ADOPTION OF GREEN PRACTICES IN HOSPITALITY AND TOURISM INDUSTRY IN LAMU COUNTY, KENYA

BY

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DECLARATION

This research proposal is my original work and has not been submitted for any award in any
University.

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DEDICATION

To my beloved wife Asya. M. Abduljabbar, my mum Maryam Ali, brothers and sisters, my son Mohammed Abdalla and my beloved daughters Farha, Nassim and Mawaddah. My special thanks to them and all others whom have been supporting me during my time of studying Masters degree. I also dedicated this to my foster parents, Ali Ahmed Aflaha and Mama Jahi for their support in my education.

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God Almighty: To him glory, honour and gratitude.

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ABSTRACT

The research study was to determine the adoption of green practices in the Hospitality and Tourism Industry in Lamu County, Kenya. The research looked at various factors cited as green practices adoption this include green energy consumption, water and liquid waste, air quality and green house gas emissions, green building and design and solid waste management. The study was guided by the following research objectives: to determine the extent of adoption of green practices in the Hospitality and Tourism Industry in Lamu County, Kenya and to establish the factors influencing adoption of green practices by hospitality and tourism industry in Lamu County, Kenya. The research used cross-sectional census survey design to collect quantitative by use of primary data questionnaires. This was preferred as it could enable the researcher to obtain complete and possible accurate information. The population was 31 hotels and the response number was 24 of the hotels. The data collected was then analyzed by use of SPSS. The presentation of data was by tables with frequencies and percentages to show the statement rate under study. The findings indicated that many Lamu County hotels are frequented by visitors from Europe with many of them being adults of over 20 years. The research also showed over 75% of hotels in Lamu have bed occupancy of less than 30 beds making them small hotels and many hotels are over 15 years old. Of the green practices adopted. Eco-friendly building and designs led in adopting green practices followed by solid waste management, then water and liquid waste management, then green consumption and efficiency air finally clean air quality management and water control as the least variable adopting green practice. The report is organized into five chapters. Chapter one presents the introduction of the study, chapter two reviews the literature for similar study, chapter three describes how the study was conducted, chapter four shows the research study findings and chapter five gives the discussions and conclusions for the study. The overall study recommendations should be that the tourism and hospitality industry should act fast and implement green practices since there are potential benefits to the county. The overall research study revealed that hotels in Lamu have started to appreciate the eco-friendly practices in running and managing their hotels and that there is still room for improvement in adopting green practices. The research has also shown that the main drivers for hotels to adopt green practices is hotel policy and the customer's attractions to green practices and the accrued benefits the hotels get in saving.

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LIST OF ABBREVIATIONS AND ACRONYMS

CSR	**:**	Corporate Social Responsibility
EMS	**:**	Energy Management Systems
EPA	**:**	Environmental Protection Agency
ESR	**:**	Environmental Social Responsibility
FSC	**:**	Forest Stewardship Council
GDP	**:**	Gross Domestic Product
GHG	**:**	Green House Gas
GSCM	**:**	Green Supply Chain Management
HVAC	**:**	Heating Ventilating & Air Condition
KAHC	**:**	Kenya Association of Hotel Caterers
KNBS	**:**	Kenya National Bureau of Standards
LAPSSET	**:**	Lamu Port, Southern Sudan Ethiopia Transport
LED	**:**	Light Emitting Diode
RBV	**:**	Resource Based View
SD	**:**	Standard Deviation
SPSS	**:**	Statistical Package for the Social Sciences
SWM	**:**	Solid Waste Management
TPB	**:**	Theory of Planned Behaviour
UNWTO	**:**	United Nations World Trade Organisation

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Green practices is an environmental aspect that institutes and follows ecologically sound programs such as water and energy savings, reduction of solid waste and consumption of energy. Environmental management embraces both technical and organizational activities aimed at reducing the environmental negative impact caused by firms operations, (Salzman, 2000) hence the long term planning of environment management activities determines the environmental strategy of a firm, this strategy may differ depending on the industry , the characteristics of each organization and its implication on the environment, the importance of the natural environment has been addressed in the context of services in general and in the case of the hospitality industry in particular (Schendler, 2001).

This study was based on resource based theory, institutional theory and theory of planned behaviour. The resource based theory of the firm defines the firm as a broad collection of resources possessing and deploying heterogeneous and immobile resources. It provides valuable insight into the competitive advantage that exists when an organization increases its level of environmental commitment. From an institutional perspective, firms operate within a social framework of norms, values and taken for granted assumptions about what constitutes appropriate or acceptable economic behaviour, it suggests that the motives of human behaviour extend beyond economic optimization to social justification and social obligation. This is a result of an organization developing competitive capabilities such as total quality control, cross functional and cross stakeholder management (Aragon-Correa & Sharma, 2003) and the Theory of Planned Behaviour (TPB) which has a strong predictive utility for a wide range of human behaviours. As in the original theory of reasoned action, a central factor in the theory of planned behaviour is the individual's intention to perform a given behaviour. Intentions are assumed to capture the motivational factors that influence a behaviour; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behaviour.

While hotel and hospitality sector is one of the fastest growing forms of tourism, the economic environment of coastal tourism is unquestionable. The tourism aspect of Lamu County lies in the fact that it is a unique county amongst ancient for its rich cultural heritage and architectural buildings and art. It consists of the Lamu mankind side and the Lamu archipelago (Pate Island, Kiwayu and Manda Toto) and the major hotels such as Maljis and Peponi hotels. Lamu is Kenya's oldest county continually inhabited town; it is one of the original Swahili settlements along coastal East Africa founded in 1370. (Lamu Tourist Association, 2015). In addition it is home to over 50 mosques in Lamu Island, including the Riyadha Mosque built in 1900 and a donkey sanctuary. The island has no motorized vehicles. Transportation and heavy work is done with the help of donkey transport. It is home to the Maulidi festival which celebrates Mohamed birth. The Lamu cultural festival, a colourful carnival is usually held in the last week of August which since 2000 has featured traditional dancing crafts including kofia embroidery and dhow races. (Lamu Tourist Association, 2015).

1.1.1 Green Practices

Green practices have become increasingly relevant. There is a demand for businesses to take responsibility for what they are contributing to declining environmental state (Lynch, 2008). The notion of "green business" emerged at the end of the 20th century in the wake of the ever increasing public concern about the sustainability of economic development. The latter, in turn, was roused up by the growing awareness of environmental issues such as the accelerating depletion of natural resources and the deterioration of environmental quality. While the origins of the modern "green movements" can be traced down to the middle of the 1960s, it took almost 20 years for businesses to adapt to the "greening" trends and adopt them into its ideology and practice, coining the term green business for that purpose (Sara, 2012). However, even today, the substance of the green business concept is rather ambiguous as demonstrated by the variety of its definitions that could be found in different sources. Furthermore, green business practices are still far from being universally embraced and applied by business entities around the world, with perceptible differences of business penetration by the "green" ideas in various countries. This is due to several reasons, one of them being the fact that the "greening of business" is still largely perceived as an extra burden (in terms of cost increase or revenue loss), and the other

reason being related to the national specifics in terms of cultural, political, and economic differences (Mensah, 2007).

Becoming green is a multifaceted process; there are various practices that can be applied when business wants to shift to a green behaviour. Business should participate at least in one of "4Rs" – reduction, reuse, recycling, and recovery (Kassaye, 2001). Each of those "Rs" can be achieved through several practices, some of which might serve the purpose of more that one "R". "R" as reduction has a twofold meaning: as a reduction of resource consumption and a reduction of waste. A typical example of the first type of practice is the reduction of energy consumption, example by replacing incandescent lamps with energy-efficient compact fluorescents bulbs which enable to save up to 75% of energy, or simply by turning off electronic appliances when they are not in use. In order to save trees, some companies recommend printing on both sides of paper or to print only the main documents. Application of green packaging might serve either one or both goals of reduction: some companies minimize the volume and weight of packaging, while others strive to reduce packaging waste or using degradable, natural or organic ingredients for their products. Companies might also apply the "product stewardship" policy. It means that the manufacturer is responsible for waste reduction, recycling, and the use of renewable materials (Juahari, 2002).

However, a desire for environmental practices to be achieved at any cost and in the shortest possible time, leads to a constant, albeit very often uncontrollable environment management. In this context bringing tourism environment to a sustainable level, at the same time, enhancing the tourism product, attracting diversified clientele and upgrading the quality of the offer and services, are seen as priorities allowing for tourism development to satisfy both visitors and those who make a living out of it (UNWTO).

Green practices can be divided into the following four areas (a) energy efficiency, (b) water conservation, (c) recycling, and (d) clean air. Energy efficiency refers to activities that reduce the use of energy but provide the same level of energy service. Although it may vary by the type, size and age of the hotel facility and/or the number of rooms, the common methods of reducing energy consumption are controlling

temperature and retrofitting lighting. Installation of new equipment such as fluorescent lights is costly, but the benefits should be considered based on not initial costs but on the entire life cycle (Bohdanowicz, 2006). Water conservation refers to reclaiming wastewater for different purposes and reducing the usage of water (David, 2001).

1.1.2 Adoption of Green Practices

The natural environment is increasingly being viewed as a pillar of CSR (Corporate Social Responsibility). Research on CSR and environmental sustainability in the management literature is converging because of shared environmental, economic, and social concerns (Montiel, 2008). In 1995, Shrivastava identified a shift in businesses to 'ecocentric' management, highlighting an increase in ecologically sustainable organization environment relations. Organizations operating under the ecocentric paradigm 'establish harmonious relationships between their natural and social environments. They seek to systematically renew natural resources and to minimize waste and pollution' (Shrivastava, 1995). A number of variables have been used to identify and assess environmental responsibility, including the existence of pollution abatement programs, the extent to which an organization conserves natural resources, involvement in voluntary environmental restoration, eco-design practices, or the systematic reduction of waste and emissions from operations (Montiel, 2008).

Regulatory compliance and social responsibility to address environmental impacts are components of corporate environmental management, which (Montiel, 2002), is driven by legal and/or social sanctions. However, the underlying thread in the literature on environmental strategy is that through a complex web of constituents, whether customers, shareholders, investors or employees, environmentalism becomes transformed from something external to the market environment to a core objective of the arm. In recent years, the environment has been one of the factors of greatest interest in terms of the market's attitude toward CSR (Bird, 2007). Indeed, some reports point at improved financial performance as a result of environmental performance development (Klassen & McLaughlin, 1996). Similarly, (Welford, 2007) and (Kassinis & Vafeas, 2006) found the environment to be the most important concern for stakeholders in a company's CSR efforts. Wahba, (2008) explored the moderating effect of financial performance on the relationship between corporate

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environmental responsibility and institutional investors and concluded that environmental responsibility had a positive and significant effect on institutional ownership, although this was the case only when financial performance was high. Another perspective of a corporation's role in environmental management suggests that top management's green commitment is a factor, among others, influencing the formulation of different types of corporate environmental practices (Lee and Ball, 2003).

As pollution mounts, global warming increases and natural resources are being depleted, the need to go green is more important than ever. Natural resources are depleted when we log forests, fish, use water and exploit available natural resources. Global climate change is a serious problem now that we have exceeded the sustainable level of carbon dioxide in the atmosphere. The tourism sector uses a lot of natural resources and can contribute a lot in conserving them by applying green practices. Tourism and the environment go hand in hand. Tourism visit game parks, scenic areas and farms, go fishing, boat rides and sailing. Tourism use beaches, forests and natural scenic areas. However, global climate change threatens to raise sea levels, which could flood coastal areas, melt glaciers and snow packs which may cause areas to be dry and arid. The result is the areas and activities once enjoyed by tourists are made less attractive and hospitable (KAHC, 2015).

1.1.3 Hospitality and Tourism Industry in Kenya

Tourism is one of the major industries in the Kenyan economy. Before 2011, tourism had continued to record major improvements each year. However, interruptions on fight against terror have regarded its momentum of growth due to several terrorists' attacks especially at the Kenyan Coast and Nairobi. Tourism is one of the main foreign exchange earners in the country. The Kenya's tourism industry depends largely on natural attractions such as beaches, mountains, forests and scenic landscapes. Wildlife and culture are other main attractions for tourists (KAHC, 2015).

Following wide consultation with Kenyan experts, stakeholders, policy makers and investors during the preparation of our Vision 2030, tourism was identified as one of the top priority sectors for realizing the development blue print Vision 2030. The Government therefore earmarked tourism as one of the six key growth sectors of the

economic pillar of Vision 2030 and charged the sector with the task of making Kenya one of the top ten long haul tourist destinations globally. Vision 2030 recognizes that attaining the top ten long haul destination status will involve addressing constraints facing the sector and implementing strategic projects to improve the quality and breadth of Kenya's touristic offerings at the coast, in game parks, and in niche products (e.g. cultural and eco-tourism), as well as an expansion in conference tourism. Further attention will be paid to creating an environment where tourists spend more per visit (KAHC, 2015).

Tourism plays a very important role in Kenya's economy. It is a major contributor to the GDP, creation of investment opportunities, foreign exchange earnings. It provides employment both directly and indirectly to thousands of people in such areas as game parks, hotels, tour operators, transport, marine activities and others. Tourism has positive impact in all aspects of nation's life by providing linkages as expressed in demand for goods and services. Kenya tourism sector thrives on the natural resources and scenic landscape. Other tourist attractions include marine parks, mountains, riftvalley, lakes and natural vegetation. The beaches and lagoons offer opportunities for sun bathing, boat riding and big game fishing (KAHC, 2015).

1.1.4 Hotel and Tourism Industry in Lamu

Lamu County is located on the Indian Ocean along the northern coast of Kenya, to which it belongs. The most visited area is the archipelago of islands, which lie between Lamu in the south and Kiunga in the north. The largest of the islands are Pate Island, Manda Island and Lamu Island. The smaller islands include Kiwayu and Manda Toto. Today the largest town in the archipelago is Lamu Town, on Lamu Island.Lamu Old Town, the principal inhabited part of the island, is one of the oldest and best preserved Swahili settlements in East Africa. Built in coral stone and mangrove timber, the town is characterized by the simplicity of structural forms enriched by such features as inner courtyards, verandas, and elaborately carved wooden doors. Lamu has hosted major Muslim religious festivals since the 19th century, and has become a significant centre for the study of Islamic and Swahili cultures. The island is linked by boat to Mokowe on the mainland and to Manda Island, where there is an airport. There are no roads on the island, just alleyways and footpaths, and therefore, there are few motorized vehicles on the island. Residents

move about on foot or by boat, and donkeys are used to transport goods and materials (Lamu Tourism Association, 2014).

A port was founded on the island of Lamu by Arab traders at least as early as the fourteenth century, when the Pwani Mosque was built. After defeating Pate Island in the nineteenth century, the island became a local power, but it declined after the British forced the closure of the slave markets in 1873. In 1890 the island became part of Zanzibar and remained obscure until Kenya was granted independence from Great Britain in 1963. Tourism developed from the 1970s, mainly around the eighteenth century Swahili architecture and traditional culture. Kenya, South Sudan and Ethiopia have launched the controversial LAPSSET development project to build a port, oil refinery and rail network near the island of Lamu, the Lamu Port and Lamu Southern Sudan-Ethiopia Transport Corridor (KAHC, 2015).

1.2 Research Problem

Green practices have become more relevant in everyday life (LaVecchia, 2008).Green businesses operate using standards that solve, rather than cause, environmental and social problems. These businesses utilize principles, policies, and practices that improve the quality of life for their customers, employees and community. These practices are instituted as a means to reduce the production of greenhouse gases, conserve natural resources and cut costs to business owners (O'Brien, 2002). It is important to remember that instituting green practices is not necessarily something that can be visible to customers. Awareness of the world's environmental issues such as global warming, carbon emissions, toxic substance usage, and resource scarcity has escalated over the past decades. Policy makers and activists are advocating for going green, and many organizations throughout the world have responded to this by applying green principles (Xie and Breen, 2012).

Tourism and hospitality industry in the coastal region is commonly recognized as an important role in economic growth and continues to expand at a rapid rate (KNBS, 2014). Tourism development has been a profitable economic tool, making it an alluring industry and form of development for many countries and regions around the world. The hospitality industry incurs huge operating costs due to its nature of consuming large amounts of energy and water resources. Hotels equally incur huge

costs in the operational departments of housekeeping, kitchen and laundry. While there are a number of ways in which costs can be addressed, green operation practices have been found significant in managing the costs of operations in organizations and enhance operational performance (McCrea, 2010). These practices can be adopted by hotels and hospitality industry in the areas of energy and water conservation, waste reduction, indoor air quality and environmental education.

Related studies have been on green practices (Sara, 2013) Report of lean management and supply management: their role in green practices and performance London examined that Organizations are faced with increasing pressure to engage in sustainable development and to integrate environmental and social dimensions into their traditional performance metrics. Lean management and supply management are potentially important determinants of environmental performance and can be seen as capabilities that ease the adoption of environmental practices therefore supply management as well as lean activities provide means by which environmental actions can be encouraged leading then to improved environmental performance (Qinghua, 2004). On relationships between operational practices and performance among early adopters of green supply chain management practices in Chinese Manufacturing enterprises examined that green supply chain management (GSCM) is emerging to be an important approach for Chinese enterprises to improve performance, possibly on both these dimensions. GSCM has emerged as an important new archetype for companies to achieve profit and market share objectives by lowering their environmental risks and impacts and while raising their ecological efficiency. Mugabe (2013), on green management practices and supply chain performance of pharmaceutical companies in Nairobi, Kenya examined that green Supply Chain Management (GSCM) has emerged as an important component of the environmental and supply chain strategies for a number of companies and, they have been aiming at integrating environmental concerns in their business operations and in interactions with their stakeholders in embracing environmental sustainability into business strategies. Whilst the issue of green practices in the tourism industry is sparse, there is a need to explore the hotel and hospitability firms in Lamu. This study seeks to answer the research questions: To what extent has hospitality and tourism industry in Lamu County adopted green practices?

1.3 Research Objectives

The research objectives for this study are:

  i. To determine the extent of adoption of green practices in the Hospitality and Tourism industry in Lamu County, Kenya.
 ii. To establish the factors influencing adoption of green practices in hospitality and tourism industry in Lamu County, Kenya.

1.4 Value of the Study

Green practices adoption being one of the major initiatives in the tourism industry and the world at large the study will be important to various stakeholders mainly the tourism industry players and largely contribute to the theoretical view on the adoption of green practices in the hospitality and tourism industry.

The findings of this study can be important to policy makers as it may help them formulate policies that can steer the industry to put in place appropriate infrastructure that may empower the hotel and hospitality industry towards green practices in order to maintain environmental management practices. The academic fraternity will find the report important in helping them understand green practices in the tourism sector. In effect it will open up research and study opportunities in areas not adequately covered in the report. The study will be a source of reference material for future researchers on other related topics. It will also help other academicians who undertake the same topics in their studies.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter discusses relevant literature information on the study topic and in line with the research objectives. The chapter begins with the theoretical foundation of the study and concluding empirical review of the literature and summary of the study.

2.2 Theoretical Foundation of the Study

This section focuses on theoretical review of green management practices in Hospitality and Tourism Industry in Lamu County. This study was anchored on three theories which include Resource Based Theory, Resource Based Theory, Institutional Theory and Theory of Planned Behaviour.

2.2.1 Resource Based View Theory (RBV)

The RBV argues that the heterogeneous market positions of close competitors derive from each firm's unique bundle of resources and capabilities (Peteraf, 1993). Makadok's (2001) recent statement on this distinction is perhaps the clearest. In his view, a resource is an observable but not necessarily tangible asset that can be valued and traded such as a brand, a patent, a parcel of land, or a license. A capability, on the other hand, is not observable and hence necessarily intangible, cannot be valued, and changes hands only as part of its entire unit. A mixture of people and practices continuously enact capabilities like the American Airlines yield management system, Wal-Mart's docking system, and Dell's logistics system. Further, a capability can be valuable on its own or enhance the value of a resource (Teece, 1986; Tripsas, 1997). For example, Nike's marketing capability increases the value of its brand. Some scholars classify research on capabilities as distinct from research on the RBV.

The resource based view (RBV) asserts that firms gain and sustain competitive advantages by deploying valuable resources and capabilities that are inelastic in supply (Werner felt, 1984; Barney, 1986, 1991; Peteraf, 1993). Since the earliest conceptual work published in the 1980s, there have been continuing calls for empirical tests of this central resource based assertion.

The identification and explanation of the benefits to implementing environmental initiatives in the hotel industry can be explained using the Resource Based Theory of the firm. The Resource Based Theory of the firm, developed by Hart in 1995 explains the pertinence of internal factors, such as competitive advantage and financial considerations that motivate the actions of an organization (Hart, 1995; Rivera 2001; Aragon-Correa Sharma 2003). This theory defines the firm as a broad collection of resources possessing and deploying heterogeneous and immobile resources. Resource heterogeneity refers to how physical, human and intangible resources differ amongst competitors. Resource immobility refers to the inability of competing firms to mimic or purchase resources from other firms (Rivera 2002). Brand names, in-house knowledge of technology, employment of skilled personnel, trade contacts, capital and efficient procedures are all examples of resources to be considered (Hart, 1995; Russo & Fouts 1997; Flagestad 2001). The acquisition of these resources will result in a more efficient manufacturing process and/or product services enabling the firm to gain competitive advantage and, therefore, financial benefits.

The resource based theory of the firm also provides support for an organization to differentiate itself from others in order to appeal to a green market segment. Two necessary conditions have to be satisfied for an organization's environmental performance to produce differentiation advantages. First, consumers' buying decisions and willingness to pay must be positively affected by superior environmental performance. Second, compared to its competitors, an organization must be perceived by consumers as having a credible reputation for exhibiting a high level of environmental commitment (Rivera, 2002). Thus, organizations could gain competitive advantage by participating in an environmental program to demonstrate good environmental performance. This would lead to financial benefits as these firms would have differentiated themselves in the market (Rivera 2002).In this research, RBV theory will be used to explain how the firm's resources are used to adopt green practices for the firm to gain competitive advantage. By studying both tangible and intangible resources of the firm, the research will reveal the extent by which the firm is adopting the green practices.

2.2.2 Institutional Theory of the Firm

Institutional theory examines how external pressures influence a company (Hirsch, 1975). The theory suggests that organizations operate within a social network and their behaviours are not confined to dyadic relationship. It implies that a strong motivating force behind firm behaviour is socially based and that it is embedded within institutions and interconnected

organizational networks (Iacobucci & Hopkins, 1992). Within institutional theory, there are three forms of isomorphic drivers namely, coercive, normative, and mimetic (DiMaggio & Powell, 1983). Coercive isomorphic drivers occur from influences exerted by those in power including Government agencies (Rivera, 2004). Normative isomorphic drivers cause enterprises to conform in order to be perceived as having legitimate organizational activities especially in relation to environmental management practices (Ball & Craig, 2010). Mimetic isomorphic drivers however occur when enterprises imitate the actions of successful competitors in the industry, in an attempt to replicate the path of their success (Aerts, Cormier & Magnan, 2006).

The theory explains how a company addresses green issues due to external pressures (Jennings & Zandbergen, 1995). Firms submit to institutional pressures to maintain their social legitimacy, in addition to seeking economic efficiency. The formal rules of environmental institutions relate to environmental legislations, regulations, performance standards and various formal administrative guidelines that organizations can achieve through adoption of green operations. This theory will be used in this research to show how the hospitality and tourism industry is under pressure from different institutions to become more environmentally friendly including consumer demand, increasing environmental regulation, managerial concern with ethics, customer satisfaction and the need for aesthetics.

2.2.3 Theory of Planned Behaviour

The theory of planned behaviour is an extension of the Theory of Reasoned Action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) made necessary by the original model's limitations in dealing with behaviours over which people have incomplete volitional control. As in the original theory of reasoned action, a central factor in the theory of planned behaviour is the individual's intention to perform a given

behaviour. Intentions are assumed to capture the motivational factors that influence a behaviour; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behaviour. As a general rule, the stronger the intention to engage in behaviour, the more likely should be its performance. It should be clear, however, that a behavioural intention can lend expression in behaviour only if the behaviour in question is under volitional control that is if the person can decide at will to perform or not perform the behaviour. Although some behaviours may in fact meet this requirement quite well, the performance of most depends at least to some degree on such non motivational factors as availability of requisite opportunities and resources (e.g., time, money, skills, cooperation of others) (Ajzen, 1985). Collectively, these factors represent people's actual control over the behaviour. To the extent that a person has the required opportunities and resources, and intends to perform the behaviour, he or she should succeed in doing so.

Over the last few decades, concerns related to the environment have progressively escalated (Kalafatis, Pollard, East, & Tsogas, 1999; Laroche, Bergeron, & Barbaro-Forleo, 2001). In the increasingly environmentally conscious marketplace, consumers have realized the impact of their purchasing behaviours, which are strongly associated with environmental problems (Laroche et al., 2001). Increasing numbers of customers who consider various environmental issues are starting to seek and buy eco-friendly products over alternatives, sometimes even paying more for such products (Laroche et al., 2001). Consistent with this phenomenon, in the lodging industry, customers' demands for green establishments have been gradually increasing. Many lodging customers, being aware of the environmental damages (e.g., emissions released into the air, water, and soil) and the wasting/harming of environmental resources caused by hotels (excessive consumption of non-durable goods, energy, and water), now look for hotels that follow eco-friendly practices (APAT, 2002; Manaktola & Jauhari, 2007). As such, marketers in various types of lodging operations have become increasingly proactive in following green practices and developing environmental programs/initiatives (Brown, 1996; Chan & Wong, 2006).

The idea that behavioural achievement depends jointly on motivation (intention) and ability (behavioural control) is by no means new. It constitutes the basis for theorizing

on such diverse issues as animal learning (Hull, 1943), level of aspiration (Lewin, Dembo, Festinger, & Sears). According to the theory of planned behaviour, performance of behaviour is a joint function of intentions and perceived behavioural control. For accurate prediction, several conditions have to be met. First, the measures of intention and of perceived behavioural control must correspond to (Ajzen & Fishbein, 1977) or be compatible with (Ajzen, 1988) the behaviour that is to be predicted. That is, intentions and perceptions of control must be assessed in relation to the particular behaviour of interest, and the specified context must be the same as that in which the behaviour is to occur.

The Theory of Planned Behaviour will be used in this research to investigate how different stakeholders respond to the adoption of green practices in tourism and hospitality industry in Lamu County and how their behaviour towards green practices influences the adoption of these green practices.

2.3 Green Practices

Deployment of environmentally friendly practices has become an important aspect of hotels' main goals in recent years (Mensah, 2004). For example, the Green Assessment Survey by the American Hotel & Lodging Association (2008) revealed that 90% of the companies that participated in the assessment embraced green practices. This finding suggests that deployment of green practices is not only widely accepted, but also has become an important norm in the hotel industry. Given the importance of green practices, research into this area has been gaining momentum in recent years. Some studies have looked at environmental concerns, but most of them have focused primarily on the area of marketing strategy, often investigating consumer perceptions of green practices (Clark, Kotchen, & Moore, 2003; as outlined below are the green practices to be discussed in this study.

2.3.1 Green Energy Consumption and Efficiency

Energy saving has been considered one of the most significant areas of environmental management in the hotel industry because hotels in general consume considerable amount of electricity and fossil fuel energy in various operational areas. According to the U.S Environmental Protection Agency (EPA), reducing energy use by 10 percent across the hospitality industry would save $285 million. It is reported that the

potential for energy saving through green practices such as replacing light bulbs with energy efficient ones has been estimated at 10 -25 percent depending on the age and size of the hotel.

Since the oil crisis in the 1970's, there is an understanding that dependence on fossil fuels needs to be reduced. The use of alternative energy such as renewables is crucial to the discussion of shifting energy supply to more sustainable options. The Second International Conference on Climate Change and Tourism held in Davos in 2007 recognized the significance of using energy efficient and renewable energy technologies in the hotel industry to reduce its carbon footprint (Cabrini, 2009). Energy sustainability is gaining increased attention from all industries because of the significance of global climate issues and the creation of national emission reduction targets, example Kyoto Protocol targets, by many countries. Key means to reduce greenhouse gas (GHG) emissions include increasing energy-efficiency and substitution to less carbon intensive fuels. Sustainability decisions related to energy consumption in the hotel building are dependent on energy use and energy source.

Management practices of accommodation facilities, energy management practices include the following: implementing renewable energy programmes such as the use of wind power, solar power and run off river power adoption of automated (computerized) energy control systems, installation of energy efficient laundry equipments, use of digital thermostats to control guestroom energy consumption, installation of occupancy sensors (which automatically turn the lights out when guests leave the room), reduction of air circulating equipment through implementation of smoke free policies, use of energy star qualified products, installation of triple glazed windows or reflective glass to save energy for heating and cooling, replacement of outdoor and exit signs with Light Emitting Diode (LED) signs and use of waste heat from the power generators (Gise, 2009).

There exists a range of sustainable initiatives from simple to complex and conventional to innovative (Dutta, 2008) for example, the adoption of simple low cost measures such as reusing linen and towels, recycling, shutting equipment when not in use are rarely considered as innovative practices. Mainstream sustainable technologies includes the use of energy efficiency measures/equipment such as dryers, elevators,

dish washing machines, energy efficient lighting, energy management systems (EMS); building design techniques that maximize the available daylight include: insulation and thermal mass to reduce indoor temperature variability, orienting new buildings to gain maximum sunlight and natural ventilation and wherever appropriate shading the building. Renewable energy technologies such as solar thermal and solar PV are relatively more popular than other technologies that use clean and renewable sources of energy including biogas, combined heat and power systems (CHP), geo thermal systems, green power, micro-hydropower, solar photovoltaic systems, solar water heating and wind energy systems (Daly, Glassmire, Langham, & Paddon, 2010).

2.3.2 Water and Liquid Waste

As water supply becomes an ever more pressing issue in many parts of the world the tourism industry has a responsibility to conserve water whenever possible. Furthermore, access to clean and safe water will become an important determinant in the location of a tourism enterprise or ensuring the viability of existing operations. Kasim (2007) noted that luxury hotels in particular consume large amounts of water for leisure purposes such as swimming pools, spas and golf course irrigation. In addition, the need to deal with wastewater in a sustainable manner is now seen as essential for the ongoing potential of a tourism destination. Guestrooms, kitchens, restaurants, laundries and gardens generate large volumes of wastewater which can result in disease and negative ecological impacts. A study by Harju (2012) was done with the aim of findings out how the incentive system in an economy affected environmental management. There is an urgent need for hotels, guesthouses, restaurants and golf courses to better manage waste water protect the environment and meet a growing customer demand for environmentally-friendly facilities. Wastewater management and treatment activities which tend to be highly technical require professional expertise to determine the most appropriate technological solution based on efficacy, costs, and impacts. (Harju, 2012).

Water usage in hotels includes use for sanitary purposes, recreation, cleaning, cooking, drinking and heating, ventilating, and air conditioning (HVAC) systems. Like energy, water use in most hotels (some hotels have a relatively high base load unrelated to occupancy levels) varies directly in relation to occupancy levels. Usage

also varies based on the levels of service provided and whether the property has an on-premise laundry and full food and beverage production areas. However, in general, most of the water used by a hotel is consumed in guestrooms, which generally consume between 33 and 44 per cent of a property's total water usage, followed by the food and beverage production area: 18 – 28 per cent; public washrooms: 15 – 17 per cent; on-premise laundry: 11 – 20 per cent; pools: 2 – 3 per cent and HVAC systems: 1 – 2 per cent (Deng and Burnett, 2002). Linen usage can also significantly affect the amount of water a property uses. Hotels that provide a high level of service typically use more linen than those that offer lower levels of service (Deng and Burnett, 2002).

2.3.3 Air Quality and Green House Gas Emissions

The UNWTO (United Nations World Tourism Organization) defines the Travel and Tourism (T & T) sector as the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited. When we travel, we have to use transportation and check in hotel, so it forms a tourism industry chain for travel services which including transportation, hotels, travel agencies, entertainment and retail. In this industry chain, each cluster contributes both direct and indirect carbon emissions. Carbon emissions from sources that are directly engaged in the economic activity of the Travel & Tourism sector are considered direct emissions. These are, for example, emissions from the usage of electricity by hotels and resorts and emissions from passenger aircrafts and railways (UNWTO).

Indirect carbon emissions are produced as a consequence of the activity of the companies in the Travel & Tourism value chain, but occur from sources not directly engaged in the economic activity within the Travel & Tourism sector. For example, emissions from electricity usage in airline or travel agent offices, and emissions from transportation of hotel consumables, such as food or toiletries. According to the World Tourism Organization statistics, Travel & Tourism land transport (car, bus, and rail) direct carbon emissions are forecast to grow at an annual rate of 2% per annum through 2035. Air transport direct carbon emissions are estimated to grow at an annual rate of 2.7% per year, direct carbon emissions from ocean-going cruises are

estimated to rise by 3.6% per year, Accommodation cluster carbon emissions are forecast to grow at 3.2% per year.

Indoor air quality is also of importance in any green hotel program. This issue has gained significant attention in recent years and has been acknowledged by lodging managers as an area of important concern (Emblem, 2001; Hewett, 2001). Clean air practices are directly related to energy efficiency and will reduce exposure to health related liability, as well have a positive effect on employee and guest relations. Indoor pollution sources that release gases or particles into the air are the primary cause of indoor air quality problems. Typical indoor pollutants include inorganic gaseous compounds, particulates (dusts, fibres, fumes, fogs and smoke), bio aerosols – viruses, bacteria and fungi. Other sources of indoor pollutants in hotels include combustion sources such as oil, gas, kerosene, coal, and wood, building materials and furnishings, asbestos-containing insulation, wet or damp carpet, and cabinetry or furniture made of certain pressed wood products, products used for cleaning and maintenance, central heating and cooling systems and humidification devices (Grieve, 1991).

2.3.4 Green Building and Design

The interior design of the hotel plays a large role in sustainability. Consumers have become more environmentally conscious causing hoteliers to become more interested in Low impact interiors to "create healthy and productive places to stay and work. The push towards "green" interiors also helps hoteliers get closer to their "green" building certification. Sustainable interiors should consist of products whose manufacturing have little to no impact on the environment and can be environmentally friendly to dispose of. Another term for this is cradle –to -grave or life cycle assessment, it is a tool "used to help determine the environmental impact of products, services, or processes (Winchip, 2007).Sustainable flooring includes products made from renewable or recyclable material. Bamboo has become a popular sustainable flooring option because of its comparable durability and strength to hardwood floor and it is a highly renewable material. Bamboo is considered sustainable because it grows much faster than wood and can re-harvest itself through its root system (Winchip, 2007).

There are eco-friendly options for hardwood such as wood that is Forest Stewardship Council or FSC certified. The FSC is a global forest certification program founded in 1993 under the principle of reducing the environmental impact of logging and maintaining the integrity of the forest. Forests awarded with this certification meet the ten principles set by the FSC. These include using logging techniques that have a low environmental impact, respect for the indigenous people in that area, and continuous monitoring of the activities and condition of the forest, to name a few. Another natural option is reclaimed wood flooring; wood taken from deconstructed barns or older buildings that is turned into usable flooring. Cork flooring is another renewable resource that comes in many colours and styles. The cork is harvested from the bark of the cork oak tree, the tree is able to continue to grow and regenerate new bark after the bark is harvested (Winchip, 2007).

Aspects to consider when choosing sustainable furniture are manufacturing practices and materials used. In 2011, a group of hotel leaders representing suppliers, brands, architecture and design firms, and owners launched the Hospitality Sustainable Purchasing Consortium. It was created to "provide an industry wide purchasing performance measurement solution so that hotels are built, furnished and operated in ways that benefit guest health, comfort and wellbeing ,and enhance the environmental and social impacts of the industry (Hospitality).The goal of the consortium is to support product selection based on "quality, design , value, service and sustainability (Winchip, 2007).

2.3.5 Solid Waste Management (SWM)

Solid waste is a key concern in the hospitality industry. Typically, a hotel guest can produce 1kg of waste a day that accumulates to thousands of tonnes of waste annually (IHEI,2002).Many small hotel operators have very little interest in reducing and/or recycling waste, believing that such activities are too expensive and time-consuming (Chan & Lam, 2001).Cohen (2006) Reported that the generation of solid waste from all sources across the whole economy is increasing in the United Kingdom By 3% per year –faster than the gross domestic product and faster than most other European countries.

For a hotel business, the cost of solid waste is not only the cost of disposal but includes other hidden costs, i.e. staff, resources and energy (Todd & Hawkins,2007).The waste management industry in the United Kingdom is currently regulated and guided by the Environmental Protection Act (EPA) 1990,which provides more control over waste carriers and producers(Read, Phillips, &Robinson,1998).All producers of waste must comply with Section of the Act which is known as "Duty of Care". This requires all commercial and Industrial businesses to Use unauthorised waste Carrier and to store, present and dispose of their waste properly (Webster, 2000).

Cummings (1997) developed a hierarchy Model of hospitality SWM. The model introduces five levels for waste minimisation including commit to waste minimisation, Purchase with eco-intelligence, use efficiently to generate less waste, reuse waste materials and segregate and recycle waste. However, Cummings's Model will not be applicable to hoteliers who have negative attitudes towards the implementation of more sustainable SWM Practices as the model does not have any system of motivation and/or pressure to influence hoteliers' behavioural intentions in relation to SWM. It is essential to educate and train staff about waste minimisation practices, Along with providing incentives to enhance their commitment to the programme (Cummings, 1997; Trung & Kumar, 2005).Cummings (1997) indicated that customers can play an important role in a hotel's waste recycling programme by not contaminating waste with food. A range of methods can be used to encourage customers to segregate their recyclable materials that are, providing another bin in the room or near lifts for recyclable materials. Hayward (1994) indicated that customers' attitudes towards the environmental issues had changed positively. Many hotels reported high customer participation rates in hotel waste recycling programmes, e.g. Disneyland Resort in Anaheim and Disney World. The waste hierarchy introduced by Waste on Line (2006) provides a range of options to handle different waste streams (prevention, minimisation, reuse, recycle, energy recovery and disposal).

Implementing a solid waste reduction program in a hotel can create significant cost savings in waste hauling fees while creating a more environmentally friendly hotel. This is especially true as solid waste becomes a more significant environmental issue and landfill fees increase. Another aspect of a solid waste reduction program is

dealing with food waste, which can frequently be a large portion of the waste produced in hotels and lodging facilities. Over preparation, table scraps, cooking losses, and packaging failures lead to accumulation of food waste. Because spoiled food and even leftover plate scrapings can be composted, hotels are increasingly recognizing that composting is a better use of organic materials than trucking them to landfills.

2.4 Empirical Review

This practically looked at how other scholars have tackled the concept of green practices, the analysis and findings are as outlined below.

2.4.1 Global Studies

Martinez (2013) in a study on integrating green into business strategies and operations, he articulated a framework for Environmental Social Responsibility (ESR) which prescribes the integration of environmental concerns in day to day culture, processes and activities of a firm. The findings indicate that systematic pressures are often put forward as constraints to ESR integration, whether this translates into shareholders disapproval, economic instability and market volatility.

Yusof (2013) conducted a study on best practice of Green Island Resorts. The objective of the study was to find out the best practice and the factors influencing the best practice of the resort operators. The study found out that green initiatives helped to cut down the running cost and each resorts adopted different best practice that suit their operation and environment.

Juriah (2010) in his study on the impacts of green practices adoption on green performance in the Malaysian Automotive Industry reviewed that in this globalization era, the role of continuous quality initiatives and green technology within organization has improved and matured throughout history. To increase competition, firms need to apply lot of Green Practices (GPs) such as green supply chain management practices, green lean six sigma, and green balanced scorecard strategy. Automotive industry is the most actively involved industry in the environment management system effort; reduce waste strategy, strategic green

improvement activities, development of green supply chains, and adoptability green innovation and technology advanced.

Hatem (2010) in his study on managing solid waste in small hotels examined that solid waste is a key concern in the hospitality industry and that hotels contribute significantly to the degration of the environment through the disposal of thousands of tonnes of waste to landfill but many hotels operators lack awareness of their legal obligations in relation to solid waste management this highlights the need for local authorities to consider systems to control business abuse of the domestic waste stream and raise awareness.

Robin (2013) in his study on green in Quick Service Restaurants: Customer Perceptions and Intentions USA observed being green and "go green" have become widely used slogans in many industries throughout the world. There are products and business practices that are eco-friendly, green, organic, locally produced, environmentally sound, sustainable, biodynamic, and energy efficient. The hospitality industry has implemented some green practices in a variety of formats. The restaurant industry has tended to be slower to adopt green practices than other segments of the hospitality industry, but they are currently following suit and are adopting practices that are beneficial for the environment and in reducing their carbon footprint (Deveau, 2009).

2.4.2 Local Studies

Mugabe (2003) on Green Management Practices and Supply Chain Performance of Pharmaceutical Companies in Nairobi, Kenya examined that, Supply chain management has traditionally been viewed as a process where raw materials are converted into final products, and then delivered to the end consumer. This process involves extraction and exploitation of the natural resources. It is important to note however that we live in a decade where environmental sustainability has been an important issue to business practice. The waste and emissions caused by the supply chain have become one of the main sources of serious environmental problems including global warming and acid rain. Green supply chain policies are desirable since reactive regulatory, to proactive strategic and competitive advantages.

Omonge (2013) looked at green supply chain management practices and competitiveness of commercial banks in Kenya. The study sought to establish the role of GSCM practices on competitiveness of commercial banks in Kenya. The study adopted a descriptive research design. The study established that most of the banks green supply chain practices involved environmental collaboration, monitoring, purchasing and the greening of the production phase. It was also found out that the competitiveness to the banks resulting from the green supply chain practices includes improved operational efficiency, increased customer base, offering superior services, reduction in waste level and all these leads to improved financial performance. The study concluded that incorporation of green practices in the operations of organizations should form part of long term strategy of the organizations to gain competitive advantage over its competitors.

Omariba (2011) on a study of green supply chain management practices and supply chain performance examined that Green supply chain management is an approach used to design and or redesign the supply chain (SC) to incorporate practices that minimize the impact if a firm's activities on the environment not only from start to finish of a supply chain but also from the beginning to the end of a product's life cycle for the purposes of improving the long term performance of the individual companies and the supply chain (Green et al , 2008). A green supply chain may involve use of environmentally friendly inputs and transforming them into products that can improve or be recycled within the existing environment therefore Green supply chain management helps in the reduction of waste and emission to the environment.

2.5 Summary of Literature Review

Perhaps one of the reasons that there has been more awareness rather than action about greening in the hotel industry is because there has not been a clearly articulated business case for going green. Currently, the hotel industry is still supply driven rather than demand led when looking at environmental practices. Although demand is growing for 'green' hotels by the general public, individual hotels must see benefits through all elements to be convinced of the business case. The resource based theory of the firm identifies through best practice examples that being environmentally committed ensures competitiveness and increased organizational performance that

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will lead to lower costs, improved reputation and strategic alignment with future changes in the general business environment (Aragon-Correa & Sharma, 2003). Through working collectively and sharing best practices of the benefits to environmental commitment, great things can be achieved. The hotel industry in must move towards action not only to preserve and protect but also to ensure the future viability and growth of this industry.

On the studies of green practices adoption in the automotive industry, revealed that the role of continuous quality initiatives and green technology within an organisation has improved and matured throughout history hence being green and go green have become widely used slogans in many industries throughout the world nonetheless hospitality has not been left out and have implemented green practices in a variety of formats.

In addition green management and supply chain on performance and competitiveness, supply chain management has traditionally been viewed as a process where raw materials are converted into final products, and delivered to the end consumer while on the competitiveness of the firm in the banks resulting from the green supply chain practices includes improved operational efficiency, increased customer base, reduction in waste level which all leads to improved financial performance.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter focused on the methodology that was employed in the research project. It details the research design, population under study, the data collected and data analysis method.

3.2 Research Design

A cross sectional census survey was adopted in carrying out the study. A survey is used when the purpose of the study is descriptive, usually conducted to estimate the prevalence of the outcome of interest for a given population, this was to determine green practices adopted in Hospitality and Tourism Industry in Lamu County. The relevance of the cross sectional study, it allows a researcher to compare many different variables at the same time. The technique used is practical and can yield more comprehensive information; the survey makes possible the use of much larger and much more varied populations than would be possible for the same expenditure if one were making a complete enumeration.

3.3 Population of the Study

The population of the study comprised all the 31 hotels in Lamu County (Appendix 2). These hotels are spread in the region and are classified as town hotels, vocational hotels, lodges and restaurants. Their sizes are in terms of bed capacity. In addition, hotels are key stakeholders that determine the performance of the tourism industry since they are the suppliers of accommodation and leisure services to tourists in this country.

3.4 Data Collection

The study used primary data. Primary data was collected using questionnaires. The closed ended questionnaires were distributed to the respondents in the organisations and collected once completed while the interview guide was carried out guided by the research assistant on answering the questions through conversation with the respondents in the organisation. Target respondents were the Human Resource Manager, Information Technology Manager, Customer relationship Manager

(Concierge) and the Operations Manager whom are familiar with the adoption of green practices in the hospitality in Lamu County.

3.5 Data Analysis

After data collection, the questionnaires were edited and coded for completeness and accuracy to avoid errors. A statistical tool SPSS was used to generate statistics and information on the collected data. Descriptive statistics tools of analysis that was used include Tables, Frequencies, Mean and Standard Deviations, to represent the response rate and information on the variables under study.

The closed ended questions were done using factor analysis which uses a mathematical procedure for the simplification of interrelated measures to discover patterns in a set of variables which attempts to discover the simplest method of interpretation of observed data known as Parsimony. The broad purpose of factor analysis was to summarize data so that relationships and patterns can be easily interpreted and understood.

CHAPTER FOUR
DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

This section presents analysis, findings and discussion of the data collected in line with study objectives. The purpose of the study was to determine the extent of adoption of green practices in the tourism and Hospitality Industry in Lamu County. The study raised two objectives; to determine the extent adoption of green practices in the Tourism and Hospitality Industry in Lamu County and determine factors influencing adoption of green practices in the Hotel and Tourism Industry in Lamu County.

4.2 Company's Basic Information

This section highlights the research information on length of time of operation, bed occupancy of the Hotel, Origin of the Clients, and age of the clients. According to the respondents many hotels have been in operation for less than 16 years, bed occupancy of 11 − 20 persons is highest in the hotels. On the capacity of the hotels, bed occupancy of 11-20 persons but 75% of the hotels have bed capacity of less than 31 beds. Most of the clients come from Europe and Kenya and very few from the rest of the world.

4.2.1 Number of Years in Operation

The table below shows the Number of years in operation. It sought to determine the number of years the clients have been in operation. Those who have served their organization for less than 2 years had a percentage of 8.3 and a frequency of 2, the staff that have served the organization between 6-10 years had a percentage of 25 and a frequency of 6, the staff who have served the organization for a duration between 11-15 years and over 16 years were represented by the same number of percentage of 33.3 and the same number of frequency of 8 each of the total 24.

Table 4.1.Number of Years in Operation

No. of Years	Frequency	Percent	Cumulative Percent
Under 5 years	2	8.3	8.3
6-10 years	6	25.0	33.3
11-15 years	8	33.3	66.7
over 16 years	8	33.3	100.0
Total	**24**	**100.0**	

Source: Research Data (2015)

The table below shows the bed occupancy of the premise/hotel. The study sought to determine the bed occupancy in every hotel within Lamu County. Those with 6-10 persons was represented by a frequency of 4 and a total percentage of 16.7, those that represented 11-20 persons amounted to a frequency of 9 and a total of 37.5 percentage, while those that were represented by 21-30 persons had a percentage of 20.8 and a frequency of only 5. The last group was of over 31 persons which was represented by a frequency of 6 and a percentage of 25.

4.2.2 Bed Occupancy of Hotels

Table 4.2.2 Bed Occupancy in Hotels

No. of Persons	Frequency	Percent	Cumulative Percent
6-10 persons	4	16.7	16.7
11-20 persons	9	37.5	54.2
21-30 persons	5	20.8	75.0
Over 31persons	6	25.0	100.0
Total	**24**	**100.0**	

Source: Research Data (2015)

The table below shows the findings on where most clients that visit hotels in Lamu County come from. The study sought to establish where do most of the clients come from, the findings were that most of the clients were from Europe followed by the domestic clients who come from within the country, while the least come from United

States of America(U.S.A). The clients who come from Europe are represented by a frequency of 13 and a percentage of 54.2, the domestic clients are represented by 41.7 percent and a frequency of 10, while those from U.S.A had a frequency of 1 and a percent of 4.2. There were no hotels frequented by visitors of East Africa and Asia.

4.2.3 Origin of Clients
Table 4.2.3 Origin of Clients

Origin	Frequency	Percent	Cumulative Percent
Domestic Kenya)	10	41.7	41.7
Europe	13	54.2	95.8
U.S.A	1	4.2	100.0
Total	**24**	**100.0**	

Source: Research Data (2015)

The findings on the age of clients were represented in the table below. The clients aged between 20-29 years amounted to 4.2% which was represented by a frequency of 1. The clients with ages from 30 to 39 years were represented by 54.2% with a frequency of 13. Those with ages in between 40 to 45 had a total of 41.7% and a frequency of 10. There were no hotels which were frequented by clients of less than 20 years and above 55 years.

4.2.4 Age of Clients
Table 4.4: Age of Clients

Age	Frequency	Percent	Cumulative Percent
20-29	1	4.2	4.2
30-39	13	54.2	58.3
40-55	10	41.7	100.0
Total	**24**	**100.0**	

Source: Research Data (2015)

4.3 Level of adoption of Green Practices

The following outlines the major green practices adoption in the hotels, analysis are as outlined below.

4.3.1: Green Energy Consumption and Efficiency

The study sought to find out the green energy consumption and efficiency; the findings are as outlined below. The Likert Scale was used numbering 1 to 5 and as indicated in the questionnaire. The lower the value of the scale represents a higher extent of adoption and vice versa, the higher the value in the Likert Scale, the least extent of adoption of the factors in the variable researched.

Table 4.5: Green energy Consumption and Efficiency

Statement	Mean	Standard Deviation	Rank
Our hotel has embraced and implemented natural light mechanism to save on energy	2.04	0.806	5
Our hotel is using energy saving bulbs	1.58	0.584	8
Our hotel uses solar energy for its hot water use	1.75	1.152	7
Green energy is readily available in our hotel	2.71	1.429	2
Conventional energy source is more reliable than green energy	3.71	1.308	1
The hotel uses many power saving appliances	2.17	0.963	4
The hotel has capacity to increase green energy use	1.96	0.806	6
The hotel makes savings by using solar or wind energy	2.71	1.398	3

Source: Research Data (2015)

From the study above it clearly shows that the green energy consumption practice used at the hotels are in order of, energy saving bulbs at a mean of 1.58 and standard deviation 0.584, followed by use of solar water energy for hot water use with a mean of 1.75 and standard deviation 1.152, hotel has capacity to increase green energy with a mean of 1.96 and standard deviation 0.806. The hotel has embraced and implemented natural light mechanism to save on energy with a mean of 2.04 and standard deviation 0.806, hotel uses many power saving appliances with a mean of 2.17 and standard deviation 0.963, the hotel makes savings by using solar or wind

energy with a mean of 2.71 and standard deviation 1.398, conventional energy source is more reliable then green energy with a mean of 3.71 and standard deviation 1.308.This clearly indicates that to a high extent green energy consumption and efficiency is highly adopted in the hotels.

4.3.2 Water and Liquid waste management

The study sought to find out the extent of adoption of water and liquid waste management in the organisation, the analysis are as outlined below.

Table 4.6 Water and Liquid Waste Management

Statement	Mean	Standard deviation	Rank
The hotel liquid waste management is eco-friendly	2.21	1.250	3
It is very easy for the hotel to dispose liquid waste	2.21	1.141	3
The water saving measures in the hotel are in place	2.04	0.955	4
The hotel source of water is sufficient	2.54	1.351	2
Recycling and water re-use in the hotel is good	3.88	1.035	1

Source: Research Data (2015)

From the study above it is clearly indicated that the water and liquid waste management adopted in the hotels are in order of water saving measures with a mean of 2.04 and standard deviation 0.955, hotel to dispose liquid waste and eco-friendly liquid waste management tie with a mean of 2.21, and standard deviation 1.250 and 1.141 respectively, hotel source of water is sufficient with a mean of 2.54 and standard deviation 1.351 and lastly recycling and water re-use in the hotel is good with a mean of 3.88 standard deviation 1.035.

4.3.3 Air and Water

The study sought to find out the air and water practices adopted in the hotels, the findings are as outlined below.

Table 4.7 Clean Air Quality Management

Statement	Mean	Standard deviation	Rank
The hotel has activities producing carbon emission	3.83	1.129	1
The transport system used by our guests is sail boats rather than fuel run boats	2.83	1.274	4
Food production activities produce a lot of carbon dioxide	3.54	1.141	2
The hotel has embraced measures to reduce carbon emissions	2.67	1.274	5
The hotel uses unleaded petroleum for its energy use	3.08	1.442	3

Source: Research Data (2015)

From the findings it is clearly indicated that the air and water green practices being adopted in the hotels, the hotels have embraced measures to reduce carbon emissions with a mean of 2.67 standard deviation 1.274, transport system used by guests is sail boats than fuel run boats has a mean of 2.83 and standard deviation of 1.274, hotel uses unleaded petroleum for its energy use with a mean of 3.08 and standard deviation of 1.442, food production activities 3.54 standard deviation 1.141, and lastly hotel activities producing carbon emission with a mean of 3.83 and standard deviation 1.129.

4.3.4 Eco- Friendly Building and Design

The study sought to find out the Eco-friendly building and design practices, the findings are as outlined below.

Table 4.8 Eco- Friendly Building and Design

	Mean	Standard Deviation	Rank
The hotel has been built using environmental friendly materials	2.38	1.245	1
The architectural design of the hotel responds to natural sources of energy like natural lighting from the sun	1.79	0.932	2
The design of the hotel allows passage of natural air and ventilation	1.42	0.584	4
Heavy energy consuming appliances like air conditions have been minimized	1.79	0.977	2
There is enough space to accommodate green energy installations like solar panels	1.79	0.977	2
The design of the furniture windows and doors respond to the eco-friendly products	1.50	0.722	3

Source: Research Data (2015)

According to the findings above, the eco-friendly building and design adopted in the hotels, the most effective green practice is the hotel design allowing passage of natural air and ventilation with a mean of 1.42, standard deviation 0.584, design of the furniture windows and doors respond to the eco-friendly products with a mean of 1.50, standard deviation 0.722, enough space to accommodate green energy with a mean of 1.79, standard deviation 0.977, heavy energy consuming appliances with a mean of 1.79, standard deviation 0.977, architectural design of the hotel responds to natural sources of energy all at par of 1.79 and whether the hotel has been built using environmental friendly materials represented by a mean of 2.38, standard deviation 1.245.

4.3.5 Solid Waste

The study sought to find out how the hotels are adopting solid waste management, findings are as outlined below.

Table 4.9 Solid Waste Management

Statement	Mean	Standard Deviation	Rank
There is a big amount of solid waste which is organic	2.5	1.103	3
The hotel uses environment friendly disposal mechanism of solid waste	2.21	1.179	5
The hotel recycles and re-uses much of its non-organic waste	3.33	1.341	1
Organic waste is used for other purposes like manure in our hotel	3.00	1.504	2
The hotel has embraced processes and practices which reduce solid waste	2.25	1.113	4

Source: Research Data (2015)

According to the study above the solid waste management adopted in the hotels are in order of hotel use of environment friendly disposal mechanism of solid waste with a mean of 2.21 sd 1.17, hotel embrace of processes and practices which reduce solid waste with a mean of 2.25 sd 1.113, amount of solid waste being organic with a mean of 2.5 sd 1.103, organic waste used for other purposes as manure in the hotel with a mean of 3 sd 1.504 and lastly hotel recycles and re-uses much of its non organic waste with a mean of 3.33 sd 1.341.

Table 4.10 Ranking of Adoption of green practices

Statement	Mean	Rank
Green Energy Consumption and Efficiency	2.329	4
Water and Liquid waste Management	2.576	3
Air Quality Management	3.19	1
Eco- Friendly building and Design	1.778	5
Solid Waste Management	2.658	2

Source: Research Data (2015)

The results above indicate that the most adopted green practice in the hotels is eco-friendly building and design at mean 2.134 followed by use of green energy consumption and efficiency with a mean of 1.778, water and liquid waste management with a mean of 2.576, solid waste management is the fourth in the extent

of adopting the green practices with the least adopted green practices being air and water control with a mean of 3.19.

4.4 Factors influencing adoption of green Practices

The study sought to find out the external factors affecting adoption of green practices in the hotels, the findings are as outlined below.

Table 4.11: Factors Influencing Adoption of green practices

Statement	Mean	Standard Deviation	Rank
County government regulations and laws	3.25	1.567	2
National government regulations and laws	3.42	1.283	1
Improved reputation and Image as a global entity	2.17	1.204	3
Effort to be in trend with current practices in hotel industry	2.13	1.262	4
Hotel policy	1.67	0.963	7
Accrued Economic Benefits	1.79	0.833	6
Competitiveness and attraction to customers	1.83	1.129	5

Source: Research Data (2015)

The results above indicate that to a high extent hotel policy with a mean of 1.67 and sd 0.963 is the main driver for adopting green practice, followed by accrued economic benefits 1.79 and sd 0.833, competitiveness and attraction to customers with a mean of 1.83 and sd 1.129, trend with current practices in hotel industry with a mean of 2.13 and sd 1.262, improved reputation and image as a global entity with a mean of 2.17 and sd 1.204, county government regulations and laws with a mean of 3.25 and sd 1.567 and lastly National government regulations and laws with a mean of 3.42 and sd 1.283.

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary discussion on the adoption of green practices in hospitality and tourism industry in Lamu County. A conclusion discussing the general findings of the research is highlighted followed by recommendation based on the findings of the study. The limitations of the study and suggestions on areas of further research are discussed at the end of the chapter.

5.2 Summary

The aim of this study was to determine the extent of adoption of green practices in the hospitality and tourism industry in Lamu County. The research also aimed to establish factors influencing the adoption of green practices in the industry in Lamu County. On the general information of the hotels, the study showed that over 67% of the hotels have operated over 10 years with very few new hotels coming up in the last five years represented by only around 8.3%. Generally, hotels in Lamu have small capacity in terms of bed occupancy with over 75% having bad occupancy of less than 30 beds.

The study has also revealed that over 95% of the clients come from within the country and Europe, whereas Europe alone brings over 50% of the hotel's clients to Lamu. Very little customers for the hotels come from other regions of the world including East Africa. Demographic structure of the clients shows that over 95% of the clients are above 30 years and hotels are frequented by very few youthful visitors and juveniles.

Generally, the results revealed that of the five variables researched on the Lamu County Hotels adopted eco-friendly building with a mean of any other variable with a mean of 1.778. In this category all components of green practices high adoption of green practices. The designs of the hotels in Lamu conforms very well with green practices allowing natural air and ventilation and thus saving on use of energy to cool and ventilate the hotels. The mean stands at 1.42. The only component which is yet to be improved in this category is the use of environmental friendly material is the

building which stands with a mean of 2.38. All other components in this category are eco-friendly with all having individual means of less than 2.00. From the study made previously highlighted in literature review in this category especially on the interior of furniture, the hotels in Lamu conform with the use of eco-friendly materials.

The second most adopted variable in green practices is the green energy consumption and efficiency enjoying a mean of 2.329. In this category, the study shows most hotels in Lamu have embraced the use of energy-saving bulbs standing at a mean of 1.58. The study also shows that many hotels use solar energy for its water heating standing at a mean of 1.75. The study reveals that hotels in Lamu are in line of saving energy as other studies have revealed especially by Dutta (2008) in energy saving measures.

The research also shows that in general energy is not readily available in Lamu hotels because availability of green energy has a mean of 2.71 which is above the average mean of 2.5. Again, since conventional energy is very unreliable with a mean of 3.71, seems to be a challenge in energy reliability and availability both green and conventional.

Practice in water and liquid waste management is ranked third with a mean of 2.576, slightly above the average mean required of 2.5, the lower the mean the higher the adoption of green practice. The study shows that hotels undertake many water-saving measures at a mean of 2.04 while recycling and water re-use in their hotels is very poor standing at a mean 3.88. All other activities in this category moderately adopt the green practices. Previously studies especially by Harju (2012) showed that waste water management required a lot of technical know-how. This can be the main reason why in the category of water re-use and re-cycling hotels in Lamu have faired poorly because of lack of appropriate knowledge and capacity. Solid waste management is second worst adopted practice in Lamu hotels. It has a mean of 2.658. Though, it is not very bad but a lot of improvement on adoption of green practices will be required in this category.

Hotels have both friendly disposal mechanisms and have embraced practices of reducing solid waste at means of 2.21 and 2.25 respectively which is encouraging in green practices. But re-use and recycling of solid waste is very poor in their hotels.

Some previous agree with the findings in this research especially on recycling solid waste. A study by Cohen (2006) showed that operators have little interest in reducing and recycling waste.

The worst adopted variable is the clean air quality control with a mean of 3.190. The hotels in Lamu have poorly adopted the green practice in this category. All the component's researched in this category have had means more than the average of 2.5 which indicate low adoption of green practices. Previous studies especially by Emblem, 2001 and Hewett, 2001 showed that air quality has gained a lot of attention in the hotel industry. From our study it shows that, hotels in Lamu have not shown significant interest in air quality control.

Another main objective of the research was to establish factors influencing the adoption of green practices in Lamu County. The study showed that hotel policy with a mean of 1.67 lead the pack followed by the economic benefits accrued by adopting green practices at a mean of 1.79. These are the main drivers of adopting green practices by hotels in Lamu. The least driving forces come from the policy makers. The national government and county government regulations and laws scores means of 3.42 and 3.25 respectively. This shows that not enough policies are in place for hotels to be encouraged to adopt green practices.

5.3 Conclusions
From the study's findings, it can be concluded that, the hotels in Lamu are frequented by Europeans as compared to the other Origins in the world and as such this is a clear indication that Europeans prefer environmentally concerned firms and as such those whom adopt the green practices. Another interesting revelation from the research is that Lamu hotels are not frequented by visitors and guests from East African region apart from Kenya. It was also observed that the bed occupancy showing many hotels can only accommodate less than 30 clients at a time. Hotels with bed occupancy of less than thirty beds represent almost 75% of the hotels in Lamu. This shows hotels in Lamu have very small capacity to accommodate clients compared to other hotels in big cities like Mombasa and Nairobi. It is also evident that hotels in Lamu do not enjoy good number of young guests or clients as most hotels have been hosting clients above the age of 20.

On the five variables used in the research for green practices, the architecture and designs of the hotels conformed and adopted more to green practices especially in the design of air passage and light. The research also showed that many hotels are using energy-saving bulbs in the category of green energy consumption and efficiency ranking it as the second most adopted variable in the green practices. This was followed closely by water and liquid waste management. The worst green practice in the hotels is seen to be activities producing carbon emission which shows many hotels have these activities and thus dragging the air and water control as the worst variable adopting green practices. Solid waste management has not been featuring well in the research showing it to be the second worst variable practiced in the green operations.

Looking at the second objective of the research which is to establish factors influencing adoption of green practices in Lamu County hotels, it has been revealed that hotel policy is the main driver for adoption of green practices while National Government Regulations and Policies play minimum role in driving hotels to adopt green practices.

The green practices adopted are in order of eco friendly building and design, water and liquid waste management, Solid waste, Air and Water, and green energy consumption and efficiency. Previous study done showing an increasing awareness of green practice issues can increase consumer demand for products, and more stakeholders are asking or requiring organizations to be more environmentally responsible and eco-efficient with respect to their products or processes.

And the desire to reduce costs was found also to represent a common influence force for green practices adoption in the Tourism and Hospitality Industry in Lamu County. This was also mentioned in previous studies as knowledge based factors that influence adoption of green practices are pricey and hard to copy or implement. The same findings were observed by previous study which provides several examples how environmentally focused practices can help firms use a range of inputs (packaging, recycling of scraps) more productively.

5.4 Recommendations

Based on the findings of the study it is recommended that: First and foremost tourism and Hospitality Industry in Lamu County should focus on green practices to a high extent as this is the norm in most firms. Tourism and Hospitality firms should also strive at achieving green practices through adopting green energy consumption and efficiency to enhance on energy, water and liquid waste management to save on the water flow, air and water to prevent pollution, eco friendly building and design this will enhance efficiency and synergy in the society, environmental performance and reduce waste to achieve cost savings. Allocation of finance for investment towards green practices offers the most promising path. To make such investment, firms must develop strategic organizational resources to enable the recognition and deployment of green practices. Eco-friendly architecture and designs should further be encouraged in any new building plans for new hotels as it should continue leading the pack in green building and designs. The hotels should formulate proper policies for disposal of both liquid and waste management as the research shows a gloom future in this category.

Both national and county governments as policy makers should ensure an appropriate legislation to the tourism and hospitality industry to ensure green practices are highly adopted so as to attract more customers and keep clean environment.

As it is also clear from the research that more customers are attracted to hotels with green practices, it is important for hoteliers to consider adopting more green practices for an increased performance and revenue.

5.5 Limitations of the Study

This study was limited by the fact that some respondents deemed the information required as confidential. As such, some questions were left unanswered. Because a qualitative questionnaire survey was used, a limitation to this study is that the results may suffer from the respondent bias. Participants may modify their responses to be socially acceptable or to appear rational and logical. For example, respondents would not incriminate themselves by suggesting they do not adopted green practices or that they do not or could not implement them. Nevertheless, the fact that the survey was voluntary and anonymous may have minimized this problem to some extent and

language barrier was an issue because the respondent management were not Kenyan based.

5.6 Suggestions For Further Research

There is little research done in the area of green practices adoption in the tourism and hospitality industry in Lamu County. It is therefore recommended that more research be done not only in the tourism and Hospitality Industry but also in production industries and service industry.

Since this study lumped together all the green practices, the study hereby recommends that future studies be done to analyse each of the practices on manufacturing firms not only in Mombasa County but in the rest of the country. This study can also be replicated after five or more years to ascertain whether the situation would have changed.

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APPENDICES

Appendix I: Research Questionnaire

Introduction

This questionnaire has been designed for the sole purpose of collecting data on the adoption of green practices in hospitality and tourism Industry in Lamu County. The data collected will be treated with a very high degree of confidentiality and it is meant for academic purpose only.

Green practices are practices which are considered environmentally responsible because they reduce ecological footprint or demand on natural resources and ecosystems.

Please indicate by ticking (√) an appropriate box.

Section A: General Information

1. How long has your firm been in operation?
a) Under 5 years   (   )
b) 6-10 years   (   )
c) 11-15 years   (   )
d) Over 16 years   (   )

2. What is the bed-occupancy of your hotel?
a) 0-5 persons
b) 6-10 persons
c) 11-20 persons
d) 21-30 persons
e) Over 31   persons   (   )

3. Where do your clients mainly come from?
a) Domestic (Kenya)   (   )
b) East Africa   (   )
c) Europe   (   )
d) Asia   (   )
e) USA   (   )

4. Please indicate by ticking an appropriate box on the age of most of your clients?
a) 0-12   (   )
b) 13-19   (   )
c) 20-29   (   )
d) 30-39   (   )
e) 40-55   (   )
f) Above 55   (   )

SECTION B: Please indicate the level of adoption of the following green practices in your Organisation

Use the scale of: 1= To a very large extent 2= Large extent 3= moderate extent 4= small extent 5=very small extent

I) Green Energy Consumption and Efficiency					
Statement	1	2	3	4	5
1. Our hotel has embraced and implemented natural light mechanism to save on energy					
2. Our hotel is using energy-saving bulbs					
3. Our hotels uses solar energy for its hot water use					
4. Green energy is readily available in our hotel					
5. Conventional energy source is more reliable than green energy					
6. The hotel uses many power saving appliances					
7. The hotel has the capacity to increase green energy use					
8. The hotel makes savings by using solar or wind energy					
II) Water and Liquid Waste Management					
1. The hotel liquid waste-management is eco-friendly					
2. It is very easy for the hotel to dispose liquid waste					
3. The water saving measures in the hotel are in place					
4. The hotel source of water is sufficient					
5. Recycling and water re-use in the hotel is good					
III) Air Quality Management					
1. The hotel has activities producing carbon emission					
2. The transport system used by our guests is sail boats rather than fuel-run boats					
3. Food production activities – produce a lot of carbon dioxide					
4. The hotel has embraced measures to reduce carbon emissions					

5. The hotel uses unleaded petroleum for its energy use					
IV) Eco-friendly Building and Design					
1. The hotel has been built using environmental-friendly materials					
2. The architectural design of the hotel responds to natural sources of energy like natural lighting from the sun					
3. The design of the hotel allows passage of natural air and ventilation					
4. Heavy energy-consuming appliances like air conditions have been minimized					
5. There is enough space to accommodate green energy installations like solar panels					
6. The design of the furniture windows and doors respond to the eco-friendly products					
V) Solid Waste Management					
1. There is a big amount of solid waste which is organic					
2. The hotel uses environment-friendly disposal mechanism of solid waste					
3. The hotel recycles and re-uses much of its non-organic waste					
4. Organic waste is used for other purposes like manure in our hotel					
5. The hotel has embraced processes and practices which reduce solid waste					

SECTION C: Factors Influencing Adoption of Green Practices

Statement	1	2	3	4	5
1. County Government Regulations and Laws					
2. National Government Regulations and Laws					
3. Improved Reputation and Image as a global entity					
4. Effort to be in trend with current practices in hotel industry					
5. Hotel policy					
6. Accrued Economic Benefits					
7. Competitiveness and Attraction to customers					

Appendix II: List Of Hotels In Lamu

1) Bahari Hotel
2) Banana House Hotel
3) Beach House Hotel
4) Bembea House Hotel
5) British Guest House Hotel (Mpeketoni)
6) Diamond Beach Hotel
7) Fatma Tower Hotel
8) Forodhani House Beach Hotel
9) Full Moon House
10) Jannatan Hotel
11) Kijani Hotel
12) Kila Mawingo Hotel
13) Kipungani Explorer Beach Hotel
14) Kiwayuu Safari Village Beach Hotel
15) Kizingo Safaris Beach Hotel
16) Lamu House Hotel
17) Lamu Palace Beach Hotel
18) Majilis Beach Hotel
19) Manda Bruno Beach Hotel
20) Munira Camp Beach Hotel
21) New Mahrus Hotel
22) Palm House Hotel
23) Peponi Hotel
24) Petleys Inn Beach Hotel
25) Sea Front Guest House
26) Shella Bahari Hotel
27) Stone House Hotel
28) Stopover Beach Hotel (Shella)
29) Stopover Hotel (Lamu)
30) Sunsail Hotel
31) Yumbe House Hotel

Source: Tourist Office Lamu County (2015)

Appendix III: Research Budget

Description	Amount (Kshs.)
Printing Services	10,000
Photocopying and Services	15,000
Research Assistant Cost (1pax 15days@2000 Ksh)	30,000
Co - ordination of Exercise	25,000
Report writing & Editing	25,000
Stationery and Binding	6,000
Transport Cost	25,000
Accommodation expenses (30 days@3000)	90,000
TOTAL	**226,000**

Appendix IV: Time Schedule

ACTIVITY	TIMING	DURATION
Study Preparation	Year 2015	2 weeks
Proposal writing	May/June 2015	6 weeks
Data Collection	July 2015	1 month
Data Analysis	September	25 days
Draft Reporting writing	October	21 days
Corrections and Final Report	October	1 week