

12-2014

Assessment of the effect of sustainability practices on financial leakage in the hotel industry in Jordan

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ASSESSMENT OF THE EFFECT OF SUSTAINABILITY PRACTICES ON
FINANCIAL LEAKAGE IN THE HOTEL INDUSTRY IN JORDAN

A Dissertation
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy
Parks, Recreation and Tourism Management

By
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December 2014

Accepted by:
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ABSTRACT

Tourism revenues are not an accurate indication of the financial impact of this industry because in some cases a proportion of the profits leaves the host country for various reasons, resulting in what is referred to as leakage. The research reported here investigates this issue in connection with the sustainability practices of hotels in Jordan, one of the strategies firms and governments can adopt to enhance performance and to address problems related to environmental, community, and economic development adding a novel contribution to the tourism literature.

A mixed method approach was used to collect and analyze the data obtained from 18 semi-structured interviews conducted with randomly selected hotel managers to obtain an enhanced understanding of the financial leakage in Jordanian hotels. In addition, a self-administered survey was distributed to hotel managers in all 213 classified hotels in Amman, Aqaba, Petra, and the Dead Sea area. Of these, 163 questionnaires were returned for a response rate of 76.5%. A coding technique was used to analyze the qualitative data while frequency analysis, Confirmatory Factor Analysis CFA, and Structural Equation Modeling SEM were used to test research hypotheses.

The results of the qualitative and quantitative analyses complemented each other. The qualitative results revealed that Jordanian hotel managers have a high level of awareness regarding the financial leakage issue because they could explain its main channels, the primary reasons for it, and potential ways for mitigating it. Furthermore, the results indicated that sustainability practices have a positive effect on financial leakage. Specifically, it was found that high class and chain hotels have more sustainability

practices and higher financial leakage than low class and independent hotels, results supported by past research. However, the educational level of hotel managers did not have a significant effect on either issue.

The results from this study help hotels develop financial and conservation strategies benefitting their local economies, resources, and cultures. They may also enhance our understanding of the importance of community involvement in tourism. Future research could include a longitudinal study exploring the evolution of sustainability in the hotel sector. In addition, it could be extended to such tourism businesses as restaurants and souvenir shops.

DEDICATION

This dissertation is dedicated to my loving parents for their endless love, support, and prayers, to my beautiful wife for being supportive, loving, and patient during this journey, to my lovely kids Mohammed and Bana, to my brother Ali and my sisters. I am grateful to have you all in my life.

ACKNOWLEDGMENTS

I would first like to express my deepest gratitude to my committee chair, Dr. Kenneth Backman, who has given me a high self-confidence when he told me at the beginning of this research that you are the leader pushing me to be an independent researcher. From the bottom of my heart, thank you Dr. Ken for your guidance, patience, understanding, and support during my time at Clemson University. To Dr. Sheila Backman, you've taught me the insistence to achieve my goal, how to think out of the box and how to tie every article, information, or idea to my research. To Dr. William Norman, who has a special school in thinking and teaching, I did the best to meet his high standards. Thank you for serving on my committee giving me your valuable comments. Special thanks goes to Dr. Dewayne Moore, who has provided me his precious time helping me throughout the process of statistical analysis that he taught me how to be more precise and organize. Thank you all for your generous assistance, valuable feedback, and contributions.

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CHAPTER ONE

INTRODUCTION

Background of the study

Tourism is often identified as the world's fastest growing industry in terms of its contribution to the global GDP and its foreign exchange earnings and job creation (Scheyvens & Momsen, 2008). According to the UNWTO, international tourism has grown steadily from 438 million arrivals to international destinations in 1990 to 681 million in 2000 to 935 million in 2010, with approximately 1.6 billion estimated by the year 2020. As these travel data suggest, this sector is among the most dynamic in the world economy, offering opportunities economic development (Walpole & Goodwin, 2000).

For this reason many developing countries look to the tourism industry as a powerful and feasible force for achieving economic growth (Aniah et al., 2009), attractive because of the competitive advantages it offers, including stable domestic prices, economic diversification, and foreign exchange income. Furthermore, this industry is considered a labor-intensive one with the potential for creating employment for locals either directly in the tourism sector or indirectly in related tourism businesses, especially attractive as these jobs generally do not require high levels of specialization and because they encourage the employment of women employment (Mathieson & Wall, 1989), a traditionally marginalized source of labor.

The primary source of these economic effects is tourist expenditures on a wide variety of goods and services that generate new levels of consumer demand for the host economy (Galdon, et al, 2013). As long as these financial resources are spent or re-spent locally, they foster economic development in the host countries. However, often these revenues are not an accurate indication of positive impact from tourism as in some cases the benefits are mostly enjoyed outside the region (Lacher & Nepal, 2010; Supradist, 2004). This proportion of the profits generated by tourism that flows out of the host country is referred to as leakage (Pérez-Ducy de Cuello, 2001, Rahman 2012). Thus, the accurate economic benefit of tourism to the host country is represented by the proportion of revenue retained after deducting the foreign exchange costs of tourism, not by the gross foreign exchange earnings (Smith & Jenner, 1992).

Economic leakage

This economic leakage is the primary reason tourism has failed to achieve economic development for local economies (Lacher & Nepal, 2010; Mitchell & Ashley, 2007). While it may pump significant income into the local economy, it generates minimal benefit if these resources do not remain there. The issue becomes how to capture a greater share of this income, i.e. how to keep it from flowing to outside parties through various pathway (OECD, UNCTAD, 2013) such as foreign ownership of the tourism industry businesses, imported resources, and foreign tour operators as well as airlines (Sinclair, 1991). Estimating this rate of economic leakage in a community requires determining tourist expenditures in terms of where it is spent, how much of it remains and how much of it leaves the community over time. High rates of leakages are

generally viewed as a challenge of a community to take full advantage of the opportunities offered by tourism (Tyson, 2005).

However, determining this leakage is challenging because tourism is a complex industry involving multiple services and thus, an extensive supply chain consisting of all the suppliers of all the goods and services provided to the consumers. It involves such diverse components as accommodations, transport, restaurants, handicrafts, food production, waste disposal, and the infrastructure that supports tourism at a particular destination. This range of services requires a similar range of participants in both the private and public sectors cooperating to supply the various products and services to the final consumer (Song, 2012; Font et al., 2008). According to past research, because of this complexity and the overlapping between the various sub-sectors, the economic leakage in tourism is difficult to track, a situation further complicated by the fact that economic leakage has a negative impact on the ability of local communities, creating an anti-tourism feeling from the residents that also has the potential to adversely affect future economic growth and sustainability (Supradist, 2004).

To address this issue, the first part of this study will investigate financial leakage in one component of tourism supply chain, specifically the hotel industry in Jordan. The goal is to identify the main channels of financial leakage and potential ways to reduce it to a level leading to the achievement of economic development. The investigation of economic leakage reported here may help increase the tourism benefits to other destination areas and encourage more sustainable economic growth. According to past research, obtaining such growth requires that a region increase its level of self-sufficiency

by strengthening the links among the economic sectors, something that the tourism industry can provide given its varied and extensive supply chain (Lacher & Nepal, 2010).

Sustainable tourism development

As an industry, tourism relies on the natural environment, historic sights, urban infrastructure and local culture, all attractions that face depletion over time (Sobhana, & Sampada, 2012). To minimize the negative impact that may result from tourism activities, the industry is now focusing its efforts and attention on alternative forms of tourism, for example sustainable tourism (Bohdanowicz, 2005a; Butler, 1993; Kirk, 1998; Mensah, 2006), a paradigm shift from the past trend of mass tourism.

Since the 1980s, sustainable development has received much attention from governments, planners, and academics. The Brundtland Commission Report provided the widely embraced definition of sustainable development as a one “that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987: 43). Sustainable development applied to the tourism industry is a worldwide phenomenon that aims to provide well-defined guidelines to tourism service providers to act responsibly towards the socio-economic and ecological environments (Sobhana, & Sampada, 2012). It requires a suitable balance between the economic, socio-cultural and environmental aspects. Environmental sustainability requires optimal use of the environmental resources maintaining essential ecological processes and helping to conserve the natural heritage and biodiversity. Socio-cultural sustainability involves respecting the authenticity of host communities, conserving their built and living cultural heritage and traditional values, and contributing to inter-cultural understanding and

tolerance. Economic sustainability requires ensuring long-term economic operations, providing socio-economic benefits to all stakeholders fairly, including stable employment and income-earning opportunities and social services to host communities. Both participation by all stakeholders in delivering tourism services and the maintaining of a high level of tourist satisfaction are required to achieve sustainable tourism development, meaning what is needed is the optimal use of the environmental resources, respect for the socio-cultural authenticity of host communities, and a viable, long-term economic operation (Rigall-I-Torrent, 2008; Spenceley, 2010).

Although the literature indicates many definitions for sustainability, sustainable development and sustainable tourism, they all suggest that that the final goal is mitigating the negative environmental impacts of various economic businesses and reducing the unnecessary inputs (Smerecnik & Andersen, 2011). In this context, the scholars and business leaders have realized that the appropriate way to maintain continuous economic benefit is by achieving social equity and ecological integrity, what is referred to as the “Triple Bottom Line” (TBL) (Smerecnik & Andersen, 2011). In the tourism industry, which depends primarily on natural resources, financial and ecological aspects will be threatened if the former are depleted.

The TBL is of special interest to the hotel industry as it is classified among the high consumptive components of tourism in terms of energy, water, and non-durable products due to its functions and characteristics as a service provider (Bohdanowicz, 2005a; Erdogana & Baris, 2007; Kasim, 2009; Mensah, 2006). In addition to the consumption of local and imported products, the environmental impacts created by the

hotel industry include facility management and potential harmful emissions into the air, water and soil (Erdogana & Baris, 2007, Mensah, 2006). Consequently, many interested stakeholders, including academic researchers, have criticized the general policies and the daily professional practices of the hotel industry, the services they consume and provide, and the resulting environmental impacts. In addressing these concerns, many hotels around the world have adopted sustainable tourism practices to reduce the negative impacts of their activities having realized their responsibilities in protecting the environment (Mensah, 2006, Ayuso, 2006).

The research conducted here investigated the linking of sustainability practices with the financial leakage levels in the hotel industry, adding a novel contribution to the tourism literature. In addition, it applies a holistic definition of sustainable development including the pillars of economic, sociocultural and environmental aspects, while most of the previous studies have focused on only one dimension of sustainability, primarily the environmental aspect as in the research conducted by Mensah (2006). Mihalic, et al. (2012), however, extended this research are by including the hotel industries in other countries, comparing their performance along all three business bottom lines (economic, social and environmental). This study further extend this research by focusing on the current sustainability practices in Jordanian hotels through an investigation of the three business bottom lines tying it to the financial leakages.

Theoretical background

Export base theory and the multiplier effect

This research uses the framework of the export base model, which suggests that a region must earn income to survive by producing a good or service that the other countries and regions will purchase. The resulting income injected into the local economy through these products and services has a multiplier effect as it is re-spent locally. The level of re-spending is based on how many local businesses and consumers buy from the local businesses (Hughes, 2003).

This theory suggests that a region must increase its monetary inflow to grow, with Andrews and Teibout concluding that exports are the primary source of this revenue (Krikelas, 1992). The income earned by exports is, in turn, spent locally, creating jobs in local-serving sectors, with those employees spending their increased income locally, generating additional jobs (Krikelas, 1992). The export base theory asserts that the multiplier times the change in export employment or income is equal to the total change in employment or the income of the region.

It is believed that tourism has the potential to bring economic benefits to a region by creating employment and generating income through various rounds of re-spending (i. e. the multiplier effect). These multiple rounds of spending and re-spending magnify the total spending because even though each subsequent round of spending becomes smaller as a result of leakages, the overall effect is still much greater than the original injection. However, as asserted by Fennel (2003), when evaluating the impact of money on the

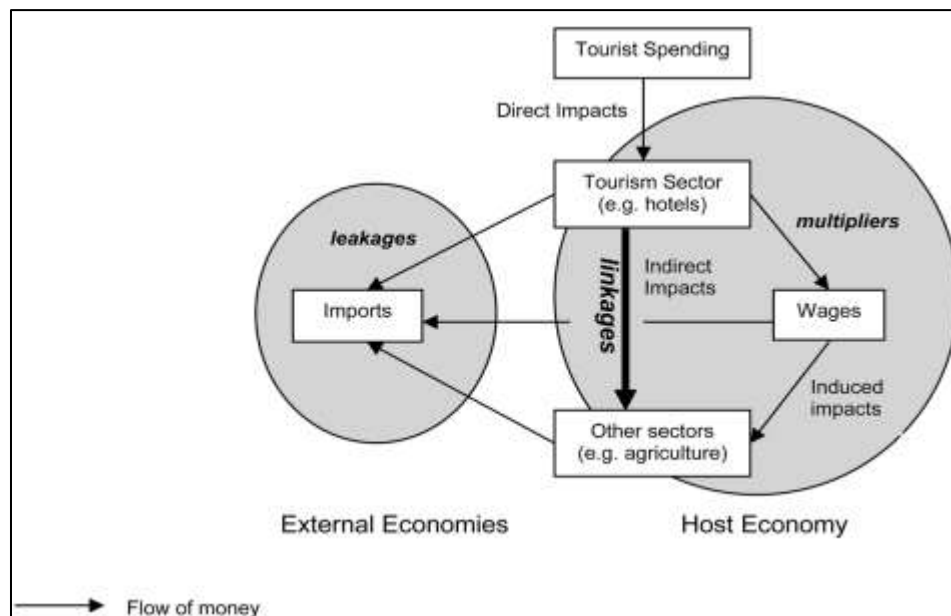
economy, researchers must consider the multiplier effect and the associated concept of leakage.

Because the multiplier effect emphasizes how additional rounds of spending continue to impact the local economy after the money is initially spent (Lacher & Nepal, 2010), it represents the capacity of tourism to generate economic development by examining the impact of tourist spending in a destination area, which, in turn, serves to generate income, employment, and a range of other benefits for the host economy (Pearce, 1989). When examining tourism, multipliers often exhibit substantial international variations depending on the structure and size of the economy in which the tourism activity takes place. In addition, there is a wide range of visitor spending patterns and how the receipts from tourism are spent by front-line tourism businesses (Meyer, 2007).

Although it is argued that the tourism industry is well positioned to create significant direct, indirect, and induced economic impacts (Goodwin, 2007), several studies have reported that the multiplier effects of tourism are often considerably less than expected and that the international orientation and organization of mass tourism requires substantial investment costs, resulting in a dependency on foreign capital, skills, and management personnel as well as imports (Meyer, 2007). The study of seven Caribbean countries conducted by Karagiannis, (2004) (cited by Meyer, 2007) reports multipliers as low as 0.39, while only four countries (St. Lucia, Dominica, St. Vincent and the Grenadines, and Trinidad and Tobago) show multipliers of 1.56, 1.59, 1.79 and 2.00 per dollar of tourist spending, respectively. Based on disappointing multipliers, it is,

thus, often suggested that tourism is not necessarily a powerful development agent in emerging countries (Oppermann & Chon, 1997).

In general, the economic impacts of tourism are grouped into three categories: direct, indirect, and induced. Direct impacts are those coming from the initial tourist expenditure (e.g. the money spent on accommodations) (Meyer, 2007). A hotel buying inputs (goods and services) from other business in the economy generates indirect impacts. Leakages result if these goods and services need to be imported (i.e. money flowing out of the destination for the purchase of imports). Induced impacts are generated if hotel employees spend part of their wages to buy various goods and services locally (Meyer, 2007). The following model illustrates the economic impact of tourism through multiplier theory arriving at the financial leakage.



Figur1.1 Multiplier effect and leakage in tourism (Source: Meyer, 2007)

Tourism in Jordan

Between the establishment of the country in 1921 and the latter half of the 20th century, tourism in Jordan was primarily religious, specifically Muslim pilgrims using the Hijaz Railway to travel to the holy sites in Mecca and Medina in Saudi Arabia. However, since the 1980s, other types of tourism have emerged, including heritage tourism, ecotourism, adventure tourism, health tourism, and business tourism (Al Haija, 2011). During the first decade of the 21st century, Jordan experienced a steady increase in tourism, with more than 8 million arrivals in 2010 of which 4.55 million were overnight visitors (Table 1), reflecting international tourism receipts of more than JD 2.423 billion* and a contribution of 12.4% of the national GDP (Ministry of Tourism and Antiquities MOTA, 2012).

Table 1.1 The Number of arrivals and tourism receipts 2004-2010.

	2004	2005	2006	2007	2008	2009	2010
Tourism Arrivals	5,586,659	5,817,370	6,712,804	6,528,625	7,100,483	7,084,552	8,247,135
Tourism Receipts* (Billion)	.943	1.021	1.461	1.638	2.089	2.067	2.423

Source: MOTA, 2010

* JD1 = US\$ 1.4

Tourism is currently the second largest private sector employer and the second highest producer of foreign exchange in the country (Al Haija, 2011), with the total number of employees working in the industry reaching 46,667 in 2013, up from 22,110 in 2003, and it “is estimated to support several hundred thousand full time-equivalent jobs

economy-wide when the full multiplier impact is accounted for” (Jordan National Tourism Strategy 2011-2015, MOTA, 2011). This increase is attributable to the overall growth in the hospitality industry.

As one of the most important sectors in Jordan’s economy (12.4% of GDP), tourism is one of the highest producers of foreign exchange in the country (CBJ, 2013), the primary markets being the Arabs, the largest segment; the Europeans; and the Americans. Many positive economic effects of tourism result from the hospitality industry. The Jordanian Ministry of Tourism and Antiquities (MOTA) estimates that the share of the accommodation sector from package tours or purchases made by travel agents is 39.8%, a result exceeding Goss-Turner’s (1996) finding that approximately one-third of the total trip expenditure goes to the accommodation sector. The employees in different tourism activities in Jordan in 2013 totaled 46,667, of whom 36.3% work in the hotel industry (MOTA, 2013).

Jordan has a competitive advantage over the other countries in the region; it has one of the world’s largest concentrations of iconic archaeological sites because it was home to Nabatenian, Greek, Roman, and Islamic civilizations; it is home to three world attractions, Petra, one of the new Seven Wonders of the World; the Dead Sea, the lowest point on earth; and the Baptism Site of Jesus. Its strategic location in the heart of the Middle East places it at the crossroads of three continents: Asia, Africa, and Europe; and it offers diversified tourism products. For these reasons, the Jordanian government sees tourism as a suitable tool for achieving sustainable economic development, in part because according to the WTO (2003) tourism is expected to grow significantly by 2020

in the Middle East and because Jordan is a strong competitor in this area: in light of globalization, the tourism industry has no trade barriers (Sharpley, 2002), and it can potentially impact other sectors of the economy like accommodation and transportation (Reid & Schwab, 2006).

The rising number of tourists to Jordan has increased the demand for accommodations over the past few years, the number of hotels has increased from 177 in 1998 to 473 in 2008 and reaching 512 in 2013, this is an increase in the number of rooms from 21,865 in 2008 to 26,080 in 2013. Amman, Jordan's capital is home to the majority of hotels at 336, followed by Aqaba with 59, Petra with 39 and the Dead Sea with 8 hotels (MOTA, 2013). Jordan's visitors prefer making Amman their main lodging destination since more services are available there and its location is convenient to other attractive areas of the country.

Almost a decade ago, the country's first comprehensive tourism strategy, the National Tourism Strategy 2004-2010, was published, a result of a partnership between stakeholders from the public and private sectors to coordinate and steer the development of tourism in Jordan. This strategy established important benchmarks for the tourism industry, which helped to guide its development and growth. The National Tourism Strategy (NTS) 2011-2015, developed based on significant achievements of the first, integrated competitiveness and sustainability to maximize the tourism's contribution to the economic and social development of Jordan, while also playing a role in business success and in sustaining the country's natural and cultural assets. The goal of the current strategy is to increase tourism receipts to JD 4.2 billion in 2015.

While much has already been done by the Jordanian authorities to promote the sustainable development of the tourism sector, internal and external factors affect tourism negatively in the country, with one of the primary challenges being energy. Because Jordan is not an oil producing country, it imports more than 94% of its energy (MEMR annual reports, 2001), meaning that the global increases in the price of oil, as seen in early 2008, applied pressure on the tourism sector as the prices of commodities and food have mirrored this rise fuel costs. This increased financial pressure on hotels forced them to raise their prices to maintain a profit margin, the increase in room rates leading to an increase in the cost of accommodations and travel packages, impacting the competitiveness of the Jordanian hotel industry in the region. The lack of water resources represents a second challenge for sustainable development in Jordan since it is classified among the 10 poorest countries in the world in terms of this resource. A further complication is the strain that the more than 1.5 million Syrian refugees arriving over the last two years have placed on the water, energy and infrastructure of the country.

Statement of the Problem

The potential benefits that hotels gain from adopting the Triple Bottom Line philosophy involve not only cost savings but also improved market positioning, improved strategic decision making ability, wider community benefits (Dwyer, 2005), and the ability of firms and managers to become more transparent and informative with their stakeholders (Biddel et al., 2009, Norman & MacDonald, 2004). While several studies have investigated the issue of TBL reporting in the hotel industry (Assaf, et al, 2012; Dwyer, 2005), none has focused on whether TBL reporting influences financial leakage

in the hotel industry. Theoretically, its advantages could mitigate financial leakage (Supradist, 2004). However, there is little concrete evidence to support this theory. To address this issue, this study will investigate the effect of sustainability practices (TBL) on financial leakage levels in the hotel industry in Jordan. In addition, it will attempt to confirm the validity of the studies of Mihalic, et al., 2012, and Assaf, et al., 2012 which concluded that extra research needed to be conducted in other countries through investigating the performance of hotel firms along all three business bottom lines (economic, social and environmental).

Since signing the peace treaty with Israel in 1994, Jordan has witnessed a rapid growth in its tourism industry (Doan, 2006), the rising number of arrivals to the Kingdom increasing the demand for accommodations and hotels. Also, the Investment Promotion Law of 1995 helped attract investment to the Kingdom (Investments, A. B. C., 2009). Therefore, Jordan has attracted large investments in its tourism industry, particularly in the hotel sector, by offering tax incentives to foreign investors, a situation that suggests a leakage in the industry. To consider this, this study will first investigate economic leakage levels in the hotel industry in terms of magnitude, its causes in the various hotel categories (1-5 star ratings), and potential mitigating solutions. In its second phase, this study will analyze the current sustainable tourism practices, including their social, economic and environmental aspects, in the Jordanian hotel industry. In its third and final phase, this study will link tourism leakage levels with sustainable tourism practices in order to identify the potential benefits of using TBL in Jordanian hotels. This assessment aims to understand the effect of sustainability practices on financial leakage levels. The

significance of the study comes from investigating sustainable tourism development indicators (economic, socio-cultural and environmental) and its influence on financial leakage in Jordan's hotels. All of that will be studied in light of the multiplier theory.

The purpose and research questions

The primary purpose of this study is an enhanced understanding of the effect of sustainability practices, specifically focusing on the economic, socio-cultural, and environmental indicators, on financial leakage in Jordanian hotels based on the multiplier theory. Its sub-objectives are to explore the level of financial leakage and to examine the extent to which Jordanian hotels adopt sustainability practices. The study attempted to achieve this purpose through answering the following questions:

- Q1. What is the extent of financial leakage in the hotel industry in Jordan?
- Q2. What is the level of sustainability practices in the hotel industry in Jordan?
- Q3. How do sustainable tourism development indicators relate to the degree of financial leakage in Jordan's hotels?
- Q4. What is the effect of hotel class on the level of financial leakage and sustainability practices in Jordanian hotels?
- Q5. What is the effect of the level of education of hotel managers on the level of financial leakage and sustainability practices?
- Q6. What is the effect of hotel's ownership type on the level of financial leakage and sustainability practices?

Hypotheses

The theoretical framework of this study includes the multiplier effect theory and the triple bottom line (TBL). The multiplier effect refers to how additional rounds of spending (such as indirect and induced spending) continue to impact the local economy after the money is initially spent (Lacher & Nepal, 2010). The multiplier effect summarizes the capacity of tourism for generating economic development in the local economy by examining the impact of additional tourist spending in a destination area, which, in turn, contributes to generating income, employment, and a range of other benefits for the host economy (Pearce, 1989). The TBL emphasizes that a firm's ultimate success should be equally measured based on social and environmental performance in addition to the financial bottom line (Norman & MacDonald, 2004).

Many studies have investigated tourist expenditure leakage (Andriotis, 2002; Campbell, 1999; Chirenje, et al., 2013; Lacher & Nepal., 2010; Walpole & Goodwin, 2000). In general, developing and small island countries are more susceptible to leakage than developed ones because of their weak economies and their dependency on other countries. In 2013, Chirenje, et al. suggested that financial leakage could be reduced by creating strong, sustainable links between ecotourism and other livelihood options, training local communities, expanding local assets and fostering strong local community participation in ecotourism activities. Based on this theoretical framework, this study will test the following hypotheses:

H1: Sustainability practices reduce or negatively related to financial leakage in Jordan's hotels.

H1a: Sustainability practices reduce or negatively related to importing food and beverage in Jordan's hotels.

H1b: Sustainability practices reduce or negatively related to importing materials and equipment in Jordan's hotels.

Past research has suggested that the leakage in five and four stars hotels is higher than for other categories (Andriotis, 2002; Nicholls & Kang, 2012). Lower class hotels depend on the local sources for their food, beverages, furniture and other things, while high class ones rely on imports to meet the expected quality, quantity and standards (Lacher & Nepal, 2010). In addition, the literature has indicated that high class hotels are more sustainable than low class ones (Bohdanowicz, 2005a; Erdogan & Baris, 2007; Hobson & Essex, 2001; Mensah, 2006; Mensah & Blankson, 2013; Nicholls & Kang, 2012) because they have the financial and technological resources needed for undertaking successful environmental management (Mensah & Blankson, 2013). Therefore, these hypotheses will be tested:

H2: Hotel class level does influence sustainability and financial leakage positively.

H2a: Hotel class level does influence sustainability positively.

H2b: Hotel class level does influence importing food and beverage positively.

H2c: Hotel class level does influence importing materials and equipment positively.

The sustainability practices of hotels have been linked to the socio-demographic characteristics of the managers. For example, Rivera and de Leon's (2005) study of the Costa Rican hotel industry found that managers who were more educated were more likely to participate in voluntary environmental programs because of their awareness of the negative impact of the industry on the environment, of the importance of sustainability in increasing the life cycle of the establishment and of attracting customers since the number of "green environment seekers" has increased over the last decade. Hence, the following hypotheses will be investigated:

H3: The educational level of hotel managers does influence sustainability and financial leakage.

H3a: The educational level of hotel managers does influence sustainability positively.

H3b: The educational level of hotel managers does influence importing food and beverage positively.

H3c: The educational level of hotel managers does influence importing materials and equipment positively.

Previous research has indicated that chain hotel management staffs were likely to pay attention to environmental issues and hotel chains have strategic environmental policies and values (Mensah, 2006). Furthermore, the literature has also found that chain hotels have more sustainability practices than independent hotels due to their various resources (Bohdanowicz, 2006; Nicholls & Kang, 2012; Smerecnik & Andersen, 2011; Rahman, Reynolds, & Svaren, 2012; Peršić-Živadinov, 2009). These findings are

supported by the studies suggesting that small and independent hotel staffs were less likely to pay less attention to the environmental issues (Cummings, 1997; Enz & Sigauw, 1999; Kirk, 1998). Regarding financial leakage, previous research has indicated that chain hotels are more likely than independent ones to import from outside (Andriotis, 2002; Hobson & Essex, 2001; Mensah, 2006; Nicholls & Kang, 2012). Therefore, the following hypotheses will be investigated:

H4: Ownership type does influence sustainability and financial leakage positively.

H4a: Ownership type does influence sustainability positively.

H4b: Ownership type does influence importing food and beverage positively.

H4c: Ownership type does influence importing materials and equipment positively.

Based on the theoretical background presented here, this study proposes the model seen in Figure 1.2 suggesting that a high level of sustainability practices may influence the financial leakage in the Jordanian hotel industry. It is hypothesized that the level of the hotel (class), type of hotel ownership, and the educational level of hotel managers relate to the level of sustainability practices and consequently to financial leakage.

As the figure shows, this conceptual model includes the three dimensions of sustainability in the hotel industry. The environmental dimension includes the four factors of energy management, water conservation, environmental education, and waste management, while the socio-cultural dimension consists of local employees, food, and handicrafts, and supporting the local community, and the economic dimension includes

the average room rate, the average occupancy rate, the profitability of capital, and the solvency ratio and cash flow. The aggregate score of the TBL reflects the level of sustainability in Jordanian hotels practices. The three financial leakage indicators are importing food and beverage (fruit and vegetables, alcoholic and nonalcoholic beverages, and sea food); importing material and equipment (furniture, construction materials, and kitchen wares); and remittances which include the proportion of foreign employees and foreign top managers, and the percentage of foreign loans. The sustainability components will serve as the independent variables while the financial leakage indicators are the dependent variables. Structural Equation Modeling (SEM) will be used to investigate the relationship between the sustainability practices (independent variables) and the financial leakage (dependent variables) in the hotel industry in Jordan.

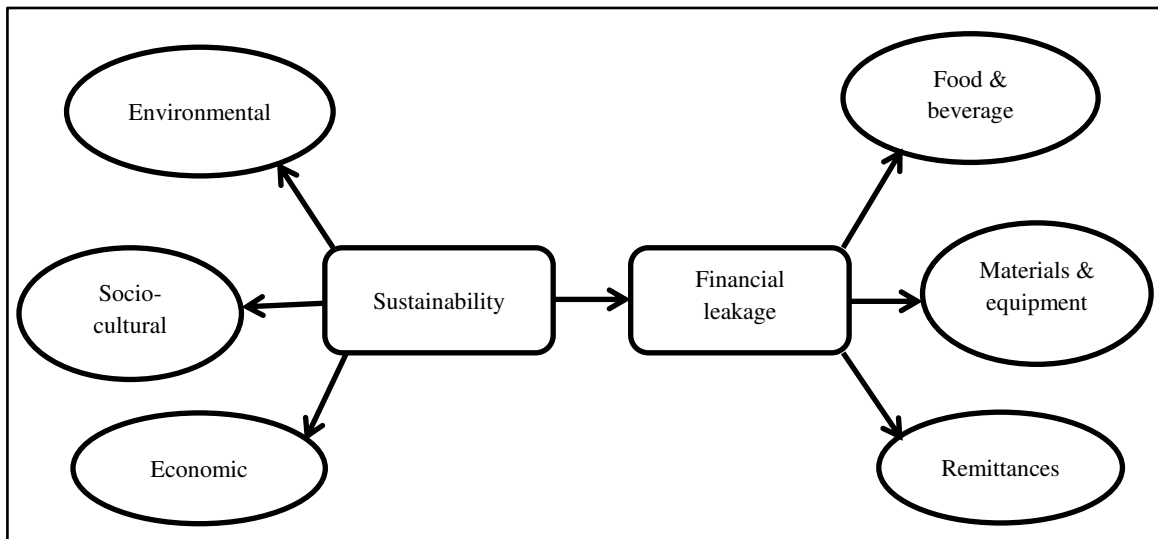


Figure 1.2 Conceptual framework

Relevance of the study

This study is important because of the relevance of the tourism sector to the Jordanian economy, representing 12.4% of the GDP (CBJ, 2013), with the accommodation sector being one of the primary producers of tourism services (Claver-Cortés, E., et al., 2007; Cooper, et al., 1998). As Goss-Turner (1996) indicates, approximately one-third of the total trip expenditure goes to accommodation, also an essential ingredient of the tourism experience. Coupled with their role in economic development, hotels also constitute a primary component in the organized chain of activity in the travel and tourism industry, and as such are crucial in the environmental protection related to tourism and travel, primarily because of the energy, water, and non-durable products they consume (Erdogan & Baris, 2007). Being environmentally and socially responsible, hotels can gain a competitive and cost advantage as well as community recognition (Anderson et al., 1999). To do so from a management perspective requires an effective reporting system to monitor the sustainability of hotel operations while tracking performance relative to the social and environmental objectives. Managers also need to ensure that the firm is improving in terms of being financially, socially and environmentally responsible (Assaf, et al., 2012).

By focusing on sustainable tourism practices in the hotel industry of Jordan and its effect on financial leakage levels, this study addresses a crucial problem in the hospitality industry in Jordan. However, it also offers two broader contributions to the field: first, it proposes a strategy for addressing the financial leakages in the hotel industry by strengthening the links between the hotels and other sectors in the country.

Second, it explores the possibility of applying this strategy to other sectors with high levels of financial leakage, taking into consideration the uniqueness of each.

Definitions of terms

- Sustainable development: A development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987: 43).
- Sustainable tourism development: A suitable balance between economic, socio-cultural and environmental dimensions.
- Financial leakage: The amount subtracted from tourist expenditures for taxes, repatriated profits, wages paid outside the region, and imported goods and services (Lejarraga & Walkenhorst, 2010).
- The export base theory: It suggests that a region must earn income to survive by producing a good or service that the other countries and regions will purchase. The resulting income injected into the local economy through these products and services has a multiplier effect as it is re-spent locally (Hughes, 2003).
- Multiplier effect: A magnified effect on total spending through many rounds of spending and re-spending.
- Triple Bottom Line: The TBL consists of three P's: profit, people and planet. It aims to measure the financial, social and environmental performance of the corporation over a period of time (Elkington, 1998).
- Local people: Everyone with Jordanian citizenship living in the country.

Structure of the dissertation

The introduction provided an overview of the background of the research as well as the problem statement, research objectives, research questions, and hypotheses. The theoretical background for this study was also presented, with its contributions and relevance being discussed at the end. The second chapter reviews comprehensively the literature relevant to this study in the areas of sustainable development and financial leakage, discussing them and the related issues. The third chapter explains the methodology of this study, including the sampling design, the survey instrument, the data collection, the validity and reliability of the information collected and the data analysis used in this study. The study results are discussed in the fourth chapter, while the fifth presents the conclusions, limitations and future research.

CHAPTER TWO

LITERATURE REVIEW

Since financial leakage is a chronic problem that most of developing countries face in tourism industry, the current study seeks to investigate this problem specifically in the hotel industry. In order to do so effectively, an understanding of the past research conducted on this issue as well as of the research on sustainability is needed. While a thorough review of the literature is beyond the scope of this study, the discussion in this chapter focuses on situating the study reported here in the context of the research conversation concerning these two areas.

Financial leakage in tourism

Tourism is seen as an important tool for economic development, especially in emerging countries because of the injection of financial resources into the host economy it provides, one that creates new levels of consumer demand, foreign exchange earnings and employment (Claver-Cortés, et al., 2007; Holjevac, 2003). The economic benefits of tourism disseminate, eventually reaching a large proportion of the population in the host countries. However, tourism revenues are not an accurate indication of the positive impact of tourism because in some instances, these benefits flow outside the countries (Brown, 1998; Lacher & Nepal, 2010; Mbaiwa, 2005; Supradist, 2004), this proportion of the profits, thus, not available for circulation (re-spending) or consumption of goods and services locally (Pérez-Ducy de Cuello, 2001, Rahman, 2012).

This situation is referred to as financial leakage, which is defined as the amount of tourist expenditure spent on imported goods and services, taxes, repatriated profits, and wages paid outside the region subtracted from the total (Lejarraga & Walkenhorst, 2010). For example, a proportion of the money spent by tourists leaks back to foreign-owned tour operators, hotels, and airlines (Kontogeorgopoulos, 1998; Prosser, 1992). As Sandbrook (2010) explains, essentially it is “the failure of tourist spending to remain in the destination economy.” Although financial leakage occurs in many industries, it is considered a serious problem in the tourism industry, especially in developing countries (Mowforth & Munt, 2003; Supradist, 2004).

As can be seen in Table 2.1, there are three main types of leakage. The first, export or external leakage, occurs when overseas investors who own the hotels take their profits back to their home countries. The second type, import leakage, arises when tourists demand standards of equipment, food, and other products that cannot be supplied by the host country. In this case the host country must cater to tourist demand by importing these, the cost of which comes from tourist expenditure. Last, invisible leakage includes the foreign exchange costs or losses that originate in the economic space of the tourism service provider but are neither documented nor properly accounted for as a tourism sector cost such as such as evading or not being legally required to pay a particular tax and offshore savings and investments. The study reported here investigates import leakage in Jordanian hotels since the other two are difficult to track, focusing on the three primary elements of importing food and beverages, importing materials and equipment, and importing foreign labor and managers.

Table 2.1 Financial leakage types

Types of economic leakage	Definition
External/export leakage	Tourism expenditure originating outside of the tourism destination linked to domestic industries such as profit repatriations and external debt amortization.
Internal/Import leakage	Losses or costs due to tourism activities originating in the economic space of the tourism service provider that are paid and accounted for domestically such as imported goods & services and costs paid locally for labor/capital from foreign sources.
Invisible leakage	Foreign exchange costs or losses originating in the economic space of the tourism service provider but are neither documented nor properly accounted for as a tourism sector cost such as evading or not being legally required to pay a particular tax, informal currency exchange transactions, and offshore savings and investments.

Sources: (Gollub et al., 2003, Perez and Cuello, (2001), Smith and Jenner (1992), UNEP (2004), UN Atlas of the Ocean (2004), WTO (2001). The table from Supradist, 2004.

Many studies have investigated leakage in tourism (Andriotis, 2002; Campbell, 1999; Galdon, J.L et al., 2013; Lacher & Nepal., 2010; Sandbrook , 2010, Supradist, 2004; Walpole & Goodwin, 2000), the findings in general suggesting that developing and small island countries are more susceptible to leakage than developed ones (Supradist, 2004). According to the WTO (2001), financial leakage for most developing countries ranges from 40 to 50% of the gross tourism earnings for small economies and between 10 to 20% for the more advanced advance. For example, 70% of the money spent by tourists in Thailand leaked out from the country, 80% from the Caribbean and 40% from India (WTO, 2001). Similarly, Dieke (1993) estimates that leakage levels from tourism in The

Gambia in the early 1990s were 77% for charter operations, a category reflecting a combination of internal and external leakages.

Supradist (2004) conducted a qualitative analysis of economic leakage, proposing a tool for examining the main factors causing it. He also analyzed various variables that can affect the local economy, identifying points where leakage could be mitigated. His theoretical model is based on the tourism value chain (Gollub, Hosier, & Woo, 2004) which is used as a tool for evaluating leakage.

Galdon, et al. (2013) investigated which type of entrepreneurial environment results in a low level of leakage. In addition, they found that reducing leakage has the potential to improve the level of satisfaction among employees and customers, thereby improving a firm's competitive position. In this study, the researchers measured economic leakage using a quantitative approach, calculating the leakage produced by customers and the leakage caused by suppliers.

However, Sandbrook (2010) found that despite the considerable leakage (75%) at Bwindi Impenetrable National Park, Uganda, the tourism revenue retained was clearly the dominant input in the local economy. He argued that high levels of leakage do not necessarily negate the potential of tourism as a tool for development in poor, rural areas of developing countries.

Extending previous research (Weaver, 1998; Walpole & Goodwin, 2000; Torres, 2003; Mbaiwa, 2005), Lacher, & Nepal (2010) focused on village-level leakages as an indicator of the degree of local involvement in the tourism industry using interviews to estimate them. By subtracting total income from total revenues, the leakage per resident

and per tourist was identified. They found that economic leakage could be reduced by improving the involvement of local community in tourism development.

The contributory factors of economic leakage in tourism differ by destination, with the literature indicating that the primary reasons for it are the lack of capital, local ownership, and local employment (Hemmati & Koehler, 2000; Mbiawa, 2005; Sandbrook, 2010) as well as a lack of linkage between the tourism sector and the local economy (Britton, 1982; Lacher & Nepal, 2010; Sandbrook, 2010; Torres, 2003) and the weakness of the structure and operation of the tourism infrastructure (Kontogeorgopoulos, 1998). Frequently, the existence of economic leakages is cited as a core explanation for why tourism does not generate the desired level of local economic development in peripheral regions (Lacher & Nepal, 2010; Rogerson & Rogerson, 2010; Trejos & Chiang, 2009).

UNWTO (1995:53) identified the following seven primary channels of leakage:

- Imports of materials and equipment for construction
- The import of non-durable goods such as food and beverage
- Repatriation of income and profits obtained by foreigners
- Foreign loans including commissions paid to foreign banks and credit cards and for agencies used by tourists
- Marketing and promotion expenses abroad
- Payments for foreign tour operators and agencies
- Education abroad and training costs of tourism employees
- Taxes paid to government.

In his study, Supradist defines the tourism value chain as “a continuum of related economic activities from various stakeholders in the region and is associated with visitors. It starts from tourists’ holiday planning in their home country, to stakeholders in the destination country beginning with transportation, accommodation, food and entertainment, shopping and visiting experience. Each element along the chain may cause different types of leakage” (Supradist, 2004). The capacity of destinations to capture the benefits from tourism growth depends critically upon the strengthening of the local links in the value chains (Christian et al., 2011).

As concluded in the literature, leakages are an integral aspect of tourism for which there is no simple panacea due to the nature and operation of the industry. Chirenje et al. (2013) suggested various strategies for reducing such economic leakages, including creation of strong and sustainable links between ecotourism with the other livelihoods, training local communities, expanding local assets and encouraging strong local community participation in ecotourism activities. In addition, past research has also suggested increasing links between tourism and the local economy (Lacher & Nepal, 2010; Sandbrook, 2010) increasing local ownership (Milne, 1987), reducing the size of firms (Andriotis, 2002, Rodenburg, 1980), increasing domestic tourism (Seckelmann, 2002), and increasing the level of host involvement (Nyaupane, et al. 2006).

Financial leakages in the hotel industry

There are many potential sources of financial leakages in the hotel industry, ones that affect the development and ownership of a hotel from the earliest stages. The first stage of leakage can happen during the acquisition of the land and the initial planning,

design and engineering phases, meaning that future profits from the project will be shared with sources external to the region (Gollub, et al., 2002). In addition, construction loans with longer-term mortgages may be serviced by non-local banks as might the legal and insurance services, the construction firms, the construction materials and equipment, and the human resource administration. In relation to the study reported here, this type of leakage was hard to track since most of hotels investigated were established so long ago that the current managers did not have information about the initial finances. Therefore, this information will not be considered here.

Once a new hotel is full developed, a wide array of regional services may be needed to support its operations, the second stage of leakage. A considerable amount of the total operation revenue of an accommodation can be sent out of a region to international providers because management does not have adequate resources to meet the international brand affiliation. Because many newly developed hotels seek to ensure quality and to attract travel agents, tour operators, and tourists, they contact international hospitality firms to manage their facilities. In this stage, leakage occurs through such ways as accounting and payroll functions; reservation and communications systems; water, air, heating and power systems; furnishings; and workforce.

Food and beverage leakage is the third stage. The primary reason for this type of leakage is the weak links between domestic food production and the food processing industries and the hospitality industry. For this reason, the hotel will be rely on imported foods, both raw and processed, even when these products are available locally. In

addition, food production equipment, from planting and harvesting to processing and packaging, frequently is imported, even though appropriate services are often available in the region (Gollub, et al., 2002).

Sustainable Tourism Development

Growing concerns on the impact of tourism on the environment have led to the tourism industry embracing the concept of sustainability (Wall, 1997, Kirk, 1998). In 1987, the Brundtland Report defined sustainable development as that which “meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987: 43). The Earth Summit in 1992 and Agenda 21 further increased awareness in sustainable development, evidenced by the attention given to it by researchers and institutions that led to its transfer from concept into practice (Hobson & Essex, 2001). Historically, the term has been used to refer to operations that do not harm the environment (Mensah, 2006). In more recent years, the concept has expanded to include practices that promote social, economic and environmental equality. In the context of tourism, this concept matured quickly as evidenced by the number of books, articles, conferences and more recently The Journal of Sustainable Tourism (Marin & Jaffari, 2002).

In 2004, The UNWTO revised its definition for sustainable development of tourism to better reflect the sustainability issues in tourism. This new conceptual definition emphasizes” the balance between environmental, social, and economic aspects of tourism; the need to implement sustainability principles in all segments of tourism” (Mowforth, & Munt, 2008). The economic dimension requires viable, long-term

economic operations, providing socioeconomic benefits to all stakeholders fairly, including stable employment and income-earning opportunities as well as social services to host communities. The socio-cultural dimension requires respecting the authenticity of the human rights of host communities and equal opportunities for all of society, supporting equitable distribution of tourism benefits, and conserving the built and living cultural heritage and traditional values. The environmental dimension refers to conserving and managing resources, maintaining essential ecological processes, and helping to conserve the natural heritage and biodiversity in such a way that the pollution of air, land and water is minimized and biological diversity and natural heritage are preserved (UNWTO, 2004).

Recently, tourism has seen the implementation of sustainable development principles globally. Tourism literature includes many definitions for sustainability and sustainable development (Butler, 1999b; Page & Dowling, 2002). For example, the World Tourism Organization's (WTO, 2001) initial definition refers to sustainable tourism development as one that meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future, and Cater (1993) identifies three key objectives for sustainable tourism: meeting the needs of the host population in terms of improved living standards both in the short and long term, satisfying the demands of a growing number of tourists, and safeguarding the natural environment in order to achieve both of the preceding two aims. Farrell (1999) refers to what he calls the "sustainability trinity," which aims at the smooth and transparent integration of economy, society and environment.

A few scholars have explored the differences between the three terms, sustainability, sustainable development, and sustainable tourism development (Butler, 1999, Harris & Leiper, 1995). Sustainability is broadly considered state-focused, implying steady life conditions for generations to come. Sustainable development tends to be process-oriented and associated with managed changes that bring about improved conditions for those involved in such development. Similarly, sustainable tourism is defined as all types of tourism, both conventional and alternative forms that are compatible with or contribute to sustainable development. However, in this context, development does not necessarily involve growth as it is essentially a process of realizing “specific social and economic goals which may call for a stabilization, increase, reduction, change of quality or even removal of existing products, firms, industries, or other elements” (Liu & Jones, 1996).

In further clarifying the term, Todaro (1997) emphasized that development is “multi-dimensional process involving major changes in social structure, popular attitudes and national institutions, as well as the acceleration of economic growth, the reduction of inequality and the eradication of poverty.” Tourism, through its face-to-face contact between the hosts and the visitors and the demonstration effect, often introduces new ideas, values, and lifestyles, stimuli for both economic and social progress. Since most international travelers come from the developed world, the cultural impacts of tourism are often seen as Western influences. The developed countries not only have achieved a level of sophistication both technologically and economically but also have many elements of modern Western culture such as fairness, openness, social mobility and

human rights that represent the universal values of mankind (though these values are not always observable in the tourist host–guest interaction). Even their mass consumption and materialism, often seen as negative, are usually conducive to economic development.

While recognizing the economic benefits of tourism, some researchers appear to emphasize its social and cultural impacts may be harmful. For example, Croall (1995) claims that tourism has trivialized cultures, brought about uniformity, and has had adverse effects on traditional ways of life and the distinctiveness of local cultures. However, preserving cultural heritage, maintaining traditional values and providing authentic experiences for tourists have often been highlighted as important elements of the current concept of sustainable tourism. In addition, most sociocultural changes brought about by tourism development are beneficial, and the unique role of tourism in promoting modern values, social progress and cultural evolution should be appreciated.

For the purposes of this research, sustainable tourism development means a suitable balance among its economic, socio-cultural and environmental dimensions. In addition, a balance has to be achieved between the satisfaction of the tourist and the host community. More specifically, sustainable tourism requires the optimal use of the environmental resources, respecting the socio-cultural authenticity of the host community and conserving its cultural heritage and traditional values, while economic sustainability requires ensuring long-term economic operations and providing socio-economic benefits to all stakeholders fairly. Participation of all stakeholders in delivering tourism services and the maintaining of a high level of tourist satisfaction are also required to achieve sustainable tourism development (Rigall-I-Torrent, 2008; Spenceley, 2010).

Tourism literature has emphasized how crucial it is to maintain a balance between the environmental and sociocultural interests and the economic pressures to achieve the sustainability of the tourism industry (Cater & Goodall, 1992; Harris & Leiper, 1995; Inskip, 1991; Jafari, 2000; Wall, 1997). Also, Cottrell, Vaske, & Roemer (2013) indicated that all four dimensions (environmental, economic, socio-cultural, and institutional) should be included for a holistic approach to planning and monitoring sustainable tourism development. Therefore, this study will use the holistic concept of sustainability in assessing the effect of sustainability on financial leakage in the hotel industry in Jordan.

Sustainability in the hotel industry

The role of the hotel industry in economic development has been the focus of increasing attention in literature (Sharpley, 2000). While tourism generates significant benefits to local and international economies; the hotel industry poses serious environmental and sociocultural threats. Research is increasingly finding that tourists are becoming more aware of the seriousness of environmental problems, meaning they are becoming more ecologically conscious, seeking to purchase eco-friendly products and services, and preferring firms that support environmental practices (Han, et al., 2009; Kalafatis et al., 1999; Roberts, 1996). While the number of customers seeking eco-friendly accommodations has grown, some hotels have used their environmentally friendly practices as an effective marketing strategy to achieve competitive advantage in the lodging industry (Manaktola & Jauhari, 2007).

Applying the term sustainability to the hotel industry entails “meeting the current desires of the guests, employees, and local communities without sacrificing the desires of future generations” (Sheehan, 2007). Similarly, the Green Hotels Association (2008) defines green hotels as “environmentally friendly properties whose managers are eager to institute programs that save water, save energy and reduce solid waste, while saving money to help protect our one and only earth,” while the UNWTO’s holistic definition of sustainability involves taking care of the needs of guests and local communities alike without impairing the ability of future generations to do the same (UNWTO, 2004). In order for a hotel to be truly sustainable, it must not only be environmentally conscious but it must also demonstrate a commitment to the local community.

The response of the tourism industry to the concept of sustainable development has been positive in the last 15 years. In the accommodation sector, large businesses have adopted various initiatives to promote the principles of sustainability (Hobson, & Essex, 2001). Since the early 1990s, growing efforts have been taken to make the hotel industry “greener” by reducing energy and water consumption as well as the emissions released into the air, water, or soil (Bohdanowicz, 2005a; Tzschentke et al., 2004). Tourism companies, mostly hotel facilities, have also adopted initiatives to show their commitment to sustainable development (Ayuso, 2006, Kirk, 1998). For example, the 1993 International Hotel and Environment Initiative (IHEI) resulted in a manual composed by nine of the world’s major hotel companies, specifying how the environmental performance of hotels could be improved (Middleton & Hawkins, 1993).

This document not only emphasized how hotels could promote sustainability efforts but also that commitment to the community and support for social equality were needed.

Recently, a growing body of literature has investigated sustainability practices in the hotel industry, attempting to evaluate and identify the level of performance for these practices throughout the world (Bohdanowicz, 2005a; Erdogana & Baris, 2007, Kasimu et al, 2012; Mensah, 2006; Mensah & Blankson, 2013; Mihalic, Zabkar, & Cvelbar, 2012; Nichollas & Kang, 2012; Rahman, et al., 2012; Smerecnik & Andersen, 2011). For example, Kasimu, et al. (2012) studied the sustainable tourism practices (STP) found in Malaysia, investigating the current level of the contribution of hotels to environmental practices and the role of hotel managers in adopting practices which protect the environment. In measuring sustainable tourism practices, they adapted the 19 items from Park (2009), while another 14 original items were used to measure the benefits of adopting the Environmental Management System Policy in hotels in Kuala Lumpur and Selangor, Malaysia.

Mensah and Blankson (2013) identified the factors measuring the environmental performance of hotels in Ghana and examined the socio-demographic characteristics of managers and the organizational characteristics that determined the environmental performance of Ghanaian hotels. For this study, environmental performance was determined by an aggregate score calculated based on the performance of a hotel in the 10 key areas of environmental management: conservation, waste management and recycling, environmental education and communication, support for local communities, compliance with environmental laws and legislation, eco-labeling and certification,

environmental auditing, environmental health and pollution prevention, green marketing, and green purchasing. They found that that larger and better class hotel had better environmental performance while affiliation to foreign multinational chains did not necessarily predict better performance.

Rahman, et al. (2012) investigated the environmentally friendly practices of American hotels, examining no-cost or low-cost practices of green hotels in the United States. They found that chain hotels were stronger adopters of green practices than independent hotels due to the leveraging economies of scale through uniform corporate practices. In addition, hotels in the Midwest were found to be the most environmentally friendly in terms of their use of no-cost or low-cost green practices. The researchers also found that that many hotels could not afford the upfront costs of dramatic overhauls to become more eco-friendly. However, there are many no-cost or low-cost practices that, when implemented with a little ingenuity, do not require large initial investments.

Erdogana and Baris, (2007) found that Ankara's hotels in Turkey generally have weak environmental protection and conservation policies and practices, and that most hotel managers lack the necessary environmental knowledge and interest to meet the basic objectives of social and environmental responsibility. Consequently, they recommended developing an integrated system of policy and practice involving not only the hotel management and staff but also all parties concerned with environmental protection and sustainability, and to re-evaluate and reconsider national, local, and hotel policies and training activities.

Triple bottom line

Local communities, governments, residents and the tourism industry share the task of protecting and maintaining the natural and cultural heritage resources, both to sustain the current economy and to ensure the culture is passed on to future generations. In 1998, Elkington provided a comprehensive approach for measuring the sustainability performance of firms using what he referred to as the Triple Bottom Line (TBL), which consists of the three P's of profit, people and planet. It aims to measure the financial, social and environmental performance of the corporation over a certain period of time. The Triple Bottom Line of sustainability is used to refer to a business that addresses the environment, economy, and society equally. To be truly sustainable, firms need to generate economic welfare (profit) while also benefiting society (people) and all environmental resources (planet) (Dwyer, 2005).

TBL is a planning and reporting system and a decision-making framework that focuses on measuring and controlling the economic, environmental and social dimensions which are necessary for a firm to be successful (Cvelbar & Dwyer, 2013; Norman & MacDonald, 2004). Because firms cannot be successful in the long run if they consistently disregard the interests of key stakeholders, TBL responds to the stakeholder demands relevant to the company. Therefore, for sustainable tourism to be realized at a destination, the hotel industry must implement sustainability practices.

According to research conducted by Smerecnik and Andersen (2011), hotels may gain competitive advantages by adopting the TBL principles of social equity, ecological integrity, and financial profitability. Assaf, et al., (2012) analyzed the impact of TBL on

firm performance in Slovenian hotels using the Data Envelopment Analysis (DEA) method. They found that increased reporting on environmental, social and financial issues led to improved hotel performance. These researchers recommended future studies in other countries to validate their results, one reason why this study analyzed TBL in relation to Jordanian hotels.

Mihalic, et al., (2012) developed the Hotel Sustainability Business Model (HSBM) seen in Figure 2.1 for measuring the economic, social and environmental performance of the hospitality industry in Slovenian hotels. Based on a comparative analysis of the existing sustainability and triple bottom line models, the content of a three-line HSBM (economic, environmental and sociocultural) was extended to include customer satisfaction, environmental education and power to implement changes. The results indicated that Slovenian hotel managers were aware of the importance of environmental and social performance goals, but could not implement them because of the pressure of economic goals. Economic performance was the dimension most frequently monitored in Slovenian hospitality firms (66%), followed by social performance (42%), with environmental performance being the least monitored at 28%. In addition, the researchers recommended extending this study to hotel industries in other countries by comparing the performance of hotel firms along all three business bottom lines (economic, social and environmental). This also forms part of the motivation for the research reported here as it focuses on the current sustainability practices in Jordanian hotels by investigating the three business bottom lines.

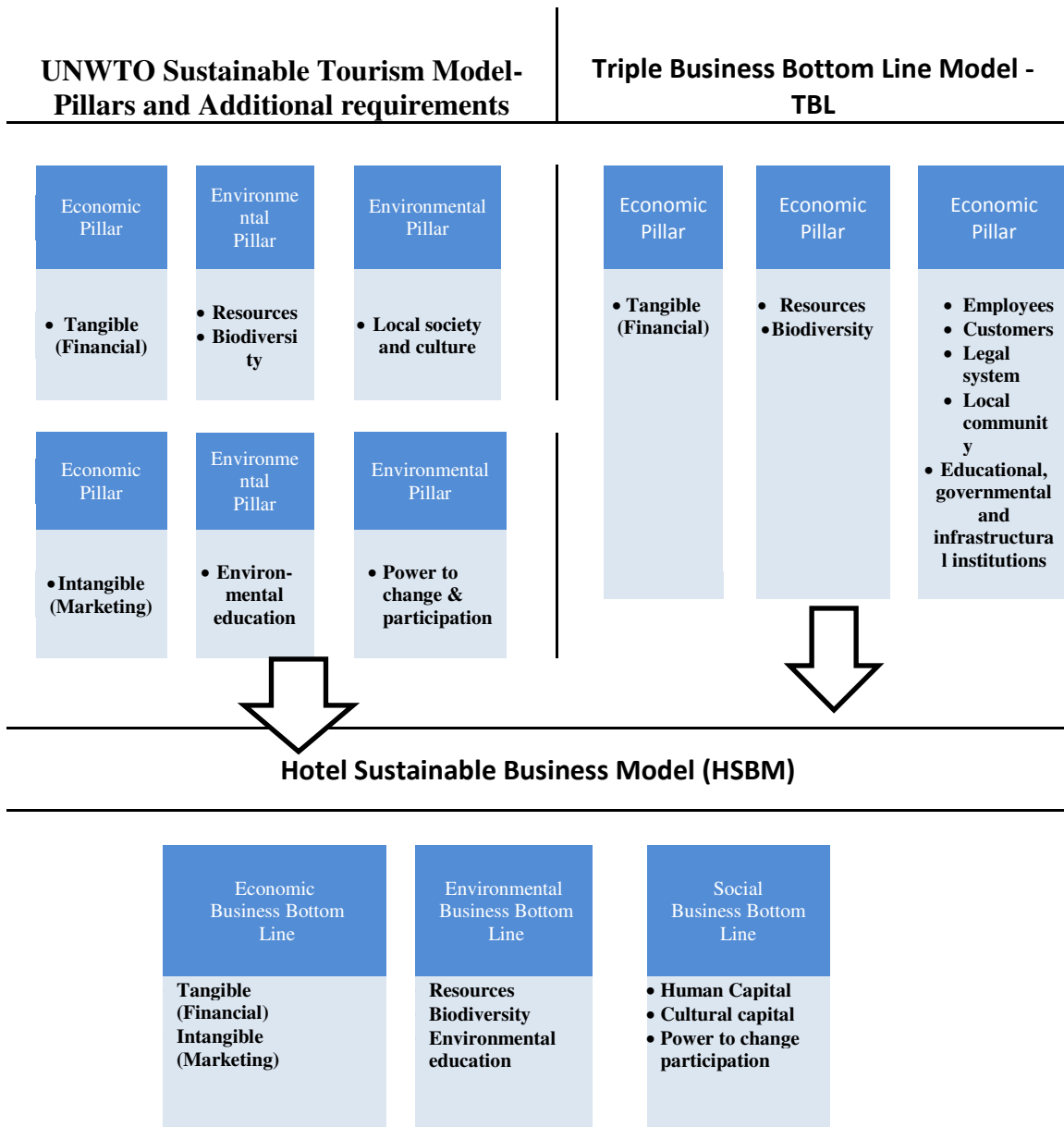


Figure 2.1 Hotel Sustainability Business Model (HSBM), Mihalic, T, et al, (2012).

Why Jordanian government sees tourism as a suitable tool for economic development? According to Reid and Schwab (2006), the Jordanian government has adopted tourism as a tool for achieving sustainable economic development for several reasons: (1) The WTO (2003) expects tourism to grow significantly by 2020 in the Middle East, and historically, Jordan is a strong competitor in this area; (2) In light of globalization and deregulation, Jordan and other governments see tourism as a safe strategy for economic growth since the tourism industry has no trade barriers (Sharpley, 2002); (3) The tourism industry has multiple links with other sectors of the economy including the accommodation and transportation sectors (Sharpley, 2002); (4) Tourism utilizes free natural, cultural, and heritage resources, meaning it requires little infrastructure support (Sharpley, 2002).

Tourism is one of the most important sectors in Jordan's economy (12.4% of GDP) and one of the highest producers of foreign exchange in the country (CBJ, 2013). Its primary markets are the Arabs, which is the largest segment; the Europeans; and the Americans. Many economic benefits come from the hospitality industry. The Jordanian Ministry of Tourism and Antiquities (MOTA) estimates that the GDP share of the accommodation sector from package tours or purchases made by travel agents is 39.8%, a percentage exceeding the one-third of total trip expenditures reported by Goss-Turner (1996). The employees involved in various tourism activities in Jordan in 2013 totaled 46,667, up from the 22,110 in 2003, of which 36.3% work in the hotel industry (MOTA, 2013). This significant increase in the last decade can be attributed in part to the overall growth in the hospitality industry.

Since signing the peace treaty with Israel in 1994, Jordan has witnessed a rapid growth in its tourism industry (Doan, 2006), the rising number of arrivals to the country increased the demand for accommodations and hotels. As a result, the number of hotels in Jordan has grown over the last 15 years from 177 in 1998 to 481 in 2008, reaching 529 in 2014, increasing the number of rooms from 22,507 in 2008 to 26,785 in 2014. Amman, Jordan's capital is home to the majority of hotels with 345, followed by Aqaba with 63, Petra with 40 and the Dead Sea with 8 hotels (MOTA, 2014). Jordan's visitors prefer making Amman their main lodging destination, since more services are available there and its location is convenient for travel to other areas of the country. All Jordanian hotels are members of The Jordan Hotel Association JHA, a non-profit organization founded in 1969 to protect the interests of Jordanian hoteliers in relation to the government and other relevant entities as well as to facilitate joint marketing and training activities.

Few studies have investigated sustainability issues in the hotel industry in Jordan (Ali et al., 2008; Hayek, et al., 2008). The study conducted by Ali, et al. (2008) found that few classified hotels had installed energy saving equipment. In addition, they also found that lighting in the main building and outside areas and air conditioning consume the vast majority of electricity used. Also, they found the high class level hotels were the most willing to use energy efficient appliances to reduce energy consumption.

Hayek, et al. (2008) indicated that a Cleaner Production (CP) team composed of members from Jordan and Switzerland conducted a CP assessment in four hotels in Aqaba and Petra classified as 1, 2 and 3-star hotel. Cleaner Production is a tool that

improves the eco-efficiency of the enterprises by minimizing the environmental impact and maximizing the financial performance of the enterprises. These researchers found that the implementation of CP enhanced the efficient use of resources, and further it advanced the financial position of the enterprises. They recommended two types of sustainability practices: the first one requiring no or low investments such as installing water saving taps and showers, using a dual flushing system for toilets, using dispensers for shampoo and soap, and improving the dish washing procedures. The second type of practices requires moderate to high investments including installing sensors in the windows and corridors and a central cooling system.

The contribution of this study is twofold: first, the issue of sustainability was investigated in the context of the hotel industry in Jordan; therefore, this research attempts to bridge this gap through applying the holistic concept of sustainability. Second, this is the first study to date which assesses the effect of sustainability practices on the financial leakage in the hotel industry taking into consideration that financial leakage is a chronic problem most of the developing countries suffer with, and sustainability is one of the philosophies or paradigms that most of researchers and planers call firms to adopt to enhance their performance and to solve problems related to the environment, community, and economic development.

Benefits of adopting sustainability practices in hotels

Since travel and tourism depend on the attractiveness of local environment, many hotels have been developing sustainability plans to mitigate their impact on the

environment (Rahman et al., 2012). Previous research has shown that hotels adopt sustainability practices for a number of factors, including the growing legislation and regulations concerning environmental and social issues; concerns about increasing shortages of vital natural resources; increased shareholder awareness of the importance of ethically sound corporate investments; and the prominent press and television coverage of the activities of anti-corporate and anti-capitalist organizations and pressure groups (Jones, Hillier, & Comfort, 2013).

Most large companies now publicly demonstrate their commitment to sustainability issues to enhance their competitive advantage, to build their brand and to differentiate themselves from competitors in the marketplace (Jones et al., 2013). In their study, Kaimu, et al., (2012) found that the most important benefit of adopting sustainability practices is the improvement of the perception of the hotel in the eyes of the guests and the local communities, followed by the enhancement of customer and employee satisfaction and motivation, and an improved future for the tourism industry. An improved image enhances revenue generation due to customer satisfaction. Furthermore, scholars have identified that sustainability results in competitive advantages for business enterprises such as the hiring of the best talent; increased employee productivity, satisfaction and retention; commercial sites and facilities; increased revenue and market share; reduced risk, improved relationships with regulators; and easier financing (Bansal & Roth, 2000; Molina-Azorin, Claver-Cortes, Pereira-Moliner, & Tari, 2009; Willard, 2002). Additionally, hotels may derive many potential benefits from introducing TBL reporting into their business model, such as improving efficiency and

cost savings, improving market position, improving relationships with stakeholders, improving the strategic decision-making process within the firm and providing wider benefits for the destination (Dwyer, 2005). Other studies have found that adopting environmentally friendly practices brings such benefits as a reduction in energy consumption, fewer or no penalties assessed by environmental authorities, and accompanying improvements in customer trust and public image (ESCWA, 2003; Fotiadisa, Vassiliadisb, & Rekleitisc, 2013).

Based on this review of the literature, the contribution of this study is twofold: first, the issue of sustainability was investigated in the context of the hotel industry in Jordan; therefore, this research attempts to extend the application of the holistic concept of sustainability to this region. Second, this is the first study to date which assesses the effect of sustainability practices on the financial leakage in the hotel industry taking into consideration that it is a chronic problem for most developing countries and sustainability is one of the philosophies or paradigms that most of researchers and planers suggest firms adopt to enhance their performance and to address problems related to the environment, community, and economic development.

CHAPTER THREE

METHODOLOGY

This study used two methods to address the research questions. In-depth interviews were conducted with hotel managers to improve the understanding of the financial leakage in Jordanian hotels. In addition, a self-administered questionnaire was also distributed to the hotel managers. Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) were subsequently used to analyze the resulting quantitative data.

Research strategy

The primary objective of this study was to identify the effect of sustainable tourism development practices on the financial leakage in the Jordanian hotel industry using a case study methodology, an approach which involves empirical investigation, a strong component of field work applying many sources and documents, interviews, and direct observations (Yin, 1994). As such, it facilitates focus on a specific situation in order to identify the interactive process under investigation as well as allowing for multiple methods of data collection from a wide range of entities. Specifically, the research reported here focuses on examining the financial leakage in Jordan's hotels, relating it to the sustainable tourism practices they have adopted. The rationale for selecting this sector for this research is the high proportion of tourist expenses spent on accommodations as well as the job opportunities and the foreign exchange it fosters.

Study area

Jordan, a small country in the heart of the Middle East between 29° and 34° N latitude and 35° and 40° E longitude, is bordered by Syria, Iraq, Saudi Arabia, Israel, Palestine, and the Gulf of Aqaba (Map 3.1). The country occupies 88,778 km² and has a population of 6.4 million (DOS, 2012). Although small, it has a wide array of natural and cultural resources and tourist destinations, including such unique features as the Dead Sea, Petra, the Baptism Site of Jesus, and the Mosaic Map of Madaba, among others.

The target population of this study is classified hotels with ratings from one to five stars in the four primary tourist destinations of Amman, Aqaba, Petra, and the Dead Sea. These four destinations were chosen for three reasons. First, the hotels in these destinations constitute 90% of the classified hotels in Jordan. Second, they represent different types of tourist destinations in the country. Amman, the capital, has the largest share of services and facilities and is considered an important historical and recreational destination, while Aqaba, approximately 350 km south of Amman, is the only coastal area in the country, also with many recreational attractions, and Petra, one of the most famous archeological sites in the world, is one of the Seven Wonders. These three destinations are the most popular destinations for package tours, constituting 86.2% of the total number (MOTA, 2009). Finally, because of its high salt content, the Dead Sea, the lowest point on earth, is one of the most popular therapeutic destinations in the world, attracting visitors who stay an extended length time for this reason and because it is near the Baptism Site on the eastern bank of the Jordan River.



Map 3.1 Location of the four main tourist destinations in Jordan

Target population

Given to the small number of classified hotels, to ensure a representative sample, this study surveyed all categories of hotels in the four primary destinations in Jordan (Amman, Petra, Aqaba, and the Dead Sea), a total of 228 hotels (See Table3.1). The unit of analysis was the hotel managers/departmental managers. Each of these managers was interviewed using semi-structured interviews for approximately 30 minutes.

Table 3.1. Classified hotels in the study areas.

Hotels class	Amman	Petra	Aqaba	Dead Sea	Total
Five stars	14	6	5	6	31
Four stars	21	3	4	2	30
Three stars	46	10	8	-	64
Two stars	43	-	15	-	58
One star	29	7	9	-	45
Total	153 (67%)	26 (11%)	41 (18%)	8 (4%)	228 (100%)

Source: MOTA (2013), JHA (2013).

The lists of hotels obtained from the Jordan Hotel Association (JHA) and the Aqaba Special Economic Zone Authority (ASEZA) served as a sampling frame. The former was selected because its information is comprehensive, including the hotel telephone numbers, postal address, e-mail addresses and location of all branches hotels in Jordan, with the exception of those in Aqaba. The ASEZA list was selected because of its unique economic zone with financial and managerial independence and special laws. The star ranking was used as the basis for describing the hotels because of the accuracy it

provides in relating the various hotels in terms of the facilities and services offered (Kasim, 2009).

Survey type

A semi-structured questionnaire containing both closed and open-ended questions was used to obtain responses to the research questions. This survey was distributed to the hotel managers after the interviews to collect the data related to sustainable tourism practices and financial leakage in Jordan's hotels. This survey was an appropriate tool for this research as it allowed for obtaining a wide range of data from a number of hotel managers efficiently in terms for time, money, and effort.

The type of survey exhibits a quantitative and cross-sectional design because the data were collected at one point in time as time constraints prohibited a longitudinal study (Dillman et al., 2009). The advantages of this design include the fact that the hotel managers can give reliable reports about the past (retrospective data) before adopting sustainability practices, the measures are based on records that contain information on cases from earlier periods, and the independent variable is fixed at some point prior to variation in the dependent variable. However, this design prevents studying changes over time, and its results require careful analysis to ensure the validity of the relationship found between sustainable development and financial leakage found.

The instrument

The introduction of the survey described its nature and shared the incentive of an executive summary of the results for completing it, in addition to asking for the participants' consent and ensuring their anonymity. If the participants agreed, they

progressed to the survey. The final page thanked the participants and reminded them that their responses would remain confidential and anonymous. Since speaking English well is an important qualification for hotel managers, especially in classified hotels in Jordan, the questionnaire was written in that language.

The questionnaire was divided into four sections: the first dealing with current sustainability practices in hotels using a six- point Likert scale (0 = never, 1= very rarely, 2= rarely, 3 = occasionally, 4 = frequently and 5 = very frequently (Mensah, et al., 2013); the second section covered the issue of financial leakage, the responses recorded as percentages (0 = never, 1= less than 20%, 2= 20-40%, 3= 41- 60%, 4= 61- 80% and 5= above 80%). The third section dealt with hotel characteristics such as size, location, classification, ownership type, number of guestrooms, number of employees; and occupancy rate, while the demographic information of the hotel managers was the subject of section four, including gender, age, education, salary, experience, and nationality.

The survey items were based on previous studies, with appropriate modifications to suit the characteristics of the hotel industry in Jordan. This questionnaire can be seen in Appendix (C). For this study, sustainability practice level was an aggregate score of the three pillars of sustainability: environmental (energy management, water conservation, waste management, and environmental education), sociocultural, and economic indicators. The financial leakage level was represented by the aggregate score of the three categories of food and beverages imported, the materials and equipment imported, and labor.

Pilot study

To enhance the validity and reliability of these instruments, a pilot study using 25 randomly selected hotel managers in Amman was conducted before the final survey was distributed. Since its primary goal was to check whether the answers obtained would provide the information sought and to address phrasing issues, the scale was changed to a 6-point Likert scale instead of five to allow for the hotels adopting some type of sustainability practices or not importing goods. The new choice added was as “never=0.” In addition, several items were modified to be fit the Jordanian culture. For example, in the item “The % of employee salaries in our hotel is higher than at other hotels,” the word salaries was changed to wages to account for the addition of monetary compensation for transportation, residency, health insurance, and tips typically added to the basic salary in Jordan. Also, because the item “Foreign employees in high positions” was found to have a phrasing problem, it was changed to “Your hotel has what percentage of foreign employers in high positions.” After incorporating the changes found through the pilot study, the final survey was distributed.

Data collection

A mixed method approach was employed to collect and analyze the data. A wide range of information was accessed through the use of primary and secondary data collection methods. Primary data were collected from the hotel managers through the interviews and questionnaires, while the population and secondary data were obtained from previous studies conducted by the Ministry of Tourism and Antiquities (MOTA), the Jordan Hotel Association (JHA), the Department of Statistics (DOS), the Aqaba

Special Economic Zone Authority (ASEZA), and field observations. Before the interviews were conducted and the questionnaires distributed, the study was approved by the Clemson University Institutional Review Board (IRB). The data were collected in two phases.

Phase One: Qualitative approach

Given the competitiveness among hospitality firms as well as the lack of official data relating to the financial leakage associated with them, in-depth interviews were used to investigate the leakage in this sector. The primary goal of these interviews was to obtain an increased understanding of the leakage process, the level of leakage, its channels, the main reasons for it, potential solutions to mitigate it, and suggestions for increasing local community involvement in this sector based on the perspectives of hotel managers.

Eighteen semi-structured interviews were conducted with the hotel managers from various areas and classes, 16 men and 2 women. These managers were asked to estimate the proportion of supplies bought within their locality (Andriotis, 2002; Lacher, & Nepal, 2010); the source of goods, furniture, construction materials, and drinks; the nationality of the employees and their salaries. As this method suggests, this study examined the issue of financial leakage in the hotel industry using a qualitative approach, focusing on relative amounts rather than concrete absolute financial figures.

The participants were selected randomly from the hotel managers who attended the conference on Sustainable Tourism in the Mediterranean, which was held in Aqaba, Jordan, from April 1-2, 2014. This conference is the last phase of ShMILE2, a large

project funded by the European Union aiming to encourage adopting EU Eco-label standards in the hotels of France, Italy, Greece, Jordan, Egypt, and Tunisia. In addition to experts in the hotel industry from these countries, most Jordanian managers attended because hotels adopting the EU Eco-label were recognized at its end of the conference.

Before the conference began, the researcher obtained permission from the conference organizer, Jordan's Ministry of Tourism and Antiquities, to conduct the interviews. During the check-in and registration process on the first day, hotel managers were asked to put their business cards in a basket, from which 18 were randomly selected for the interviews. After giving their consent, these managers were interviewed during the two days of the conference. Due to time limitations, 10 were subsequently rescheduled to be conducted at their respective hotels a week later. The interviews, which were tape recorded and conducted in English, averaged 30 minutes in length.

At the beginning of the interview, the participant was asked for his/her meaning of the concept of financial leakage in the hotel industry from a managerial perspective. To ensure that all were responding to the same definition of this phenomenon, the researcher next provided the study's definition of this term as "The amount subtracted from tourist expenditure on taxes, repatriated profits, wages paid outside the region, and imported goods and services." The managers were asked to answer the remaining questions in light of this definition.

Phase Two: Quantitative approach

A self-administered questionnaire was developed to collect the data to increase the response rate and to decrease non-response bias (Dillman, et al., 2009). This

questionnaire was subsequently distributed to the hotel managers/departmental managers to evaluate the level of the implementation of sustainable tourism development and the level of financial leakage in Jordan's hotels. First, personal calls were made to the managers of the hotels where the questionnaires were to be distributed to confirm their willingness to participate (Hobson & Essex 2001, Mensah & Blankson, 2013). The hotels whose managers did not wish to participate or did not answer the phone calls after three attempts were deleted from the sample list.

In total 163 completed surveys were returned for a response rate of 76.5%. More specifically, the response rates for Amman, Aqaba, the Dead Sea, and Petra were 77.8%, 75%, 72, and 75%, respectively. Of the 228 hotels listed in the sampling list, 15 were closed for renovation, 13 in Amman, one in Aqaba, and one in Petra. To avoid missing values and measurement issues, the technique of using two questionnaires, one of them with the respondent and the other one with the researcher was applied, with the respondent answering orally and the researcher filling in the answers on his copy (Dillman, et al., 2009). The survey took place from 1 April to 20 June 2014.

Given the large number of hotels in Amman, 153 to be precise, this region was divided into five geographic zones to facilitate the data collection: Zone 1- the downtown area, Zone 2-Queen Rania Street, Zone 3 - Jabal Amman from the first to the third circle, Zone 4- Zahran Street extending from the third to the eighth circle, and Zone 5- Algardens Street (Wasfi Altal Street) which connects Alshmaisany and Tla'a Alali. The hotels located outside of these zones were visited separately after these zones were completed. This division was based on addresses approved by the sampling frame and

maps from the Greater Amman Municipality. Since Aqaba, Petra and the Dead Sea are smaller than Amman, with fewer hotels clustered in a limited area, there was no need to divide them into zones.

Many steps were taken to maximize the response rate. First, the interviews and the questionnaires were conducted face-to-face by the researcher during the off-season, providing adequate time to meet with the managers and for them to complete this part of the survey (Hobson & Essex, 2001). Second, hotel managers were contacted first by phone to request their cooperation, and third, the interviews were not restricted to general managers since they are frequently busy but were expanded to include such departmental managers as human resources managers, financial managers, operational managers, front office managers, maintenance managers, and housekeeping managers. In many cases, when the interviewees did not know the answers to questions, they were asked to recommend an appropriate manager with that knowledge and at the end the needed data were obtained.

Data analysis

To analyze the data, both qualitative and quantitative approaches were used.

Qualitative analysis

A qualitative approach was used to analyze the interviews in order to obtain an increased understanding of the financial leakage issue in relation to the reasons for it and potential solutions for mitigating it. They were transcribed by listening to the recorded digital files and comparing them with field notes to ensure validity and accuracy. These transcripts were subsequently read to develop a broad understanding of the topic.

Coding was then used to analyze the interviews; first the data were organized; then the information was categorized into themes and sub-themes and finally presented in figures and discussed (Creswell, 2007). The data were coded manually because of time constraints and to enable an in-depth focus on the information itself. In addition, having the data in hardcopy and using colored coding have the potential to enable the exploration of the information from a fresh perspective.

The categories identified were color-coded, and major themes were determined. Subsequently, each transcript was re-read to identify sub-themes and to ensure that they accurately represented the information obtained through the interviews. After multiple readings of the transcripts, the sub-themes identified initially were revised, with appropriate ones being combined and new ones added. New observations, emerging themes and issues were identified and included as they were discovered, and after the transcripts were read for one final time and the relevant information, both supporting and contradicting was verified, the emerging themes were identified.

The results of this analysis were useful in determining the level of sustainability in relation to the level of financial leakage in Jordanian hotels. If sustainability practices were high and the leakage level went down, then it appears that sustainability practices influence the leakage level negatively. However, the effect would be positive if as sustainability procedures increase, the level of leakage also increases. These results, thus, can lead to recommendations.

Quantitative analysis

Data screening

Screening the data was the first and most important step in analyzing the quantitative data before testing the hypothesis. In this process, first the outliers, missing values, and normality issues that could influence the results were addressed. Running the frequencies found that nine items were skewed. The first was the environmental practice of grinding guest soap for use as laundry detergent, its skewness a result of the lack of familiarity of Jordanian hotels with this activity and many of managers claiming that it is not sanitary. The skewness of the other six items involved importing food and beverages directly (fruit and vegetables, fish, meat and sausage, alcoholic and non-alcoholic beverages, and tea and coffee) resulting because the hotels investigated import these products indirectly through suppliers because it is cheaper. To address this issue, the researcher recoded these items as categorical, either yes or not, instead of using the 6-point Likert scale. Also, the items “Taking foreign loans from outside Jordan” and “Importing stationery” have no variation because the interviewees confirmed that foreign loans is very rare. Regarding to importing stationery, it was confirmed that the imported stuff is less than 8%. However, the results still showed no variation in these variables (Table 3.2). All skewed items were subsequently removed from the analysis (Tabachnick & Fidell, 2006).

Table. 3.2. The removed variables

Item	Yes	No
Grinding of guest soap to be used as laundry detergent	13%	87%
Importing fruit & vegetables directly from outside.	5%	95%
Importing fish & sea food directly from outside.	7%	93%
Importing meat & sausage directly from outside.	5%	95%
Importing alcoholic beverages directly from outside.	11%	89%
Importing nonalcoholic beverages directly from outside.	3%	97%
Importing tea & coffee directly from outside.	11%	89%
Taking foreign loans from outside Jordan	4%	96%
Importing stationery	8%	92%

Outliers

The outliers were addressed in two steps, the first one involving dealing with the univariate outliers by using Z-scores. According to Tabachnick & Fidell (2006), a Z-score for an item of more than 3.29 should be deleted, meaning that four cases were removed (108, 45, 6, 8). Next, Mahalanobis' Distance was employed to identify multivariate outliers, based on the calculated chi-square value among all 47 items used in hypothesis testing. Since the critical chi-square value at an alpha order of $P < 0.001$ with a 47 degrees of freedom was 82.7, all cases with a calculated chi-square above that number could be considered as potential outliers (Tabachnick & Fidell, 2006). Although in these data, two cases had a chi-square value above 82.7, examining the graph visually (Figure 3.1) found that they were close enough to the rest of the data to remain included for analysis. In addition, it is clear from the graph that after cleaning the data of outliers and missing values, they became normally distributed.

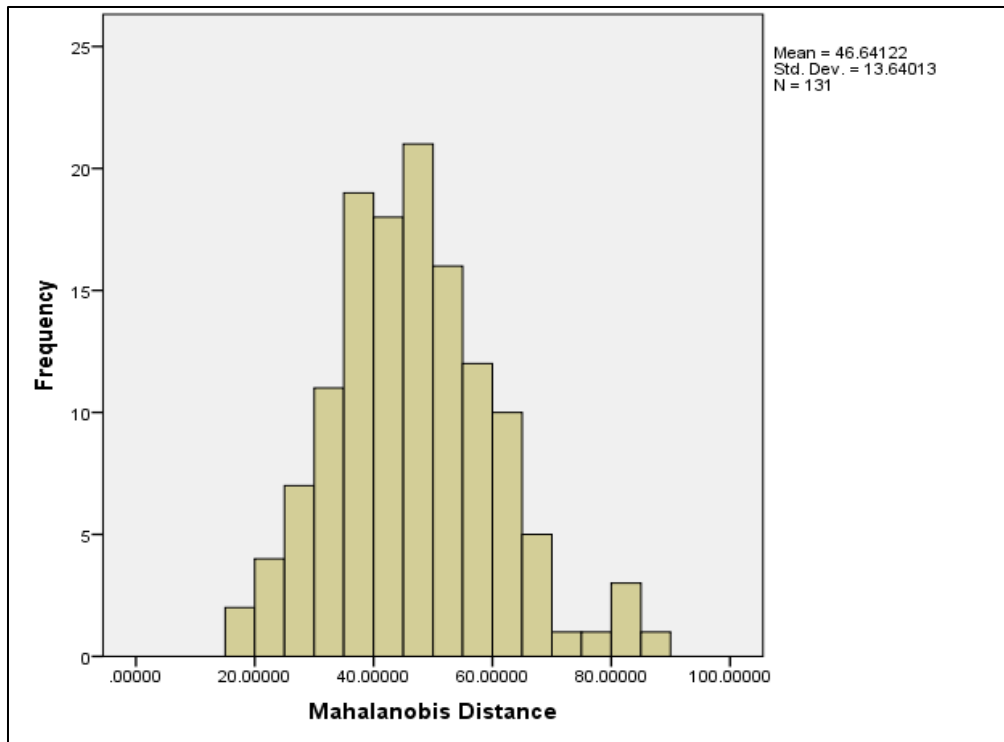


Figure 3.1. Outliers using Mahalanobis Distance

Missing data

The first step of treating missing values is testing if the missing data were random or not. Therefore, the researcher used the EQS software to test the randomness of missing data. The result of the test was not significant indicating that the data were missing Completely At Random. To address the missing values before testing the hypothesis, this study used the Expectation Maximization (EM) method, considered as one of the most reliable, valid techniques for replacing such data in structural equation modeling (Byrne, 2013). The results showed that the missing values were concentrated primarily on two items, the profitability of capital and solvency ratio and cash flow, cases 17 and 19, respectively. This percentage was expected as that economic indicator is a sensitive

dimension to be answered for many respondents. The Mahalanobis Distance test was conducted after this computation to ensure no major changes occurred affecting the data normality.

Normality

Univariate normality of the data was checked by identifying z-score of skewness and kurtosis using SPSS 22. As seen in table 3.2, nine items were highly skewed (> 3.29); consequently, they were deleted (Tabachnick & Fidell, 2006). Also, multivariate normality was examined using Mardia's standardized coefficient (Byrne, 2006). According to Bentler (2006), if Mardia's standardized coefficient is larger than 5, the data are multivariate non-normally distributed, and a robust maximum likelihood method should be used. The result of this measurement model exhibited a Mardia's standardized coefficient of 13.581. Therefore, a robust maximum likelihood method was used to estimate SEM (Kline, 2011).

Statistical analysis

The Statistical Package for the Social Sciences program (SPSS) version 22 was used here for frequency analysis and reliability analysis. All the hypotheses of this study were tested at the significance level of 0.05. Frequency analysis was employed to describe the characteristics of the hotels and the hotel managers, and to describe the level of the sustainability practices and the level of the financial leakage at Jordanian hotels.

In addition, this study employed Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) using the EQS 6.1 program to answer the research questions. In the first step, the issues of outliers, missing values, and normality were

addressed to improve the validity of the data. In the second step, CFA was used to test the factor loading of a scale, meaning it identified the hypothesized relations of the observed variables to the underlying constructs including environmental, economic, and sociocultural aspects. In addition, it was used to determine the items of food and beverage, materials and equipment and remittances used to measure financial leakage in Jordanian hotels. Here, Rho (composite reliability) was applied to measure the reliability of the items and how they are related as a group. The final step used structural equation modeling (SEM) to test the relationship between the sustainability dimensions (independent variables) and the financial leakage (dependent variable) in the hotel industry in Jordan. In addition, the goodness-of-fit indices of chi-square, the Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA) were used to evaluate the model fit for all latent variables. In this context, the fit between the conceptual model seen in Figure 1.2 and the response of hotel managers was assessed. Previously published measures were modified to test the sustainable tourism practice variables (see Table 3.3). The majority of indices were based on a Likert-type scale.

Table 3.3. Measure of variables Independent variables for the study (sustainability practices)

Independent variables	Measure
<i>Environmental indicators</i>	Never =1/ Very frequently = 6
	Installation of occupancy sensors/key card (Erdogan & Baris (2007), Kasimu & Hassan, 2012, Nichollas & Kang, 2012, Smerecnik & Andersen, 2011).
	Using energy efficient equipments and products. (Erdogan & Baris, 2007, Kasimu & Hassan, 2012, Mensah 2006, Mensah &Blankson, 2013, Nichollas & Kang, 2012).
	Renovation of facilities (Kasimu & Hassan, 2012)
	Implementing renewable energy programs (Erdogan & Baris, 2007, Smerecnik & Andersen, 2011)
	Using high energy efficient lighting (Erdogan & Baris, 2007, Smerecnik & Andersen, 2011)
	Using of refillable soap and shampoo dispenser (Kasimu & Hassan, 2012).
	Using environmentally friendly cleaners/detergent (Erdogan & Baris, 2007) Kasimu & Hassan, 2012, Mensah, 2006 Mensah &Blankson, 2013; Nichollas & Kang, 2012).
	Sorting waste into paper, glass, plastic etc Bohdanowicz , (2006); Erdogan & Baris, 2007, Mensah (2006), Mensah &Blankson, 2013; Smerecnik & Andersen, 2011)
	Grinding of guest soap as laundry detergent (Kasimu & Hassan, 2012).
	Treated waste water for garden irrigation (Erdogan & Baris ,2007, Kasimu & Hassan, 2012, Smerecnik & Andersen, 2011)
	Reusing papers, crates, bottles, cans and plastic materials Mensah &Blankson, 2013)
	Implementing a linen and towel reuse program (Kasimu & Hassan, 2012, Mensah, 2006, Mensah &Blankson, 2013, Smerecnik & Andersen, 2011).
	Low-water-volume toilets (Kasimu & Hassan, 2012; Mensah, 2006).
	The use of dual piping system(Kasimu & Hassan, 2012, Mensah,2006)
	Water saving campaigns in the kitchen (Kasimu & Hassan, 2012)
	Installs water-efficient devices and equipment (Bohdanowicz , 2006); Mensah &Blankson, 2013).
	Capturing Rainwater runoff and reuse it (Smerecnik & Andersen, 2011)
	Informs guests about hotel’s environmental activities/policies Mensah &Blankson, 2013).
	Educates guests on eco-friendly practices Mensah &Blankson, 2013; Smerecnik & Andersen, 2011)
Educates staff on eco-friendly practices (Erdogan & Baris,2007, Mensah &Blankson, 2013; Smerecnik & Andersen, 2011))	
Enforcement of no smoking in public areas (Erdogan & Baris, 2007, Mensah &Blankson, 2013).	

	Adoption of any nationally or internationally recognized sustainability certification programs(Smrecnik & Andersen, 2011)
<i>Economic indicators</i>	<p>Average room rate in the last two years Mensah &Blankson, 2013).</p> <p>Average occupancy rate in the last two years (Mensah &Blankson, 2013).</p> <p>Has a divergent market base (different market segmentation)</p> <p>Number of guest rooms</p> <p>Profitability of capital (Assaf, A.G. et al, 2012).</p> <p>Solvency ratio and cash flow (Assaf, A.G. et al, 2012).</p>
<i>Socio-cultural indicators</i>	<p>Never =1/ Very frequently = 6</p> <p>Using local materials (Mensah &Blankson, 2013).</p> <p>Employing people from local community (Mensah &Blankson, 2013).</p> <p>Promoting local traditional culture (Mensah &Blankson, 2013).</p> <p>Ploughing back part of profit to improve the lives of local residents Mensah &Blankson, 2013).</p> <p>Supports local communities by purchasing their products like handicrafts (Erdogan & Baris,2007, Smrecnik & Andersen, 2011)</p> <p>Serves traditional food as main meals in the menu.</p> <p>Offers practical training opportunities for students enrolled in tourism and hospitality majors at different educational levels.</p> <p>Donation of used hotel furniture and equipment to the local community (Bohdanowicz , (2006), Nichollas & Kang, 2012).</p> <p>Employee salaries in comparison with other hotels (Assaf, A.G. et al, 2012).</p> <p>Customers satisfaction level (Assaf, A.G. et al, 2012).</p>

Source: Bohdanowicz, 2005; Iwanowski and Rushmore, 1994; Mackie, 1994; Chan, Wong and Lo, 2009; Park, 2009; Mensah, 2006; Middleton and Hawkins, 1993; Faulk, 2000; Forte, 1994; Webster, 2000; Sloan et al., 2004; Shanklin, 1993).

Table 3.4. Dependent variables of the study (Financial leakage)

Dependent variables	Items
<i>Importing food & beverages</i>	<p>Imports fruits & vegetables from outside</p> <p>Imports fish & sea food</p> <p>Imports meats and sausage from outside</p> <p>Imports non-alcoholic beverages from outside</p> <p>Imports alcoholic beverages from outside</p> <p>Imports tea & coffee</p>
<i>Remittances</i>	Has foreigner employers in high positions

	Employ foreigner labors Taking foreign loans
<i>Imports materials & equipment</i>	Importing furniture Importing construction materials Importing kitchen wares Importing stationary

Validity and reliability

Validity indicates the degree to which an instrument measures the construct under investigation or how well the measurement measures what is supposed to measure (Babbie, 2013). To enhance validity in this study, all items used in the questionnaire were tested for both content and construct validity. The content validity was assessed through confirmation with the literature review, the qualitative part and the discussion of experts. The construct validity was assessed by determining both convergent validity and discriminant validity using confirmatory factor analysis. Various member checks were included as a way to ensure the validity of the results.

Reliability analysis can be achieved by assessing the degree of consistency between the measurements of a variable (Hair et al., 2010). Measuring the reliability or internal consistency, is a commonly accepted type of reliability analysis. It was applied here to ensure that all individual items of the scale measuring the same construct were highly correlated. According to Hair et al. (2010), all dimensions should have a Cronbach's alpha value higher than 0.7 to indicate a high degree of internal consistency. To further confirm the inter-rater reliability of the techniques used here, three PhD students were asked to recode the data from the interviews after the researcher.

To enhance the validity and reliability of these instruments, a pilot study was conducted before undertaking the final survey. The main purpose of the pretest was to check whether the answers obtained would provide the information sought and to address wordy problems. After making the necessary amendments to the survey, the final survey was undertaken.

After addressing the issues of outliers, normality and missing values, the data became ready for the statistical analysis. In the next chapter, both the interviews and the quantitative data will be analyzed.

CHAPTER FOUR

RESULTS

The data collected in this study include descriptive statistics of both the characteristics of the hotels and the managers as well as information for determining the level of sustainability practices and financial leakage for the hotels investigated. In addition, this study provides findings from qualitative interviews and from quantitative statistical analysis.

Qualitative results

A qualitative approach was used to analyze the interviews to facilitate gaining an in-depth understanding of financial leakage issue in terms of the reasons for it and the potential solutions for mitigating it. The interviews were transcribed by listening to the recorded files and comparing them with the field notes to ensure a valid and accurate interpretation of the interview. Then, all transcripts were read by the researcher to develop a broad understanding of the topic.

The characteristics of the 18 interviewees including their gender, hotel classification, location and their current position are summarized in Table 4.1 below:

Table 4.1. Demographic profile of the interviewees.

Category	Frequency	%
<i>Gender</i>		
Male	16	89
Female	2	11
<i>Hotel class</i>		
5 stars	4	22
4 stars	5	28
3 stars	6	33
2 stars	2	11
1 star	1	6
<i>Location</i>		
Amman	8	44
Aqaba	5	28
Petra	3	17
Dead Sea	2	11
<i>Current position</i>		
General manager	4	22
Owner manager	5	28
Departmental manager	9	50

A coding technique was subsequently used to analyze the interviews, organizing the data, then reducing it into themes and sub-themes, and finally representing the data in figures and tables to allow for a discussion of the results (Creswell, 2007). The categories identified were color-coded and classified into themes. Then, each transcript was re-read by the researcher to identify sub-themes to ensure they accurately represented the information obtained from the interviews. After reading the transcripts several times, the sub-themes initially identified were revised and/or merged with similar ones and new ones were added as needed. Finally, the interviews and the transcripts were re-read and relevant information that confirmed or contradicted the emerging themes was identified.

The results of this analysis provided a useful interpretation for the quantitative data and for linking the level of sustainability practices with the financial leakage level in Jordanian hotels. This analysis resulted in four themes being identified.

Theme One: Understanding the concept of financial leakage in hotels

Because understanding the concept of financial leakage from different dimensions is the first step for addressing this phenomenon, this study sought to investigate the hotel managers' understanding of it. The responses to two questions "What does financial leakage mean in your opinion?" and "Do you see financial leakage as a problem or not?" formed this theme. The interviewees defined financial leakage as losing foreign exchange to outside countries by employing foreign labor and importing goods. Most participants evaluated financial leakage negatively, considering it a problem that should be addressed. For example, Ismaiel, a housekeeping manager in a five star hotel in the Dead Sea area, defines financial leakage as "hard currency flowing out of Jordan," while Fadi, a director of finance at five star hotel in Aqaba, sees it as "money which leaks out of the country by foreign owners of hotels since they control the largest part of the revenues." Overall the results indicated that Jordanian hotel managers have a high level of awareness and understanding of the financial leakage issue, considering it a serious problem for the local economy.

Theme two: The reason for financial leakage in Jordanian hotels

The second theme captured the reasons for financial leakage in Jordanian hotels, with hotel managers indicating the six reasons seen in Table. 4.2 below:

Table. 4.2 Financial leakage reasons.

Financial leakage reason	Frequency	%
Energy cost	18	100
Unavailability of some products	13	72
Lack of awareness of sustainability practices	12	67
Lack of linkages between sectors	10	56
Corruption	9	50
Owners nationality	5	28

The first one was the high cost of energy, probably because the hotel industry is classified among the most consumptive sectors of energy in the tourism industry because of their daily operations and recreational activities. As a result, in many facilities, energy costs are the second-highest operational costs after payroll (Ali, et al. 2008). According to Ali, et al. (2008), most of this energy is electricity and thermal energy used by heating, ventilation, and air conditioning systems (HVAC), more than 95% of which is imported based on the interviews.

In addition, in the last decade, oil prices have increased significantly, important because petroleum products are used to generate electricity. Consequently, as stated by hotel managers, importing energy was considered as a primary reason for financial leakage. For example, Isam, an owner manager of a two star hotel at Aqaba, stated that “the government raised the prices of electricity 40% within the last year which means extra money leaks outside the country; the same thing is applied on fuel that is used for boilers,” while Raied, a general manager of a five star hotel in Amman, said “We are

forced to increase the room prices to cover the operational costs which reduces our competitive advantage among our neighbors like Egypt, Israel, Syria and Turkey.”

According to hotel managers, importing products not available in Jordan was the second reason for the financial leakage. According to all the interviewees, importing is the only way to provide products which cannot be cultivated in Jordan because of the climate, for example, coffee, tea, rice, and tropical fruits. This result is supported by past research, with Dwyer (1989) finding that the unavailability and the inferior quality of local products are the main reasons for importing food and beverages. More specifically, Jordan is a country with only 27 km on the coast of the Red Sea at Aqaba, meaning that the majority of the sea food is imported. Similarly, most alcoholic beverages are imported because the majority of the population is Muslims who do not drink alcohol. Furthermore, Jordan is not an industrial country; therefore, it imports most of the technological materials needed.

The third reason for financial leakage is the lack of awareness of the importance of sustainability practices, the results indicating this lack encompasses owners, workers, and guests. Jihad, a human resources manager in a four star hotel in Amman, said, “Adopting sustainability practices will contribute to decreasing energy consumption significantly, but unfortunately our laborers aren’t aware of the benefits of sustainability practices and most of them are careless of sustainability workshops.” According to Ahmad, a front office manager in two star hotel, this situation is further complicated because “money is the first priority of the hotel owner, and he tries to get quick revenue and doesn’t believe in the long-term profit generated by adopting sustainability

practices.” Taleb, an owner manager of a three star hotel in Amman, observed that “guests who come from Scandinavian countries are more environmental friendly than others and care about sustainability practices. On the other hand, other guests are looking for luxury regardless of the sustainability level.”

The lack of cooperation or links between hotels and related sectors was the fourth reason for the financial leakage issue. The interviewees indicated that quality is a very sensitive issue especially for the chains which have strict standards that must be met. In addition, good quality products have an economic advantage that is remembered for a long time and can attract future customers (guests). However, there is little trust in the quality of local products. For example, Ms. Laila, a general manager in five star hotel in Aqaba, indicated that “in the long run, it is cheaper for our hotel to buy kitchen ware from Italy than Jordan even if it’s cheaper here because after a short time the color changes.” Mohammad, a manager of a three star hotel in Amman, stated that “a considerable number of our clients are attracted by brand labels in everything even forks and spoons.”

According to the interviews, corruption was the fifth reason for financial leakage. Some interviewees indicated that there is corruption in purchasing their hotels through deals made with the companies representing the sellers for a hidden commission. For example, Yasir, a maintenance engineer in a four star hotel in Amman, said, “During my 20 years of working in the hotel industry, I have known purchasing managers making a deal with the company who gives them a percentage of the revenue from purchasing from their company. This happened to me once. As a maintenance manager, I recommended

air conditioners from a Jordanian company because of their quality, price, and maintenance agreement. Two days later, I found that the consecutive manager bought ACs from China for the same price, but of lower quality and without a maintenance agreement, ignoring my recommendation as an engineer. How can you explain this situation?”

The nationality of the owners is considered the sixth leakage reason, with the findings indicating that a large proportion of revenues return to the owners. The interviewees said when the hotel owners are from outside Jordan, a part of this revenue leaks outside the country. In addition, a good proportion of the general managers in five and four star chains are non-Jordanians with high salaries.

Third theme: Financial leakage channels in Jordanian hotels

The third theme emerged from two related question: “Where is the leakage concentrated in your hotel supply chain?” and “Do you have an overview of where your hotels obtain their imported products? Are there standards?” The interviews showed that there are three main channels for financial leakage along the hotel supply chain, the first one being the importing of unavailable foods and beverages or those not produced sufficiently in Jordan. The country imports sea food from Egypt, Saudi Arabia, United Arab Emirates, and Kuwait, while tea and coffee are imported primarily from India, Brazil, Kenya, and Indonesia and rice from Egypt. Alcoholic beverages are generally imported from Europe. The second channel is the importing of furniture and electronics like security doors, monitoring cameras, electrical sensors, and LCD and LED screens.

The human resources factor was the third channel, including non-Jordanian owners, foreign laborers, and managers in high positions.

Fourth theme: How to mitigate the levels of financial leakage?

The fourth theme focused on possible procedures for reducing the financial leakage level in Jordanian hotels, with the interviewees summarizing appropriate solutions for mitigating it from their perspectives. Reducing energy consumption was the most frequent suggestion among hotel managers, with the participants stating that using energy efficient appliances and enhancing isolation systems would contribute to reducing energy consumption effectively in Jordanian hotels. Also, renewable energy sources were suggested as an effective way for reducing reliance on fossil fuels energy sources, for example using solar panels instead of electricity to produce hot water. In addition, the participants recommended using LED lights because they save energy, cost less, and have longer life spans coupled with a short payback period, a recommendation consistent with one found in Ali, et al. (2008). Interviewees also recommended increasing the use of energy efficient appliances especially in one and two stars hotels. Financial leakage levels will be reduced significantly as an indirect result of these practices since energy is a critical challenge for all sectors, not just the hotel industry, in Jordan.

Increasing trust in local products is the second way suggested to mitigate financial leakage. Based on the respondents, the government bears the responsibility to support local industries to make them more competitive. For example, the furniture sector has improved significantly in the last decade, producing quality goods using local labor, something the government should take steps to support. Bassam, an owner manager of a

four star hotel in Amman, claimed that “if the government provides some incentives like removing or decreasing some taxes for the hotels that purchase from local furniture markets, these hotels will take advantage of this and buy local furniture.” This situation can be applied to related sectors.

Financial control of the purchasing system was also suggested for addressing corruption in hotels, an issue that is not easy to detect or solve. According to the participants, addressing this problem requires practical solutions like raising the salaries of executive managers and purchasing units managers to increase their loyalty, thus addressing the corruption that in some cases occurs because of their low pay. Another suggestion involved increasing the control of the purchasing system by creating a purchasing committee consisting of at least three managers.

Most participants focused on the importance of increasing the awareness of owners, managers, staff, and guests about sustainability issues to alleviate the financial leakage level in the hotels. Ismaeel, a manager in a five star hotel in the Dead Sea area, suggested holding training workshops focusing on increasing the awareness of managers and staff about the importance of adopting sustainability practices in saving costs, enhancing the public image, attracting dedicated staff, and improving competitiveness in the world market. All of these benefits can help decrease the financial leakage levels either directly or indirectly. Another manager suggested encouraging guests to engage in eco-friendly practices by providing incentives, for example subtracting a percentage from the bills of guests who reuse their towels.

Quantitative results
Descriptive statistics
Characteristics of hotel managers

The demographic information from the hotel managers responding to the survey can be seen in Table 4.3 below:

Table 4.3. Demographic profile of respondent managers.

Category	Frequency	%
Gender (N=163)		
Male	151	92.6
Female	12	7.4
Age (N= 162)		
18-30	47	28.8
31- 40	66	40.5
41 – 50	36	22.1
51- 60	10	6.1
Above 60	3	1.8
Marital status (N=163)		
Single	46	28.2
Married	115	70.6
Divorced	2	1.2
Education (N=162)		
High school	42	25.8
Diploma in general field	24	14.7
Diploma in tourism	12	7.4
Bachelor in general field	61	37.4
Bachelor in tourism	16	9.8
Grade degree	7	4.3
Monthly salary (N=161)		
Less than \$1000	117	71.8
\$1000 - \$1999	30	18.4
\$2000 - \$2999	14	8.6
Current position (N=163)		
General manager	24	14.7
Owner manager	12	7.4
Departmental manager	58	35.6
Other	69	42.3
Experience (N=163)		

Less than 6 years	56	34.3
6 -14years	59	36.2
15 -25 years	39	24
Above 25 years	9	5.5

As this table shows, the vast majority of respondents to the survey were male (92.6%), reflecting the gender bias in top managerial positions in the Jordanian hospitality industry, a result supporting what Mensah (2013) found in Ghana. The primary reason for this gender bias is Jordanian culture which prefers men and women to work in separate environments. In addition, more than two thirds of the hotel managers (69.3%) were between the ages of 18 and 40 years, with 70.6% being married, and 71.8% of the respondents earned monthly incomes less than \$1,000, with approximately half (51.5%) having a Bachelor’s Degree or above. Their current positions included 35.6% departmental managers, 14.7% general managers, and 7.4% owner managers. The average working experience in the hotel industry was 10.7 years, with 70.6% of the participating hotel managers having 14 years and below. This demographic profile information is consistent with the increase in the number of hotels in the country since 2000.

Characteristics of hotels surveyed

The characteristics of the 163 hotels surveyed, including class, ownership type, the nationality of the owner, size, room rate, hotel age, eco-certification, number of employees and location, are summarized in Table 4.4 below:

Table 4.4 Demographic profile of respondent hotels.

Category	Frequency	%
Classification (N=163)		
5 stars	21	12.9
4 stars	30	18.4
3 stars	51	31.3
2 stars	40	24.5
1 star	21	12.9
Ownership type (N=163)		
Independent	133	81.6
Chain	30	18.4
Owner nationality (N=163)		
Jordanian	144	88.3
Non- Jordanian	15	9.2
Mixed nationality	4	2.5
Guest rooms number (N=162)		
Less than 50 rooms	75	46.3
50 – 100 rooms	41	25.3
101 -200 rooms	26	16
201 -300 rooms	13	8
Above 300 rooms	7	4.4
Average room rate (N=162)		
Less than \$50	53	32.7
\$50 - \$100	64	39.5
\$101-\$150	28	17.3
\$151-\$200	15	9.3
Above \$200	2	1.2
Hotel age (N=159)		
0-10 years	49	30.8
11 – 30 years	86	54.1
Above 30 years	24	15.1
Eco-certification (N=160)		
Yes	30	19
No	130	81
Number of employees (N=162)		
1-15	69	43
16-50	40	25
51-100	23	14
above 100	30	18
Hotel location (N=163)		
Amman	109	66.9
Aqaba	30	18.4
Dead Sea	6	3.7

As this table shows, 31.3% were 4 and 5 star hotels (large or luxury hotels), 31.3% three star hotels, and 37.4% 1 and 2 star hotels (small hotels). As also seen in Table 4.2, the majority of hotels studied (81.6%) were independent, while 17.8% were affiliated with chains. In addition, most of the hotels (88.3%) were entirely Jordanian-owned. Regarding age, 70% of the respondent hotels were 10 years or older. The survey also found that 46.3% of the hotels had fewer than 50 guest rooms while 25.3 % had between 50 to 100, meaning that 71.6 % were small to medium size hotels. The average room rate of 72.2% of hotels was less than \$100 per night. More importantly, only 19% of participating hotels had an eco-certification such as Green Key, Green Globe, Blue Flag, Iso22000, Iso14000 or Haccp. In terms of the number of employees, 68% of respondent hotels employed fewer than 50 workers on average between low and high seasons, with 14% employing between 50-100 workers and 18% more than 100 workers.

Previous studies have indicated that most of the large hotels (4 and 5 stars) refused to participate in their surveys (Kasim, 2009, Kasimu et al., 2012). The study here employed several techniques to address this issue, including providing written and verbal assurance of confidentiality; contacting existing current managers (general managers or departmental managers); using personal skills to convince managers to participate in the survey; conducting the survey during low season; and personally calling the hotels in advance to ask them to participate. Finally, the managers were asked to provide their email address so that a copy of the results could be sent to them in appreciation for their

help. As a result of these techniques, 84% of both 4 and 5 stars hotels participated in this survey, 68% of the 5 stars and 100% of 4 stars.

The level of financial leakage in Jordanian hotels

One of the primary focuses of this research was identifying the level of financial leakage in Jordanian hotels measured based on the three indicators of food and beverage, equipment, and labor. The can be seen in Table 4.5 below. Therefore, the following section answers Question 1: What is the extent of financial leakage in the hotel industry in Jordan?

Table 4.5 Imported food & beverage, equipment, and labor (Alpha, .804)

Item	%	Mean	S.D
Importing tea and coffee indirectly by local suppliers	96	3.95	1.57
Importing alcoholic beverages indirectly by local suppliers	91	1.95	2.14
Importing fish and sea food indirectly by local suppliers	88	2.91	1.86
Importing furniture	54	2.63	1.50
Importing electronic equipment	46	2.38	1.42
Importing Meats & sausage indirectly by local suppliers	30	1.91	1.15
Importing kitchen wares	29	2.07	1.46
Importing non-alcoholic beverages indirectly by local suppliers	15	1.45	1.19
Importing foreign labor	10.7	1.34	1.50
Importing construction materials	7	1.26	.61
Importing Fruits & vegetables indirectly by local suppliers	7	1.20	.79
Importing foreign high position managers	4.4	.73	.73

As this table shows, importing food and beverages from outside sources ranked first, with tea and coffee heading the list with a mean of 3.95, indicating that more than 96% of the respondent hotels import these beverages from outside the country but through local suppliers. This result was expected since these products cannot be grown in Jordan because of the climate. Table 4.5 also shows that 50% of the hotels studied did not serve alcoholic beverages, also an expected finding as the official religion in the country is Islam, which prohibits drinking alcohol. However, 91% of hotels serving alcoholic beverages imported them through local suppliers. Fish and sea food placed second, with a mean of 2.91, indicating that approximately 88% of the participating hotels imported these items but again through local suppliers. The reason for this result is probably Jordan's limited coastal area of only 27 km on the Red Sea in Aqaba. These results indicated that these three products are the main sources of financial leakage in food and beverages in Jordanian hotels. However, imported meats, especially red meats, were relatively modest at 30%, and Jordanian hotels import only 15% of their non-alcoholic beverages, and only 7% of their fruits and vegetables products indicating a sufficient production of these crops of good quality and at a reasonable price. It was also another anticipated result.

Imported materials and equipment was the second factor in financial leakage, with the results finding furniture was the most frequently imported category (54%). The reasons for this high ranking may be issues of quality and standards compounded by the high price of local furniture. In second place is electronic equipment (46%). Since Jordan is a developing country, the percentage of imported electronics was expected to be high.

The managers indicated that they are buying most of their need of electronics from corporations like LG which is managed by Jordanian people employing local labors and suppliers which contribute to decrease financial leakage. Approximately a quarter of the responding hotels indicated that most of their kitchen wares were imported, the primary reason being that they are affiliated with international chains. Financial leakage in construction materials was limited, with the vast majority of these products being local at 93%.

The third indicator for financial leakage in this study was remittances. Financial leakage of this indicator was low since less than 11% of the labor and less than 5% of the managers in high positions in the hotels studied came from outside Jordan and no loans were financed outside the country. The official percentage of foreign workers was 11.3% according to MOTA (2013), its similarity to this study supporting its validity. This result also indicates that Jordan can supply the skilled and well educated workers needed in the hotel industry.

Hotel participation in sustainability practices

Since one of the primary purposes of this study was to identify the level of sustainability practices adopted by Jordanian hotels answering question 2: What is the level of sustainability practices in the hotel industry in Jordan?, managers were asked to answer 36 questions on the three dimensions of sustainability (36 items, alpha = .948): environmental (21 items, Alpha= .933), sociocultural (7 items, alpha = .739), and economic (8 items, alpha = .778). The internal consistency of these 36 items was .948, indicating a level high reliability.

The results for first dimension, environmental sustainability, can be seen in Table 4.6 below:

Table 4.6 Items in measuring the environmental dimension (Alpha .929).

Sustainable practices	%	M=	S.D=
Energy management			
Installing of occupancy sensors/key card	46	2.35	2.41
Using energy efficient equipment and products	50	3.16	1.75
Implementing renewable energy programs	16	1.40	1.73
Using high energy efficient lighting.	57	3.51	1.51
Renovation of facilities.	32	2.70	1.64
Water management			
Using low-water-volume toilets	38	3.01	1.61
Using dual piping system	26	1.64	2.08
Installing water-efficient devices	42	2.60	2.02
Implementing linen and towel reuse program	63	3.29	1.99
Implementing water saving campaigns in the kitchen	28	1.72	2.03
Capturing rainwater runoff and reusing it	7	.283	.812
Using treated waste water for garden irrigation	9	.339	.912
Waste management			
Reusing papers, crates, bottles, cans and plastic	21	1.55	1.88
Using refillable soap & shampoo dispensers	23	1.50	2.02
Using environmentally friendly detergents.	22	2.23	1.70
Sorting waste into paper, glass, plastic etc.	18	.96	1.81
Environmental Education			
Informing guests about hotel's environmental policies	35	2.23	2.13
Educating guests on eco-friendly practices	35	2.22	2.12

Educating staff on eco-friendly practices	54	3.31	1.70
Enforcing of no smoking in public areas	50	2.87	2.02

Six- point Likert Type Scale (0 = Never, and 5 =Very frequently).

Energy is one the most important resources to be managed in the hotel industry since controlling its cost helps hotels remain profitable and competitive. Thus, the majority of Jordanian hotels pay a substantial attention to energy cost, with the findings of this research confirming those of previous studies (Bohdanowicz, 2005b; Erdogan & Baris, 2007; Hobson & Essex, 2001; Kasimu, et al., 2012; Mensah, 2006; Nicholls & Kang, 2012; Park, 2009). According to the results, the most wide-spread eco-friendly practice for energy management was using high energy-efficient lighting (57%). This percentage was close to the results (64.1%) found by Erdogan and Baris (2007) in Turkey, while it was less than the 94.2% found by Mensah (2006) in Accra and Ghana, and the 77% found by Nicholls and Kang (2012) in Michigan, USA. The second most frequently used conservation of energy consumption was the use of energy efficient equipment and products (50%), followed by the installation of occupancy sensors/keys 46%, findings close to those from Erdogan and Baris's study (2007) (56%) but higher than the 10% found in the Michigan study (Nicholls & Kang, 2012). As seen in Table 4.6, adopting renewable energy resources received fairly low scores with only 25 hotels (16%) using alternative resources like a solar power system. During interviews, hotel managers of small and medium size hotels expressed concerns over the initial financial costs of renewable energy devices as their desire was to obtain quick revenue, not long-term economic returns.

Water is considered as one of the primary challenges in Jordan. To control its consumption, the Jordanian government created the policy “the greater the consumption, the greater the pricing for each cubic meter.” To address this situation, water management practices have been adopted by many hotels, a response supported by the results from this study, which found that 63% of the hotels had linen and towel reuse programs, similar to Erdogan and Baris’s (2007) finding of 63.1%. This program plays a vital role in saving both costs and an important resource by promoting less water and energy use, and employee salaries for washing. Installing water-efficient devices and equipment like shower heads (42%), and using low-water-volume toilets (38 %) were the second priority. However, few hotels, only 28%, implemented water saving initiatives in the kitchen, and implementing a dual piping system to reduce water consumption scored a similar 26%, supporting Mensah’s (2007) findings for Ghana hotels (28.8%). The least frequently adopted practices were using treated waste water for garden irrigation at 9%, a percentage supporting the findings of Kasimu et al. (2012) and capturing rainwater runoff and reusing it at 7%. The respondent managers indicated that the high cost of adopting these activities is the primary barrier.

Waste management practices were some of the least frequently adopted practices in Jordanian hotels, the results finding the following practices: using refillable soap and shampoo dispensers (23%); using environmentally friendly detergents (22%); reusing papers, crates, bottles, cans and plastic materials (21%); and sorting wastes into paper, plastic and glass (18%). The percentage for sorting of wastes for recycling goals was consistent with the findings of Erdogan and Baris (2007) in Turkey and Mensah (2006) in

Accra, Ghana. These results suggest that waste management in the hotel industry in developing countries like Jordan is modest, perhaps because as the hotel managers indicated, recycling is an expensive activity and only large hotels can afford to adopt this practice. In addition, according to several hotel managers, there are no recycling firms in the Dead Sea, Petra, and Aqaba areas, meaning disposing of garbage in the local municipal dump is cheaper than sending it to Amman for recycling. Only a quarter of the respondent hotels used refillable soap and shampoo dispensers, with several managers justifying this decision by contending it is not sanitary and may affect the satisfaction of the guests with the hotel and thus its reputation. This result is consistent with the study conducted by Kasimu et al. (2012) in Malaysia.

As shown in Table 4.6, educating the staff on eco-friendly practices and implementing a no-smoking policy at 54% and 50%, respectively, were the most widespread environmental education practices implemented. However, educating guests on eco-friendly practices and informing guests of the hotel’s environmental policies were each adopted by 35% of the hotels, with managers justifying this low adoption rate by explaining that this is a sensitive issue since it may annoy the guests, thereby influencing their willingness to visit the hotel again.

The results for the sociocultural dimension of sustainability are listed in Table 4.7.

Table 4.7 Items in measuring the sociocultural dimension (Alpha .741).

Items	%	M=2.68	S.D=1.57
Using local materials	44	3.18	1.30
Employing Jordanian people	78	4.24	.93
Promoting local traditional culture	22	1.93	1.70

Providing part of the hotel profit to improve residents lives'	21	1.63	1.72
Serving traditional food locally produced	86	4.14	1.49
Selling local production of handicrafts.	25	1.43	2.01
Offering practical training for tourism and hospitality students	32	2.24	1.90

Although Jordanian hotels do not exhibit social responsibility toward the local people and their culture directly, they do so indirectly by serving traditional food locally produced (86%), employing Jordanians (78%), and using local materials (44%). In addition, one third of the participating hotels offered practical training for tourism and hospitality students at various levels.

The results for the third and final pillar of sustainability, the economic dimension, are found in Table 4.8 below:

Table 4.8 Items in measuring the economic dimension (Alpha .792).

Items	M=2.81	S.D=.98
Average occupancy rate in the last two years	3.23	.88
Having a diverse base of different market segments	4.16	1.07
Profitability of capital	1.83	.98
Solvency ratio and cash flow	1.83	.95
The % of employee's salaries that are higher than other hotels	3.23	1.12
Customers satisfaction level is high	4.17	.75
Average room rate	2.05	.97
Guest rooms number	1.99	1.16

The results found here indicated that having a high level of customer satisfaction with a mean of 4.17 was the most important economic indicator for Jordanian hotels, followed by having a diverse base composed of different market segments (Mean= 4.16). Customer satisfaction is a critical issue in the hotel industry because it is directly related to the decision to return (Stevens, 1992). Also related to the economic indicator was the average occupancy rate over the last two years and the percentage of employee salaries higher than that of other hotels, both of which were ranked third with means of 3.23.

Quantitative statistical analysis

The research reported here used the Statistical Package for the Social Sciences Program (SPSS) for the frequency analysis and reliability analysis. The significance level of 0.05 was used to test the hypotheses of this study. Frequency analysis was employed to describe both the characteristics of the hotels and the hotel managers, and the level of sustainability practices and financial leakage in Jordanian hotels. In addition, Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) using the EQS 6.2 Program were used to address the research questions.

Confirmatory factor analysis

Confirmatory factor analysis (CFA) was conducted to confirm the measurement scale properties. Since it has been used widely in structural equation modeling and is considered an important tool in developing scales, it was employed in this study to specify the hypothesized relationship of the observed variables to the underlying constructs of the environmental dimension, social indicators, economic indicators, financial leakage in food and beverages, financial leakage in materials and equipment,

and financial leakage in labor using EQS 6.2 software. A two-step CFA was conducted, the first step evaluating each construct separately and the second testing the overall measurement model (Anderson & Gerbing, 1988) In addition, the goodness-of-fit indices of chi-square, comparative fit index (CFI) and root mean square error of approximation (RMSEA) were employed to evaluate the model fit for each latent variable (Kline, 2011). This study used CFA to estimate the model fit of each single factor. Within EQS, each factor was run by fixing the variance of the factor to 1.0, with the Lagrange Multiplier (LM) test being selected to identify sources of misfit. Either the cross loadings or error covariance between variables with different target factors indicates the instrument items are multidimensional and potentially poor items. Before testing the overall confirmatory measurement model, the uni-dimensionality of sustainability and the financial leakage constructs were individually assessed.

The measurement model

The initial measurement model

The first step was running the full model, with the measurement model being evaluated using various model fit indices. Under the assumption of multivariate normality, maximum likelihood estimation was used to estimate the difference between the observed and the model-implied variance-covariance matrix. Mardia's standardized coefficient is widely used to confirm whether the data satisfy the assumption of multivariate normality (Byrne, 2006). According to Bentler (2006), if Mardia's standardized coefficient is larger than 5, the data are multivariate non-normally distributed, and a robust maximum likelihood method should be used. The result of this

measurement model exhibited a Mardia's standardized coefficient of 13.581. Therefore, a robust maximum likelihood method was used to estimate SEM (Kline, 2011). Table 4.9 shows that the measurement model fit indices demonstrate a poor fit ($S-B\chi^2 = 2334.920$, $df = 990$, $RMSEA = 0.091$, $CFI = 0.720$, 90% Confidence Interval of (RMSEA) = 0.086 - 0.095). According to Hair et al. (2010), the acceptable factor loading should be larger than 0.40. Therefore, the results showed that there were 10 items with poor reliability (less than 0.2), providing empirical evidence for omitting them. These items included implementing renewable energy programs, capturing rainwater runoff and reusing it, using local materials, employing Jordanian people, serving traditional food locally produced, having a diverse base of different market segments, the % of employee salaries that are higher than other hotels, the customers satisfaction level is high, and importing construction materials.

The Lagrange Multiplier (LM) tests was used to identify error covariance (PEE: Phi coefficient from error to error) and to identify multidimensional items or items sharing variance beyond the factor. The results showed a large error covariance in the factor of Environmental Education between informing guests about the hotel's environmental policies and educating guests on ecofriendly practices, probably because of their overlapping content. In addition, according to the LM test, there was a large error covariance between Item 3, Profitability of capital, and Item 4, Solvency ratio and cash flow, in the economic indicator. It was determined that these two items asked about capital profits, while the other three items: occupancy rate, average room rate, and

number of guest rooms were related to the economic size issue. Therefore, it was decided to divide this factor into two: economic indicator (size) and economic indicator (profits).

The interpretation of low reliability items was provided through the interviews of the hotel managers. The first item involved implementing renewable energy programs. According to the frequency analysis, only 25 hotels adopted alternative sources of energy such as solar systems, the reason for this low adoption rate being that more than three quarters of hotels investigated here are small and medium sized and are, thus, unable to afford the high cost of renewable energy devices according to the hotel managers. The low reliability score for capturing rainwater runoff and reusing may be attributed to the fact that the vast majority of hotels responding are not adopting this conservation effort, perhaps because some are located in an arid region. In the socio-cultural dimension, three items exhibited poor reliability, including using local materials, employing Jordanian people, and serving traditional food locally produced. The first had a wording issue since the respondents were confused about the meaning of local materials. Regarding the other two, more than 90% of most hotel employees are Jordanian, and since Jordanian cuisine is rich in variety, most of tourists prefer to experience it; therefore, 80% of hotels serve only traditional food, the exception being some four and five star hotels who also serve other international dishes. Hence, these items with poor reliability were deleted.

For the financial leakage factors, the item concerning importing construction materials was deleted because it was unreliable. Hotel managers gave a logical reason for that decision because they explained that the construction sector in Jordan is very well developed and all necessary materials are made locally, while other respondents indicated

that because most of these hotels were built long before they were hired, they did not know the source of the construction materials.

The revised measurement model

After addressing these issues by deleting the multidimensional and low reliable items in the initial model, the model was run for a second time, with an improvement being seen in the model-fit ($S-B\chi^2 = 1015.87$, $df = 610$, $CFI = 0.902$, $RMSEA = 0.065$, 90% Confidence Interval of (RMSEA) = 0.058 - 0.072). However, the LM test indicated a covariance error in the remittances factor between items, Having Foreign Managers in High Positions and Having Foreign Labor. In addition, the results showed that the item Having Foreign Managers in High Positions also exhibited low reliability. As a result, both were removed. These items were discussed in the frequency analysis: foreign managers represent less than 5% of hotel managers, while foreign workers represent approximately 10% of total workers. Furthermore, the results showed a high correlation (1.00) between the factor of (Importing Food) and the factor of (Importing Beverages). Therefore, it was decided to combine these two into the one factor, importing food and beverages.

The final measurement model

After deleting these items with error covariance and low reliability, the model was run once more, the results indicating a large improvement in the model-fit ($S-B\chi^2 = 867.6630$, $df = 549$, $CFI = 0.921$, $RMSEA = 0.061$, 90% Confidence Interval of (RMSEA) = 0.053 - 0.068), all of which indicate a good fit (Hu & Bentler, 1999; Fan & Silvo, 2007).

Table 4.9 Goodness-of-fit indices of initial, revised, and final measurement model

	Robust fit indices			
	S-B $\chi^2(df)$	CFI	RMSEA	90% Confidence Interval of (RMSEA)
Initial measurement model	2281.09 (990)	.72	.091	.086 - .095
Revised measurement model	1015.87(610)	.902	.065	.058 - .072
Final measurement model	867.663(549)	.921	.061	.053 - .068

Reliability and validity

Validity refers to whether an instrument measures what it is intended to measure, while reliability is defined as the percent of variation in the indicator that is explained by the factor it is supposed to reflect (Long, 1983). The reliability of the variables is the square of the loading between a latent factor and the indicators. Cronbach’s alpha relies on average loading between the latent factor and the items assuming all loadings are the same, something that is rare in practice. For this reason, composite reliability (Rho) which does not assume equal loadings was also used here in the assessment of the reliability of the measurements for each first and second order factor. As shown in Table 4.11, the Cronbach’s alpha of all factors ranged from (.732 - .976), indicating a sufficient internal consistency across all items in each construct (Litwin, 1995) and Rho coefficient values ranged from .741 to .977, exceeding the acceptable values.

Table 4.10 CFA results for the final measurement model

Indicators and factors	alpha α	Rho	AVE	Standardized loading (Unstandardized loading)
F1: Energy management	.802	.827	.513	
A1: Installing of occupancy sensors/key card				.759 (1.838)
A2: Using energy efficient products				.605 (1.062)
A4: Using high energy efficient lighting.				.632 (0.954)
A5: Renovation of facilities.				.841 (1.387)
F2: Water management	.809	.809	.42	
B1: Using low-water-volume toilets				.684 (1.096)
B2: Using dual piping system				.633 (1.298)
B3: Installing water-efficient devices				.690 (1.383)
B4: Implementing water saving campaigns in the kitchen				.735 (1.492)
B5: Implementing linen and towel reuse program				.575 (1.162)
B7: Using treated waste water for garden irrigation				.549 (0.504)
F3: Environmental education	.87	.871	.617	
CI: Informing guests about hotel's environmental policies				.812 (1.674)
C2: Educating guest on eco-friendly practices				.814 (1.671)
C3: Educating staff on eco-friendly practices				.808 (1.376)
C4: Enforcing of no smoking in public areas				.735 (1.529)
F4: Waste management	.793	.797	.50	
D1: Reusing papers, bottles, cans & plastic.				.724 (1.349)
D2: Using refillable soap & shampoo dispensers				.567 (1.130)
D3: Using eco-friendly detergents.				.781 (1.353)
D4: Sorting waste into paper, glass, plastic.				.737 (1.335)
F5: Socio-cultural indicators	.825	.832	.553	
Socio3: Promoting local traditional culture				.697 (1.215)
Socio4: Providing part of the hotel profit to improve the lives of local residents				.792 (1.381)
Socio6: Selling local production of handicrafts.				.723 (1.449)
Socio7: Offering practical training for tourism & hospitality students.				.735 (1.404)

F6: Economic indicator (size)	.732	.741	.49	
Econ1: Average occupancy rate last 2 years				.49 (0.434)
Econ7: Average room rate				.81 (0.778)
Econ8: Guest rooms number				.774 (0.887)
F7: Economic indicator (profit)	.976	.977	.955	
Econ3: Profitability of capital				.976 (0.945)
Econ4: Solvency ratio and cash flow				.978 (0.945)
F8: Importing food & beverage	.85	.854	.50	
Import1: Importing Fruits & vegetables indirectly				.689 (0.552)
Import2: Importing fish & sea food indirectly				.811 (1.482)
Import3: Importing Meats indirectly				.778 (0.916)
Import4: Importing alcoholic beverages indirectly				.592 (1.240)
Import5: Importing non-alcoholic beverages indirectly				.558 (0.680)
Import6: Importing tea & coffee indirectly				.766 (1.202)
F9: Importing materials & equipment	.783	.783	.548	
Import1: Importing furniture				.73 (1.099)
Import3: Importing electronic equipment				.783 (1.143)
Import6: Importing kitchen wares				.704 (1.002)

According to Kline (2011), convergent and discriminant validity need to be checked to judge construct validity when conducting CFA. For convergent validity, the values of all factor loadings for individual items and the average variance extracted (AVE) were calculated. The estimate value of the average variance extracted AVE (true score variance) for each construct except water management was greater than >0.5 as seen in Table 4.10, meaning that this factor is lacks validity because some items such as “using a linen and towel program” could be used to measure other factors, for example energy management. However, the convergent validity for the model was confirmed.

Discriminant validity of the scales is established when the square root of AVE of each factor is greater than the correlations between pairs of factors (Fornell and Larcker,

1981). In this research, the AVE exceeded the correlation estimate (Table 4.11) for environmental education, waste recycling, social indicators, economic size, economic profit, importing food and beverage, and importing material and equipment. However, the results indicate that the factors of energy management and water management were highly correlated (.76), indicating poor discriminant validity because some items used to measure water management, such as a linen and towel reuse program, could be used to measure energy management as well. Overall, the satisfactory model fit with the reliability and validity exhibited here shows evidence of the operationalization of the latent constructs used in this study.

Table 4.11 Factor correlation coefficients matrix and Average Variance Extracted (AVE)

	EM	WM	EE	WR	SI	ES	EP	IFB	IME
EM	.716								
WM	.76	.648							
EE	.685	.688	.785						
WR	.606	.89	.614	.707					
SI	.485	.855	.481	.621	.744				
ES	.68	.863	.59	.736	.933	.70			
EP	.252	.13	.093	.055	.14	.278	.977		
IFB	.334	.40	.354	.288	.355	.407	.066	.707	
IME	.431	.398	.467	.36	.412	.377	.103	.189	.74

a. The diagonal elements are the square root of the average variance extracted (the shared variance between the factors and their items).

b. The off-diagonal elements are the correlations between factors.

Note: EM= Energy Management; WM= Water Management; EE = Environmental Education; WR = Waste Recycling; SI= Social indicators; ES= Economic indicator (Size); EP = Economic indicator (Profit); IFB= Importing Food & Beverage; IME= Importing Material & Equipment.

As Table 4.11 shows, the first four factors are highly correlated with poor discriminant validity. According to the literature, environmental management is reflected by energy, water, and waste management (Kasimu et al., 2012; Park, 2009). Therefore, the environmental indicator including energy management, water management, environmental education, and waste management was created as a second order factor. In addition, the high correlation among the environmental, social, and economic indicators provides empirical evidence that the concept of sustainability is reflected by these three, also supported by the literature. Hence, another second ordered factor reflecting sustainability that included the environmental indicator, the social indicator, the economic indicator (size), and the economic indicator (profit) was created (Table 4.12).

Table 4.12. Confirmatory factor analysis results for revised second order measurement.

Indicators and factors	Alpha α	Rho	AVE	Standardized loading (Unstandardized loading)
F10:Environmental indicator	.90	.902	.702	
F1: Energy management				.784(1.113)
F2: Water management				.999(0.763)
F3: Environmental education				.707(1.000)
F4: Waste management				.834(0.838)
F11: Sustainability	.822	.86	.653	
F5: Social indicator				.974(1.173)
F6: Economic indicator (size)				.954(0.882)
F7:Economic indicator (profit)				.145(0.358)
F10: Environmental indicator				.856(1.347)

The structural model

Building the structural model to test the hypotheses began after a sufficient model fit of the revised second order measurement model was established. The main goal of this

model is to assess the relationship between the sustainability practices and the financial leakage in Jordanian hotels. Table 4.14 shows that the goodness of fit for the structural model was acceptable. The Satorra Bentler Scaled Chi-square value was 910.718 with 580 degrees of freedom, the robust CFI statistic of 0.918 and a robust RMSEA statistic of 0.06 indicating the overall fit of the structural model. A robust maximum likelihood method was used to estimate the structural model because Mardia's standardized coefficient was 13.58 (Bentler, 2006; Kline, 2011).

The hypothesized structural model showed that the correlation between importing food and beverages and importing materials and equipment was small (0.19), meaning that they do not reflect a significant construct which we called financial leakage and therefore, there is no empirical support for a second order factor. For this reason, it was decided to link the sustainability effect directly to importing food and beverages, and importing materials and equipment.

Table 4.13. Goodness-of-fit indices of hypothesized and revised structural model

Robust fit indices				
Hypothesized structural model	S-Bχ^2(df)	CFI	RMSEA	90% Confidence Interval of (RMSEA)
	909.456 (580)	.918	.060	.052 - .067
Revised structural model	S-Bχ^2(df)	CFI	RMSEA	90% Confidence Interval of (RMSEA)
	910.718(581)	.918	.060	.052 - .067

The results of the modified structural model demonstrated a direct path between environmental education and importing food and beverages, indicating a significant

effect of environmental education on importing food and beverages. Hence, educating staff about the hotel environmental policy is an effective means of protecting the environment, improving hotel performance and decreasing financial leakage, a result supported by the literature. For instance, findings by Sloan et al. (2009) supported educating staff in the purchasing department to look for environmentally friendly products and equipment, instructing chefs to turn on cooking equipment only as needed, and asking room attendants to sort trash and adjust room temperature (Sloan et al., 2009). In addition, office staff may be asked to use double-sided printing or photocopying (Chan and Hawkins, 2010), and Chan, E.S.W. et al. (2014) found in their study that the three green triggers (environmental knowledge, environmental awareness, and environmental concern) are positively associated with ecological behavior, which, in turn, is positively associated with the intention to implement green practices in hotels.

How lower order factors relate to financial leakage

As Table 4.14 shows, the results indicated that energy management has the largest effect on importing food and beverages (.542) followed by environmental education (.488), the socio- cultural factor (.424), and waste management (.41). This result was expected as energy is considered the primary challenge for the entire country and especially for the hotel industry. Hence, reducing energy consumption is a priority for these businesses because it contributes to decreasing the operational costs and consequently increasing the revenue. Environmental Education is also another important issue related to energy management in that it is also employed to reduce costs by reducing energy and water consumption. Additionally, the socio- cultural indicator plays

a vital role in the importing of food and beverage since employing local labor, selling locally produced food and handicrafts, and training locals play significant roles in reducing costs.

The results also indicated that energy management had the largest effect among the lower order factors on importing materials and equipment (.767), much larger than its effect on importing food and beverage (.542). Environmental education has the second largest effect on importing materials and equipment (.691), much larger than its effect on importing food and beverage (.488), while the effect of the sociocultural factor on importing materials and equipment (.601) was higher than its effect on importing food and beverage (.424).

Table 4.14. Non-causal relationship

Factors	Standardized loading (Unstandardized loading)	Non-causal relationship Standardized (Unstandardized)
F1*F10*F11*F8	.885(1.116).925(1.345) .664(.363)	.543(.542)
F2*F10* F11*F8	1.000(.760).925(1.346).664(.363)	.614(.371)
F3*F10* F11*F8	.841(1.000).925(1.346).664(.363)	.516(.488)
F4*F10* F11*F8	.917(.841).925(1.346).664(.363)	.563(.410)
F5* F11* F8	.987(1.172).664(.363)	.655(.424)
F6* F11*F8	.977(.882).664(.363)	.648(.320)
F7* F11*F8	.369(.348).664(.363)	.245(.126)

F1*F10* F11*F9	.885(1.116).925(1.346).471(.514)	.385(.767)
F2*F10* F11*F9	1.000(.760).925(1.346).471(.514)	.435(.525)
F3*F10* F11*F9	.841(1.000).925(1.346) .471(.514)	.366(.691)
F4*F10* F11*F9	.917(.841).925(1.346) .471(.514)	.399(.581)
F5* F11* F9	.987(1.172) .471(.514)	.464(.601)
F6* F11* F9	.977(.882) .471(.514)	.460(.453)
F7* F11*F9	.369(.348) .471(.514)	.173(.178)

Note: F1= Energy Management; F2= Water Management; F3 = Environmental Education; F4 = Waste Recycling; F5= Social indicators; F6= Economic indicator (Size); F7 = Economic indicator (Profit); F8= Importing Food & Beverage; F9= Importing Material & Equipment; F10= Environmental indicator.

The effect of hotel characteristics on financial leakage

Table 4.15 shows the changes when the hotel characteristics of class, manager education, and ownership type were included in the analysis. This structural model with hotel characteristics indices included demonstrates an acceptable fit ($S-B\chi^2 = 1065.58$, $df = 678$, $RMSEA = 0.06$, $CFI = 0.913$, 90% Confidence Interval of (RMSEA) = 0.053 - 0.067). The primary changes were in the ($S-B\chi^2$) which increased from 910. 718 to 1065.58 and the (df) which increased from 581 to 678, while the CFI was only slightly affected.

Table 4.15 Fit indices of structural model with/out hotel characteristics

Robust fit indices				
Structural model without hotel characteristics	S-Bχ^2(df)	CFI	RMSEA	90% Confidence Interval of (RMSEA)
	910.718(581)	.918	.060	.052 - .067
Structural model with hotel characteristics	S-Bχ^2(df)	CFI	RMSEA	90% Confidence Interval of (RMSEA)
	1065.58(678)	.913	.060	.053 - .067

As seen in Table 4.16, Model 1 without hotels characteristics (not controlling) indicates that sustainability has a positive significant effect on the importing of food and beverage with an unstandardized regression coefficient (B) of .363 and z-score of 7.439. In addition, the effect of sustainability on importing materials and equipment was positive (B= .519, z= 5.028), a result that does not support Hypothesis 1(a & b): Sustainability practices are negatively related to importing food and beverage, and material and equipment (see Table 4.16). However, the effect of sustainability on materials and equipment (.519) was much higher than its effect on food and beverages (.363). This result answers question 3: How do sustainable tourism development indicators relate to the degree of financial leakage in Jordan's hotels?

When the hotel characteristics are controlled in Model 2, the effect of sustainability on importing food and beverage loses its significance (B= .201, z= 1.633) while its effect on importing materials and equipment remains positively significant (B= 805, z= 2.605). This result in the second model does not support Hypotheses 1 (a & b). The reason that the effect of sustainability on importing food and beverage decreased

after controlling for hotel characteristics is that when class is considered as an average, the effect of sustainability is reduced. However, the situation is reversed regarding the importing of material and equipment: the effect of sustainability on importing materials increased from .519 (unstandardized coefficient value) in Model 1 to .805 in Model 2. Because of the high positive correlation between hotel class and sustainability (.924), the latter was suppressed by hotel class (suppressor), making sustainability the better predictor. While hotel class has a positive correlation with materials and equipment (.353), the slope predicting materials and equipment was negative due to class acting as a suppressor.

Table 4.16. The Structural model with/out hotel characteristics

	<i>DV</i>							
	Food & beverage			Materials & equipment				
	<i>B(SE)</i>	<i>Beta</i>	<i>z-score</i>	<i>R²</i>	<i>B(SE)</i>	<i>Beta</i>	<i>z-score</i>	<i>R²</i>
Model 1 (not controlling) Sustainability	.363(.049)	.664	7.439 **	.441	.519(.102)	.471	5.028**	.222
Model2 (controlling) Sustainability	.201(.123)	.407	1.633	.534	.805(.309)	.826	2.605*	.258

*P< .05; ** P< .01

Table 4.17 The effect of hotel's characteristics on financial leakage

<i>IV</i>	<i>DV</i>								
	Food & Beverage <i>R²</i> =.534			Materials & Equipment <i>R²</i> =.258			Sustainability <i>R²</i> =.862		
	<i>B(SE)</i>	<i>Beta</i>	<i>z-score</i>	<i>B(SE)</i>	<i>Beta</i>	<i>z-score</i>	<i>B(SE)</i>	<i>Beta</i>	<i>z-score</i>
Class	.219(.093)	.487	2.358*	-.376(.231)	-.425	-1.626	.72(.079)	.793	9.091**
Education	-.001(.043)	-.001	-.020	.028(.105)	.022	.261	.014(.055)	.011	.246
Ownership	.375(.131)	-.264	2.869*	.135(.336)	.048	.404	.567(.157)	.198	3.612**

*P< .05; ** P< .01

The results also demonstrated that hotel class has a positive significant effect on sustainability ($B = .72$, $z = 9.091$), confirming Hypothesis 2 (a: Hotel class level does influence sustainability positively). The results also demonstrated that hotel class has a positive significant effect on importing food and beverage as the value of the unstandardized regression coefficient (B) between hotel class and importing food and beverage was $.219$ and the z -score was 2.358 . This finding indicates that high class hotels (4 and 5 stars) have higher leakage regarding food and beverage than lower class hotels (1, 2, and 3 stars), a finding confirming Hypothesis 2 b): Hotel class level does influence importing food and beverage positively. In addition, the results demonstrated that the effect of hotel class on importing materials and equipment was not significant ($B = -.376$, $z = -1.626$), a result that does not support Hypothesis 2 (c): Hotel class level does influence importing materials as equipment positively, as seen in Table 4.19. However, there is a high positive correlation between hotel class and sustainability ($.924$). This result answers question 4: What is the relationship between hotel categories and the level of financial leakage in Jordan and why?

As seen in Table 4.17, the educational level of hotel managers has no significant effect on either sustainability ($B = .014$, $z = .246$), the importing of food and beverages ($B = -.001$, $z = -.020$), or the importing of materials and equipment ($B = .028$, $z = .261$), results that do not support Hypothesis 3 (a, b, c): However the educational level of the managers does influence sustainability and the importing of food and beverage and of materials and equipment positively. Therefore, this result answers question 5: What is the effect of the level of education of hotel managers on the level of sustainability practices?

As seen in Table 4.17, sustainability was positively affected by the ownership type ($B = .567$, $z = 3.612$), indicating that chain hotels have more sustainability practices than independent hotels, a result supporting Hypothesis 4(a): Ownership type does influence sustainability positively. In addition, the results suggest that ownership type has a positive effect on importing food and beverage ($B = .375$, $z = 2.869$), indicating that chain hotels import food and beverages more than independent hotels, a result corroborating Hypothesis 4(b): Ownership type does influence importing food and beverage positively. However, the effect of ownership type on importing materials and equipment was not significant ($B = .135$, $z = .404$), a result that does not support Hypothesis 4(c): Ownership type does influence importing materials and equipment positively. This result answers question 6: What is the relationship between hotel ownership type and the level of sustainability practices?

The results also indicate that the hotel ownership type predicts environmental education and waste management, the results demonstrating that independent hotels were more concerned about environmental education than chain hotels. This result is supported by the researcher's field notes indicating that most independent hotels are managed by the owners who are very eager to consider suggestions and recommendations for decreasing energy and water consumption to reduce the operational costs since they are relying on themselves not on a large international corporation. On the other hand, the results indicate that chain hotels are more concerned about waste recycling than independent ones.

Also, as seen in Table 4.16, the R^2 in Model 2 is higher than the R^2 in Model 1 because we added more variables (hotel class, manager education, and ownership type) but for the food and beverage factor (.441 – .534), it was higher than for materials and equipment (.222 – .258). This result indicates that hotel characteristics explain more variance in food and beverage than in materials and equipment, but the results also indicate that hotel characteristics explain the most variance in sustainability R^2 (.862) (see table 4.17). This result indicates that there is a room for future research in this area that around .742 of variance did not explain in importing materials and equipment and around .466 of variance in importing food and beverages need to be explained in Jordanian hotels.

Table 4.18. Evaluation of hypotheses

Hypothesis	Path	Results
H1a & b	Sustainability practices are negatively related to importing food & beverage, and material & equipment.	Not supported
H2a	Hotel class level does influence sustainability positively.	Supported
H2b	Hotel class level does influence importing food & beverage positively.	Supported
H2c	Hotel class level does influence importing materials & equipment positively.	Not supported
H3 a, b, & c	Managers' educational level does influence sustainability, importing food & beverage, and importing materials & equipment positively.	Not supported
H4a	Ownership type does influence sustainability positively.	Supported
H4b	Ownership type does influence importing food &	Supported

beverage positively.

H4c Ownership type does influence importing materials & equipment positively. Not supported

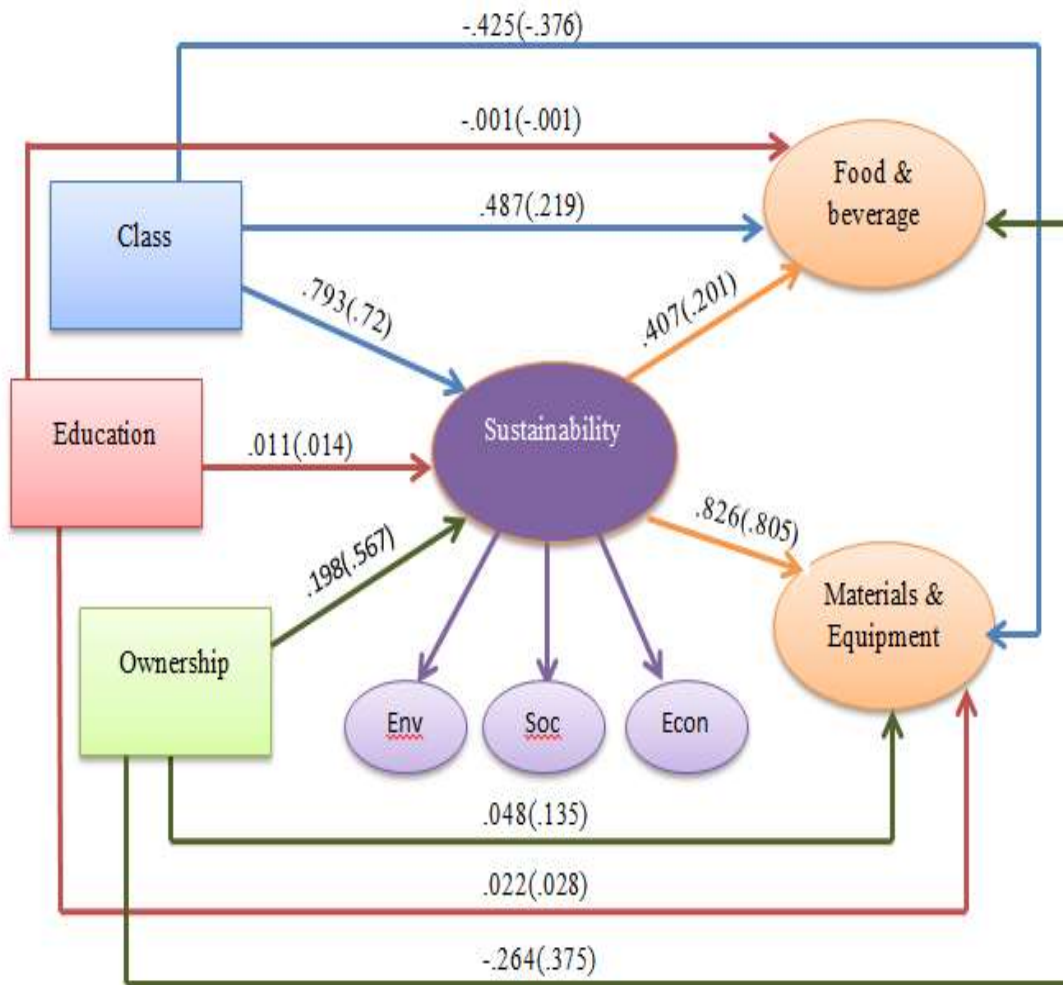


Figure 4.1 The structural model

CHAPTER FIVE

DISCUSSION AND CONCLUSION

Previous chapter displayed the results of both quantitative and qualitative parts. This section is going to present a comprehensive discussion of the findings and the implications of this study. Finally, conclusions emerging from the study are highlighted, the limitations of the study are recognized and future research requirements are discussed.

Discussion

This study extended the current research on sustainable tourism development by investigating the effect of sustainability practices on financial leakage in the hotel industry in Jordan. Four hypotheses and their corresponding sub-topics were developed using structural equation modeling, and empirical tests of the proposed model provided evidence that sustainability practices impact financial leakage to some extent.

The results of this study do not support Hypothesis 1 (a and b): Sustainability practices are negatively related to financial leakage in Jordan's hotels, as they demonstrated that sustainability practices did not reduce the financial leakage level in Jordanian hotels. The qualitative analysis suggested the reason for this result. During the interviews hotel managers indicated the presence of various challenges preventing them from achieving sustainability and consequently, decreasing the level of financial leakage. One of these reasons is their fear of losing their customers due to their perception of a low level of service as suggested by Rahman, et al. (2012).

Findings from past research on the effect of environmental management practices on financial performance in the hotel industry have been inconsistent. Some studies have suggested a positive relationship (Judge & Douglas, 1998; Klassen & McLaughlin, 1996; Alvarez Gil, M. J., Burgos Jiménez, J., & Céspedes Lorente, J. J., 2001), indicating that environmental practices contribute to reducing costs and increasing sales, thereby enhancing economic performance. However, it does not necessarily follow that financial leakage will be reduced because financial performance is enhanced. Other studies found a negative relationship between environmental practices and financial performance (Cordeiro & Sarkis, 1997), primarily because environmental practices are costly and, thus, reduce profitability.

Potential reasons for the study reported here finding that sustainability practices do not reduce the financial leakage in hotels can be found in the literature. According to Fotiadisa, Vassiliadisb, and Rekleitisc (2013), there are many barriers to adopting sustainable practices in small and medium size hotels, the primary one being the high cost of the investment and the uncertain of the return of this investment. As indicated by Hayek et al. (2008), the practices that significantly reduce energy consumption and require a significant investment include installing sensors in the windows and corridors, and a central cooling system. Taking into consideration that more than two third of hotels studied here are small and medium size establishments, this cost constitutes a serious challenge for them. The second barrier is the standards for the high class and chain hotels which must be maintained across the world. As suggested by Nicholls and Kang (2012), moving to complete sustainability is difficult, especially for chains as they maintain the

corporation's standard in everything including furniture and fittings, paint, carpet, linens and towels in all their branches. Thirdly, financial leakage is unavoidable in some instances, for example the need to import goods that cannot be produced locally such as fish, coffee, alcoholic beverages, and technological equipment as is the case in Jordan. This kind of leakage will not be affected by the sustainability level. Finally, as indicated by hotel managers, there is a lack of cooperation or a weak link between hotels and other related sectors, both of which tend to weaken the economy in general: as the literature indicates, the weaker the economy the higher of financial leakage (Lacher & Nepal, 2010), important for countries such as Jordan because according to the WTO (2001), the financial leakage in developing countries ranges between 40 -50%.

However, as Fotiadisa, et al. (2013) found, adopting sustainability practices will generate financial benefits for hotels in the long run. They concluded that these long-term benefits are achieved through the enhanced reputation of the hotel, the increased confidence of the guests, and improved employee morale. Similarly, Mihalic (2000) indicated that sustainability management requires a long-term view since it involves immediate costs but future benefits. The results of the study reported here indicating that sustainability didn't reduce financial leakage, however may change over the long term. The proximal relationship (short term relationship) between sustainability and financial leakage indicates that sustainability will not contribute to a decrease in the financial leakage level in Jordanian hotels. This may be attributed to several reasons. First, the outcomes of sustainability will be more significant over the long run. The hotel industry in Jordan has only recently begun to adopt sustainability practices; therefore, they are not

sufficiently aware of the benefits of such practices. In addition, many hotel managers in Jordan appear to be either unaware of or in an early stage of environmental awareness. Most of the hotel managers interviewed here have focused on adopting other activities that may contribute to reducing costs, not considering the pillars of sustainability which could impact their long-term survival, an approach consistent with the findings of Cvelbar & Dwyer (2013). Second, more than two thirds of the hotels studied were independent, small to medium establishments which, according to the literature, focus on fast profits rather than long-term ones.

As Reid and Schwab (2006) suggested, the economies of the countries of the Middle East like Jordan remain immature and dependent on Western donors. Gaining legitimacy for novel programs such as sustainability is difficult, requiring a long-term approach to implementation. Based on and in addition to this support from past research, the results from this study suggested that eventually, the level of sustainability in the hotel industry may be higher, and thus, may reduce the financial leakage. Many considerations led the researcher to this conclusion. The first consideration is role that entrepreneurship will play in decreasing the financial leakage, indicating that the entrepreneurial environment implies that the country has enough industries to attend all demand (Lee, Hwang, & Choi, 2012). In this regard, Galdon et al. (2013) indicated that the entrepreneurial environment has a strong influence on reducing leakage and many critical factors in hotels such as employee satisfaction and customer satisfaction.

The next generation of guests, staff, owners and suppliers may be much more aware of the importance of sustainability, and creating this awareness in the hotel industry through training and developing governmental and corporate incentives may produce the long-term benefits past research has found. As seen in Figure 5.1, the distal relationship between sustainability and financial leakage can be negatively significant, meaning financial leakage could be reduced through sustainability practices over time. Support for this possibility can be found in the literature. For example, Ritchie and Crouch (2003) found that future sustainability practices could be more effective through the implementation of innovative technologies, consultant services and low cost energy solutions, and Fotiadisa et al. (20013) suggested using a wide range of organizational changes and improved strategies in the hotel industry. These suggestions potentially will increase the competitive advantage of the hotel as well as reducing its environmental impact (BarNir, 2012; Smerecnik & Andersen, 2011). To investigate these possibilities, the study reported here could be conducted longitudinally or applied to various more sustainable tourist destinations.

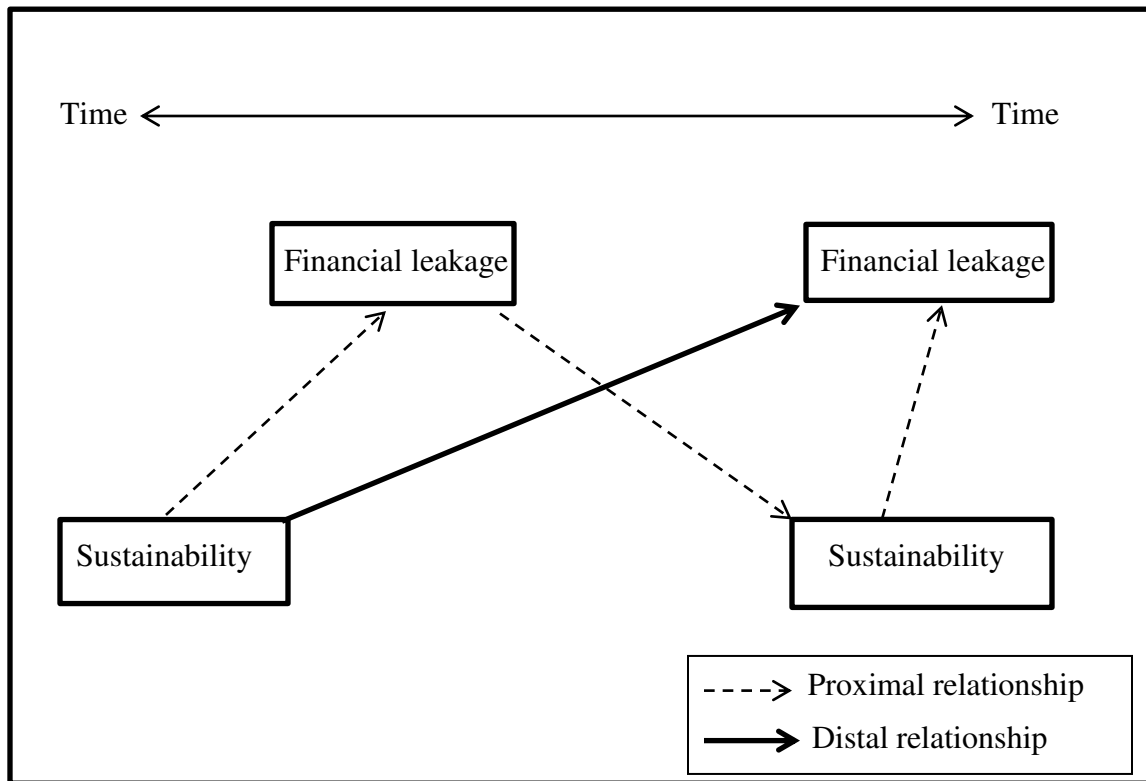


Figure 5.1. Proximal and distal relationships.

The results also indicated that of the three dimensions of sustainability, the environmental indicator (energy management, water management, environmental education, and waste management) has the highest impact on financial leakage, followed by the social, and finally the economic. As energy is a significant challenge for Jordanian hotels, these results suggest that managers should focus on managing energy consumption wisely to reduce costs. In addition, as the results also found, educating both staff and guests on conserving energy consumption can also reduce operational expenditures.

With regard to hotel characteristics, the results support Hypothesis 2a and 2b but not 2c, meaning hotel class level has a positive significant effect on sustainability and on importing food and beverage but has no significant effect on importing materials and equipment. More specifically, the findings indicate that high class hotels, those with 4 and 5 stars, are more likely than low class hotels (1, 2, and 3 stars) to import food and beverages, a result supported in the literature (Andriotis, 2002, Lacher & Nepal, 2010, Nicholls & Kang, 2012). As Lacher & Nepal (2010) found, in general, leakage in five and four stars hotels is higher than for low class hotels, probably because the latter depend on local sources for food, beverages and other goods, while high class hotels tend to import these in order to meet the quality, quantity and standards expected of them, results supported by Nicholls & Kang (2012) and Adriotis (2002).

This study also found that hotel class had a positive and significant effect on sustainability, the results indicating that high class hotels were more sustainable than the low class ones, probably because the former have the financial and technological resources needed for successful environmental management. In this respect, this study supports the findings of previous research (Ali, et al., 2008; Bohdanowicz, 2005a; Erdogan & Baris, 2007; Hobson & Essex, 2001; Mensah, 2006; Mensah & Blankson, 2013; Nicholls & Kang, 2012). For example, Ali, et al.,(2008) found that five and four star hotels in Jordan tended to use energy efficient appliances, thereby reducing energy consumption, while low class level hotels do not have the interest, time, financial and technological resources to adopt such sustainability practices (Hobson & Essex, 2001; Mensah & Blankson, 2013).

The findings also indicate that the educational level of hotel managers has no effect on sustainability, importing food and beverages, or importing materials, these results not supporting Hypothesis 3 a, b, c: The educational level of hotel managers does influence sustainability and financial leakage. These results are supported by the study conducted by Mensah and Blankson (2013) in Ghana. However, they require further investigation through additional case studies. What we conclude from this result is that hotel managers are constrained and are kept away from the process of decision making regarding sustainability and financial leakage. In chain hotels, the hotel managers just implement the policies of the chain, and in the independent hotels, the owners of independent hotels seek only quick revenue and keep putting pressure on the manager to achieve this goal which makes them neutralized and not effective in decision making or drawing sustainable policies in Jordanian hotels.

In this study ownership type was found to have a positive significant effect on importing food and beverage, indicating that chain hotels import food and beverages more than independent hotels, a result supporting Hypothesis 4b: Ownership type does influence importing food and beverage positively. This finding might be attributed to two reasons; first, chain hotels import food and beverages to meet their quantity and quality standards (Lacher & Nepal, 2010). Second, chain hotels tend to benefit from economies of scale since importing in bulk is cheaper (Mensah & Blankson, 2013); a reason consistent with other studies as well (Andriotis, 2002, Hobson & Essex, 2001; Mensah, 2006; Nicholls & Kang, 2012). Sustainability was also positively affected by ownership type, indicating that chain hotels are more likely than independent ones to engage in

sustainability practices, supporting Hypothesis 4a: Ownership type does influence sustainability positively. This reason for this result might be due to the availability of the financial and technical resources needed for sustainability. In this respect, this study corroborates the findings of previous research (Bohdanowicz, 2006; Nicholls & Kang, 2012; Rahman, et al., 2012). Since the correlation between hotel class and ownership type was very high (.6), their effect on sustainability and financial leakage was similar.

It is clear from the results that both of hotel class and ownership type of studied hotels have no significant effect on importing materials and equipment. This result does not support both, Hypothesis 2c: Hotel class level does influence importing materials & equipment positively, and Hypothesis 4c: Ownership type does influence importing materials and equipment positively. The interpretation of this result was provided by hotel managers indicating that they buy most of their need of electronics from multi-national corporations in Jordan because of the competitive price such as LG and SAMSUNG which are managed by Jordanian staff and employ Jordanian labor as well. Hence, they don't consider this as leakage.

The results also indicate that the hotel ownership type predicts environmental education and waste management, this finding demonstrating that independent hotels were more concerned about environmental education than chain hotels. Supporting data supporting this result can be found in the researcher's field notes which indicate that most independent hotels are managed by owners, who are eager to implement recommendations for decreasing energy and water consumption, thereby reducing operational costs and increasing revenues. However, the results suggested that chain

hotels are more concerned about waste recycling than independent ones, a finding supported by the interviews of the hotel managers who indicated that chain hotels, unlike the independent ones, have the financial and technological ability to adopt recycling policies.

Finally, this study found that financial leakage through human resources is small. The percentage of foreign labor and foreign managers in Jordanian hotels was less than 11% and 5% respectively. According to the hotel managers, this low level may be attributed to the labor laws of the country which prevent foreign labor exceeding 10% except in Aqaba, which is in a special economic zone. These results indicate both that Jordan has succeeded in alleviating financial leakage in this area and that the country's workforce is highly skilled and well educated.

Conclusion

The goal of this study was to assess the effect of sustainability practices on financial leakage in the hotel industry in Jordan using a mixed method approach. A qualitative methodology was used to obtain a deeper understanding of the financial leakage in Jordanian hotels in terms of its reasons, its channels, and potential ways for mitigating it, while the quantitative approach was primarily employed to assess the effect of sustainability practices on the financial leakage level in the hotel industry in Jordan.

Four themes were identified as a result of the qualitative analysis. The results indicated that Jordanian hotel managers have a high level of awareness regarding the financial leakage issue, considering it a serious problem for the Jordanian economy as it contributes the loss of a proportion of foreign exchange because of the need to import

goods and labor. The respondents summarized the main reasons for financial leakage as the high cost of energy, the need to import products not produced locally, the lack of awareness regarding sustainability practices, the lack of links between sectors, corruption, and foreign ownership.

According to the hotel managers, the main channels of financial leakage in Jordanian hotels are the need to import furniture and electronics, human resources, and food and beverages not produced in Jordan. Furthermore, they suggested the potential ways to reduce financial leakage level in Jordanian hotels include reducing energy consumption by using energy efficient appliances and renewable energy, increasing trust in local products, establishing financial control of the purchasing system to address the corruption, and increasing the awareness of owners, managers, staff, and guests about sustainability issues. It's important to mention that the results of the qualitative and quantitative analysis supplemented each other.

To assess the effect of sustainability practices on financial leakage in Jordanian hotels, Structural Equation Modeling was conducted, the findings indicating a positive effect of sustainability practices on financial leakage. However, this result, as discussed previously, requires further investigation through additional case studies. Regarding the influence of hotel characteristics on sustainability and financial leakage, it was found that hotel class and ownership type influenced sustainability and financial leakage positively. More specifically, it was found that high class and chain hotels have more sustainability practices and higher financial leakage than low class and independent hotels, results supported by the literature. In addition, it was found that of the sustainability indicators,

the environmental dimension has the highest effect on financial leakage, followed by the social and finally the economic dimensions. On the other hand, the educational level of hotel managers was found to have no effect on both sustainability practices and financial leakage.

The environmental sustainable practices most frequently recommended for adoption included using high energy efficient lighting and energy efficient equipment and products, implementing linen and towel reuse programs, and installing occupancy sensors or key card. As these suggestions indicate, Jordanian hotels are more focused on the economic dimension of sustainability than the environmental, emphasizing decreasing their consumption of energy and water, which, in turn, can increase revenue. These results support the studies conducted by Ali, et al. (2008) in Jordan and Mensah (2006) in Ghana.

The results also found that Jordanian hotels have poor waste management policies. The hotel managers mentioned the reasons for this included a lack of awareness of the importance of recycling. Managers of small hotels justified their lack of participation of small hotels in adopting recycling practices like sorting waste into paper, glass, and plastic because of the shortage of recycling firms and the high cost. Therefore, this study recommends that the government and local municipalities, especially in the Dead Sea area, Petra, and Aqaba, build the needed infrastructure for recycling and encourage establishing private recycling firms.

Study implications

The contribution of this study is twofold: first, there are very few studies investigating the issue of sustainability in the context of the hotel industry in Jordan. Therefore, this research attempts to address this issue by applying a holistic concept of sustainability. Second, this is the first study to date assessing the effect of sustainability practices on the financial leakage in the hotel industry taking into consideration that financial leakage is a problem most of the developing countries suffer with, and sustainability is one of the philosophies or policies that most of researchers and planers call firms to adopt to enhance their performance and to solve problems related to the environment, community, and economic development.

The theoretical contribution of this study was represented by providing empirical evidence that the concept of sustainability includes three major elements: environmental, socio-cultural, and economic. Testing the discriminant validity of the scales found a high correlation between the environmental, social, and economic dimensions indicating that sustainability is reflected by these dimensions.

The information collected from hotel managers helped to obtain a deeper understanding about financial leakage in Jordanian hotels. In particular identifying the reasons contributing to financial leakage helped, to a large extent, provide recommendations on possible ways to reduce the effect of this problem on the local economy. For example, the managers suggested governmental support of local products by eliminating taxes to increase the ability to compete with international ones. Similarly, they suggested providing various incentives to the hotels that purchase local products

such as furniture. However, to implement an import substitution policy in Jordanian hotels, the problems of availability and quality of local products related to the hotel industry need to be addressed. Furthermore, addressing the financial leakage problem by employing local people and purchasing locally produced products will contribute to enhancing the image of the hotel in the local community as well as with the government and guests. While these suggestions are related specifically to the hotel industry, extending and adopting them for other service sectors in the country like restaurants may further enhance their impact on Jordan's financial leakage.

Identifying the effect of sustainability practices on financial leakage in hotels will be useful for hotel firms in the long term, not only by addressing the leakage issue but also by developing strategies to benefitting local economies and for conserving natural resources and local culture. The recommendations resulting from this study can also be incorporated into conservation management plans, and the results may help to shed light on the importance of local community involvement in tourism, particularly in the hotel industry and in management plans.

It would be beneficial for other businesses like restaurants, especially the large ones, to adopt sustainability practices suggested by the hotel managers, particularly those involving the management of energy and water resources. These practices will contribute to reducing the operational cost and enhancing the image of the restaurant in the eyes of guests, employees, government, and local community.

Limitations and future research

One of the most prominent limitations of this research is its generalizability. It is difficult to generalize the results found here due to the small sample size (163) and the culture of the country. Therefore, it is recommended that this study be extended to other regions to validate its results. Furthermore, the items used in measuring financial leakage were not adequate to measure it comprehensively since some were deleted because of their low reliability and low variability. Therefore, it would be beneficial to replicate this study using more uni-dimensional and reliable items for financial leakage in conjunction with a larger sample size.

Since this study offered practical solutions for financial leakage in the hotel industry, it would be beneficial to extend to other tourism businesses like restaurants and souvenir shops. However, since the missing data for the questions of profitability and income were high, more complete questionnaire answers are needed for future studies. Therefore, the researcher recommends future research using an innovative way to collect this information. Furthermore, since sustainability practices have been adopted by hotels relatively recently and the possibility of sustainability benefits are achieved over time, it is recommended that a longitudinal study of the hotel industry be conducted to explore the evolution of sustainability practices in this sector.

APPENDICES

Appendix A

IRB Compliance Email

Dear Dr. Backman,

The chair of the Clemson University Institutional Review Board (IRB) validated the protocol identified above using exempt review procedures and a determination was made on March 10, 2014 that the proposed activities involving human participants qualify as Exempt under category B2, based on federal regulations 45 CFR 46.** The approved consent document is attached for distribution. Your protocol will expire on September 30, 2014.

The expiration date indicated above was based on the completion date you entered on the IRB application. If an extension is necessary, the PI should submit an Exempt Protocol Extension Request form, <http://www.clemson.edu/research/compliance/irb/forms.html>, at least three weeks before the expiration date. Please refer to our website for more information on the extension procedures, <http://www.clemson.edu/research/compliance/irb/guidance/reviewprocess.html>.

No change in this approved research protocol can be initiated without the IRB's approval. This includes any proposed revisions or amendments to the protocol or consent form. Any unanticipated problems involving risk to subjects, any complications, and/or any adverse events must be reported to the Office of Research Compliance (ORC) immediately. All team members are required to review the "Responsibilities of Principal Investigators" and the "Responsibilities of Research Team Members" available at <http://www.clemson.edu/research/compliance/irb/regulations.html>.

The Clemson University IRB is committed to facilitating ethical research and protecting the rights of human subjects. Please contact us if you have any questions and use the IRB number and title in all communications regarding this study.

Good luck with your study.

All the best,

Nalinee

Nalinee D. Patin

IRB Coordinator

Clemson University

Office of Research Compliance

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Web site: <http://www.clemson.edu/research/compliance/irb/>

IRB E-mail: irb@clermson.edu

Appendix B

Cover Letter

Dear Hotel Manager,

I am a PhD candidate in Parks, Recreation and Tourism Management at Clemson University. As part of my studies requirement, I am conducting a study to examine the effect of sustainability practices on financial leakage in Jordan's hotels.

As I am sure you are aware, going sustainable is a large scale trend in the hotel industry. We need to examine various aspects of sustainability issues so that hotels can reduce their negative impact on the natural environment, respect locals' culture and social life as well as provide quality service for customers.

I would appreciate your participation in completing the following survey in order to include all views so that the findings of this study would represent the industry. The survey should take about 10 minutes to complete. The responses will be collected, statistically analyzed, and reported in my dissertation. Your participation and responses will be treated with the highest level of confidentiality.

Thank you in advance for your participation in this study. Your help and cooperation with this survey is vital and valuable to completion of my degree and further research on sustainability issues in the hotel industry. If you have questions or comments, please feel free to contact me at (864) 202-5540 or by email at nalzbou@clemson.edu, or Dr. Kenneth Backman, my dissertation advisor, at frank@clemson.edu.

As a token of my appreciation I will be happy to send you a copy of the results. Just enter your email address at the end of the survey to receive the results.

Sincerely,
Nidal Alzboun
PhD Student
Parks, Recreation and Tourism Management
Clemson University

Appendix C

The questionnaire

Sustainability Practices in Jordan Hotels Survey

April 2014



**Conducted by Clemson University's Department of Parks,
Recreation, and Tourism Management**



SURVEY ON SUSTAINABILITY PRACTICES OF HOTELS IN JORDAN

QUESTIONNAIRE FOR HOTEL MANAGER

1. Listed below are statements about environmental management. Please indicate **how often your hotel is involved in each environmental activity** by ticking (✓) the appropriate response. Please tick (✓) **only once** for each activity.

Currently, Our hotel	0 Never	1 Very Rarely	2 Rarely	3 Occasionally	4 Frequently	5 Very Frequently
A. Energy management						
i. Installs of occupancy sensors/key card						
ii. Uses Energy efficient equipment & products						
iii. Implements renewable energy programs						
iv. Uses high energy efficient lighting.						
v. Renovation of facilities.						
B. Water Conservation						
i. Uses low water volume toilet						
ii. Uses dual piping system						
iii. Installs water-efficient devices & equipment						
iv. Implements water saving campaigns in the kitchen						

v. Implements a linen & towel reuse program						
vi. Captures rainwater runoff and reuses it						
vii. Uses treated waste water for garden irrigation						
C. Environmental Education						
i. Informs guests about the hotel's environmental policies.						
ii. Educates guests on eco-friendly practices						
iii. Educates staff on eco-friendly practices						
iv. Implements no smoking policy in public areas						
Currently, Our hotel	0 Never	1 Very Rarely	2 Rarely	3 Occasionally	4 Frequently	5 Very Frequently
D. Waste Management & Recycling						
i. Reuses papers, bottles, cans and plastic materials						
ii. Uses refillable soap & shampoo dispensers						
iii. Uses environmentally friendly detergents.						
iv. Sorts waste into paper, glass, plastic etc.						
v. Grinding of guest soap as laundry detergent.						

2. Listed below are statements about your hotel's relationship with local community. Please indicate **how often your hotel is involved in each socio-cultural activity** by ticking (✓) the appropriate response. Please tick (✓) **only once** for each activity.

Currently, Our hotel	0 Never	1 Very Rarely	2 Rarely	3 Occasionally	4 Frequently	5 Very Frequently
Socio-cultural indicators						
i. Uses local materials						
ii. Employs Jordanians						
iii. Promotes local traditional culture						
iv. Provides part of the hotel profit to improve the lives of local residents						
v. Serves traditional food locally produced						
vi. Sells local production of handicrafts.						
vii. Offers practical training for tourism and hospitality students at different levels.						

3. Listed below are statements about economic impact. Please indicate **the average level of the following economic indicators** of your hotel by ticking (✓) the appropriate response. Please tick (✓) **only once** for each activity.

Currently, Our hotel	1 Less than 20%	2 20%-40%	3 41%-60%	4 61%-80%	5 Above 80%
Economic indicators					
i. Has an average occupancy rate last 2 years					

ii. Has a diverse base of different market segments					
iii. Profitability of capital					
iv. Solvency ratio and cash flow					
v. The % of employee's salaries and wages in our hotel are higher than other hotels					
vi. Customers satisfaction level is high					

4. Average room rate in the last two years for this hotel was:

- Less than 50\$ 50 -100\$ 101-150\$ 151-200\$ above 200\$

5. Please check the response below which reflects the number of guest rooms at this hotel:

- Less than 50 50 -100 101 -200 201 -300 above 300 rooms

6. Listed below are statements about importing goods and services. Please indicate the percentage of your hotel purchases of the following list from outside Jordan by ticking (✓) the appropriate response. Please tick (✓) only once for each item.

Currently, Our hotel imports	Never	1 Less than 20%	2 20- 40%	3 41- 60%	4 61- 80%	5 Above 80%
A. Importing food & beverages						
i. Fruits & vegetables directly from outside Jordan						
ii. Fruits & vegetables indirectly from outside Jordan through local						

supplier						
ii. Fish & sea food directly from outside Jordan						
iii. Fish & sea food indirectly from outside Jordan through local supplier						
iii. Meats & sausage directly from outside Jordan						
iii. Meats & sausage indirectly from outside Jordan through local supplier						
iv. Alcoholic beverages directly from outside Jordan						
iv. Alcoholic beverages indirectly from outside Jordan through local supplier						
v. Non-alcoholic beverages directly from outside Jordan						
v. Non-alcoholic beverages indirectly from outside Jordan through local supplier						
vi. Tea & coffee directly from outside Jordan						
vi. Tea & coffee indirectly from outside Jordan through local supplier						
Currently, Our hotel imports which % of	0 Never	1 Less than 20%	2 20- 40%	3 41- 60%	4 61- 80%	5 Above 80%
B. Materials & equipment						
i. Furniture						
ii. Construction materials						

iii. Kitchen wares						
iv. Stationery						
v. Electronic equipment						
C. Remittances						
i. Your hotel has which percentage of foreigner employers in high positions						
ii. Takes foreign loans						
iii. Employ foreign labors						

Listed below are questions to obtain some general background about you and your hotel. All personal information will be kept strictly confidential.

Hotel characteristics

7. Which of the following describes the type of ownership of your hotel?

- Independent Hotel Chain Hotel Franchised Hotel

8. What is the classification of your hotel?

- 1 Star 2 Stars 3 Stars 4 Stars 5 Stars

9. How many people does your hotel employ in the high season? _____

10. How many people does your hotel employ in the low season? _____ .

11. Is your hotel certified by a tourism/environment eco-label or certification scheme?

- YES NO

If **YES** please specify _____

12. Where is your hotel located?

- Amman Aqaba Dead Sea Petra

13. Zip code _____

14. What is the age of your hotel? _____ Years

Respondent's characteristics

Please tell me about yourself:

15. I am: Male Female

16. I am between the age of:

- 18 -30 years 31-40 years 41-50 years
 51-60 years 61-70 years above 70 years

17. Which of the following best describes your highest level of education:

- High School Certificate or less
 Diploma in General Field
 Diploma (in the Hotel and Tourism field)
 Bachelor's Degree in General Field
 Bachelor's Degree (in the Hotel and Tourism field)
 Graduate Degree (please specify) _____

18. I am:

- Single
 Married
 Divorced/Separated
 Widowed

19. My average monthly salary is:

- Less than \$1,000 \$1,000-\$1,999 \$2,000-\$2,999
 \$3,000 and above

20. What is your current position at your hotel?

- General manager Owner manager Departmental manager
 Other _____

21. How long have you worked for this hotel? _____ Years.

22. How long have you worked in the hospitality industry? _____ Years.

23. The nationality of hotel owner is _____.

24. Any other comments? (Please share your thoughts and comment on anything relating to the topic that would be helpful for this study).

.....
.....
.....
.....

THANK YOU FOR YOUR PARTICIPATION

Appendix D

Interview questions outline

1. What does financial leakage mean in your opinion?

For this study we defines financial leakage as “ The amounts subtracted from tourist expenditure on taxes, repatriated profits, wages paid outside the region, and on imported goods and services”. According to this definition please answer the following questions:

2. What are the main reasons for financial leakage in your hotel?
3. Where does leakage concentrated in your hotel supply chain?
4. Do you see financial leakage as a problem or not?
5. What are the appropriate procedures/ tools to mitigate the levels of financial leakage in your opinion?
6. Do you have an overview from where your hotels obtain their imported products?
Are there standards?

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