (1000JD=2000AUS). The work experience breakdown shows that 54% of the respondents had less than 5-year experience, while 46% of the respondents had more than five years' experience. The purchasing department role required specific skills. Promotion depends largely upon proper special education and expertise.

4.6.2 Environmental Sustainability within Purchasing Department (P)

This section represents the environmental sustainability understanding, practices and ranking within the Purchasing (P) departments.

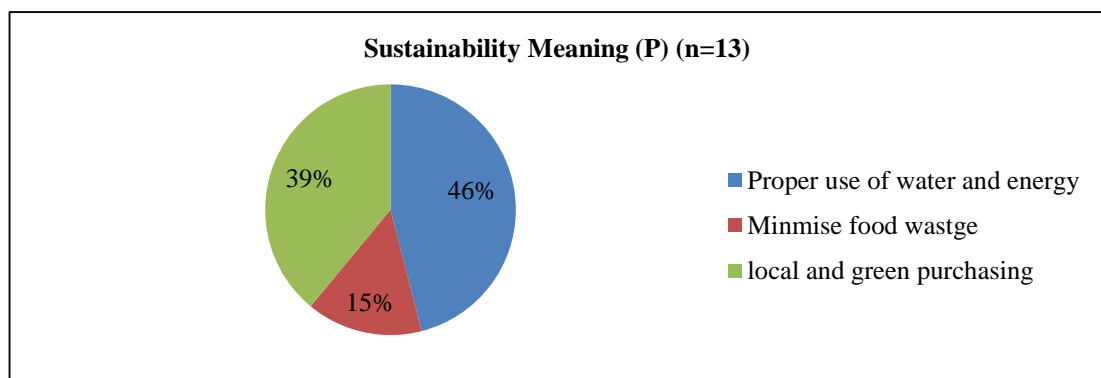


Figure 4.9: Sustainability meaning (P).

Figure 4.9 shows 46% of the respondents understanding the sustainability meaning as proper use of water and energy. While 39% considered sustainability as local and green purchasing, just 15% described sustainability as minimising food waste. The respondents reflect the view of the purchasing department and how they understand

the sustainability on their department. Green procurement is a method of purchasing where environmental and social considerations are taken with equal weighting to price, availability and performance. Hotels pursue the local and green purchasing to meet the new demand of customers and their interest to choose green and locally sourced services.

In response to the "yes/ no" questions, the purchasing department respondents have been asked questions related to the environmental practices followed in the department to achieve the sustainability goals. Table 5.15 shows the environmentally sustainable practices in purchasing departments.

Environmental Sustainable Practices	Yes	No
Using the sustainability standards in procurement	13 100%	0 0%
The hotel purchases green product	13 100%	0 0%
View sustainable procurement as being an important part of the hotel's success	12 92%	1 8%
Purchasing local product	13 100%	0 0%
Purchase of endangered fish species	1 8 %	12 98%
Financial support from city or state is a barrier to sustainability	4 31 %	9 69%
High cost of equipment is a barrier for sustainability	12 92%	1 8%
High cost of investment in sustainability process as a barrier	13 100%	0 0%
High costs a hindrance to sustainability initiatives at the department	11 85%	2 15%
Sustainability strategy would give the hotel competitive advantage vs. Competitors who don't implement sustainability initiatives	13 100%	0 0%
Sustainability in the hotel industry still an issue in Jordan	12 92%	1 8%
Any innovation about environmental conservation in the Jordanian hotel industry	13 100%	0 0%
Total n=13		

Table 4.15: Environmental sustainable practices P.

Table 4.15 shows that all the respondents from P department stated that they are using the sustainability standards in procurement, where hotels set criteria for purchasing products and services that cause minimal adverse environmental impacts, which mean that the hotels give more attention for maintaining sustainable standards for procurements.

There is unanimous agreement from the respondents claiming that their hotels encourage and purchase green products. 92% stated that sustainable procurement is an important part of the hotel's successful performance. All respondents from purchasing departments asserted that their hotels are purchasing a local product, this means saving in cost, support for local community and reducing the negative impact on the environment.

Financial assistance from city or state is a barrier to sustainability. 31% of the respondents claimed that the financial support from the city would positively affect the adopting of sustainable practices in the hotel. Sixty-nine percent (69%) suggested that hotels management should take the lead in adopting sustainability practices that can benefit the hotels acquiring competitive advantages. 92% of the respondents from P department mentioned that high cost of equipment is a barrier for sustainability, while just 8% thought that high cost of equipment did not affect the adoption of sustainable practices. The respondent expressed mutual agreement with 100% of the respondents considered the high cost of investment in sustainability is a barrier, the investment in sustainability might be a high cost, but the return on investment will be great and enhance the hotel competitiveness.

In response to the question about sustainability strategy, 100% of the respondents claim that hotels adopting sustainable practices will have competitive advantages. This high percentage reflect the awareness among purchasing department participants of sustainability benefits such as saving cost and attaining competitive advantages.

Sustainability in the hotel’s industry is still an issue in Jordan as 92% of purchasing department participants agreed. Innovation about environmental conservation in the Jordanian hotel industry is taking place using the solar power to generate power.

Ranking of the benefits which result from adopting the sustainability practices from purchasing department perspective is shown in Table 4.16.

	Financial Saving	Better Recognition by Customers	Long Term Benefits	Customer Retention
1= very high	1 8%	9 69%	7 54%	9 69%
2 = high	10 77%	2 15%	5 38%	3 23%
3 =low	2 15%	2 15%	1 8%	1 8%
4 = very low	0 0%	0 0%	0 0%	0 0%
Total n = 13				

Table 4.16: Benefits which result from adopting sustainability practices (P).

Table 4.16 shows how participants from the P departments have ranked the benefits that come from adopting sustainability practices in hotels. The benefits are (financial saving, better recognition by customer, long term benefit, and customer retention) with 1 = very important, to 4 being low importance. The results show that 77% agreed that the financial saving is of high importance and achieved by adopting sustainability practices in their hotels. Sixty nine percent (69%) of the participants believed that “Better recognition by customers and customer retention is very important.

The Purchasing department participants gave additional comments about environmental conservation in the Jordanian hotel industry. They highlighted environmental protection in the Jordanian hotel industry ranging from the importance of waste management policies as well as water and energy conservation

The innovative practices in environmental conservation within the Jordanian hotel industry from purchasing department participants are shown in Table 4.17.

Unique Innovative Practices in Environmental Conservation to the Jordanian Hotel Industry	P
Solar power	12 92%
Power saving	1 8%
Total n=13	

Table 4.17: Innovative practices in environmental conservation in the Jordanian hotel (P).

Table 4.17 shows that 92% of purchasing department participants stated that solar power is an innovative practice in environmental conservation in the Jordanian hotel industry. Solar energy potential in Jordan is vast with solar energy in Jordan currently used for lighting purposes, water pumping and water heating systems (Hraysha and Al-Soud 2004).

4.7 Kitchen Department (K)

This part presents the findings of data collected from surveys completed by the Kitchen Department (K) in the 13 five-star hotels. Table 4.18 summarises the demographics characteristics of the (K) participants.

4.7.1 Participant’s Demographics Characteristics (K)

Gender		Age		Education		Salary		Work Experience	
Male	13 (100%)	<25	6 46%	HSC	4 31%	<1000 JD	10 77%	<5 years	4 31%
Female	0 (0%)	25-35	4 31%	VD	3 23%	1000-1500JD	2 15%	>5 years	9 69%
		35-45	3 23%	AVD	0 0%	1500-2000JD	1 8%		
		45-55	0 0%	BACH	6 46%	>2000JD	0 0%		
		55 +	0 0%	PG	0 0%				

Table 4.18: K participant’s demographics characteristics (n=13).

The participants from K department were all male (n=13). The education level for the K department participants ranges between HSC 31%, VD 23%, and 46% of the participants having BACH degree. The salary range for K departments was 77% of the participant paid less than 1000JD, while 15% paid between 1000-1500JD, just 8% get 1500-2000JD. 69% of the respondents hold more than five years’ experience, while 31% have less than five years’ experience.

4.7.2 Environmental Sustainability within Kitchen Department (K)

This section represents the environmental sustainability understanding, practices and ranking within the Kitchen departments (K) in the various hotels.

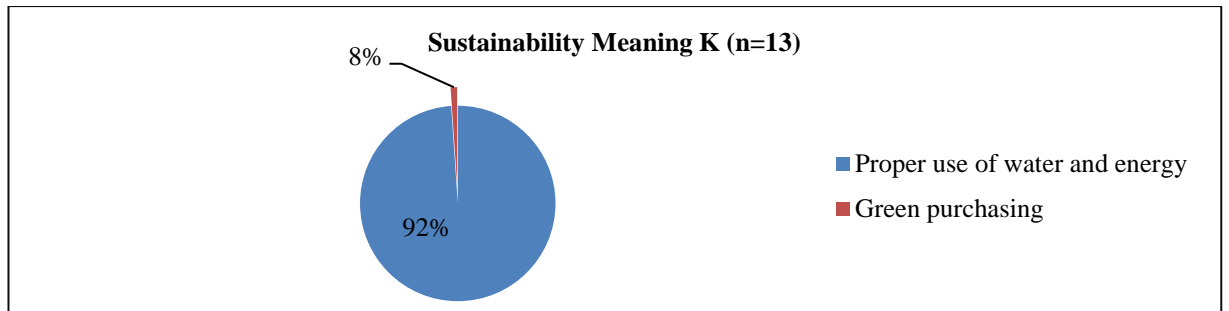


Figure 4.10: Sustainability meaning at (K).

Figure 4.10 show that 92% of the respondents believed that sustainability means appropriate use of water and energy. As the results show, there is a common agreement in the relation of linking the proper use of resources to sustainability among the five departments. The focus on the efficient use of water among all participants responses reflects the position of the hospitality industry of understanding the water shortage problem in Jordan. The categorising of sustainability practices in hotels from K participants’ perspectives is shown in Table 4.19.

	Energy Saving	Green Purchasing	Water Saving	Waste Minimization	Solid waste Management
1= very low	0 0%	0 0%	0 0%	0 0%	2 15%
2 = low	1 8%	1 8%	0 0%	0 0%	4 31%
3 = medium	0 0%	2 15%	2 15%	7 54%	4 31%
4 = high	5 38%	7 54%	3 23%	5 38%	2 15%
5 = very high	7 54%	3 23%	8 62%	1 8%	1 8%
Total n = 13					

Table 4.19: Categorising sustainability practices in hotel (K).

Table 4.19 presents the categorisation of sustainability practices carried out by hotels in Jordan according to K department participants (with 5= very high priority to 1= very

low). As shown, 54% mentioned that the energy saving is high priority as a sustainable practice carried out by their hotel. 54% of the participants believed that green purchasing practices are high priority, while 62% thought that water saving is the very top priority in the hotel.

Regarding sustainability practices followed at the hotel, 62% of the participants mentioned that sustainability practices “using solar power” and 38% of the participants indicated that their hotels invested in water-saving appliances as sustainability practices.

Kitchen department members have ranked a set of environmental practices performance carried out by hotels in Jordan with 1=extremely good or very high and 4=very low or poor. See Table 4.20.

	Waste Management	Energy Saving	Water Saving	Green Purchasing
1= very high	1 8%	9 69%	9 69%	2 15%
2 = high	3 23%	2 15%	2 15%	7 54%
3 =low	7 54%	1 8%	1 8%	4 31%
4 = very low	2 15%	1 8%	1 8%	0 0%
Total n = 13				

Table 4.20: Ranking the performing of the sustainability practices of Jordanian hotels.

Table 4.20 shows that 69% of the participants ranked the energy saving practices as very high performance. Also, 69% of the participants rated water saving practices as very high-performance sustainable practice in Jordanian hotels. However, 54% of the participants ranked waste management practices as low performing. Currently, there

is no specific legal strategy or national framework to manage waste in Jordan. According to Guerrero, Maas and Hogland (2013), waste management is a key challenge for cities in developing countries, mainly resulting from the vast increasing generation of waste, and the load posed on the municipal budget through the high costs related to its management. The city of Amman is responsible for almost half of the total solid waste generated in Jordan. The Greater Amman Municipality has the duty to collect, transport, and dispose of the waste to Al Ghabawi landfill site which is the largest landfill in Jordan serving Amman and ten other big cities (Qdais 2007).

In response to the "yes/ no" questions, the Kitchen (K) department respondents have been asked questions related to the environmental practices followed in the department to achieve the sustainability goals. See Table 4.21 .

Environmental Sustainable Practices	Yes	No
Having recycling program for the kitchen materials	3 23%	10 77%
Compost food waste availability	3 23%	10 77%
Recycling kitchen oil	1 8%	12 92%
Take measures to reduce smoke emissions	12 92%	1 8%
Have an environmental policy	12 92 %	1 8%
Have an employee health and wellness program	12 92 %	1 8%
Financial support from city or state is a barrier to sustainability	10 77%	3 23%
High cost of equipment is a barrier to sustainability	13 100%	0 0%
High cost of investment in sustainability processes as barrier	13 100%	0 0%
Sustainability strategy would give the hotel competitive advantage vs. Competitors who do not implement sustainability initiatives	13 100%	0 0%

Sustainability in the hotel industry still an issue in Jordan	12 92%	1 8%
Any innovation about environmental conservation in the Jordanian hotel industry	11 85%	2 15%
Total n=13		

Table 4.21: Environmental sustainable practices (K).

Table 4.21 shows that 77% of the respondents replied that they do not have a recycling program for the kitchen materials, while just 23% have such a recycling program. 77% of the respondents stated that they do not have compost food facilities and they just put the leftover in the general rubbish. Regarding recycling kitchen oil 92% of respondents replied that the departments do not recycle the cooking oil which can cause environmental damage. Respondents from K department claim that 92% of the hotels are taking measures to reduce smoke emissions. 92% of the respondent said that their hotels are adopting an environmental policy. Ninety-two (92%) of the respondents confirmed that their hotels utilise employee health and wellness programs. Regarding the questions about the barriers that deter adopting sustainability program, 77% of the respondents agreed that the lack of financial support from city or state is a barrier to sustainability. Similarly, there is a common agreement with 100% of the respondent believed that the high cost of equipment is a barrier to sustainability. 100% of the respondents mentioned that hotels with remarkable sustainability programs would have strong competitive advantages versus competitors who do not implement sustainability initiatives. 92% of the respondents believed that sustainability is still a debated issue and needs more investigation and research.

The following table demonstrates the participants’ answers on the question regarding the accreditations that their hotels achieved.

Sustainability Practices followed at the Hotel	K
Energy star	7 54%
LEED EBOM	1 8%
ISO 14001	5 38%
Total n=13	

Table 4.22: Accreditation (K).

Table 4.23 shows that 54% of the participants mentioned that their hotel pursues “Energy star“ award, while 38% of the participants mentioned that their hotel pursues “ISO14001” award and only 8% said that their hotel pursued “LEED EBOOM” award.

The survey results show that participants have a different opinion regarding who is responsible for promoting sustainability in the Jordanian hotels industry; table 4.23 demonstrate the participants responses.

Promote Sustainability Practices in the Hotel Industry in Jordan Responsibility	K
Hotel owners	4 31%
Government	2 15%
Customers	0 0%
suppliers	0 0%
Hotel Management	7 54%
Total n=13	

Table 4.23: Promote sustainability practices in the hotel (K).

Table 4.23 shows that 31% of the participants believed that hotels owners are responsible for promoting sustainability practices in the hotel industry in Jordan, while, 15% believed that it is the government’s responsibility to promote sustainability practices in the hotel industry in Jordan. Fifty four percent (54%) of the participant believed that it is hotel management responsibility to promote sustainability practices in the hotels industry in Jordan.

Kitchen participants’ additional comments regarding environmental conservation in the Jordanian hotel industry were focusing on the importance of waste management and recycling activities as there is ignorance and lack of attention to this area from different parties as the participants commented.

Additional Comments about Environmental Conservation in Jordanian Hotel Industry	K
Waste management	7 54%
Recycling	3 23%
Low tax	1 8%
Energy saving	2 15%
Total n=13	

Table 4.24: Additional comments about environmental conservation in Jordanian hotels (K).

Table 4.24 shows that 54% of the participants from K departments highlighted comments about waste management issue in Jordanian hotel industry. 23% of the participant mentioned comments about recycling importance in Jordanian hotel industry and 15% of the participants offered comments about energy saving.

Regarding Jordanian hotel industry innovative practices in environmental conservation, the participants emphasised that water saving and solar power practices

are at the top of the list of different environmental practices in the Jordanian hotel’s industry.

Unique Innovative Practices in Environmental Conservation to the Jordanian Hotel Industry	K
Water saving	6 46%
Solar power	5 38%
Green key and blue flag	1 8%
Promote eco-tourism in Jordan	1 8%
Total n=13	

Table 4.25: Innovative practices in environmental conservation in the Jordanian hotel industry.

Table 4.25 shows that 46% of the participants agreed that “water saving“ is an innovative practice in environmental conservation in the Jordanian hotel industry. 38% believed that “Solar Power“ is an innovative practice in environmental conservation which is unique to the Jordanian hotel industry. Other innovative practices for the Jordanian hotel industry the participant mentioned (green key, blue flag and promote eco-tourism in Jordan), with 8% for each.

4.8 Conclusion

This chapter presented the findings from the collected empirical data among 13 five-star hotels in Jordan. The chapters offered detailed insights of the five different operational departments. This section provides a summary comparison of findings between the five-operational departments in the 13 five-star hotels in Amman.

The analysis of the empirical data has shown that there is a common agreement among the five departments in relation to the meaning of environmental sustainability. With

regards to environmental sustainability meaning, respondents from all departments offered different answers. However, the majority have focused on the efficient use of water as well as energy.

Jordan is facing serious challenging issues regarding water supply. Therefore, as commercial and recreational buildings, hotels understand the issue of water shortage in Jordan and are trying to use every opportunity to conserve water. Hotels apply different green tools that aid in reducing water consumption in restrooms, laundry operations, landscaping, and kitchens which are the largest uses of water in hotels. However, efforts in this regard are not enough and more is required to be done. Moreover, there was notable agreement among all respondent from the five departments that following sustainability practices has financial benefits. Advantages from adopting environmental conservation practices, from the participants' perspectives, centre on the financial benefits as well as competitive advantages and customer attractions. In hotels industry, conserving water will not only save money, it will also provide an important marketing edge in a very competitive business. However, the analysis of empirical data shows that is in relation to the environmental sustainability benefits there was an absence of awareness of environmental impacts.

Moreover, regarding the participants' gender, the majority of respondents involved in this study were male. The limited contribution of female participants was evident among all the five departments. While there is significant improvement toward involving females in the Jordanian workplace, women are still poorly represented specially in the senior management level. Yet, there are substantial issues surrounding women employees in the hospitality industry. Reasons include, Jordanian customs and

traditions, gender stereotyping as well as work and family balance which explain the situation of gender inequity within the Jordanian hospitality industry.

Regarding waste management in five star hotels in Amman, according to respondents, the waste is collected in waste dumps, discarded directly into landfill, or simply dumped in areas out of sight of guests. The lack of waste management and the improper disposal of waste which includes food waste, packaging waste, water waste and toxic waste, can result in pollution and contamination of the environment. Additionally, the analysis of empirical data revealed that the recycling programs followed in five star hotels in Jordan include recycling and reuse items like old furniture, plastics, paper, and cans.

Furthermore, there was remarkable agreement among participants from five different departments that following the hotel health and safety policies is a vital aspect of environmental and management practices. From the participant's perspectives, following health and safety policies can contribute to security, health, and safety of employees.

Chapter 5 QUALITATIVE DATA FINDINGS

5.1 Introduction

This chapter reports the findings of 15 Semi-structured interviews with employees from 13 different five-stars hotels in Amman and Aqaba. The in-depth semi-structured interviews were employed to gather qualitative deep data and to triangulate the results gained from the survey described in Chapter 4. Employees interviewed included managers and supervisory staff from the five different operational departments which are: Maintenance and Security (MS), Food and Beverage (F&B), Housekeeping (HK), Purchasing (P), and Kitchens (K).

Fourteen semi-structured interviews were conducted by the researcher. Ten of the interviews were conducted in the city of Amman. Only four interviews were undertaken in Aqaba city in order to accommodate the participant’s request as they lived in Aqaba. Each interview lasted 30-45 minutes. Table 5.1 provides demographic information about the interviewees.

Department		Gender	Role	Education	Experience
Maintenance and security “MS.”	MS 1	Male	Staff member	Diploma	3 years
	MS 2	Male	Supervisor	Bachelor	2 years
	MS 3	Male	Senior supervisor	Bachelor	4 years
Food and Beverage “F & B”	F & B 1	Male	Supervisor	Bachelor	4 years
	F & B 2	Male	Bar & restaurants staff	Diploma	5 years
	F & B 3	Male	Waiter	High school	3 years

Housekeeping “HK.”	HK 1	Male	Room attendant	High school	2 years
	HK 2	Male	Housekeeping Supervisor	DIP	5 years
	HK 3	Male	Housekeeper cleaner	HS	2 years
Purchasing “P”	P 1	Male	Purchasing supervisor	BACH	5 years
	P 2	Female	Purchasing assistant	HACH	4 years
Kitchen “K”	K 1	Male	Chef	BACH	3 years
	K 2	Male	Head chef	BACH	4 years
	K 3	Male	Cook and food preparation	DIP	2 years

Table 5.1: The interview participant’s characteristics.

Interviews were conducted with three staff members from maintenance and security department who are at different managerial levels. MS1 was employed in the security department in the Hotel with approximately three years’ experience. MS2 was a supervisor in the maintenance department with diploma qualifications. MS3 was a senior supervisor in the maintenance and security department. The diversity of the respondent’s roles facilitated consideration and discussion of the different working conditions from diverse maintenance and security positions and with different hotels. All interviews with F&B participants were conducted in Amman by the researcher. Three in-depth interviews have been conducted with different employees in the HK department from different properties in Amman to get their perception regarding the sustainability practices that they follow in HK unit.

Moreover, due to time and resources limitation, the research was able to find only two interviewees to be questioned regarding the environmental performance of purchasing departments from two properties in Aqaba. Three in-depth semi-structured interviews with participants from Kitchen Department were conducted by the researcher in both

Amman and Aqaba cities due to the participant's request and comfort. Two participants were interviewed in Aqaba city and one in Amman.

As Table 5.1 shows, the gender majority of all operational department participants are male. This issue has been discussed previously in the literature. However, participants from Kitchen Department highlighted this issue through their responses. This is not untypical of most kitchens around the world. Interestingly participants referred to this gender inequity being part of the sustainability agenda, rationalising it saying that the nature of work precluded women from joining kitchens as chefs in Jordan.

Our responsibilities include butchering heavy amounts of meat as well as carrying large bags of rice and prepare huge platters. It is physically demanding (K2). This qualitative data addressed the following research primary and secondary questions.

The primary research question is:

- What business and operational practices are followed by five-star hotels in Amman, Jordan to achieve sustainable environmental performance?

Secondary Research Questions include:

- What are the levels of awareness and attitudes of management and stakeholders toward Environmental Sustainability Measures in five-star hotels in Amman, Jordan?
- How are environmental audits practised by five-star hotels in Jordan?

A thematic analysis approach was used in this study to interpret the qualitative data. Thematic analysis is a method for identifying, analysing, and reporting patterns or

themes within data. One of the benefits of thematic analysis is its flexibility. (Tuckett 2005, Boyatzis 1998).

The process of analysing qualitative data commenced with data collection and management. Transcripts were reviewed including written statements by the researcher in order to organise and prepare the qualitative data. Data was coded, classified and categorised into the previously identified themes and subthemes derived from the pilot study, review of literature and the survey instrument. The two main categories (themes) into which information was grouped were:

1. Business sustainable practices
2. Operational sustainable practices

Each of these core themes also includes sub-themes that emerged from the responses of the study participants. The core and the sub-themes are the focus of presentation of this chapter. The findings represented in this section emphasise main themes and their sub-themes as illustrated in figure (5.1).

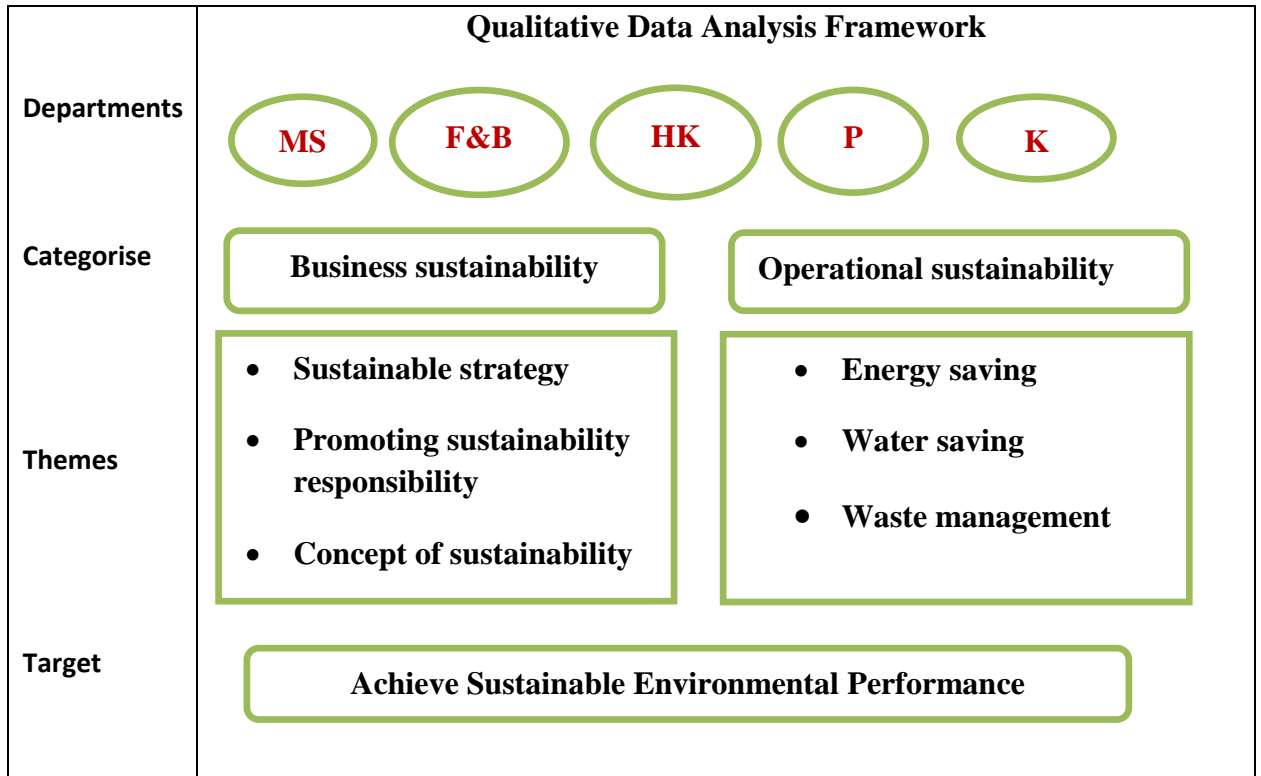


Figure (5.1): framework of the qualitative data

Figure 5.1 demonstrates the framework of qualitative data collected in this study, through semi-structured interviews, with managerial level staff from the five operational departments within the hotel. Business sustainability practices were further divided into sub themes of sustainability strategies, promoting sustainability responsibility and the concept of sustainability. Operational sustainability included energy and water saving and waste management. Section 5.2 addresses the importance of and concepts related to business sustainability as evinced by the respondents.

5.2 Business Sustainability

One of the most fundamental tasks in qualitative research is themes identification (Ryan and Bernard 2003). In this section, the business sustainability theme will be

discussed through the lens of managerial staff in the five operational departments of the hotel properties used in the study. Sub-themes which were generated through interviewing respondents from different department are: sustainability strategy, promoting sustainability responsibility, and the concept of sustainability. The following sections will discuss the subthemes that are derived from the main theme which is Business sustainability among the participants from the five operational departments.

5.2.1 Sustainability Strategy

There was common agreement among all interviewees from the five operational departments that developing a sustainability strategy is essential to achieve sustainable environmental performance, by guiding the employees in the hotel's different operational sector to follow, adopt and implement sustainability practices in their operations and maintain high workplace safety.

“Yes, I agree with that ... Hotels that have sustainability strategy would attract more customers and in the result, will increase its profit; nowadays everyone is aware of the environment and the importance of being sustainable” (MS2).

A strategy targeting environmental sustainability is a better initiative toward environmental sustainability, and it gives any hotel a competitive advantage among other competitors who do not implement a sustainability strategy.

“I am sure that having a plan in our hotel that monitors our operations toward being eco-friendlier would be beneficial, and give the hotel competitive advantages” (MS1).

Implementing environmental initiatives can strengthen the hotel's reputation and attract more customers especially those who have an interest in the environment conversation. There is growing awareness around the world about the urgent need for a healthier environment in the future. Hotels follow sustainable practices reduce harm to the environment and offer benefit to the environment through protection and conservation and running a business in ways that do not harm the natural, cultural, or economic resources (Sloan, Legrand and Chen 2012).

All MS respondents agreed that adoption of sustainability strategies would give the hotels competitive advantages vs. competitors who do not implement sustainability initiatives. The participants provided various points of view. Each participant explained the benefit of having a sustainable strategy in the hotel and following business practices that minimise the negative impact on the environment while positively impacting the hotel reputation and the brand image. Moreover, the participants declared that sustainable strategies have benefits of increasing the profit and decreasing the operations cost. Also, the participants asserted that follow through was important by monitoring employee's sustainable practices. As one respondent remarked:

“adopting sustainability strategy would give the hotel competitive advantage as the employee would be aware of the environmental sustainability practices and they follow them, which can benefit the hotels from many aspects like reduction the cost, increase the profit and strengthen the hotel's reputation” (MS3).

The in-depth review of the literature as shown earlier illustrated the very large amount of waste that the hospitality industry is responsible for producing. A significant part of hotel waste is food. A set of specific and general questions were asked to Food and Beverage interviewees to focus on specific conditions that exist in the F&B area. All

interviewees were from Amman. These issues aimed to examine the trends and features of F&B departments about environmental sustainability. Moreover, the interviewees reflect on the vision of their department regarding evaluating and applying sustainability strategies.

“Hotels are considering sustainability strategy in Food and Beverage Department. Having accreditation from a well-recognised environmental organisation that award hotels for their achievement on sustainability practice can give the hotel better recognition by customers” (F&B1).

The respondent agreed that adopting a sustainability strategy will give the hotel better recognition from customers as well as acquiring accreditation from recognised environmental firms. Hotels with environmental awards and certificates would have an environmental strategy that related to each department. A successful sustainable food purchasing strategy will be fully integrated with the overall goals and objectives of the hotel company. It should clearly state the company’s social and environmental goals, identify procurement strategies, and commit resources to those strategies. Sustainability strategy will also set targets and timelines, and establish means for evaluating progress and making course corrections (Barrientos 2012, pp 66).

“I believe that other than the good reputation and customer attraction ... having environmental strategy can save cost... it also helps the environment which is every ones’ responsibility” (F&B 2).

In all the hotel departments, and particularly food and beverage department, there is a challenge to achieve financial profits while improving environmental performance. Adoption of environmental practices is fundamental to meet this challenge. Moreover,

Food and Beverage department can play a vital role to improve the hotels' overall environmental and social performance. Two of the three participants (F&B1 and 3) highlighted the issues around water and energy savings.

“A sustainability strategy in our department is compatible with the hotel strategy as we consider water saving, energy savings .. that makes our department contribute to the whole sustainability strategy overall” (F&B3).

“We consider sustainability on our hotels as a part of our daily operation by monitoring all aspects of our department's operations such as saving water and energy ... I believe each department has specific measures and practices to ensure sustainable performance” (F&B 1).

Respondents stated that sustainability strategy in F&B department is well-matched with whole hotel strategy. Sustainable and responsible operation of F&B departments will automatically increase profitability as it decreases operation cost. Currently, numerous factors encourage business owners and managers to adopt sustainability practices. While the more open drivers include cost savings and demonstration of corporate social responsibility to investors, some more subtle reasons as mentioned by the respondents – were employee retention and enhancing the guest experience – are also coming ever more into play (Goldstein and Primlani 2012).

Respondents expressed that each department should contribute to the holistic hotel strategy regarding sustainability practices by taking all aspects of saving measures in the primary three practices water, energy and waste management.

Moreover, the participants from Housekeeping Departments were asked about sustainability strategies and their perceptions of them.

“Sustainability can be achieved by respecting the environment which can save the cost of our operation, for example, encourage the customer to reuse the towels, and reduce water consumption ... you know we don't have water in Jordan ... we have to be wise when it's come to water” (HK1).

The respondent showed understanding and good knowledge of the water shortage problem in Jordan. This knowledge has been translated into sustainable actions in regard to reducing water consumption.

Housekeeping Department deals essentially with activities regarding hygiene, cleaning and all ancillary service attached to that. Often referred to as accommodation the Housekeeping Department has responsibility for not only guest rooms but also public areas like restaurants, lobby, corridors. This particular department consumes a significant amount of water, energy and chemicals. It is important to maintain a level of sustainability practices that can contribute to enhancing the hotel's environmental performance by saving the resources and **reducing** the use of harmful chemicals.

“There is great coordination between the department and the hotel management in regard to implementing environmental practices...because adopting sustainability practices in our department can play a major part of following the hotel strategy related to the environment. I believe that each department is taking specific and straightforward technique to run the operation sustainably. And that would enhance the hotel image” (HK2).

Respondent claimed that HK department coordinates with the management to ensure implementing the sustainability strategy for the hotel. Hotels should continue to apply strategic programs to reduce environmental impact. Beyond basic sustainable

practices, practices that can improve the health and safety of the employees and the guests should be considered.

“Hotels with sustainability strategy toward the environment make them more desirable and more attractive to customers who are looking for eco-friendly accommodation hotels” (HK3).

Respondent highlighted the importance of having a sustainability strategy in hotels to attract more clients with environmental sensitive. Customers are paying attention to environmental practices because of the global trend toward a healthier environment.

With Purchasing Department and the issue of environmental sustainability, Responsible Procurement is a key. Responsible procurement (also known as sustainable/green procurement) is a development by which environmental, social, and ethical considerations are considered when making any purchasing decision (Correia et al. 2013).

“Typically, hotels follow sustainable purchasing strategy that involve buying recycled and environmental friendly products” (P1).

Responsible procurement should consider specific characteristics including whether a purchase is necessary at all and what the product is. It also considers the packaging components and the distance the items has travelled.

“Of course ... we prefer environmental materials... recycled packaging ... people become more aware of environmental issues we must meet their demands” (P2).

The Purchasing Department (P) is responsible for procuring all goods, and material hotels need for daily operations. The Purchasing Department can make conscious

decisions to follow sustainability practices so that they get the most benefit with the minimum adverse impact on the environment where the hotel is located and operated. Hoteliers may consider a preference to vendors, products, and companies that are environmentally friendly and support hotel's sustainability practices. Additionally, most five star properties belonged to multi national chains and would purchase in bulk which gave cost savings.

Purchasing decisions have fundamental ecological and social impacts, particularly in the hotels industry, which often imports a large proportion of its commodities including food, from other countries to satisfy customers demands. Sourcing locally produced products can expand product line-up while simultaneously enhancing relationships with customers. Examples mentioned by the respondents of locally sourced products were olives, jam, pickles, and traditions cushions.

From Kitchen Department point of view in this regard, respondents revealed that a sustainability strategy exists within the kitchen policies. To achieve sustainability, hotel kitchens should save resources, reduce consumption, manage waste effectively and source locally wherever possible. Sourcing locally has many benefits including reducing the energy used in production, transport, and storage. It also supports local farmers, local agriculture as well as local communities by giving farmers in developing countries such as Jordan a fairer deal.

“I fully agree... having sustainable strategy would differentiate the business... we saving cost, generate profit and we help the local community and local industries” (K1).

“Our hotel sustainability plan is to protect the environment by reducing energy and water consumption, the hotels where I work pay attention to conserving water and energy they implementing sustainable policy on how to do it” (K2).

“I am very proud of what the hotel doing to keep the business up; even the customer appries that. we receive many positive comments from customers especially regarding serving local product” (K3).

All respondents from K departments agreed that having a sustainability strategy is essential for the hotel's improvement. The respondents showed understanding of the benefits of following an environmental sustainability strategy. Some participants commented on gaining competitive advantages and financial saving, while other respondents mentioned other aspects of following a sustainability plan that is to satisfy and attract customers who become more aware of environmental issues. This recognition of customers wanting to be more ecologically friendly and supporting local communities is a very important concept in developing countries and must be exploited to the maximum advantage to help grow the local economy. Interviewees were also aware of the positive social capital gained from enhancing local consumption in terms of helping the community and also building important supplier relationships which made them less vulnerable to outside forces or unexpected events where imported goods became unavailable. It also has an effect in terms of building support for the hotel as locals feel they have an investment in the success and profitability of the business and it is in their interests also to produce high quality products to be assured of purchase. In many cases this ‘green approach’ also leads to innovation as farmers might be encouraged to produce more varied crops and invest in technology and resources like water recycling/ use of grey water and other farming methods not traditionally practiced in Jordan.

5.2.2 Promoting Sustainability Responsibility

Promoting sustainability responsibility is one of the sub-themes that have been generated and identified through the analysis of qualitative data. Currently, the need for greener hotels is a growing demand. Hotel customers become more aware of environmental issues and have started to consider the environment in their choice making decisions of where to stay. The hotel industry, owners and operators and the government, should be more conscious of this new trend and set policies to encourage ‘greening’ practices in this respect.

Regarding promoting sustainability responsibility, MS respondents expressed their opinions with some saying they felt it was the responsibility of government, others saw it more as a responsibility of the hotel management.

“Promoting sustainability is the hotel management responsibility as mainly the hotel itself will get a lot of benefits... with many ways hotels can improve the sustainability practices... may be through engaging customers and employees with hotels operation somehow, for example, hotels can host bazaars for the local community where they promote their product, and in some cases, hotels make a purchase when the product suitable for them” (MS1).

The hotel industry in Jordan can improve environmental sustainability through coordination with different stakeholders. That can be done through initiating relationships with local companies and local community which can lead to the economic growth.

“The government should make the first step toward promoting the sustainability practices among the whole community as government have the power and the

money to make such an initiative, in Jordan, the government do very little in this regard” (MS2).

Jordan’s economy is dependent on service industries including tourism and transport activities. As mentioned earlier in the literature review, Jordan is a non-oil-producing country with very limited natural resources and minerals. Moreover, Jordan faces challenges such as unemployment as well as inflation and growing budget deficit. Therefore, the Jordanian government should pay serious attention toward promoting and implement environmental sustainability in every aspect of life, not only the hospitality industry.

Some respondents asserted the government’s role to promote the sustainability practices amongst the hotel industry and even for the whole community through media and education campaigns. Interestingly the Jordanian government is already supporting several policies, initiatives and programmes that are designed to achieve a green economy. Examples of Jordanian environmental initiatives are the complete removal of subsidies for oil in 2008; the adoption of the renewable energy law and fiscal incentive package on renewable energy and energy efficiency equipment in 2010; and the establishment of the Eco-Cities Forum, the Eco-Financing Seminar and the Zarqa River rehabilitation project (EnConsult 2011).

Respondents from the different departments agreed that hotel management and government at all levels should make more efforts to promote the sustainability among the whole community, but hotels industry needs to stand for sustainability practices as they are high users of non-renewable resources. The government, through its

regulations and policies, is responsible for raising awareness about sustainability and promoting sustainable practices amongst all stakeholder.

“Hotel management and government both responsible for making coordination to encourage sustainability practices among the community. But lack of communication between the hotel industry body and the government very clear” (MS3).

Governments should enforce laws and regulation on the business including hotels to follow the environmental sustainability practices. Additionally, the government should monitor hotels on a regular basis to make sure that hotels adhere to environmental regulations. Surprisingly one interviewee MS3 acknowledged that there could be a major role for customers in ensuring that sustainable practices are introduced into hotels.

“Customers can be a part of the promoting sustainability by their suggestions with writing their comments... that can help to improve environmental sustainability in the hotels as we are all here working for the comfort of our guests” (MS3).

Guest comment cards are used all over the world as a standard practice. Engaging the customer in issues such as environmental sustainability in the hotel can help hotels improve their services and advance their performance. For Jordanian hotels, serious about this aspect they could build in questions to promote questions about this aspect – it would also reveal attitudes of customers and allow for direct marketing to them if they identified as particularly interested in environmental measures in the hotel industry. The interviewees from MS were unanimous in their agreement on sustainability being essential for Jordan which has a fragile environment and many cultural and heritage aspects that need preservation and protection. The issue of sustainability needs to be addressed at different levels, in cooperation with academia,

industry, policymakers, the public and other stakeholders. The hotel industry has an important responsibility in this process.

Both government and hotel management having responsibility for sustainability has merit. When macro and micro environments are considered, Government enacting legislation and regulatory frameworks that hotels must comply with definitely impact on the external conditions a company must follow. On a micro level hotel management, employees, suppliers and buyers taking responsibility and reducing their carbon footprint can also have a positive impact. In fact, hotels should seek to not only become carbon neutral but exceed minimum environmental benchmarks and set an example of conservation and sustainability especially around scarce resources like energy and water in Jordan.

Promoting sustainability responsibility in the Jordanian hotel industry seems to be going on a narrow path as respondents articulated their views regarding this question. F&B interviewees provided different points of view. While some of them asserted that it is the government's responsibility to promote sustainability through its power of regulation, other respondents emphasised that it is the hotel management's responsibility to implement environmental performance to gain the benefits of sustainability which include financial, social and ecological benefits. It is incumbent on government and the hospitality firms to share the role of disseminating sustainability information among all stakeholders in the enterprise.

“Promoting sustainability among the stakeholders is a part of our mission, hotel management improve the sustainability messages through different ways such as setting environmental policy related to each department and making sure that policy

is properly implemented and performed to enhance the hotel reputation in this area” (F&B1).

“The government should take the initiative and encourage hotels to take proactive steps toward the environment... I think if there are strict regulations imposed by the government on hotels (or business in general) they will follow it” (F&B2).

Respondents made the claim that promoting the sustainability message by hotel management can contribute to hotel success by marketing the hotel as environmentally friendly which results in gaining competitive advantages.

Whether the issue is environmental protection, health and safety in either home or workplace, or consumption of goods and services, government regulations can have far reaching effects and practical impact. Various environmental activities can also consider sustainable practices. Actions like recycling of materials, conservation of water and energy, protection of the different species, and preservation of historic resources often include sustainability goals in their intent and implementation.

“I think the responsibility of promoting the sustainability responsibility among the hotels and their stakeholders can be through coordination between hotels and government... when all parties work together, results will be better” (F&B3).

Food and Beverage interviewees showed good understanding of the benefits of sustainability and consciousness about the environment. Respondents were unanimous that coordination among all parties was key to promoting sustainability.

Promoting sustainability in the hotels specifically targeted interviewees views about the main actors who play roles to uphold the sustainability values in the firms. Participants responses related to these questions reflected the understanding of who are the major players in the scene and which party should promote the sustainability values to make it real and practicable.

“Promoting hotel sustainability policy should be hotel responsibility...hotel management can promote and enhance the productivity of the department in many ways such as rewarding the department of achievement in this regard (sustainability)” (HK1).

The respondent claimed that hotel management should play a vital role to promote sustainability among the hotel departments because management has the power and resources to make this happen. Also, the respondent suggested that hotel management can reward the departments who are showing progress in applying the sustainability practices.

One of the respondents claimed that government should play the major role to make sustainability more involved among the various sectors including the hotel industry. The Jordanian government have their initiatives toward sustainability development but what is achieved in this regard tends to be very modest and needs to be addressed. Achieving a more socially and financially sustainable society requires ideological and attitudinal change, underpinned by political change (Frame and Newton 2007).

“Promoting sustainability should be government role as here in Jordan companies do not care about the environment unless the government imposes a penalty for not following the government policy in addition government in not doing enough to promote the sustainability policy in the hospitality industry” (HK3).

There is a new trend in the hotel industry toward sustainability and adopting environmental practices. These trends reflect the current trends in the global market with more focusing on sustainable practices to have competitive advantages. In addition, business is looking to saving on operational costs. The Jordanian hotel industry is coping with this global marketing trend for sustainability to keep the business functioning efficiently.

Interviewees from Purchasing Department agreed that it should be cooperation between all parties. The respondents asserted that the government, community and all economy industries could play vital roles in their operations and positions.

“It is everyone responsibility...we can't point to one party at all. Even mothers at home should teach their families how to be more environmentally responsible (P2).

“Government can't do all alone...all sectors including government, business...responsible on that” (P1).

Currently, Jordan faces a challenging time. Therefore, the government is always working toward finding ways to be more efficient economically, socially as well as environmentally. While the government maintains strategies and programs toward sustainability, business should adapt and incorporate environmental goals.

Moreover, participants interviewed from Kitchen Departments also agreed that the responsibility to promote sustainability is everybody's responsibility including government, industry, and community. Promoting sustainability responsibility in Jordanian hotels is affected by many barriers, such as the old-fashioned management

styles still present and the ignorance from the formal authority (government). Developing countries need to reassess their agenda related to sustainable initiatives; the current situation required more hard work to uphold the sustainable agenda especially in the hotel industry. Moreover, hotels may play a primary role to host sustainable debates about sustainability to take a part in promoting suitability in the country. This is particularly true of a country like Jordan where the heritage and cultural tourism is of great economic value.

“All level and all parties should have their role in promoting sustainability, everyone can be part of exhibiting sustainability vision, I believe in every single employee from top management to the bottom play a major role in promoting our sustainability” (K2).

“The staff here are ready to contribute to being more sustainable and environmentally responsible ... they just need the opportunity to give them appropriate information on how to improve their actions and make a difference in improving the environment and help the hotel run more effectively” (K3).

Engaging the staff from all levels is crucial to the success of any sustainability program. Every employee should be involved and cooperate to implement sustainability and improve the workplace environment.

5.2.3 The Concept of Sustainability

The issue of sustainability is gaining a significant attention within the hotel industry around the world. Sustainability concept which mean in Arabic (Estidamah) is becoming increasingly popular in Jordan. Each industry has its measures and practices to achieve environmental sustainability performance.

“Sustainability concept (Estidamah) in the hotel industry is familiar, it means to me as respect the environment and saving natural resources, regarding sustainability, hotels trying to be more responsible for the environment and for the community where they are operating” (MS1).

Because of the increased awareness of the growing environmental degradation, people are becoming more mindful of the need for adopting and enforcing more effective measures of environmental protection. Environmental sustainability has become a vital priority and a challenge of the current time. Furthermore, hotels are working towards educating guests about environmental conservation and sustainability, saving water and energy through prompts to save water by turning off faucets when not in use, re-using bed linen and towels to reduce laundry costs wherever applicable, and reducing energy consumption through key card automation of lights and electricity in the rooms.

“Sustainability is about keeping the business environmental and green, with taking care of energy and water consumption ... in my opinion, it's about conserving resources and avoids using materials that harm the environment like plastic” (MS2).

Despite the scarcity of water and natural resources in Jordan as well as the fact that about 80% of the Kingdom's entire land is desert, Jordan plays a vital role to achieve sustainable environmental development. The government takes seriously environmental sustainability goals within the framework of national development policies; also, it takes necessary measures for conserving the environment and the optimal use of resources. However, as the respondents commented, more needs to be done in this respect to display these policies practically.

“Idea of sustainability still in first steps in Jordan, sustainability practices not taking place in Jordan because the government and the private sectors are not working together to apply the sustainable practices, hotels just practising sustainability measures when it is come to enforce the law or when are applying for accreditation” (MS3).

Sustainability and sustainable development are the primary aspects of Jordanian government planning and strategies in all aspects of economic and social sectors. However, implementing these policies requires effective coordination and integration with all parties. As the interviewees explained, there is an evident gap between the government, through its regulations and policies, and the private sectors including hotels about environmental protection.

“Sustainability concept in Jordan need more clarification from all the party from the government to the whole community, and then each sector will deal with it according to their ability and practices” (MS2).

Having a recycling system that is appropriate for Jordan is very advantageous and would create jobs and business opportunities. Most of the waste in Jordan goes to the landfill with a very small portion being recycled; creating jobs with a sense of considering the environment seems to be a very honourable path. Respondent expressed a deep sense of what the recycling should be from different perspectives:

“... in my opinion, we follow kind of environmental practices when it’s come to water and electricity but, in Jordan for example, the waste including all types of waste, is not managed... we just mixing the rubbish together and all of it goes to the landfill” (MS2).

The analysis of MS transcripts reveals that the interviewees have shown conscious awareness of the importance of environmental sustainability. Also, MS interviewees show understanding of the challenges that Jordan faces in related to the scarcity of water and natural resources. Moreover, the respondents confirmed there is a responsibility on the government, hotels management as well as other sectors including the community to work together and to take more thoughtful steps toward sustainability and environment conservation.

Sustainability concept in the Jordanian hotel industry is gaining momentum in the last few years. A respondent from F&B department indicated that sustainability is seen as a positive movement toward achieving not only competitive advantages but also towards protecting the environment. Hotels are working toward following environmentally friendly practices in daily operations to save money, gain more profit and attract more customers.

“...as a concept, it means to me running the business in a responsible way ... saving resources (water and energy), recycling and manage the waste” (F&B1).

According to the respondents, dealing with sustainability is a part of their daily routine. Saving water and energy seem to be the most important aspects of environmental performance according to the respondents. A range of energy and water saving initiatives have been implemented in many five-star hotels in Jordan along with preliminary actions toward recycling and using recycled materials. Taking a few simple steps to waste less and recycle more, and by working out the cost of food waste to the business, hotels can earn financial as well as environmental benefits. The waste management initiatives as revealed by F&B respondents are summarised by the reuse of soft drinks glasses and bottles for kitchen purposes and the separation of cardboard,

papers, cartons to be recycled by specialised companies. As the respondents described, commercial waste is collected at the landfill site; waste is separated on an ad hoc basis and transported to recycling industry by private initiatives.

“The concept of sustainability in F&B department is a common term... some technique such as reducing waste as much as we can (especially edible food waste) ... we use recycled materials also” (F&B2).

Respondents considered the concept of sustainability should go further than reducing consumption and include more stakeholder in the process. These additional stakeholders were both suppliers and buyers. According to F&B participants, sustainability includes buying from local farms and businesses. The participants demonstrated some of the hotel's initiatives toward hosting educational, social events and presenting local farmer's produce in their hotel to stimulate buying from local farmers.

All respondents from Food and Beverage Departments emphasised the importance to involve the local community and local business in the process of sustainability through bazaars and gift shops. Many five-star hotels in Amman host social, art, community bazaars each year. Christmas period is a festive season to host food and art bazaars. In these bazaars community members display their homemade products such as food like pickles and sweets, handmade traditional items, and objects made from recycled materials, or antiques.

Housekeeping Departments respondents indicated that the sustainability concept was well understood and they worked with it on a daily basis. In recognition of

environmental degradation, government and all sectors of the economy have become gradually more aware of the need for more effective measures to protect the environment. To achieve visible improvement, hotel managers and operators must be eager to act in an environmentally responsible manner. They also need to have enough knowledge of the environmental issues relevant to their activities, and sufficient funds to implement state-of-the-art environmentally sound practice (Bohdanowicz 2006).

“means to me not just saving water and energy, it means to protect the environment from the harm that hotels can cause; the concept should be understood as comprehensive” (HK).

The respondents claim that the concept should be comprehensively understood from different perspectives to include the attitude toward protecting the environment not only looking for saving costs. Dissemination of the knowledge about the concept of sustainability can help stakeholder to uphold the value of having sustainable practices. In return, that can improve the hotel image and save the operation cost. Hoteliers and another tourism operators can take part in the process by advertising the environmental obligation in their amenities and inviting guests to contribute in pro-ecological activities. Tools of informal education, in the form of brochures, exhibitions, ecological corners, seminar, and multimedia presentation kiosks, can also be used. By applying for eco-labels, which can then be prominently displayed e.g. in rooms, bathrooms and near light switches, hoteliers can further facilitate the customer decision-making process.

“Concept of sustainability in hotel industry in Jordan mainly five-star hotels is a common term... generally hotels in Jordan promoting this concept in term of saving energy, water, and recycling... the idea should be disseminated in straightforward and

comprehensive manner to get more attention by all stakeholders involved in the hotel industry” (HK2).

Respondents admitted that the concept of sustainability is promoted in terms of saving water, energy and recycling. All parties should work together to disseminate awareness of the importance of sustainability. Although the hotel sector was perceived as creating less pollution than sectors like mining, chemical or manufacturing the public and consumers are demonstrating growing concerns with the hotel industry's negative impacts and are gradually becoming more interested in learning about the efforts that hotels undertake to alleviate them. Housekeeping respondents stated that saving resources and environment responsibility are the focus of the sustainability concept. Respondents gave some examples of what can be considered as best practices such as using energy efficient equipment, like light bulbs, installing solar heating systems and increasing natural ventilation to save energy and water as well as save the environment by using the less hazardous materials and chemicals in cleaning duties.

Sustainability concept is gaining more weight in the last few years. Even in developing countries like Jordan, the concept attracts more attention among all economy sectors. The concept of sustainability from Purchasing Department interviewees varied from the general aspect of the concept to more specific to green procurement. Purchasing Department participants showed a rational understanding of sustainability meaning which includes, as described by Sloan, Legrand and Chen (2012), meeting the present generation needs without compromising future generation resources.

“I believe sustainability is about to improve the quality of our life and be aware of the environment and save it for our next generation” (P2).

The concept of environmental sustainability, specifically within the purchasing Department, refers to purchasing of goods and services that reduce the negative impact on the environment. It is also about procuring goods locally as far as practically possible to reduce the pollution and costs associated with ‘miles travelled between production and consumption’. When considering food products that are out of season or need specific heating or cooling temperatures, costs increase in proper storage facilities as well as transportation costs. The Purchasing Department has a significant impact on the hotel’s overall financial and environmental performance.

“Sure, we consider the environment in every purchasing deal. I mean packaging, operation or when we buy any product” (P1).

Moreover, the participants asserted that they focus on environmental criteria in their procurement strategies. Environmentally preferable standards in the procurement process have the power to reduce or even eliminate waste and environmental impacts as well as reduce operational cost in consumption, waste elimination and storage. The next section explores the last of the five departments reviewed i.e. the kitchen and production facilities.

Respondents from K department defined the concept of sustainability from different views. The participants showed their awareness of the hospitality industry’s negative impact on the environment. The participants asserted that they follow certain policies for measuring and evaluating their current practices.

“Hotels in Jordan demonstrate the concept of sustainability in all activities... the idea of sustainability extends to include way of thinking to be responsible toward the environment and community” (K1).

“Jordanian hotels know what the concept mean but the application of the practices not going to the best outcome because the concept need to be explained and put in practices not just have it as slogan” (K2).

The analysis of the transcript of the interview has shown that participant from Kitchen department has a good understanding of the meaning of sustainability concept. In addition, it reveals that the concept of sustainability in Jordanian hotel context is well known, and hotels deal with it in daily operations. However, environmental sustainability practices should be taken more seriously and should integrate all aspects.

“In the last few years in the hotel industry in Jordan, sustainability become the new trend which involved in all the industry aspects and operation... decoration, services, food ...all should be environmental ..., if you want your business to be successful you have to keep the environment in your considerations” (K3).

The following section will discuss the second generated theme which has been identified through analysing the qualitative data. Operational sustainability aspect, which includes energy management, water management and waste management, will be discussed through each department.

5.3 Operational Sustainability

The Jordanian hotel industry is working toward promoting actions to make their hotels more sustainable and reduce their impact on the environment. The hospitality sector in general and hotels, in particular, have a dramatic negative impact on the environment through water and energy consumption, use of consumable and durable

products as well as waste creation including solid, hazardous and food waste. Hotels consume an very large amount of energy for operations, lighting, fuel, and other power needs. Water is used for bathrooms, laundry as well as other general activities (irrigation, cleaning, and maintenance). Waste is generated by the disposal of paper, batteries and bulbs, furniture, equipment, appliances, food and more.

The following section will discuss the operational sustainability practices followed in five star hotels in Amman, Jordan through five operational departments. The operational sustainability subthemes are energy saving, water saving and waste management.

5.3.1 Energy Saving

A great proportion of energy consumption is used in air-conditioning, lighting, and hot water in the hotel operations. Thus, selecting the proper technology and equipment and dropping air-conditioning and lighting energy consumption is the key to energy savings in the hotel (Zhao et al. 2012). A set of general and specific questions have been asked to participants from Maintenance and Security departments to investigate environmental, operational practices followed in their hotels.

In regard to energy saving, MS respondents mentioned various practices that help save energy and, as a result save cost. Profit and saving cost are the driving factors that encourage hotels toward responsible and sustainable operations. Financial saving can be achieved by investing in better environmental, operational procedures and emerging environmental technologies.

“Our hotels make right steps with saving energy by replacing the old lights with new power savings bulbs; this action saved much money on the electric bill, not sure how much saving, but am sure it saves a lot of dinars” (MS1).

Power saving bulbs are widely used in Jordan. Householders are making the steps of changing their non- saving lights with energy saving bulbs. Business firms are also exploring any opportunity to save on their electric bills. Hotels industry in Jordan is considering power savings bulbs for two main reasons; firstly, to save money on their electric bills and secondly, to reduce the negative impact on the environment.

“Energy conservation in the hotels is a big challenge as you know Jordan generate most of the electricity by using the petrol, the petrol price going up, as a result the electric bills rising fast, our hotel using power card for the guest’s room to control the lights this make some saving, another thing is switching light off in the public area where that possible and when guests not using them” (MS2).

Energy conservation in Jordanian hotels is addressed as an essential element of sustainability practices. However, what the respondents stated refers to simple methods, for example changing the old bulbs into energy-savaging bulbs. Some hotels are considering other aspects of saving energy such as using solar power for heating the swimming pools instead of heating them by electricity.

“Hotels now adopt solar power to save money ... in Jordan, hotel partly using solar power for water heating and now thinking to use the solar power to generate the electricity” (MS3).

Energy savings in Jordanian hotels is considered as a significant challenge as the government is putting the electricity price up as a result to the global rise in petrol prices. Respondents expressed their concerns as there is no effective coordination between the stakeholders to make an outstanding improvement regarding energy

saving. Jordan has abundant supplies of new and renewable energy sources, such as oil shale and solar power. Nevertheless, crude oil has primarily dominated the Jordanian energy sector for the past four decades. It has been the chief energy source for economic and social developments (Jaber et al. 2003).

Practices to save energy as interviewees from MS departments stated include using low-energy lighting and energy saving bulbs. Also, as the participant noted, when replacing or buying any product they consider energy efficient goods and technologies that need lowest electrical running cost.

Food and Beverage department respondents rated the energy savings as the priority for their hotels by using energy saving appliances in their department. There are many ways to save energy in F&B departments such as installing or replacing faucet aerators, replacing older pre-rinse nozzles, maintaining walk-in refrigeration unit doors and installing demand-responsive ventilation conversions.

“Energy saving in F&B department is critical as the unit using much equipment that environmental and save energy consumption. Hotel management replaces the old electrical equipment with new energy conservation to conserve energy... for sure the new stuff with saving energy label consuming less energy” (F&B1).

Respondents stated that hotel management is replacing the old equipment in F&B departments with new energy saving appliance. Energy savings in food and beverage department tend to be essential because of the intensive utilisation of energy in this department.

“F&B department uses too much energy to cook and prepare the food, store the food, refrigerators, lighting, dishwashers ... we consider all opportunity to conserve energy in our department” (F&B2).

The respondent stated that there is very close coordination between the director of the department and hotel management in seeking recommendations of what are the best ways that can save energy in F&B department. All faults and recommending alternatives such as buying new energy saving appliances are also reported.

F&B department has a policy of saving energy that can be done by many ways such as installing energy saving bulbs and maintaining the equipment on a regular basis, with staff coordinating the effort to save the energy by reporting any issues related to saving energy to hotel management. Energy saving is considered as a common goal in the hotel industry. In Jordan, hotels are willing to use energy efficient appliances to reduce energy consumption and thus attain financial savings.

As discussed earlier, interviewees from Housekeeping department have shown understanding and awareness of environmental sustainability issue. However, this section will highlight the specific operational practices followed in Housekeeping department to save energy. In this regard, all interviewees confirmed that they follow certain practices to save and reduce energy consumption wherever possible.

Housekeeping is one of the main departments of the hotel which has typical responsibilities including vacuuming, dusting, laundry, mopping and waxing floors and changing and laundering linen. Therefore, this particular department is also responsible for a significant amount of water and energy consumption as well as creating toxic waste through the use of chemicals for cleaning purposes.

Housekeeping department considers energy saving while operating their everyday working routine.

“...it’s the staff responsibility to keep the energy as minimal as possible ... our staff is well trained on how to save energy; hotel management provide the staff with simple

procedures such as pamphlets and direct supervision to keep them updated with dealing with the energy saving issues” (HK1).

According to HK1, hotel management provides the staff with simple training and instructions on how to save energy through direct supervision, or what is called (in-job training). To entrench energy saving practices among staff and employee, hotel managers have to consider the implementation of energy efficient technologies and more importantly enhancing energy behaviour among employees (Zografakis et al. 2011).

“HK department deals with all aspects of cleaning activities in the hotels... all machines are required power. I believe energy saving can be achieved by using energy efficient new technology in addition to engaged employees and strict supervision” (HK3).

Respondent pointed to the energy efficient appliances which have been adopted in their hotels. In addition, having responsible employees who are aware of the importance of the outcomes in regard to environmental conservation.

“Our department plays a vital role toward energy saving in different ways such as buy and use energy efficient appliances, equipment, and machinery. Staff who operate the machines can play the central role to save the energy by following easy and valuable practices such as turning off lights and air-conditioning in the rooms not in use open curtains whenever possible to let sunlight in the rooms during the cleaning work” (HK2).

The respondent described the practices followed to save energy consumption as easy, accessible and valuable. The respondents showed awareness of the importance of following these practices as well as the ease and affordability of these practices. Moreover, hotel management should realise the importance of developing an

environment where employees can take an approach toward further energy conservation through different means such as hanging posters in the staff room, in job training and staff meetings.

All interviewees from housekeeping departments described energy saving practices followed in their hotels. The energy saving practices and appliances used in five star hotels in Amman regarding energy conservation include having systems to control and monitor heating, ventilation and air conditioning, and using low-energy lighting. In addition, it is found that adopting energy efficiency measures are not only going to prove financial benefits but are also likely to benefit the reputation of the hotel.

From purchasing department point of view in regarding energy saving, tracking utility bills can help hotels monitor the effectiveness of following energy conservation initiatives. Installing energy-efficient tools such as appliances, lighting and heating/cooling systems were examples of energy saving practices discussed with interviewees. As discussed earlier, hotels use significant amounts of energy for daily operations and recreational activities. This basically can be seen in building temperature control and general services in the hotel.

Energy saving in hotels tend to be number one priority and easy to apply in some cases such as by replacing the old lights with energy saving ones. In addition, hotels may consider new technology of energy savings by “using solar panel to generate power that will save many electricity bills, at purchasing department we can save energy by adopting sustainable practices such as green purchasing policy which is about obtaining environmental and local resources wherever applicable” (P1).

Electricity and solar power are the forms of energy used in Jordanian hotels facilities. Electricity is used throughout the guest’s accommodations for several tasks, including lighting, water heating, air conditioning, laundry operations and desalination, while thermal energy is mainly used for hot water in guestrooms, kitchen, and the laundry.

“As the electricity prices in Jordan are going up hotels consider all possible ways to save especially in term of electricity. The purchasing department is now playing the main role to save the energy, for example when we make an order to buy appliances we are looking for the most energy efficient appliances. We do have a sustainable policy in all aspect of our department operation such as buy organic, fair trade, cruelty-free guest amenity products whenever possible” (P2).

The role of purchasing departments toward saving energy is to purchase goods and services that meet energy efficiency criteria. Purchasing energy-efficient products can reduce the hotel facility energy costs. In addition to reducing energy costs, energy-efficient product procurement can lower maintenance costs as energy-efficient products require less frequent replacement and enhance pollution prevention and resource conservation activities. The interviewees from purchasing departments have demonstrated good understanding about energy-efficient product procurement activities which can produce significant energy, environmental, economic, and other benefits.

Energy saving in Jordanian hotels is a key point when discussing environmental sustainability. As discussed previously, initiatives toward energy conservation consistently exist in Jordanian five-star hotels. These efforts include changing the old light bulbs with energy efficiency bulbs, adopting energy star certified appliances such as ovens, stoves and refrigerators.

“As a result of increases, the energy price in Jordan, hotel industry tries to save as much as possible to save the cost. Our energy sustainability policy is to consider any single opportunity to make it happened. In addition to changing the lights bulbs into savings ones, the hotel motivates the staff to make saving energy as a daily routine. Our hotels switch the light off when the area not busy; we encourage customers to

reduce energy consumption whenever that possible for example the reuse of towel programme that can reduce the energy consumption” (K2).

Interviewees from Kitchen departments have ranked the hotel's energy saving practices as very high performance. The respondent asserted that they consider energy efficiency appliance and appliances with the energy star seal at their hotels.

“Energy savings in Kdepartment is crucial because the department consumes much energy on a daily basis, hotel considers the appliances with energy saving certification that can help to reduce the power consumption” (K3).

Moreover, energy efficiency practices are the extent to which energy is used efficiently to produce products and services to customers. To become energy efficient, unnecessary consumption of energy should be avoided. The participants highlighted some practices followed in their department to achieve energy efficiency in their hotels. According to the participants, energy efficiency practices involve some activities such as employee's behaviour change regarding energy consumption, coupled with energy efficient equipment choices and use.

“I motivated my staff on Kitchen department to save energy consumption by providing them with simple and easy to follow instructions such as turning the power socket of when no need for the appliances attached to it” (K2).

Just as any business, hotels depend heavily on the performance of the employees to meet the demands of customers and guests; the energy efficiency plan needs the support of the entire team to achieve the desired outcomes and attain energy efficiency benefits.

5.3.2 Water Saving

The water scarcity in Jordan is getting worse after around 1 million refugees came to Jordan from neighbouring countries especially from Syria in the last few years. Jordan is struggling to meet its own residents water needs, but since the refugee influx the issue of water shortage has become even more challenging. Hotels consume a significant amount of water every day in their operational activities which include cleaning, laundry, bathrooms, swimming pools, irrigation, recreation, services, food preparation and other aspects. The high cost of water and its limited availability all result in hotels trying to save water.

“Hotels using water saving devices to reduce the water consumption in most of our operations, using the dual flush in toilets and use saving shower head, I believe that saving water resources in Jordan should be everyone concerned as the country having real challenges on water supply” (MS1).

“The water prices are going very high, and hotels spend much money on water bills, I think hotels can do more if they encourage the guests to reduce the water consumption encourage them to reuse the towels for example, by this mean we use less water for cleaning and washing the sheets” (MS2).

There are many water-savings devices in the hotel industry; the most commonly used include the dual flush system and shower head. Rainwater catchment and harvesting is another technique as sustainable and cheap practices of water saving but unfortunately most of the hotels do not utilise this option in their consideration of sustainable practices.

“Jordan is having water problem... serious problem ... and the prices are going up over the time, we trying to be wiser by using water saving systems such as shower head and dual flush toilet system” (MS3).

Respondents from MS departments expressed awareness of the water supply problems in Jordan. Moreover, the participants illustrated the hotels initiatives toward being more efficient and water wise by using simple and creative techniques such as using lower voltage bulbs and devices. The respondents also suggested that the hotels should also encourage customers to be wiser when using water in the hotel facilities. Hotels should think and create more ways to encourage the customers to be more responsible for example using the reuse towel programme to make saving in the laundry water use as well as hanging posters where possible to remind customers and employees.

In summary, Jordan has one of the lowest levels of water resource availability per capita in the world. Water scarcity will become a greater problem over the next two decades as the population doubles and climate change potentially makes rainfall more uncertain and variable. Scarcity of water supply has been highlighted by respondents as a major problem especially in the hotel industry. Respondents expressed their opinions and uncertainty about water shortage in Jordan and how that is affecting the hotel industry.

The great environmental challenge that Jordan faces today is the scarcity of water. Indeed, high rate of natural population growth, combined with a massive influx of refugees, has transformed a comfortable balance between population and water. The situation has been exacerbated by the fact that current use exceeds renewable supply with the problem of the quality of water (Hadadin et al. 2010, pp.200).

Saving water in the F&B department is very important in our hotel we consider water as priority as the country is facing real challenges in water supply.

“Our department installed water saving devices to reduce the consumption of water used in the department. Our hotels encourage the staff to use the water wisely by teaching the staff how to save the water by providing specific policy to each department. Hotels held session on saving water for the staff from time to time” (F&B1).

The respondent noted that the hotel where he works considers saving water as an imperative. The hotels work toward saving water consumption through installing water efficient devices and by educating and teaching the staff on how to use water wisely. Water utilising is a key input in Food and Beverage department and is essential for a variety of purposes. A number of water saving initiatives exist in five star hotels in Jordan. These initiatives include efficient equipment use and following simple practices to reduce water consumption.

Using water efficiency machines such as dishwasher and laundry can reduce water consumption and consequently saving costs. Also, saving the water can contribute to achieving the sustainability vision of the hotel. Respondents claimed that the staff should operate the machines economically to save the cost of the operations. This is achieved through simple measures like not running the machines unless they are full and running them on economy cycles and using cold water when possible. Moreover, as the participants remarked on the practices that were followed in the hotels regarding water consumption, they highlighted the lack of policies and procedures that deal with water waste in Jordan and particularly in the hotel industry.

Water scarcity is a remarkable problem in Jordan, where demand for water is exceeding the supply. As discussed earlier, almost all participants have shown a deep and clear understanding of the water shortage problem in Jordan. However, this section will highlight the water saving practices followed in Housekeeping departments. While housekeeping department consumes vast amounts of water for cleaning, the department also supports a set of water saving practices to reduce their water consumption.

“Jordan is struggling to supply water for the household and industries. I am very concerned about how Jordan will meet the high demand for water in all sectors... our hotels, we try to be very wise on consuming the water because first to save the operation cost and save the resources. We apply water saving policy such as using water saving in toilets flush and water savings showerheads devises” (HK1).

Having water policy in place and conducting training to inform staff of how to reduce water consumption is vital. According to HK interviewees, procedures are followed in five-star hotels to conserve water use. These include fewer times to flush the toilet when cleaning, not to leave taps running or use excessive water, using a mop rather than a hose when cleaning floors.

“Water saving policies in hotels should consider more actions like rainwater catchment to save water ... the government introduced water saving agenda. But what we can see that most of the people in Jordan do not have enough water supply. The hotel should do more to educate the staff and even customers on how to save the water” (HK2).

As the respondent highlighted, an important aspect of implementing water policy is to communicate with and educate the staff as well as the community. Moreover, as the respondent noted, the government plays a vital role regarding saving water

consumption not only by supplying water but, equally important, by enhancing the community attitudes and behaviours when it comes to water consumption. Where water is in short supply, being aware of competing demands for water and availability issues for a local community is vital. Hotels should cooperate with local communities when it comes to water consumption, rather than just taking supplies from them.

“Yes, we do follow practices to save water... we always encourage staff do be wise when consuming water... but, I think water saving in hotels especially in Jordan (very limited water resources ... even limited waterfall) should get more attention. Hotels can save much water that the community needs by having strict water action plan ..., water saving in Jordan should be everyone responsibility” (HK3).

Hotels can play a significant role in educating guests about water issues in Jordan and the importance of following water conservation practices. Simply, this can be done by communicating the hotel water policy and making it noticeable for customers through employees’ practices. Jordanian hotels are responsible for delivering to guests the importance of freshwater resources within the area and provide opportunities to allow guests to use water wisely.

Like other departments, interviewees from the purchasing department recognise the issue of water scarcity in Jordan. The participants discussed the operational practices followed in their hotels toward achieving water saving. The respondents asserted that they are promoting the purchase of water conserving products.

“Water scarcity in Jordan is major concerns for everyone, hotel is not exception, our hotel implemented water saving technique to save the water wherever possible for example the Duel-flush system in toilets and water saving shower head applied to minimise water consumption” (P1).

“The purchasing department is an important department and can make a difference in water saving as you know all buying should go through this department when other departments make an order department can help to choose the water efficiency devices or machines, there are many new products in the market with water saving technique, so.... I believe that P department plays the central role when to give advice to management when making purchasing orders” (P2).

Hotel management required creating of a water conservation plan which must be communicated clearly to all employees from all the business departments. Each operational department can play a significant role, through their responsibilities, to achieve a water conservation plan. Efforts should be integrated and coordinated with all departments, management, customers and community.

With regards to water, all interviewees from five operational departments agreed that the Kingdom of Jordan is facing a huge, challenging water scarcity. Kitchen Department interviews highlighted the operational practices followed in their hotels to reduce and manage water consumption.

“Jordan is a poor country in the water supply. It is very crucial for hotels to save water especially in Jordan, we make some steps to save water by install water saving taps heads, even in Kdepartment we encourage the staff to use water wisely by operating water saving appliances such as dishwashing machine, we educate staff members to use the resources in a smart way, and we have dedicated staff care about water savings” (K1).

Upgrading dishwashers, ice machines, and steam cookers to Energy Star qualified tools are practices followed in K department to reduce water and energy use. These

appliances typically use less water by reusing water throughout cycles. Also, educate employees on water saving and reusing techniques to reduce the overall water used.

“Saving water in Jordan is everyone concerns as the country facing significant challenges in term of water supply hotel should consider every opportunity to save water, from water-saving devices such as taps savings head to water catchment, our hotel teaches the staff how to save the water in an easy way such as turn the tap off if you not using it, it is very important to keep staff motivated to follow sustainability practices in water saving” (K2).

The respondent confirmed that they follow a comprehensive guide to water-saving technologies and processes in the department. Installing low-flow fixtures, such as faucets, toilets and showerheads, reduces water consumption are some aspects of water conservation measures in hotels kitchens.

“Our sustainability policy includes water saving part, water supply in Jordan facing real challenges because Jordan do not have enough water supply when it comes to tourism and hospitality sector the consume huge amount of water that what making the problem worse ,as a result water price in Jordan is more fluctuate and hotels pay higher price because the use much water to accommodate customers, we try to save water by install water saving devices and encourage staff to use the machines and appliances wisely” (K3).

Kitchen departments in hotels consume a significant amount of water and energy and produce waste while preparing and delivering the food to the customers. The analysis of data collected highlighted the actual water conserving practices followed in K department. Moreover, the analysis showed the extent of awareness among all interviewees from five operational departments of the importance of following water efficiency strategy. Conserving water will not only save money, but it will also provide

a major marketing advantage in such a competitive industry. Protecting the country's limited water resources is a significant part of maintaining that competitive advantage.

5.3.3 Waste Management

There is a lack of a distinct policy and strategy dealing with waste in Jordan. Jordan still has not developed strategies to manage waste through reduction, reuse and recycling. All respondents from Maintenance and Security departments were in agreement that waste management in Jordan is not well managed. Moreover, the respondents asserted that the government should enforce regulations and policies on all manufacturing and service sectors to address the problem of waste management. All respondents noted that waste management in Jordan generally, and in the hotel's industry specifically, needs a lot of work and serious initiatives. They especially noted that despite the efforts in the hotel to recycle this was not followed through and everything ended up in landfill.

“Our hotel is adopting recycling program and we separate the rubbish per its types such as carton and plastic. But at the end of the way most of the rubbish going to the landfill” (MS1).

“The garbage mostly mixed and the municipality rubbish truck is taking it to the landfill. I think that recycling is massive industry in some country but in Jordan we still very behind in this regard... unfortunately” (MS2).

“Our hotels buying reusable and durable martial that contribute to minimising the amount of rubbish produced by our hotel... all rubbish just go to the landfill... unfortunately, that's what is happening” (MS3).

Five star hotels in Jordan are taking steps in tackling the waste in the proper way by having a policy related the recycling. Jordan is still in the infancy stages of having

recycling programs and enforcing them. When probed the respondents mentioned that there are some private companies collecting commercial and industrial waste and direct transport of waste after collection to transfer stations and landfills. However, Jordan follows unsophisticated practices regarding solid waste management which include limited separation of useful materials in landfills and partial recycling of certain kinds of waste.

Waste management sector is one of the major challenging issues in Jordan. A respondent from F&B department claimed that waste management needs more attention from the government and hotel industry firms. The respondents expressed concerns and suggestions on how to address the issue. Relating to waste in the hotel industry the interviewees admitted that they have a waste policy in each hotel, but they expressed they're concerned about the policy and the practices in the hotels themselves and the waste treatment outside the hotels. Food and Beverage departments are responsible for creating massive amounts of waste while preparing, cooking and serving food. Waste produced from this particular department includes solid waste, water waste and food waste.

“The hotel implementing waste policy in such as separating waste in the public area in the hotel one for recycling and the other for rubbish ... water waste just go in the sewage” (F&B1).

The respondent noted that they have a recycling policy. Having a policy does not guarantee a proper way of treatment of the waste. The solid waste sector is among the target areas of the Government National Agenda (NA) for Sustainable Development. The NA which represents the government's policy for a ten years' period (2006-2015), has established many objectives to extending waste service coverage by providing

financial, technical and human resource capacity-building to empower concerned authorities, promoting environmentally sound solid waste disposal and treatment and minimising generation of solid waste.

“Waste management in Jordan may need more attention as I think there is a lack of awareness among the public on what the recycling means, even in the hotel industry the awareness on recycling need to be addressed by teaching the staff and engaging the customer too in such initiatives related to the recycling” (F&B2).

The respondent claims that there is recycling policy taking place in the hotels but needs more attention such as training the staff to apply sustainable practice to minimise waste as much as possible and to follow recycling and reusing programs. The respondent suggested investing more resources in educating the staff on how the rubbish should be treated to get the maximum benefit. The best practices of hoteliers to reduce waste include recycling paper, plastic, plastic bottles, wine corks, bathroom amenities, cooking oil and even water; reusing materials; composting; or buying in bulk.

“F&B department produces much waste. But we are applying recycling policy to minimise the waste as much as we can, hotels keep employees informed about the best recycling procedures by issuing memos and periodically reviewing procedures and Monitor procedures on a regular basis to make sure that proper routines have become a habit and continue to educate as is necessary” (F&B3).

The respondent mentioned that there is a regular check from the management on the recycling policy in practice in a proper way to maximise the benefit as well as generating less waste which often can be achieved by stopping practices and substituting less waste-intensive strategies to meet operational or administrative objectives (Cummings 1997).

As mentioned earlier, hotels are responsible for generating a significant proportion of waste. Waste in hotels has many components, including paper, food, various metals, plastics, aluminium, and glass. Analysing of interviews transcripts show that interviewees from Housekeeping departments are aware of the issue of waste management in Jordan.

“Waste management in Jordan still not reasonable industry when it comes to commercial aspects, for this reason” (HK1).

Waste management in Jordan has been improved for the last 15 years since the mid-1990s, with the improvement of the legal framework and institutional capacity to be the main drivers of the sector’s development. However, there is a lack of clear and well-defined policy and strategy.

“The hotels in Jordan not paying much attention to the waste ... most of the waste goes to landfill with little go to recycling...government and privet sector should corporate to have recycling industry in place in Jordan otherwise we lose recourses” (HK2).

“Hotels have a waste policy in practices; we separate the rubbish into categories waste and recycling cardboards, cans and plastic. Jordanian hotels produced large amount of waste but tiny proportion goes to recycle, and that is tremendous loss” (HK3).

The respondent noted that despite the lack of clear regulations that deal with waste management, the hotel follows simple practices to manage the waste these; practices include recycling and reusing. Hotels can reduce the amount of waste produced by applying and following waste management practices that are demonstrated around the concepts of reducing, reuse and recycle. Moreover, employee involvement is necessary for the achievement of any environmental program. Employee engagement

through educational opportunities, effective supervision, newsletters, and other means, encourages staff to become involved in a hotel's environmental program.

Interviewees from purchasing departments similarly confirmed that their hotels adopted and monitored the use of sustainable standards in procurements. The purchasing strategy involved reviewing the products and services that the hotel purchase regularly and selecting ones with reduced environmental impact. These standards are applied to all the major items in the hotels including equipment, energy, water, paper, cleaning, and furniture. In regard to waste management, both interviewees asserted that the issue of waste management in Jordan generally and in the hotel's industry particularly is underestimated.

“Waste management in Jordanian hotel industry needs more attention. Waste can be assets if managed in a smart way. Unfortunately, most hotels rubbish goes to landfills which are huge loose, our department tries to minimise the waste by different means such as by reusable and recycling products, and give priority to environmental products when they are making a purchase” (P1).

Sustainable procurement policy stimulates the market regarding a more innovative and sustainable approach to procurement. Sustainable procurements also involve examining the entire product life cycle from start to finish as well as exploring the possibility of fair-trade, certified organic and local products.

“Purchasing department can make different in waste management matters, for example, avoid buying disposable products and unnecessary packaging, encourage the other department to purchase container and reuse grey water for cleaning and watering plants, separating rubbish is another technique on the hotel to sort the rubbish into recyclable and non-recyclable I believe in reduce recyclable to get efficient waste management” (P2).

Regarding waste management practices within the purchasing department, the respondents noted that selecting environmentally friendly and socially responsible products is part of the hotel procurement strategy. Moreover, hotels are working toward reducing the purchasing and the use of environmentally harmful substances such as toxic chemicals. Furthermore, waste and mainly food waste has become a big issue in all hospitality sectors including hotels. There are many aspects in which food waste impacts the environment. Understanding the effects is the first step in helping to make a difference.

“We do have waste management policy in the hotel; we separate the recycling material from the rubbish ... we produce a lot that can be used as fertilisers but unfortunately goes to landfill end of the day” (K1).

As mentioned earlier, waste management in Jordan is not getting enough attention from the government. As a result, hotels not taking sufficient action to deal with waste. Most of the hotels rubbish is mixed and goes to the landfill with a small amount being recycled such as cardboard, papers and cans. Hotels can reduce the waste by measuring food waste and developing an action plan to reduce food waste.

“Our sustainability practices to reduce the waste as much as we can and to manage the waste afterwards. The problem here in Jordan that the waste management need to be addressed. we do have the policy to separate the rubbish from waste and recyclable there is some company ... edible food goes to charity, but the rest go to the garbage” (K3).

At this stage, hotels in Jordan do not have exact figures available for the cost and volumes of food waste produced in this industry. According to the interviewees, a huge amount of leftovers and surplus food is just throw away in the rubbish daily. In addition, allowing all the food waste to be sent to landfills is harmful to the

environment, because the waste produces methane upon decomposition which contributing to global warming. The respondent asserted that regarding leftover food, they donating food items to non-profit organisations.

“Kitchen department plays a major role in minimising food waste by just ordering and preparing the necessary amount of food as possible as we can... If there is excess, donate it to people who really need the food instead of just throw in the rubbish” (K3).

5.4 Conclusion

This chapter discussed the main themes and sub-themes derived through the analysis of the semi-structured interviews qualitative data of 13 interviews conducted with participants from five different operational departments. The two main themes are business sustainability and operational sustainability. The sub-themes for business sustainability are sustainability strategy, promoting sustainability responsibility and the concept of sustainability. The subthemes for the operational sustainability which were discussed earlier in this chapter are energy saving, water saving and waste management. The following chapter will conclude and summarise the findings and the analysis to answer the research primary and secondary questions.

Chapter 6 DISCUSSION AND CONCLUSIONS

6.1 Introduction

Chapter 6, the final chapter of the thesis discusses the findings of the survey data analysed in Chapter 4 and data from the qualitative semi structured interviews described in Chapter 5. Additionally, it concludes with ideas for future research and implications of the study for research, stakeholders and communities involved in tourism in Jordan. The key features suggested relate to actions for both business and operational sustainability and serve as a benchmark for accommodation facilities of all levels in the Jordanian hospitality and tourism industry.

Sustainability in the hospitality industry has gained momentum over the last two decades. The hotel industry has established significant efforts toward sustainability. Sustainability practices in the hotel's industry include- efficient use of water and energy consumption, waste management and local purchasing. Also, sustainability has received noticeable attention from customers with their interest in 'green' hotels. Moreover, rapidly advancing technology encourages the hospitality industry to improve their performance and save on operational costs such as using solar power to generate electricity, computerised and automated water systems and lighting and heating systems that are sensor activated hence reducing the environmental impact.

In 2004 Jordan adopted the first National Tourism Strategy (NTS) (2004-2010). This is the first comprehensive strategy that put the tourism industry on a path to improving the sector's capacity for sustainable practices. Strategy was produced as a result of a partnership between the tourism stakeholders from both the public and private sectors to coordinate and steer the development of the tourism and hospitality industry.

The launch of this strategy enabled Jordan to strengthen its standing as a destination of preference for both visitors and investors. The second NTS 2011-2015 emphasised how the tourism and hospitality sector can adopt long-term sustainability goals, by considering the three pillars of sustainability processes, social, economic and environment. Hotels are responsible for producing significant amounts of waste and consuming an excessive amount of water. Hotels always attract adverse reactions regarding resources depletion. Currently, hotels strive to improve their performance by adopting sustainable environmental practices to save water and energy, as well as to reduce the waste. Moreover, hotels plan to include stakeholder involvement to achieve environmental sustainability performance. The hotel industry in Jordan is considered a critical part of the economy but the research on sustainable practices in the environmental and business aspects has been under-researched.

This study investigated sustainable environmental performance in five-star hotels in Amman, Jordan. The primary aim of the study was to determine the impact of business and operational practices of five-star hotels in Amman. Data collection was both from a survey as well as semi structured interviews from primary stakeholders such as hotel managers, and staff members from different managerial levels. The research methods

used in this study included paper and pencil survey, field visit and semi-structured interviews as well as secondary data analysis of artefacts and media.

All thirteen five star hotels in Amman Jordan were researched as part of the thesis. Interviewees were employees from different managerial levels and held titles such as Managers, Senior Executives, Supervisors, Chefs and floor staff from five different operational departments which are Maintenance and Security (MS), Food and Beverage (F&B), Kitchen (K), Purchasing (P), and Housekeeping (HK). A total of sixty-five surveys were collected, and thirteen interviews were conducted for this study. Thematic analysis was used to analyse the qualitative data resulting from the interviews, while descriptive statistical analysis was used to analyse the empirical data from the surveys in this research. The questions on the survey and interview checklist were customised to reflect the orientation and work functions of each of the operational departments. For example, Housekeeping respondents were asked specifically about sustainability associated with Laundry facilities on site and the usage of chemicals for cleaning and Kitchen staff were specifically asked about waste management around organic and inorganic waste processes of food and materials.

6.2 Conclusion about the Research Questions

The following section of this chapter covers the conclusions drawn from the study findings this is then followed by a recommendation for future studies and policymakers as well as recommendations for the hotel industry. The final part of this chapter covers the limitation of this study.

The primary research question is:

What business and operational practices are followed by five-star hotels in Amman, Jordan to achieve sustainable environmental performance?

To answer the primary research question, data was collected from five operational departments through all thirteen five-star hotels in Amman. The sustainable practices have been categorised into two groups: firstly, operational practices which include energy saving, water savings and waste management. The second group is business sustainability which includes sustainability strategy, promoting sustainability and the concept of sustainability.

The findings from empirical and qualitative data showed that the five-star hotels applied different sustainable practices in their daily operations to achieve sustainable environmental performance. Most of the respondents from the five-operational department acknowledged that proper use of water and energy saving were the most common and preferable choice when they were asked about the meaning of sustainability. In particular 77% of the MS participants, 84% of the HK and 62% of the F&B participant believed that sustainability means proper use of water and energy, While 46% of P participants claimed that the sustainability means local and green purchasing.

Water saving in hotel industry can be achieved through different ways such as using the dual-flush system for toilets and using water saving shower heads. Also, the technology can play a key role in water recycling such as the recycling units for water reuse. Jordanian hotels already apply many techniques to save water according to the respondents from different operational departments. These include measures such as investing in water efficient tools such as installing water saving toilets with dual flushing, and educating the employees and customers of the importance of water

conservation. Water scarcity has become more challenging over the last two decades as the population doubles and climate change potentially makes rainfall more uncertain and variable. According to The Department of Meteorology, Climate and Climate Change Division, most of the Kingdom dry areas receive less than 120 mm of rain a year, while the average rainfall in the high areas such as in the northern cities range between 300 and 600 mm a year. The rainy season begins at the end of November and continues till the end of March.

Water supply has been highlighted by respondents as a major problem especially in the hotel industry because hotels need large volumes of water and energy. Respondents expressed their fears and uncertainty about water shortages in Jordan and how that effects the hotel industry.

Energy saving has been highlighted by respondents, with both empirical and qualitative data revealing that energy saving is of big concern to the hotels. Many measures have been adopted to monitor and reduce the energy consumption in the hotels. The results show that 46% of the respondents understanding of sustainability meant proper use of water and energy, while 39% considered sustainability to mean buying green and local; however, just 15% see the sustainability meaning is to reduce the food waste. The respondents reflect the view of hotel employees understanding of sustainability. Hotels in Jordan have already applied energy saving procedures and installed devices and equipment to control energy conservation; there is common agreement among the participants that energy saving can be done through implementing sustainable practices which lead to cost savings and improve the hotel's environmental performance and consequently enhance the hotel marketing image as a

green hotel. Reducing energy use can have a major effect on carbon emissions and reducing the carbon footprint of the property and can also enhance brand image when this information is included on marketing and branded materials. Since energy conservation can achieve nearly half of the potential carbon reductions, the hotel industry can reduce the harmful effects of the greenhouse effect by implementing effective Energy Conservation and Carbon Reduction (ECCR) practices (Teng et al. 2012).

Jordanian hotels are exploring opportunities to save energy as the government has increased the price of electricity, especially for commercial use to force compliance and sustainability agendas. Hotels are willing to use energy efficient appliances to reduce energy consumption. Respondents from all different managerial level agreed that the energy saving in the hotel play a crucial role in reducing the operation cost and minimise the negative impact on the environment. The main problem facing hotels in Jordan is the high consumption of energy caused by Heating, Ventilation, and Air conditioning systems (HVAC) and lighting, in addition to the other equipment in different departments.

Moreover, the use of solar energy in Jordan is booming. A Jordanian five-star hotel and resort located in Amman uses solar-powered club cars for guest transportation within the resort, in addition to other uses of solar power such as heating water and generating electricity.

Waste management in the hotel industry in Jordan is facing major challenges. The findings revealed that despite some level of awareness at the hotel level – waste was

still not being sorted and was being dumped in landfill. Regarding waste management generally and hotel waste specifically, most of the respondents agreed that waste management in Jordan is not a well-managed industry. The respondents asserted that government should force regulation and policies to run this sector. Most of the respondents from different departments agreed that hotels are running waste management policies, 54% of the participants from the kitchen department highlighted comments about waste management issues in the Jordanian hotel industry citing the conflict that arises when hotels want to dispatch the waste where despite their sorting at the property all waste is dumped in landfills. Jordan has enacted legislation related to waste disposal but the waste ends up in the landfill which mean resources that might have been reused are lost and the environment is negatively impacted.

The waste management in Jordan needs strong teamwork between the private sector and government to produce reliable baseline to reduce and benefit from the waste. Also, there is potential for entrepreneurial recycling and waste management companies/individuals to build a successful industry in Jordan. Respondents agreed that waste management needs dedicated work from all stakeholders to address the problem, and government may play a primary role to encourage developing a framework to handle the waste not just for the hospitality industry but also for the whole nation. Waste can be a real asset if managed properly; a respondent from K department stated that hotels are very keen to reduce the waste to the minimum with many methods adopted, such as prevention of excessive packaging and preparing items for reuse such as reuse water bottles and recycling cardboard and papers. However, the recycling industry in Jordan is considered as fairly nascent and the focus is currently on recycling papers and cardboard.

Respondents from different departments agreed that one of the issues is the potential difference between hotel policy and hotel practice. While the policies are well designed and well intentioned containing details about the best way of maintaining a reasonable level of waste management in the hotels, there is a gap in execution and the practices despite the level of awareness among the staff member related to the knowledge of best practices of waste management.

The secondary research questions answered in the thesis:

- 1. What are the levels of awareness and attitudes of management and stakeholders toward environmental sustainability measures in five-star hotels in Amman, Jordan?*

The results of the data analysis showed that all respondents had a reasonable understanding about all the aspects of sustainable practices in hotel operations. Respondents showed a considerable level of understanding related to environmental sustainability within the hotels industry. Their understanding of environmental sustainability was mainly related to the awareness of the water scarcity in Jordan issue as well as the poor regulations and practices of waste management. Moreover, the respondents have a different level of interest regarding sustainability; this refers to the degree of involvement in the sustainability process and the knowledge that respondents had about sustainability.

Data from both methods revealed that respondents are willing to be engaged in sustainable programs in the hotel they work for, and they are glad to learn more about environmental sustainability. Respondents expressed a level of dissatisfaction about inadequate courses and workshops that can address sustainability practices conducted

by government and hotels to educate them in sustainability measures. The results showed that hotels are not paying enough attention to motivate staff about sustainability practices. Public awareness through education is an imperative element for sustainable development, especially in developing countries including Jordan. Additionally, these programs need to be customised to suit local conditions and engage the public and gain their attention leading to behavioural change. The failure to include sustainability negligence of including sustainable programs in the country's education programs holds back development in the whole country and even results in lost resources.

Respondent's showed an awareness of sustainability which includes understanding the different actors who have responsibility for promoting sustainability and handling the sustainability concept in the hotel industry. The results showed general agreement that hotel management and the government need to coordinate the efforts to promote sustainability and disseminate the knowledge among the stakeholders to engage them in the sustainability framework. Moreover, respondents have shown that hotels managers and staff are aware of the strategy that they adopt to increase hotel performance and profitability by implementing sustainable practices in the hotel's daily routine. In today's economic environment, numerous factors encourage business owners and managers to adopt sustainability measures into conventional operational procedures. All stakeholders including suppliers, buyers and customers are all part of the process of promoting and practising sustainability. Examples of actual practices in five-star hotels in Jordan including purchasing from local farms and the local community.

2. *How are environmental audits practised by five-star hotels in Jordan?*

Jordanian five-star hotel have implemented various environmental practices. The methods used to assess and monitor these actions and to ensure that practices are viable and the benefits from performing those practices are attained is part of the process of auditing. Hotels management follows up with all departments to guarantee that environmental practices are well-matched with the hotel's goals and strategy.

The "yes/no" set of questions for all five departments in the thirteen five-star hotels in Jordan examined the environmental practices. Each department had specific questions related to the specific tasks they carried out. 92% of MS department participants' respondents informed the researcher that their hotels practice the replacement of old equipment by energy rated equipment such as key card systems to switch off electricity in guestrooms. In addition, the use of energy saving light bulbs, electric appliances with high energy efficiency rating are also implemented. The use of energy savings tools in the hotel industry could save the operation cost and give the hotel competitive advantages.

The result showed notable trends in the F&B departments particularly for adopting the environmental sustainability practice. The data reflects the awareness of F&B departments to the environment by their offering organic and local menus, with 92% of the respondents showing their hotels offering organic locally sourced produce on the menu. Long term sustainability means food should be sourced "locally" wherever possible, minimising the energy used in production, transport, and storage. It must also

support local farmers, sustainable agriculture, and local communities, and give farmers in developing countries a fairer deal.

Moreover, the analysis of collected data shows that all the respondents mentioned that the hotel they work for apply energy efficient tools to reduce their energy consumption like installation of activated lighting systems in the rooms and a master switch to control all electrical outlets at the entrance to the room thus prompting guests to switch off when they exit. The energy bills in Jordan increased recently because of the world energy prices rising. Hotels realised that following simple practices like using energy efficient tools can save a lot of money for the hotels. Most respondents asserted that their hotels encourage the use of Energy Star labelled appliances and equipment and the use of low-flow and dual flush systems which save hundreds of litres of water per day in hotels.

In HK department, there was unanimous agreement with 100% of the respondents claiming that their hotels purchased green products. Also, 92% of purchasing department respondents claimed that sustainable procurement was an important part of the hotel's success and sustainability measures.

All respondents from the Purchasing departments asserted that their hotels are purchasing local product; this means saving in cost for hotels and reducing the negative impact on the environment and encouraging local communities to produce goods. Ninety-two (92%) of the respondents from the Purchasing department thought the hotels they work in do not buy endangered fish species. Jordan enacted legislation for

the endangered species which prevents the people and business from hunting endangered species and ensures their sustained longevity.

Findings from both interviews and surveys show awareness and recognition of water shortage in Jordan among the study participants. The results also revealed the lack of waste management practices in Jordanian hotels industry needs more attention from the government in the first place and the private sector including the hotels. Hotels could save a lot of water and energy and reduce the waste by adopting the sustainable strategy.

The best environmental practice is a guide for all hotel types who intend to better manage their impact on the environment and have the longer-term ambition to perform customised environmental standards tools. These environmental practices include environmental costs management, environmental labelling, as well as the use of environmental efficient tools and practices through operations. The Jordanian hotels are looking forward to having environmental practices implemented in their daily operations; managers and supervisors showed that the environmental practices adopted by their hotels were gaining more attention for both financial and image enhancement attracting customers as a result of these practices (Enz 2009).

6.3 Recommendations

6.3.1 Recommendation for Future Research

This study was conducted on five-star hotels in Amman, Jordan. Future research might consider the four and three star hotels or even the budget hotels as well as broadening the scale and scope of the research to include more geographical areas in Jordan such as Aqaba and Petra. The recommendation for future research is to include the customer rather than just the hotel employee; that will give the research more credibility and a broader perspective from the internal and external environment about the sustainability in the hotel industry in Jordan. A larger sample size would also provide empirical evidence and present generalizable results to both Jordan and comparisons to other developing countries in the Middle East.

Areas like waste management in hotels is an area that needs further investigation as revealed by this study. Improving water, energy and waste management techniques would be a great asset to government and tourism planning bodies. The waste management system in Jordan requires more focused assessment and deep research especially in the hospitality industry and is identified as an emergent area of research.

6.3.2 Recommendation for Policy Makers

This research revealed that the government regulators and policy makers might benefit from the result. This study can help policy makers establish connections between the hotel industry and the regulatory framework to improve the performance of hotels toward the environment. The hospitality education curriculum may benefit from the study to include sustainability subjects about the hotel industry, and more generally

the education system might consider including sustainability study to teach future generations about the importance of acting in an environmentally responsible manner in all life aspects.

In addition, adopting well-planned advertising or campaign programs to alert Jordanians about the environmental sustainability which includes waste management practices as well as energy and water conservation will provide effective social awareness in the population and create a sense of investment and national pride. Also, the public should be aware of the importance of acting sustainably to improve the harmony between the society segments to allocate the efforts for the same purpose and to build social cohesion. The study could benefit policy makers in the hotels and government to coordinate the effort to create a sustainable framework for the hotel industry by a mutual discussion about the issues related to the hotel industry to improve the sustainable environment sense in the industry.

6.3.3 Recommendation for Hotels Industry in Jordan

The hotel industry could benefit from the research by implementing green practices and make sure that practices can be seen or noticed by the customers to gain competitive advantages. Green practices in the hotel industry could attract more customers with more customers seeking green hotels. Hotel managers and supervisors may consider extra training and workshops for staff about the sustainable practices in the hotel and reward the staff when they accept sustainable responsibility.

Hotel managers may consider more communication with education venues to suggest topics related to sustainability that can be included in the hospitality courses to reflect

the knowledge; in reality, this can be achieved by introducing hospitality students to hotels to gain better empathy about what can be practiced in the real world.

6.4 Limitations

In this research, the focus on Amman and in particular the 13 five star hotels might be perceived as an artificial parameter, but it can be argued as being mindful of both scope and being realistic of logistical, financial, and time pressures associated with completing the study in the required time. This narrow scope of the study also serves as a strength because it is intended to have real world application to the hotel industry in Amman, which is still in its infancy. Expected outcomes from the research including the identification and establishment of best practice environmental and operational systems provide a vehicle for developing national standards, business sustainability, and competitive advantage for Jordan in the Middle East tourism market.

One of the limitations applied to this study was collecting data during the month of Ramadan, which potentially impacts the collecting data procedures unexpectedly and the participant's availability as well. Due to the change of working hours and lifestyle routine in the month of Ramadan in Jordan, the researcher dealt with this issue by being more flexible in collecting data upon the participant's availability and traveling from Amman to Aqaba to meet some of the participants. According to (Hesse-Biber & Leavy 2010) researchers can use the process of reflexivity as a tool to support them with studying and researching.

Since Jordan is a Muslim country, life routine changes considerably during the Islamic holy month of Ramadan. Spending the holy month of Ramadan in Jordan can be a life

changing experience, as life slows down during the day; it catches up in the evening. Malls, shopping centres, hotels, restaurants stay open late, and so do most of the public areas. Another immense lifestyle change in Jordan during the holy month of Ramadan is that working hours and office hours go down from the standard nine hours to six. Mostly, offices change their working hours from 9am-6pm to 9am-3pm so that Muslims can make their way home in time for Iftar i.e. breaking of the fast).

So, this study highlighted suggestions for future researchers to consider collecting data timing to facilitate the research process and collecting data, as well as an earlier data collection would have increased the time to survey more participants.

The researcher's work experience and background knowledge of Jordan and Jordanian culture and norms might also be cited as bringing a level of subjectivity to the study. However, this may be considered more of a strength than a limitation as it allows for interpretation that is more accurate and for triangulation of data. Every effort was also made to reduce inconsistencies arising from translating Arabic to English in the interviews and secondary data. The researcher's fluency in Arabic, brought a level of depth and comfort allowing for probing and questions about interpretation and detail. It also allowed respondents to answer freely in Arabic and know that it would be translated with attention to nuance and meaning.

The qualitative method might also be seen as a constraint by researchers that are more numerically quantitate in their approach to research, but this aspect was mitigated by the use of three separate data sources "interviews, surveys, and participatory observation". Triangulated data along with a rigorous examination of secondary

sources ensured the creditability and validity of the findings; partial responses in some surveys could be considered as one of the limitations applied to the study.

6.5 Conclusion

This study investigated operational and business sustainability practices toward environmental sustainability among five-star hotels in Jordan. The study used a qualitative methodology by conducting semi-structured interviews along with using empirical data collected from employees at 13 five-star hotels in both Amman and Aqaba. This study demonstrated a substantial awareness among employees in regards to the water shortage problem in Jordan. The study results exposed that water saving in hotels industry can be addressd by applying water efficiency tools and techniques such as using the dual-flush toilet system and using water saving shower heads. Moreover, the study demonstrated there is a critical need to adopt a clear sustainability strategy that involves and includes all stakeholders in order to create a significant contribution and to improve environmental sustainability performance within the hotels industry in Jordan. Also, the study revealed the preliminary and initial initiatives toward waste management which include reusing and recycling. Also, findings of this study highlighted the gender inequity within the Jordanian hotels industry. Moreover, a set of recommendations have been provided through this study for future researches, policy makers and the hotels industry in Jordan to enhance the environmental sustainability performance

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APPENDICES

Appendix 1: Human Research Ethic Committee Approval

Locked Bag 1797
Penrith NSW 2751 Australia
Office of Research Services

ORS Reference: H11149



HUMAN RESEARCH ETHICS COMMITTEE

15 June 2015

Doctor Gregory Teal
School of Business

Dear Gregory,

I wish to formally advise you that the Human Research Ethics Committee has approved your research proposal H11149 "Business Sustainability through Environmental and Operational Management in Five Star Hotels in Amman Jordan", until 23 February 2017 with the provision of a progress report annually if over 12 months and a final report on completion.

Conditions of Approval

1. A progress report will be due annually on the anniversary of the approval date.
2. A final report will be due at the expiration of the approval period.
3. Any amendments to the project must be approved by the Human Research Ethics Committee prior to being implemented. Amendments must be requested using the HREC Amendment Request Form: http://www.uws.edu.au/data/assets/pdf_file/0018/491130/HREC_Amendment_Request_Form.pdf
4. Any serious or unexpected adverse events on participants must be reported to the Human Ethics Committee via the Human Ethics Officer as a matter of priority.
5. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the Committee as a matter of priority
6. Consent forms are to be retained within the archives of the School or Research Institute and made available to the Committee upon request.

Please quote the registration number and title as indicated above in the subject line on all future correspondence related to this project. All correspondence should be sent to the email address humanethics@uws.edu.au.

This protocol covers the following researchers:

Gregory Teal, Valentine Mukuria, Pheroza Daruwalla, Haitham Abdelrazaq

Yours sincerely

A handwritten signature in black ink, appearing to read "E. Deane".

Professor Elizabeth Deane
Presiding Member,
Human Researcher Ethics Committee

Appendix 2: Checklist of the Interview Questions

Interview Questions

Business Sustainability through Environmental and Operational Management in Five Star Hotels in Amman, Jordan

General Questions

1-How would you define sustainability as far as the Hotel industry is concerned?

2-Is the hotel accredited of either, LEED EBOM, ISO 14001 and the energy star?

Please give example

3-Sustainability Strategy: In your opinion do you consider that the adoption of a sustainability strategy would give your hotel a competitive advantage vs. competitors who do not implement sustainability initiatives?

4-In your opinion, who is responsible to promote sustainability practices in the hotel industry in Jordan?

5-In such regards, will it be true to say that sustainability in the Hotel Industry still an issue in Jordan?

6-Please provide any additional comments or feedback that you would like to highlight about environmental conservation in the Jordanian hotel industry.

7- Describe the unique innovative practices in the hotel management and environmental structure

8-Have you heard of the term “sustainability” used at your hotel? Describe the sustainability programs that you have worked for in the hotel. State the duration and location.

9-Describe the concept of sustainable environment at the hotel in a sentence.

10-From your own opinion, rank the Jordan hotel's performance on the following measures, Energy Saving, Water Saving, Solid Waste Management and Waste Minimization. Explain a reason for your rankings.

Specific Questions

Housekeeping Department (HK)

1. Have you developed or adopted any smoking policy being practiced in the hotel rooms? Give me a sample.
2. Does the hotel Support local charities? If yes, what is the extent of support?
3. Describe the fitting of the rooms in terms of the lighting system, existence of the master switches at the entrance and the fitting of a digital thermostat.
4. From your observation, explain whether the hotel encourage the use of Energy Star labeled appliances and equipment?
5. What measures can you adopt to reduce the use of water by the occupants of the room?
6. Describe the status of the toilets and the showers and the tap systems of the rooms. Confirm whether they are low flow, dual purpose or single purpose designed.
7. Dose the hotels implementing the linen/towel re-use program as an energy conservation program?
8. Tell me about your opinion on the concept that, no financial support from city or state is a barrier to sustainability initiatives at the hotels industry.
9. Discuss the possibility of insufficient Return on Investment that can hinder sustainability initiatives at your department?

10. Sustainability Strategy: Do you believe a sustainability strategy would give your hotel a competitive advantage vs. competitors who do not implement sustainability initiatives?
11. What are the main sustainable practices should hotels adopt?
12. Describe what you believe are innovative and unique about the environmental conservation in the Jordanian hotel industry?
13. What are the additional comments or feedback that you would like to highlight about environmental conservation in the Jordanian hotel industry.

Food and Beverage Department (F&B)

- 1) Describe the level of use of Organic menus in restaurants at your hotel? Are they offered in your catering services?
- 2) Tell me about the initiatives that the hotel implements to encourage the use of Organic menus.
- 3) Describe the situations where hotel reuse food bags, containers and other items? How do you welcome the practice and how often is it carried out in the hotel?
- 4) Tell me about the nature and frequency of your borrowing, renting or share used items.
- 5) Do you sell or give away edible items instead of throwing them?
- 6) How would you rank the following sustainability practices in the Hotel; financial saving; better recognition by customers; customer retention and long-term benefits?

The Kitchen Department (K)

1-How would you grade your Hotel, on a scale of one to four, due to your view on its performance on each of the following dimensions; energy saving; green purchasing, water saving minimization of wastes and disposal of the solid waste materials.

2- According to your observation and analysis, what sustainability practices does the Hotel follow to ensure its strategic development in the industry?

3- Does the hotel practice each of the following values and activities; Have a recycling program for kitchen material? Compost food waste? Recycle kitchen oil? Take measures to reduce smoke emissions as a result of cooking? Have an environmental policy? Respect the employee health and wellness program?

Maintenance and Security Department (MS)

1. From your approximation, what is the extent of maintaining and repairing durable products at your hotel?

2. Describe the initiative that you have to educate other employees on source reduction and recycling practices?

3. List down three active ways of recycling of solid waste at your hotel?

4. From your observation, environmental management practice at the hotel contributes to security and healthy work for employees?

5. Tell me about how you implement your responsibility to regulate and account for the energy and water consumption by department?

6. Do you use alternative forms of energy such as solar power to heat hotel pool, skylights in public areas to minimize electric light?

7. Do you have policed measure toward replacement of old equipment by energy star rated equipment? please give examples

Purchasing Department (P)

1-How has your organization adopted and monitored the use of sustainable standards in procurement?

2-To what level have you venture into the purchase green energy?

3-do you think sustainable procurement is an important part of the hotels success?

4-Does your hotel Purchase local products? How often are the purchases made?

5-have you been a victim of allegations from the customer that hotel purchased of endangered fish species such as the over sole and the tuna?

THANK YOU

Appendix 3: The Survey Questions

Maintenance and Security Manager/Equivalent

Demographics

1. Gender: _____ Male _____ Female

2. Age:

<25

25-35

35-45

45-55

55+

3. Education:

High School Certificate

Vocational Diploma

Advanced Vocational Diploma

Bachelors Degree

Post Graduate Degree

4. Approx. average monthly salary?

Less than JRD 1000

JRD 1000-1500

JRD 1500-2000

More than JRD 2000

5. How long have you worked for this hotel? _____ Years _____ Months

6. How long have you worked in the hospitality industry? _____ Years
 _____Months

7. What is your current title/position (eg Executive Chef/Housekeeper etc.)?

Questions:

8. What does sustainability mean to you in the Hotel Industry context?

- Proper use of water and energy
- Minimal food wastage
- Purchasing Green items
- Getting awards for maintaining sustainability
- Other: _____

9. How will you Categorize sustainability practices carried out by your Hotel, with 5 being high priority and 1 being low priority

Priority	Low = 1	2	3	4	High = 5
Energy Saving	1	2	3	4	5
Green Purchasing	1	2	3	4	5
Water Saving	1	2	3	4	5
Waste Minimization	1	2	3	4	5
Solid Waste Management	1	2	3	4	5

10. Currently, which of the following environmental practices are used in your hotel?
 (Mark x against all that apply)

- Energy saving bulbs
- Portion control to minimize food wastage
- Low flush toilets

- Categorizing garbage collection for recycling
 - Low flow shower heads less than 2.5 gal/minute
 - Use of green power such as solar heating
 - Towel reuse program
 - Reuse or recycling glass or plastics
 - Other: _____ Please _____ explain
-

11. In relation to Green Purchasing, which of the following activities do you use?
 Please provide details.
 Mark Yes or No and provide details for each response?

Green Purchasing	YES	NO	Details
Recycling materials e.g. use of bed linen for cleaning rags			
Purchasing from local firms e.g. locally grown food or flowers			
Purchasing energy saving material e.g. solar panels			
Purchasing less hazardous material e.g. organic cleaning chemicals			

12. Rank the following sustainability practices in your hotel. With 1 being the most important to 4 being the least important.

Priority	High = 1	2	3	Low= 4
Financial Saving	1	2	3	4
Better recognition by customers	1	2	3	4

Long term benefits such as environmental conservation	1	2	3	4
Customer Retention	1	2	3	4

Reasons for ranking

13. Rank the following best performing sustainable practices of Jordanian Hotels: From 1 to 4 with 1 being the best performing to 4 being the worst.

Priority	High = 1	2	3	Low= 4
Waste Management	1	2	3	4
Energy Conservation	1	2	3	4
Water Conservation	1	2	3	4
Green Purchasing	1	2	3	4

Reasons for ranking

14. What in your opinion hampers environmental conservation in the Jordanian hotel industry most?

- Poor Regulation
- High cost
- Lack of expertise
- Ignorance

Other: _____

15. What is the extent of maintaining and repairing durable products at your hotel?

16. How do you educate other employees on source reduction and recycling practices?

17. List down three ways of recycling of solid waste at your hotel?

18. What environmental management practice at the hotel contributes to security and healthy work for employees?

19. Do you measure energy consumption by department? **Yes/No**

20. Do you measure water consumption per department or division? **Yes/No**

21. Do you use alternative forms of energy such as solar power to heat hotel pool, skylights in public areas to minimize electric light? **Yes/No**

22. Do you practice the replacement of old equipment by Energy Star rated equipment?
Yes/No

23. Do you think that no financial support from city or state is a barrier to sustainability initiatives at your department? **Yes/No**

24. Does insufficient Return on Investment hinder sustainability initiatives at your department? **Yes/No**

25. Sustainability Strategy: Do you believe a sustainability strategy would give your hotel a competitive advantage vs. competitors who do not implement sustainability initiatives **Yes/No**

26. Which of the following awards or accreditation have ever been won by your Hotel?

- Eco Label
- Green Globe
- Certification of Sustainable Tourism
- ISO 14000
- Other, please specify: _____

27. In your opinion, who is responsible to promote sustainability practices in the hotel industry in Jordan?

- Hotel Owners
- Government
- Customers
- Suppliers
- Hotel Management
- Other: _____

28. Is sustainability in the Hotel Industry still an issue in Jordan?

- Yes
- No

29. Please provide any additional comments or feedback that you would like to highlight about environmental conservation in the Jordanian hotel industry.

30. What in your opinion is innovative about environmental conservation in the Jordanian hotel industry?

31. What innovative practices in environmental conservation are unique to the Jordanian hotel industry?

Thank you for your time. It is much appreciated.

Regards

Haitham Abdelrazaq

PhD Candidate, University of Western Sydney

Food and Beverage Manager/Equivalent

Demographics

1. Gender: _____ Male _____Female

2. Age:

<25

25-35

35-45

45-55

55+

3. Education:

High School Certificate

Vocational Diploma

Advanced Vocational Diploma

Bachelors Degree

Post Graduate Degree

4. Approx. average monthly salary?

Less than JRD 1000

JRD 1000-1500

JRD 1500-2000

More than JRD 2000

5. How long have you worked for this hotel? _____ Years _____Months

6. How long have you worked in the hospitality industry? _____ Years
_____Months

7. What is your current title/position (eg Executive Chef/Housekeeper etc.)?

Questions

8. What does sustainability mean to you in the Hotel Industry context? (Mark all that apply)

- Proper use of water and energy
- Minimal food wastage
- Purchasing Green items
- Getting awards for maintaining sustainability
- Purchasing of local products and goods
- Other: _____ Please _____ explain

9. List the places or describe the instances where you have encountered the term “sustainability” at your hotel.

10. What is the extent of the Organic menus in restaurants at your hotel?

11. Do you offer Organic menus in catering? **Yes/No**

12. Does the hotel encourage the use of Organic menus ? **Yes/No**

If yes so, how?

13. Do you reuse food bags, containers and other items? **Yes/No**

14. Do you borrow, rent or share items used infrequently? **Yes/No**

15. Do you sell or give away edible items instead of throwing them? ? **Yes/No**

16. Rank the following sustainability practices in your hotel. With 1 being the most important to 4 being the least important.

Priority	High = 1	2	3	Low= 4
Financial Saving	1	2	3	4
Better recognition by customers	1	2	3	4
Long term benefits such as environmental conservation	1	2	3	4
Customer Retention	1	2	3	4

Reasons for ranking

17. Rank the following best performing sustainable practices of Jordanian Hotels: From 1 to 4 with 1 being the best performing to 4 being the worst.

Priority	High = 1	2	3	Low= 4
Waste Management	1	2	3	4
Energy Conservation	1	2	3	4
Water Conservation	1	2	3	4
Green Purchasing	1	2	3	4

Reasons for ranking

18. Do you think that no financial support from city or state is a barrier to sustainability initiatives at your department?

19. Are high costs a hindrance to sustainability initiatives at your department?
Yes/No, if yes how you describe that?

20. Does insufficient Return on Investment hinder sustainability initiatives at your department? **Yes/No**

21. Which of the following awards or accreditation have ever been won by your Hotel?

- Eco Label
- Green Globe
- Certification of Sustainable Tourism
- ISO 14000
- Other, please specify: _____

22. Is sustainability in the Hotel Industry still an issue in Jordan?

- Yes
- No

23. Please provide any additional comments or feedback that you would like to highlight about environmental conservation in the Jordanian hotel industry.

24. What in your opinion is innovative about environmental conservation in the Jordanian hotel industry? _____

25. What innovative practices in environmental conservation are unique to the Jordanian hotel industry? 15. What is the extent of maintaining and repairing durable products at your hotel?

26. How do you educate other employees on source reduction and recycling practices?

27. List down three ways of recycling of solid waste at your hotel?

28. What environmental management practice at the hotel contributes to security and healthy work for employees?

29. Do you measure energy consumption by department? **Yes/No**

30. Do you measure water consumption per department or division? **Yes/No**

Thank you for your time. It is much appreciated.

Regards

Haitham Abdelrazaq

PhD Candidate, University of Western Sydney

Housekeeper/Equivalent

Demographics

1. Gender: _____ Male _____Female

2. Age:

<25

25-35

35-45

45-55

55+

3. Education:

High School Certificate

Vocational Diploma

Advanced Vocational Diploma

Bachelors Degree

Post Graduate Degree

4. Approx. average monthly salary?

Less than JRD 1000

JRD 1000-1500

JRD 1500-2000

More than JRD 2000

5. How long have you worked for this hotel? _____ Years _____Months

6. How long have you worked in the hospitality industry? _____ Years
_____Months

7. What is your current title/position (e.g. Executive Chef/Housekeeper etc.)?

Questions

8. What does sustainability mean to you in the Hotel Industry context? (Mark all that apply)

- Proper use of water and energy
- Minimal food wastage
- Purchasing Green items
- Getting awards for maintaining sustainability
- Purchasing of local products and goods
- Other: _____ Please _____ explain

9. How would you categorize sustainability practices carried out by your Hotel, with 5 being high priority and 1 being low priority:

Priority	Low = 1	2	3	4	High = 5
Energy Saving	1	2	3	4	5
Green Purchasing	1	2	3	4	5
Water Saving	1	2	3	4	5
Waste Minimization	1	2	3	4	5
Solid Waste Management	1	2	3	4	5

10. What sustainability practices are followed at your hotel at your level of work?

11. Have you heard the term “sustainability” used at your hotel?

a. Yes

b. No

c. Not sure

12. Have you ever worked for “sustainability” programs in the hotel?

- Yes, If yes, How Long _____, Where _____
- NO

13. How would you describe the concept of sustainable environment at your hotel in one sentence?

14. Rank the benefits which might results from adopting sustainable practices in Jordanian Hotels? From 1 to 4 with 1 being the best performing to 4 being the worst.

Priority	High = 1	2	3	Low= 4
Financial Saving	1	2	3	4
Better recognition by customers	1	2	3	4
Long term benefits such as environmental conservation	1	2	3	4
Customer Retention	1	2	3	4

Reason for ranking

15. Any smoking policy being practiced in your hotel rooms? **Yes/No**

16. Does your hotel Support local charities? YES, NO if yes, what is the extent of support?

17. How do you practice efficient use of energy?
18. Do you have a key activated lighting system in rooms? **Yes/No**
19. Dose the rooms have Master switch at entrance? **Yes/No**
20. Dose the rooms have digital thermostat? **Yes/No**
21. Does the hotel encourage the use of Energy Star labeled appliances and equipment?
Yes/No
22. What measures do you take to reduce the use of water by the occupants of the room?
23. Do you have low flow toilets (1.6 gallons or less) in rooms? **Yes/No**
24. Does the hotel have dual flush toilets? **Yes/No**
25. Does the hotel have low flow showers (2.5 gallons/min or less)? **Yes/No**
26. Does the hotel have low flow tap fixtures? **Yes/No**
27. Has the hotel implemented linen/towel re-use program? **Yes/No**
28. Do you think that no financial support from city or state is a barrier to sustainability initiatives at your department? **Yes/No**

29. Does insufficient Return on Investment hinder sustainability initiatives at your department? **Yes/No**

30. Sustainability Strategy: Do you believe a sustainability strategy would give your hotel a competitive advantage vs. competitors who do not implement sustainability initiatives? **Yes/No**

31. In your opinion, who is responsible to promote sustainability practices in the hotel industry in Jordan?

- Hotel Owners
 - Government
 - Customers
 - Suppliers
 - Hotel Management
 - Other: Please explain
-

32. Is sustainability in the Hotel Industry still an issue in Jordan?

- Yes
- No

33. Please provide any additional comments or feedback that you would like to highlight about environmental conservation in the Jordanian hotel industry.

34. What in your opinion is innovative about environmental conservation in the Jordanian hotel industry?

35. What innovative practices in environmental conservation are unique to the Jordanian hotel industry?

Thank you for your time. It is much appreciated.

Regards

Haitham Abdelrazaq

PhD Candidate, University of Western Sydney

Thank you

Purchasing Manager/Equivalent

Demographics:

1. Gender: _____ Male _____Female

2. Age:

<25

25-35

35-45

45-55

55+

3. Education:

High School Certificate

Vocational Diploma

Advanced Vocational Diploma

Bachelors Degree

Post Graduate Degree

4. Approx. average monthly salary?

Less than JRD 1000

JRD 1000-1500

JRD 1500-2000

More than JRD 2000

5. How long have you worked for this hotel? _____ Years _____Months

6. How long have you worked in the hospitality industry? _____ Years
_____Months

7. What is your current title/position (e.g. Executive Chef/Housekeeper etc.)?

Questions

8. What does sustainability mean to you in the Hotel Industry context?

- Proper use of water and energy
- Minimal food wastage
- Purchasing Green items
- Getting awards for maintaining sustainability

Other: _____ Please _____ explain

9. Is your company/organization using sustainability standards in procurement?

Yes/No

10. Does your hotel purchase green energy? **Yes/No**

11. Rank the benefits results from adopting sustainable practices of Jordanian Hotels?
From 1 to 4 with 1 being the best performing to 4 being the worst.

Priority	High = 1	2	3	Low= 4
Financial Saving	1	2	3	4
Better recognition by customers	1	2	3	4
Long term benefits such as environmental conservation	1	2	3	4
Customer Retention	1	2	3	4

Reasons for ranking

12. Do you view sustainable procurement as being an important part of your hotel's success? **Yes/No**, Explanation

13. Does your hotel Purchase local product? **Yes/No**

14. Does your hotel purchase of endangered fish species (tuna, over sole)? **Yes/No**

15. Please indicate if any of these barriers to sustainability at your property and the level of difficulty you experience?

Barriers	Yes/No	Please explain in detail:
Financial support from city or state (none or low level)		
High costs of equipment?		
High cost of investment in sustainability processes?		

16. Are the high costs a hindrance to sustainability initiatives at your department?
Yes/No

17. Sustainability Strategy: Do you believe a sustainability strategy would give your hotel a competitive advantage vs. competitors who do not implement sustainability initiatives? **Yes/No**

If yes so, how?

18. Is sustainability in the Hotel Industry still an issue in Jordan?

Yes

No

19. Please provide any additional comments or feedback that you would like to highlight about environmental conservation in the Jordanian hotel industry.

20. What in your opinion is innovative about environmental conservation in the Jordanian hotel industry?

21. What innovative practices in environmental conservation are unique to the Jordanian hotel industry?

Thank you for your time. It is much appreciated.

Regards

Haitham Abdelrazaq

PhD Candidate, University of Western Sydney

Thank you

Kitchen Manager/ Equivalent

Demographics:

1. Gender: _____ Male _____Female

2. Age:

<25

25-35

35-45

45-55

55+

3. Education:

High School Certificate

Vocational Diploma

Advanced Vocational Diploma

Bachelors Degree

Post Graduate Degree

4. Approx. average monthly salary?

Less than JRD 1000

JRD 1000-1500

JRD 1500-2000

More than JRD 2000

5. How long have you worked for this hotel? _____ Years _____Months

6. How long have you worked in the hospitality industry? _____ Years
_____Months

7. What is your current title/position (eg Executive Chef/Housekeeper etc.)?

Questions

8. What does sustainability mean to you in the Hotel Industry context? (Mark all that apply)

- Proper use of water and energy
- Minimal food wastage
- Purchasing Green items
- Getting awards for maintaining sustainability
- Purchasing of local products and goods
- Other: _____ Please _____ explain

9. How would you categorize sustainability practices carried out by your Hotel, with 5 being high priority and 1 being low priority:

Priority	Low = 1	2	3	4	High = 5
Energy Saving	1	2	3	4	5
Green Purchasing	1	2	3	4	5
Water Saving	1	2	3	4	5
Waste Minimization	1	2	3	4	5
Solid Waste Management	1	2	3	4	5

10. What sustainability practices are followed at your hotel at your level of work?

11. In your opinion how do you think the five star hotels in Jordan perform on each of these measures? 1 being extremely good and 4 being poorly.

Measure	Extremely well 1	2	3	Poorly 4
Waste Management	1	2	3	4
Energy Conservation	1	2	3	4
Water Conservation	1	2	3	4
Green Purchasing	1	2	3	4

Reasons for ranking

12. Does your property:

12.1 Have a recycling program for kitchen material? **Yes/No**

12.2 Compost food waste? **Yes/No**

12.3 Recycle kitchen oil? **Yes/No**

12.4 Take measures to reduce smoke emissions as a result of cooking? **Yes/No**

12.5 Have an environmental policy? **Yes/No**

12.6 An employee health and wellness program? **Yes/No**

Please provide details for any/all of the above:

13. Is your property pursuing any of the following accreditations?

Energy Star

LEED EBOM

ISO 14001

14. Please indicate if any of these barriers to sustainability at your property and the level of difficulty you experience?

Barriers	Yes/No	Please explain in detail:
Financial support from city or state (none or low level)		
High costs of equipment?		
High cost of investment in sustainability processes?		

15. Sustainability Strategy: In your opinion do you consider that the adoption of a sustainability strategy would give your hotel a competitive advantage vs. competitors who do not implement sustainability initiatives? **Yes/No**

Please elaborate on your answer

16. In your opinion, who is responsible to promote sustainability practices in the hotel industry in Jordan? (Mark all that apply)

- Hotel Owners
- Government
- Customers
- Suppliers
- Hotel Management

Other: _____ Please _____ explain

17. Is sustainability in the Hotel Industry still an issue in Jordan?

Yes

No

18. Please provide any additional comments or feedback that you would like to highlight about environmental conservation in the Jordanian hotel industry.

19. What in your opinion is innovative about environmental conservation in the Jordanian hotel industry?

20. What innovative practices in environmental conservation are unique to the Jordanian hotel industry?

Thank you for your time. It is much appreciated.

Regards

Haitham Abdelrazaq

PhD Candidate, University of Western Sydney

Appendix 4: List of Publication in Jordan

Source: http://en.wikipedia.org/wiki/List_of_newspapers_in_Jordan

This is a **list of [newspapers in Jordan](#)**.

Name	Established	Language	Editor	Period	Political View	Website
Ad-Dustour	1967	Arabic	Saif Alsharif	Daily	Pro government/ Semi-independent	www.addustour.com
Al-Arab Al-Yawm	1997	Arabic	Tahir Al Udwan	Daily	Pan Arab	www.alarabalayam.net
Alghad	2003	Arabic	Muhammad Elayyan	Daily	Liberal	www.alghad.com
Al Ra'i	1971	Arabic	Abdul-Wahhab Zughailat	Daily	Pro government	www.alrai.com
Assabeel	1993	Arabic	Editor	Daily	Islamic Conservative	www.assabeel.net
Al Anbat	2005	Arabic	Riyadh Horoob	Daily	Nationalist	www.alanbat.net
The Jordan Times	1975	English	Samir Barhoum	Daily	Independent	www.jordantimes.com
Al-liwa	1972	Arabic	Bilal Hasan Al Tel	Weekly	Liberal	www.al-liwa.com
Shihan	1991	Arabic	Jihad Momani	Weekly	Liberal	www.shihannes.net
Al-Ahali	2006	Arabic	Adnan Khalifa	Weekly	Nationalist	www.hashd-ahali.org.jo
The Star	1993	English	Editor	Weekly	Pro government/ Semi-independent	www.star.com.jo

Daily Newspapers

- [Al Ra'ai \(Newspaper\)](#) (National)
- [Ad-Dustour](#) (National)

- [Al Ghad](#) (National)
- [Jordan Times](#) (English; National)
- [Ammon News](#) (online newspaper)
- [Saraya](#) (online newspaper)

Suspended dailies

[Al Arab Al Yawm](#)

Weekly newspapers

[Assabeel](#), Islamic

[Shihan](#)

[Al-Watan](#), nationalistic slant

[Al Majed](#), pan-Arab nationalist

- [Hawadeth Al Saaeh](#)
- [Al Liwaa](#)
- [Al Ahali](#), leftist voice of the Popular Democratic Party in Jordan, not strictly party political but run on newspaper lines
- [Al Kalimah](#)
- [The Star](#); English weekly, independent, political, economic, social, published every Thursday
- [Asrar Newspaper](#)
- [Fact International](#), English and Arabic published every Wednesday

Appendix 5: Approval Letter from Jordanian Hotel Association

Jordan Hotel Association - Haitham Abdelrazaq

Page 1 of 2

Jordan Hotel Association

JHA Secretary <secretary@johotels.org>

Wed 29/04/2015 20:34

mailto:p.daruwalla@uws.edu.au <p.daruwalla@uws.edu.au>;

cc: Haitham Abdelrazaq <1668823@student.uws.edu.au>;

I hereby notify you that Mr. Haitham Abdelrazaq has been in communication with us and has explained the reason for his visit to our organization. He has provided us with his dissertation research prospectus outlining the research purpose, objectives and research design.

Mr. Haitham Abdelrazaq will be conducting interviews and delivering questionnaires with members and affiliates of this Organization.

We are aware of the study Mr. Haitham Abdelrazaq proposing to conduct research on Jordanian Hotel premises in Jordan. We are also aware that participation in his study is voluntary and that the purpose of her investigation is the development of her doctoral dissertation at the University of Western Sydney in Australia

It is with great pleasure that we welcome Mr. Haitham Abdelrazaq and hope to provide him with all necessary help to conduct his research

Please feel free to contact me if you have any questions.

sincerely

If you have any additional questions or require further clarification, please, do not hesitate to call me or send me an email .

**Best Regards,
Deya'a Al-Harazneh**

Description: Description:
Description: Description:
Description: Description:
Description: Description:
Description: Description:
Description: Description:

*Jordan Hotel Association
Amman - Jordan
Mobile - 0777645616
Tel: 06-5671691 ext. 22
Fax: 06 5671592
P.O.Box 9903 Amman, 11181 Jordan*

<https://outlook.office365.com/owa/>

30/04/2015

Appendix 6: The Full-Scale Survey Questionnaire

Maintenance and Security Manager/ Equivalent الأمن والصيانة

المعلومات الديموغرافية

- 1- الجنس: ذكر _____ أنثى _____
 2- العمر: >25 25-35 35-45 45-55 55+
 3- المستوى التعليمي:
 ثانوية عامة فما دون دبلوم دبلوم عالي بكالوريوس دراسات عليا
 4- معدل الراتب الشهري تقريبا:
 أقل من 1000 دينار 1000-1500 دينار 1500-2000 دينار أكثر من 2000 دينار
 5- كم هي المدة التي عملت فيها في هذا الفندق؟ _____ أشهر _____ سنة
 6- كم هي المدة التي عملت فيها في مجال الفندق؟ _____ أشهر _____ سنة
 7- ما هو المنصب الحالي في الفندق؟ (مثل: Kitchen/ Housekeeper etc.)

8- ماذا تعني لك الاستدامة في مجال صناعة الفنادق؟

- توفير المياه والطاقة.
 مخلفات طعام أقل.
 شراء مواد رقيقة بالبيئة .
 الحصول على جوائز للحفاظ في الاستدامة
 شراء منتجات محلية الصنع
 أخرى: أذكرها _____

9- كيف تصنف ممارسات الاستدامة التي يتبعها الفندق الذي تعمل فيه.

الأولوية	متدنية جدا	متدنية	متوسطة	عالية	عالية جدا
توفير الطاقة					
شراء أدوات صديقة للبيئة					
توفير الماء					
تقليل المخلفات					
أدارة المخلفات الصلبة					

Appendices

10- في الوقت الحالي ما هي الممارسات البيئية التي يستخدمها الفندق:

- مصابيح توفير الطاقة
 - تخفيض مخلفات الطعام
 - توفير المياه في الحمامات
 - تصنيف مخلفات النفايات
 - ضغط مياه منخفض في أماكن الاستحمام (شور الحمام) أقل من 2.5 جالون/ دقيقة
 - استخدام الطاقة الشمسية
 - استخدام البياضات أكثر من مره
 - اعادة استخدام او تدوير الزجاج و البلاستيك
- اخرى: _____

11- في ما يتعلق بشراء الادوات الصديقة للبيئة ما هي النشاطات التي يقوم بها الفندق، أجب بنعم أو لا مع ذكر التفاصيل.

شراء ادوات صديقة للبيئة	نعم	لا	تفاصيل
اعادة تدوير المواد مثل استخدام شراشف الاسرة في التنظيف			
الشراء من مؤسسات محلية مثل المزارع			
شراء معدات لتوفير الطاقة مثل الالواح الشمسية			
شراء مواد أقل خطوره: مثل مواد التنظيف الأقل سمية			

12- قيم اجراءات الاستدامة في الفندق:

الاولوية	منخفض	متوسط	عالي	عالي جدا
تخفيض النفقات				
رأي الزبون				
فوائد طويلة الأمد مثل المحافظة على البيئة				
الاحتفاظ بالزبائن				

13- برأيك ما مدى تطبيق فنادق الخمس نجوم للمعايير التالية:

المقياس	لا تطبق	تطبق بدرجة قليلة	متوسطة التطبيق	تطبيق بشكل كامل
إدارة النفايات				
توفير الطاقة				
توفير المياه				
شراء أدوات صديقة للبيئة				

14- برأيك ما الذي يمنع تطبيق معايير المحافظة على البيئة في مجال صناعة الفنادق في الاردن؟

ضعف التشريعات

التكاليف العالية

قلة الخبرة

التجاهل

أخرى: _____

15- الى أي مدى يستخدم الفندق المنتجات المعمّرة؟

16- كيف تعلّم الموظفين على اجراءات تخفيض الهدر في المصادر وادارة المخلفات؟

17- أعط ثلاث طرق لاعادة تدوير المخلفات الصلبة في الفندق.

-3

-2

-1

18- ما هي الاجراءات البيئية التي يستخدمها الفندق للمساهمة في الحفاظ على سلامة وصحة الموظفين؟

19- هل يوجد مقياس لاستهلاك الطاقة في القسم ، نعم لا.

20- هل تقيس استهلاك المياه على أساس الدائرة أو القسم، نعم لا.

21- هل لدى الفندق بديل للطاقة مثل الطاقة الشمسية لتسخين برك السباحة أو انارة الاماكن العامة في الفندق،

نعم لا.

22- هل يقوم الفندق بتبديل المعدات القديمة بأخرى حديثة تستخدم معايير الاستدامة، نعم لا.

23- هل تعتقد أن قلة الدعم المالي من الحكومة أو البلدية تعمل على اجراءات الاستدامة في الفندق،
نعم لا .

24- هل تعتقد أن قلة العائد من الاستثمار يعوق مبادرات المحافظة على البيئة في الفندق، نعم لا .

25- برأيك عندما يقوم الفندق بتبني استراتيجيات الاستدامة فإن ذلك يعطيه ميزة تنافسية مقابل الفنادق التي لا تستخدم مثل هذه الاستراتيجيات، نعم لا .

26- ما هي الجوائز أو الشهادات التي حصل عليها الفندق:

Eco Label

Green Globe

Certification of Sustainable Tourism

ISO 14000

أخرى، أذكرها _____

27- برأيك من المسؤول عن الترويج لاجراءات الاستدامة في صناعة الفنادق في الأردن؟

مالكي الفندق الحكومة

الزبائن المزودون

إدارة الفندق، أخرى: _____

28- هل يعتبر مفهوم الاستدامة من القضايا المهمة في صناعة الفنادق في الأردن؟ نعم لا

29- أذكر أية ملاحظات تظن أنه يجب التركيز عليها في صناعة الفنادق في الاردن؟ نعم لا

30- برأيك هل يوجد ابتكار في قضايا الحفاظ على البيئة في صناعة الفنادق في الاردن؟

31- ما هي الابتكارات المطبقة في مجال الحفاظ على البيئة في الفنادق في الاردن؟

شكرا لتعاونكم

الطعام والشراب Food and Beverage Manager/ Equivalent

المعلومات الديموغرافية

- 1- الجنس: _____ ذكر _____ أنثى
- 2- العمر : <25 25-35 35-45 45-55 55+
- 3- المستوى التعليمي:
- ثانوية عامة فما دون دبلوم دبلوم عالي بكالوريوس دراسات عليا
- 4- معدل الراتب الشهري تقريبا:
- أقل من 1000 دينار 1000-1500 دينار 1500-2000 دينار أكثر من 2000 دينار
- 5- كم هي المدة التي عملت فيها في هذا الفندق ؟ _____ أشهر _____ سنة
- 6- كم هي المدة التي عملت فيها في مجال الفندقة ؟ _____ أشهر _____ سنة
- 7- ما هو المنصب الحالي في الفندق؟ (مثل: Kitchen/ Housekeeper etc.)

8- ماذا تعني لك الاستدامة في مجال صناعة الفنادق؟

توفير المياه والطاقة.

مخلفات طعام أقل.

شراء مواد رقيقة بالبيئة .

الحصول على جوائز للحفاظ في الاستدامة

شراء منتجات محلية الصنع

أخرى: أذكرها _____

9- اعط بعض الامثلة التي واجهتها في الفندق فيما يتعلق بموضوع الاستدامة.

10- ما هي المواد الطبيعية التي تحتوي عليها قائمة الطعام في الفندق؟

11- هل توفر قائمة طعام تحتوي على مواد طبيعية نعم لا.

12- هل يشجع الفندق استخدام قوائم طعام طبيعية ان وجدت نعم لا.

13- هل يعيد الفندق استخدام حقائب الطعام أو أيه أدوات أخرى نعم لا.

14- هل يقوم الفندق باستئجار شركات لتنظيم اجراءات عمل الاستدامة نعم لا.

15- هل تعيد استخدام المواد المعدلة ام تقوم ببيعها بدل رميها نعم لا.

16- هل يقوم الفندق بتطبيق ما يلي:

المقياس	نعم	لا	ملاحظات
يوجد برنامج لاعادة تدوير النفايات في المطبخ			
يوجد برنامج لادارة مخلفات الطعام			
يوجد برنامج لاعادة تدوير الزيوت			
توجد مقاييس لتخفيض نسبة الادخنة والابخرة			
يطبق الفندق سياسات بيئية معينة			

			توجد معايير صحية يستخدمها الفندق في اختيار الموظفين
--	--	--	---

17- برأيك ما مدى تطبيق فنادق الخمس نجوم للمعايير التالية:

المقياس	لا تطبق	تطبق بدرجة قليلة	متوسطة التطبيق	تطبيق بشكل كامل
إدارة النفايات				
توفير الطاقة				
توفير المياه				
شراء أدوات صديقة للبيئة				

18- هل تعتقد أن قلة الدعم المالي من الحكومة أو البلدية تعمل على اجراءات الاستدامة في الفندق،
 نعم لا.

19- هل تمنع التكاليف العالية من تطبيق معايير الاستدامة في قسمك، نعم لا، واذكر التفاصيل.

20- هل تعتقد أن قلة العائد من الاستثمار يعوق مبادرات المحافظة على البيئة في الفندق، نعم لا.

21- ما هي الجوائز أو الشهادات التي حصل عليها الفندق:

Eco Label

Green Globe

Certification of Sustainable Tourism

ISO 14000

أخرى،

22- هل يعتبر مفهوم الاستدامة من القضايا المهمة في صناعة الفنادق في الأردن؟ نعم لا

23- أذكر أية ملاحظات تظن أنه يجب التركيز عليها في صناعة الفنادق في الاردن؟

24- برأيك هل يوجد ابتكار في قضايا الحفاظ على البيئة في صناعة الفنادق في الاردن؟ نعم لا.

25- ما هي الابتكارات المطبقة في مجال الحفاظ على البيئة في الفنادق في الاردن؟

26- كيف تتعلم الموظفين على اجراءات تخفيض الهدر في المصادر وادارة المخلفات؟

27- أعط ثلاث طرق لاعادة تدوير المخلفات الصلبة في الفندق.

1- ما هي الاجراءات البيئية التي يستخدمها الفندق للمساهمة في الحفاظ على سلامة وصحة الموظفين؟
2-
3-

29- هل يوجد مقياس لاستهلاك الطاقة في القسم ، نعم لا.

30- هل تقيس استهلاك المياه على أساس الدائرة أو القسم، نعم لا.

شكرا لتعاونكم

التدبير الفندقى Housekeeper/ Equivalent

المعلومات الديموغرافية

- 1- الجنس: _____ ذكر _____ أنثى
- 2- العمر : <25 25-35 35-45 45-55 55+
- 3- المستوى التعليمي:
- ثانوية عامة فما دون دبلوم دبلوم عالي بكالوريوس دراسات عليا
- 4- معدل الراتب الشهري تقريبا:
- أقل من 1000 دينار 1000-1500 دينار 1500-2000 دينار أكثر من 2000 دينار
- 5- كم هي المدة التي عملت فيها في هذا الفندق ؟ _____ أشهر _____ سنة
- 6- كم هي المدة التي عملت فيها في مجال الفندقة ؟ _____ أشهر _____ سنة
- 7- ما هو المنصب الحالي في الفندق؟ (مثل: Kitchen/ Housekeeper etc.)

8- ماذا تعني لك الاستدامة في مجال صناعة الفنادق؟

توفير المياه والطاقة.

مخلفات طعام أقل.

شراء مواد رقيقة بالبيئة .

الحصول على جوائز للحفاظ في الاستدامة

شراء منتجات محلية الصنع

أخرى: أذكرها _____

9- كيف تصنف ممارسات الاستدامة التي يتبعها الفندق الذي تعمل فيه.

الأولوية	متدنية جدا	متدنية	متوسطة	عالية	عالية جدا
توفير الطاقة					
شراء أدوات صديقة للبيئة					

Appendices

					توفير الماء
					تقليل المخلفات
					أدارة المخلفات الصلبة

10- ما هي ما هي أدوات الاستدامة التي يطبقها الفندق في مجال عملك؟

11- هل يتم استخدام مصطلح الاستدامة في الفندق نعم لا.

12- هل سبق أن عملت في برامج الاستدامة في الفندق، نعم لا، اذا كانت اجابتك نعم فاذكر المكان

والمدة.

13- قم بوصف مفهوم الاستدامة بجملة واحدة.

14- قيم اجراءات الاستدامة في الفندق:

الاولوية	منخفض	متوسط	عالي	عالي جدا
تخفيض النفقات				
رأي الزبون				
فوائد طويلة الأمد مثل المحافظة على البيئة				
الاحتفاظ بالزبائن				

15- هل من سياسة الفندق توفير غرفة للتدخين نعم لا.

16- هل يساهم الفندق بدعم الجمعيات الخيرية، نعم لا، ما هي أوجه الدعم.

17- ما هي الاجراءات الفعالة في استخدام الطاقة في الفندق.

18- هل يوجد مفتاح اضاءة في الغرف نعم لا.

- 19- هل يوجد مفتاح كهربائي رئيسي للغرف على المداخل نعم لا.
- 20- هل يتوفر في الغرف نظام التحكم بدرجة الحرارة نعم لا.
- 21- هل يشجع الفندق استخدام أجهزة توفير الطاقة نعم لا.
- 22- ما هي الاجراءات المستخدمة لتقليل استخدام المياه في الغرف؟
- 23- هل ضغط الماء في مقعدة الحمام 1.6 جالون أو أقل نعم لا.
- 24- هل يتوفر في الحمام النظام الثنائي في استخدام الماء نعم لا.
- 25- هل يوجد نظام في شور الحمام بضغظ ماء 2.5 جالون/ دقيقة نعم لا.
- 26- هل يستخدم الفندق أجهزة توفير المياه على بطاريات المغاسل نعم لا.
- 27- هل يطبق الفندق سياسة اعادة استخدام البياضات والمناشف نعم لا.
- 28- هل تعتقد أن قلة الدعم المالي من الحكومة أو البلدية تعمل على اجراءات الاستدامة في الفندق، نعم لا.
- 29- هل تعتقد أن قلة العائد من الاستثمار يعوق مبادرات المحافظة على البيئة في الفندق، نعم لا.
- 30- برأيك عندما يقوم الفندق بتبني استراتيجيات الاستدامة فإن ذلك يعطيه ميزة تنافسية مقابل الفنادق التي لا تستخدم مثل هذه الاستراتيجيات، نعم لا.
- 31- برأيك من المسؤول عن الترويج لاجراءات الاستدامة في صناعة الفنادق في الأردن؟
- مالكي الفندق الحكومة
- الزبائن المزودون
- إدارة الفندق، أخرى:
-
- 32- هل يعتبر مفهوم الاستدامة من القضايا المهمة في صناعة الفنادق في الأردن؟ نعم لا
- 33- أذكر أية ملاحظات تظن أنه يجب التركيز عليها في صناعة الفنادق في الاردن؟
- 34- برأيك هل يوجد ابتكار في قضايا الحفاظ على البيئة في صناعة الفنادق في الاردن نعم لا
- 35- ما هي الابتكارات المطبقة في مجال الحفاظ على البيئة في الفنادق في الاردن؟

شكرا لتعاونكم

قسم الشراء Purchasing Manager / Equivalent

المعلومات الديموغرافية

- 1- الجنس: ذكر _____ أنثى _____
- 2- العمر: <25 25-35 35-45 45-55 55+
- 3- المستوى التعليمي:
- ثانوية عامة فما دون دبلوم دبلوم عالي بكالوريوس دراسات عليا
- 4- معدل الراتب الشهري تقريبا:
- أقل من 1000 دينار 1000-1500 دينار 1500-2000 دينار أكثر من 2000 دينار
- 5- كم هي المدة التي عملت فيها في هذا الفندق؟ _____ أشهر _____ سنة
- 6- كم هي المدة التي عملت فيها في مجال الفندق؟ _____ أشهر _____ سنة
- 7- ما هو المنصب الحالي في الفندق؟ (مثل: Kitchen/ Housekeeper etc.)

8- ماذا تعني لك الاستدامة في مجال صناعة الفنادق؟

توفير المياه والطاقة.

مخلفات طعام أقل.

شراء مواد رقيقة بالبيئة .

الحصول على جوائز للحفاظ في الاستدامة

شراء منتجات محلية الصنع

أخرى: أذكرها _____

9- في مؤسستك يتم قياس معايير الاستدامة، نعم لا.

10- هل يقوم الفندق بشراء طاقة رقيقة بالبيئة، نعم لا.

11- قيم اجراءات الاستدامة في الفندق:

الاولوية	منخفض	متوسط	عالي	عالي جدا
تخفيض النفقات				
رأي الزبون				
فوائد طويلة الأمد مثل المحافظة على البيئة				
الاحتفاظ بالزبائن				

- 11- هل تعتقد أن مقياس الاستدامة جزء مهم من فندقك، نعم لا.
- 12- هل يقوم الفندق بشراء طاقة رقيقة بالبيئة، نعم لا.
- 13- هل يقوم الفندق بشراء منتجات محلية، نعم لا.
- 14- هل يقوم الفندق أجناس من الأسماك معرضة للانقراض نعم لا.
- 15- ما هي المشاكل التي تواجه الفندق عند تطبيق معايير الاستدامة وما هو مدى صعوبتها؟

مشكلة	نعم	لا	ملاحظات
الدعم المالي من البلدية أو جهات حكومية			
التكلفة العالية للمعدات			
التكلفة العالية عند الاستثمار في مجال الاستدامة			

- 16- هل التكاليف العالية تعوّق مبادرات الاستدامة في قسمك نعم لا.
- 17- برأيك هل يحصل الفندق على مميزات تنافسية عند تبنيه لاستراتيجيات الاستدامة مقابل الفنادق الأخرى التي لا تتبناها؟ نعم لا، واذكر التفاصيل.
- 18- هل يعتبر مفهوم الاستدامة من القضايا المهمة في صناعة الفنادق في الأردن؟ نعم لا
- 19- أذكر أية ملاحظات تظن أنه يجب التركيز عليها في صناعة الفنادق في الاردن؟
- 20- برأيك هل يوجد ابتكار في قضايا الحفاظ على البيئة في صناعة الفنادق في الاردن نعم لا
- 21- ما هي الابتكارات المطبقة في مجال الحفاظ على البيئة في الفنادق في الاردن؟

قسم المطبخ Kitchenالمعلومات الديموغرافية

- 1- الجنس: ذكر _____ أنثى _____
- 2- العمر: <25 25-35 35-45 45-55 55+
- 3- المستوى التعليمي:
 ثانوية عامة فما دون دبلوم دبلوم عالي بكالوريوس دراسات عليا
- 4- معدل الراتب الشهري تقريبا:
 أقل من 1000 دينار 1000-1500 دينار 1500-2000 دينار أكثر من 2000 دينار
- 5- كم هي المدة التي عملت فيها في هذا الفندق؟ _____ أشهر _____ سنة
- 6- كم هي المدة التي عملت فيها في مجال الفندق؟ _____ أشهر _____ سنة
- 7- ما هو المنصب الحالي في الفندق؟ (مثل: Kitchen/ Housekeeper etc.)

8- ماذا تعني لك الاستدامة في مجال صناعة الفنادق؟

توفير المياه والطاقة.

مخلفات طعام أقل.

شراء مواد رقيقة بالبيئة .

الحصول على جوائز للحفاظ في الاستدامة

شراء منتجات محلية الصنع

أخرى: أذكرها _____

Appendices

9- كيف تصنف ممارسات الاستدامة التي يتبعها الفندق الذي تعمل فيه.

الأولوية	متدنية جدا	متدنية	متوسطة	عالية	عالية جدا
توفير الطاقة					
شراء أدوات صديقة للبيئة					
توفير الماء					
تقليل المخلفات					
أدارة المخلفات الصلبة					

10- ما هي ما هي أدوات الاستدامة التي يطبقها الفندق في مجال عملك؟

11- برأيك ما مدى تطبيق فنادق الخمس نجوم للمعايير التالية:

المقياس	لا تطبق	تطبق بدرجة قليلة	متوسطة التطبيق	تطبيق بشكل كامل
إدارة النفايات				
توفير الطاقة				
توفير المياه				
شراء أدوات صديقة للبيئة				

12 - هل يقوم الفندق بتطبيق ما يلي:

المقياس	نعم	لا	ملاحظات
يوجد برنامج لاعادة تدوير النفايات في المطبخ			
يوجد برنامج لادارة مخلفات الطعام			
يوجد برنامج لاعادة تدوير الزيوت			
توجد مقاييس لتخفيض نسبة الادخنة والابخرة			
يطبق الفندق سياسات بيئية معينة			

			توجد معايير صحية يستخدمها الفندق في اختيار الموظفين
--	--	--	---

13 - هل يطبق الفندق المعايير التالية:

- Energy Star
- LEED EBOM
- ISO 14001

14- ما هي المشاكل التي تواجه الفندق عند تطبيق معايير الاستدامة وما هو مدى صعوبتها؟

المشكلة	نعم	لا	ملاحظات
الدعم المالي من البلدية أو جهات حكومية			
التكلفة العالية للمعدات			
التكلفة العالية عند الاستثمار في مجال الاستدامة			

15- برأيك هل يحصل الفندق على مميزات تنافسية عند تبنيه لاستراتيجيات الاستدامة مقابل الفنادق الأخرى

التي لا تتبناها؟ نعم لا، واذكر التفاصيل.

16- برأيك من المسؤول عن الترويج لاجراءات الاستدامة في صناعة الفنادق في الأردن؟

- مالكي الفندق
- الحكومة
- الزبائن
- المزودون
- إدارة الفندق

أخرى: _____

17- هل يعتبر مفهوم الاستدامة من القضايا المهمة في صناعة الفنادق في الأردن؟ نعم لا

18- أذكر أية ملاحظات تظن أنه يجب التركيز عليها في صناعة الفنادق في الاردن؟

19- برأيك هل يوجد ابتكار في قضايا الحفاظ على البيئة في صناعة الفنادق في الاردن نعم لا

20- ما هي الابتكارات المطبقة في مجال الحفاظ على البيئة في الفنادق في الاردن؟

شكرا لتعاونكم

Appendix 7: Participants Information and Consent Form

Participant Information Sheet and Consent Form (General) Completion Guidance

This Word version of the Participant Information Sheet (PIS) and Consent form is for general use only. There are specific forms on the website for students, medical, staff and parents and care givers. These are PDF files. If you are unable to work with the PDF files you can use this Word version as the starting point and add in any additional information required on those forms.

The form can be customised in line with the guidance below. **Please DO NOT submit the instruction pages with your application.**

When completing the form you should:

1. Create a separate PIS for each participant group, if different groups will be asked to do different things. If creating more than one PIS for the project, please ensure that the heading of each differentiates between them. Also see above re standard specific forms for particular students, medical, staff and parents and care givers.
2. If the researcher is a student include the text re Supervisor's names(s) as written in this Word version.
3. The information in this document should match the information in the NEAF (particularly section 6)
4. Write for a lay reader, that is, someone who is not an expert in the field and who will need to have the information presented to them in an easy to understand way. The questions in the form are asked as if the participant is asking them. You should use language like 'You will be asked....'
5. Complete all sections. The only sections which can be removed, if either is not relevant is **Can I tell other people about the study?** and **Data Storage**. It is preferable to include the statement about data storage, especially if making data available is part of the funding requirements of your project. However, where it is clearly not appropriate, the statement can be removed.
6. Enter the relevant text where there is [enter text] and remove brackets and any other instructional text from the document. Remove the instructions pages.
7. Go into the document Footer and add the date you have created the document and a version number, i.e. the first time you submit this document to the Human Research Ethics Committee it will be Version 1. If you are asked to make adjustments after assessment you will call the document Version 2 with a new date.
8. When explaining what the study will involve and how long it will take – be explicit about the participant experience and if more than one experience is required detail these in an easy to

Participant Information Sheet and Consent Form Version [] [Date]

1

