

**DETERMINANTS OF ECO-FRIENDLY PRACTICES IN LEVEL
FIVE PRIVATE HOSPITALS IN NAIROBI, KENYA**

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DECLARATION

This research project is my original work and has not been presented for the award of degree in any other university or institution for any other purpose.

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This research project has been submitted for examination with my approval as University supervisor.

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DEDICATION

This project is dedicated to my parents Mr.& Mrs. Marege Maageria, for their support and encouragement throughout this project.

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ABSTRACT

The economic and population growth experienced worldwide over the last half a century have threatened the health of the planet through such action as climate change, ozone depletion, depletion of forest cover, extensive use of biodiversity and natural habitats. At present, many aspects of natural environment can be identified that are impacted by the rendering of services and the production of goods. An increasing number of companies are constantly under pressure to develop environmentally responsible and friendly operations, and regard commitment to the natural environment as an important variable within the current competitive scenarios. They are attentive to the concept of enhancing their competitiveness through improvements in the environmental performance, addressing the environmental concerns of their customers, and mitigating the environmental effect of their production and service activities. The study sought to establish the determinants of eco-friendly practices in level five private hospitals in Nairobi, Kenya. The research design adopted was cross sectional survey design. The population of the study comprised of all the 16 level five private hospitals operating in Nairobi. The study used primary data which was collected using self-administered questionnaires. The collected data was analyzed using statistical package for social sciences and presented in tables and charts. The study found out that the level five hospitals have adopted eco-friendly practices that include water, green purchasing, environmental management systems, transportation, waste management, food and use of alternative source of energy. The adoption of the practices was found to be determined by the level of competition in the sector, government policy requirements, stakeholder pressures, eco-friendly conscious consumers, hospital size, greenness at the organizational level and compatibility.

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The economic and population growth experienced worldwide over the last half a century have threatened the health of the planet through such action as climate change, ozone depletion, depletion of forest cover, extensive use of biodiversity and natural habitats (Singh, 2013). At present, many aspects of natural environment can be identified that are impacted by the rendering of services and the production of goods. As a consequence of this change in the natural environment, eco-friendly practices have been advocated as a panacea to the degradation taking place. The eco-friendly practices has emerged due to the pressure to institutions and companies from consumers, partners and government (regulations) to embrace more sustainable and green practices (Darnal, Henriques & Sadowsky, 2010). A sustainable business is an enterprise that has minimal negative effect on the environment and the interest of people, planet and the firms profit converge.

In recent times, the environment has emerged as a hot issue for societies, governments, in addition to business organizations. Its significance originates from escalating environmental degradation such as solid wastes, ozone depletion, global warming, and air pollution. It is observed that different activities of business organizations like sourcing, manufacturing, logistics, and marketing have a negative impact on the environment and also considered to be the source of most of the environmental problems (Eltayeb et al., 2010). All through time, people's health, both on the individual and the community level, have been affected through environmental problems (Khwaja, 2008). In addition more firms in the world are capitalizing on socially responsible issues to achieve an advantage over local and international competitors. The advancement in the information and communication technology has also made it easier for customers to easily spread the eco-friendly practices employed by an institution and how the same is impacting on the society.

Throughout the world, hospitals and other healthcare facilities are dedicated to providing innovative and compassionate patient care that meets high standards of quality in a cost-effective manner (McDougall *et al.*, 2003). However, in fulfilling this important mission

to care for patients, healthcare facilities have an impact on the natural environment. During the past few years, the government and the regulatory agencies have pushed for greater environmental controls within the healthcare setting. From energy conservation to the proper disposal of medical waste and the safe handling of highly potent pharmaceuticals, healthcare facilities are discovering that the adage “do no harm” is applicable not only to their patients but to the natural environment and communities around them. Healthcare facilities in the country are rising to this challenge by identifying and reducing the negative environmental impact of their operations. In particular, hospitals, clinics, and doctors’ offices are adopting formal environmental management systems and sharing best practices that have been successfully used by other organizations in the healthcare sector.

1.1.1 Concept of Eco – Friendly Practices

Eco-friendly practices refer to actions that protect the environment and/or products made with little environmental harm because they are produced in an environmentally and ecologically friendly way (Tzschentke *et al.*, 2008). Examples of eco-friendly practices include using renewable resources, conserving water, and implementing a recycling program. Many organizations are trying to slow the negative impacts that the hospitality industry has on the global environment by implementing practices that are environmentally friendly and safe. Clearly, there are a vast number of diverse considerations that may be addressed by companies that choose to pursue a green marketing agenda. Among these are concerns such as: developing offerings that conserve energy and other natural resources in their production process; creating advertisements and other promotional messages that accurately reflect a company’s commitment to the environment; setting prices for green products that balance consumers’ sensitivity to cost against their willingness to pay more for environmental safety; reducing pollutants and conserving resources in the transportation of products to market; and a host of other marketing-related decisions (Bohlen *et al.*, 2003).

Today, environmental pollution presents an extremely complex problem and many environmentally conscious people are becoming increasingly aware of this fact. Throughout the life cycle of products, from the launch of an idea to the withdrawal of an

old product, negative effects are produced and reflected in the environment (Schubert *et al.*, 2010). The number of organizations contemplating the integration of environmental practices into their strategic plans and daily operations is continuously increasing. The worldwide economic growth has given rise to a vast consumption of goods while globalization has led to large streams of goods all over the world. Tzschentke *et al.*, (2008) noted that eco friendly healthcare is “the incorporation of environmentally friendly practices into healthcare delivery.” While the eco friendly practices within the healthcare industry can allow hospitals to protect the environment, exhibit leadership, educate communities, and save money, many healthcare professionals find the movement “most compelling because of its potential to protect and promote health.”

1.1.2 Health Industry in Kenya

Kenya has a pluralistic health system. Health services are produced by the government and a host of non-governmental providers which includes religious organizations, the for-profit private sector, pharmacies/chemists, traditional healers and community health workers. Kenya’s health system comprises both an official and an unofficial sector. By the official system we mean part of the health sector which falls within the regulatory purview of the Ministry of Health, and which is statutorily required to submit returns to the Health Information Systems Department at the Ministry of Health. The unofficial system comprises those health institutions and providers over which the Ministry of Health has no control, that is traditional healers.

The organization of the health system mirrors the administrative division of the country that follows a devolved system of governance. This is as stipulated in the new constitution that was promulgated in 27th August 2010. Therefore, after the national government, there is a second level of governance through 47 counties. The health system is thus organized around the 47 counties through the concept of a pyramid of health facilities grouped into six levels; Level 1- Community (Village/ households/ families), Level 2- Dispensaries/Clinics, Level 3- Health centres, maternities and nursing homes, Level 4-Sub-county hospitals, Level 5-County hospitals, Level 6- National referral hospitals. This is the level of the facility as defined in the Kenya Essential

Package for Health (KEPH). This shows the actual level of service provision at which a facility is operating.

1.1.3 Level Five Private Hospitals in Nairobi

According to the Ministry of Health (MoH), level five hospitals are the ones with the mandate of providing services to a geographically well-defined area and are an integral part of the county health system; act as county's referral hospital for the sub-county hospitals as an intermediary between the national referral hospital and the sub-county; and act as regional centres for provision of specialized care including intensive care and life support and specialist consultations (Ministry of Health Home page, 2014). The personnel in the level five hospitals include medical professionals such as general surgeons, general medical physicians, pediatricians, general and specialized nurses and midwives. There are both public (government) and private level five hospitals in Nairobi, Kenya. The level five public hospitals are gazetted through Chief Health Association of Kenya (CHAO) in the Ministry of Medical Services. They are owned by the Ministry of Health (MoH). There is one level five public hospital in Nairobi (Mbagathi Level Five Hospital).

Level five private hospitals are registered under the national body; that is the Kenya Medical Practitioners and Dentists Board (KMPDB). They are institutions which are not owned by the Ministry of Health but by other bodies such as Kenya Episcopal Conference-Catholic Secretariat (KEC), Christian Health Association of Kenya (CHAK), Supreme Council of Muslims (SUPKEM) and the community. According to KMPDB the level five private hospitals must meet the following criteria; Outpatient and inpatient services, minimum 50 inpatient beds, a minimum of four separate departments, a minimum of one theatre, minimum of basic X-ray services, Resident Medical Officer. They must be licensed by KMPDB. Level five public hospitals have challenges of underfunding (from the government) that has led to poor quality care and poorly staffed facilities. This leads to overcrowding and limited service provision. The phenomenon has given level five private hospitals an opportunity to attract the patients (consumers) of high end caliber such as expatriates who will want to steer clear of the public hospitals due to their overcrowding and limited service provision.

1.2 Research Problem

As customers begin to demand that products and services be provided without damaging the environment, managers will make decisions that support the integration and coordination of environmental practices throughout the supply chain (Tzschentke *et al.*, 2008). They further point out that organizational competitive advantage can be gained through adoption of an environmental strategy and implementation of environmental collaboration and monitoring practices. According to Elliot (2011), while organizations incur higher costs in abating environmental pollution and thus increasing the total costs of some goods and services, the benefits associated with a cleaner environment far outweigh the costs. There has been concern that firms may lose competitive advantage due to the increased costs from implementation of environmental sustainability guidelines. An increasing number of companies are constantly under pressure to develop environmentally responsible and friendly operations, and regard commitment to the natural environment as an important variable within the current competitive scenarios. They are attentive to the concept of enhancing their competitiveness through improvements in the environmental performance, addressing the environmental concerns of their customers, and mitigating the environmental effect of their production and service activities.

The level five private hospitals in Kenya have been characterized by many changes. The configuration of competitive forces such as intensity of competition, new entrants, substitute products and supplier and buyer power have transformed the environment a great deal, creating the need for firms to change their competitive positions and adopt eco friendly practices. Adoption of such practices have been found to be a source of competitive advantage more so in such environment characterized by stiff competition and enlightened customers. Therefore, one of the ways that level five private hospitals in the country can use to maintain its relevance and competitiveness is adoption of eco-friendly practice.

The studies that have been undertaken on eco-friendly practices include Otieno (2011) who researched on green supply chain management practices in the food manufacturing

industry in Kenya and established that green supply chain management practices adoption was at a low stage. Ong'ong'o (2012) carried out a study on factors affecting adoption of green technology by firms in Kenya. The study established that regulatory policy is the major factor affecting adoption of green technology. Other studies done on eco-friendly practices were Manaktola and Jauhari (2007) who researched on green practices in the hospitality industry and established that consumers prefer hotels that implement sustainable practices. The respondents to the survey stated that they were not only aware of hotels that implemented green practices, but were also more likely to choose those hotels because of the green practices utilized. Schubert *et al.*, (2010) studied the restaurant customer attitudes and behavioral intentions toward environmentally friendly restaurants in five casual dining restaurants. The results revealed that a large number of customers were willing to pay more for green restaurant products and they also believed that restaurants are able to and should aid in protecting the environment. However, the results also showed that there has been a lack of information available to customers about restaurants' green initiatives. This study was to answer the question; what are the eco-friendly practices in level five private hospitals in Nairobi, Kenya?

1.3 Research Objectives

The research was guided by the following objectives:

- (i) To identify the eco-friendly practices in the level five private hospitals in Nairobi, Kenya;
- (ii) To establish the determinants of eco-friendly practices in level five private hospitals in Nairobi, Kenya

1.4 Value of the Study

Most importantly, this research will contribute to the literature on eco-friendly practices in firms especially in developing countries like Kenya. It is hoped that the findings will be valuable to the academicians, who may find useful research gaps that may stimulate interest in further research in future at the national level and develop policy and incentives more relevant to the healthcare industry. Recommendations will be made on possible areas of future studies.

The study findings will benefit management and staff of level five private hospitals who will gain insight into how their institutions can effectively manage their eco-friendly practices. This study will offer an understanding on the importance of adopting effective practices. Several eco-friendly practices will be discussed for the benefit of the managers. This is because level five private hospitals need to adapt to the changing needs of the current operating environment and requirement of various customers and providers of services. As a result, other hospitals in the country will derive great benefit from the study.

The understanding of the eco friendly practices adopted by level five private hospitals in Kenya will help policy makers – governments and other stakeholders – to design targeted policies and programs that will actively stimulate the growth and sustainability of the level five private hospitals in the country, as well as helping those policy makers to support, encourage, and promote the establishment of appropriate policies to guide other hospitals. This study will also create a reference which could be replicated in other sectors of the economy.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The chapter provides information from publications on topics related to the research problem. It examines what various scholars and authors have said about the concept of eco-friendly practices. The chapter covers theoretical foundation of eco-friendly practices, eco-friendly practices and its determinants and medical factors leading to environmental pollution.

2.2 Theoretical Foundation of the Study

The need to protect the environment has led to the implementation of eco-friendly practices in various industries across the globe. By implementing eco-friendly practices, organizations are dealing with the issue of environmental sustainability and thus the need to establish the eco-friendly theories. These are the institutional theory, resource dependence theory and stakeholder theory.

2.2.1 Institutional Theory

According to institutional theory, social pressure from other actors in the market, such as the government and general public, are important in determining an organization's intention to adopt or even over-comply with environmentally friendly programs (Rivera *et al.*, 2009). Institutional theory emphasizes the role of social and cultural pressures forced on organizations that influence organizational practices and structure (Delmas & Toffel 2004). Delmas and Toffel (2004) hypothesized that organizational structure, strategic positioning and performance will affect how firms perceive institutional pressures and how they decide to respond. Delmas and Toffel (2004) provide a model that describes how stakeholders, including regulators, customers, activists, local communities and industrial associations, impose institutional pressures on plants and their parent companies. They also suggest how a variety of plant and parent company factors moderate how managers perceive and act upon these pressures. Their approach complements the institutional theory as it suggests that both institutional pressures and organizational characteristics influence organizations to adopt environmental management practices.

DiMaggio (1998) posits that managerial decisions are strongly influenced by three institutional mechanisms namely; coercive, mimetic and normative isomorphism- that creates and diffuses a common set of values, norms and rules to produce similar practices and structures across organizations that share a common organizational field. De Boer and Zandberg (2012) argue that because of coercive forces in the form of regulations and regulatory enforcement has been the main impetus of environmental management practices. Firms that share the same organizational field are affected in similar ways by institutional forces that originate from them. Firms tend to adopt green practices in response to institutional pressure. They can be based on; environmental strategies of conformance that focus on complying with regulations and adopting standard industry practice, or to reduce environmental impact of operations beyond regulatory requirements (Delmas & Toffel, 2008).

2.2.2 Resource Dependence Theory

In resource dependence theory firms are dependent on resources provided by others in order to sustain growth as well as other firms who depend on them (Pfeffer & Salancik, 2008). The assumption of this theory is that the firm cannot be independent with regard to strategically critical resources for survivors. Hence it must depend on resources from outside parties to compete, and manage this dependence with other firms for sustainable development. Examples of these critical resources are; standards, procedures, enabling technologies, material resources and distribution channels. Firms that lack the required resources to achieve its goals are likely to partner with others to acquire these resources. Where partner coordination and resource sharing are beneficial for environmental and productivity improvement this leads to diffusion of environmental practices through the supply chain (Sarkis et al., 2010).

Green eco-design of products and material recovery are unique organizational resources requiring firms' partnerships to effectuate performance benefits (Sarkis *et al.*, 2010). In many instances, inter-organizational relationship is essential for managing the internal and external for green manufacturing to gain performance outcomes, where partner coordination and resource sharing are beneficial for environmental and productivity improvements (Zhu & Sarkis, 2004). The power of the development aspects of resource

dependence argues for the diffusion of environmental practices through the supply chain. It has been found that the larger firm given their power over smaller firms will require environmentally sound practices to adopt by smaller supplier firms (Sarkis *et al.*, 2010).

2.2.3 Stakeholder Theory

Harrison and Freeman (1999) defined the concept of a stakeholder approach to corporate environmental management to include any individual or group who can affect the firm's performance or who is affected by the achievement of the organizations' objectives. The stakeholder theory is grouped into two: strategic stakeholder who emphasizes the active management of stakeholder interests and moral stakeholder interested in balancing stakeholder interests. Corporations should not focus narrowly their strategic management decisions on creating shareholder value; rather broaden their objectives to tackle the expectations and interest of a wide variety of salient stakeholders (D'Aunno *et al.*, 2006). A firm with a reactive environmental strategy may face big loss of competitive advantage if proactive environmental management becomes a common practice among its competitors (D'Aunno *et al.*, 2006). The threats posed by various stakeholders in response to the poor environmental management may thus induce firms to improve their corporate environmental practice.

Poor environmental performance leads to poor company's relationship with its stakeholders. This will affect the firm's reputation and shareholders will suffer financial losses on their investments if a firm is found liable to environmental damage. Consequently shareholders and financial institutions perceive companies with a poor environmental record as riskier to invest in and may demand a higher risk premium (Henriques & Sadorsky, 2009). Also companies with a poor reputation of environmental management will find it harder to attract and retain highly qualified employees who may have a strong proactive environmental management. The success of a company aiming to develop green competencies strongly depends on the participation of their employees. Consumer awareness has led them to demand industry improvement on their environmental performance. Consumers can reject the products of companies with poor environmental management reputation. Similarly suppliers may stop delivering inputs to protect their own reputation (Henriques & Sadorsky, 2009).

2.3 Eco – Friendly Practices

Eco-friendly practices are production equipment, methods and procedures, product designs and product delivery mechanism that conserves energy and natural resources, minimize environmental load of human activities, and protect the natural environment. They include both hardware such as pollution control equipment, ecological measurement instrumentation, and cleaner production technologies. They also include operating methods such as waste management practices and conservation-oriented work arrangements used to conserve and enhance nature (Shrivastava, 1995).

2.3.1 Energy efficiency

Health-care facilities can significantly cut greenhouse gas emissions and energy costs over time by using alternative forms of clean and renewable energy – such as solar and wind energy and some biofuels (McDougall *et al.*, 2003). Alternative energy sources can be used for lighting, heat generation, and pumping and heating water – which account for a large portion of the energy bill for health facilities in both developed and developing countries. For hospitals, alternative energy means an initial investment with potential savings later on. This makes both environmental and economic good sense, especially when financing mechanisms are structured to support this shift. At the same time, given its formidable energy demands, the health sector can play an important role in shifting the economies of scale and making alternative energy more economically viable for everyone. For regions that have no access to electricity, alternative energy sources can fuel primary health-care facilities in even the most remote areas. Finally, alternative sources of energy give health facilities an advantage in terms of disaster preparedness, since alternative energy sources are less vulnerable to disruption than traditional fossil fuel systems.

2.3.2 Waste Management

Healthcare waste management includes all activities involved in waste generation, segregation, transportation, storage, treatment and final disposal of all types of waste generated in the healthcare facilities, stages of which require special attention. This will ensure that inputs (funds, equipment and facilities), activities and outputs (safe workplaces, healthy environment, healthy workers) for the safe handling and disposal of

healthcare waste are in place (Sarkis *et al.*, 2010). Hospitals consume considerable amounts of energy, water and other renewable and non-renewable resources. Inevitably this consumption produces a wide variety of waste ranging from the comparatively benign outputs such as glass, cardboard and food wastes to the extremely hazardous persistent organic pollutants, heavy metals, radioactive materials and cytotoxic drugs. These wastes are disposed of in a number of ways. The majority of a hospital's liquid waste is discharged as waste water effluent, while liquid containing toxic materials, such as cyanide, chromic acid, phenolic compounds, solvents and mercury need to be collected and processed as hazardous waste (Hancock 2001).

Milz and Vang (2009) noted that the management of healthcare waste is of great importance due to its infectious and hazardous nature that can cause undesirable effects on human health and the environment. Waste management will have an impact on the economic performance as it relates to the ability to reduce costs associated with purchased materials, energy consumption, waste treatment, waste discharge, and fines for environmental accidents (Zhu *et al.*, 2008). Environmental performance relates with the ability of manufacturing plants to reduce air emissions, effluent waste, and solid wastes and the ability to decrease consumption of hazardous and toxic materials (Zhu *et al.*, 2008). Disposing of all that waste in landfills and incinerators pumps tremendous amounts of greenhouse gases into the atmosphere. Recycling and composting not only reduce emissions from waste facilities, but significantly reduce demand for primary materials, thus reducing deforestation, mining, and oil drilling and their associated greenhouse gas emissions (Zhu, 2004). Bohlen *et al.*, (2003) noted that health facilities can cut waste and emissions through composting, recycling (including anaesthetic gases), better purchasing (minimizing packaging, using reusable rather than disposable products, and buying recycled products), and minimizing waste transport (local treatment and disposal).

2.3.3 Green Purchasing

Zhu *et al.* (2002) considered green purchasing as: every department in the enterprise consults decision-making to improve business performance by decreasing the using materials cost and end treatment cost, protecting resources and enhancing the enterprise

reputation. Turner (2010) pointed out the potential aim of green procurement is to eliminate waste, and purchasing department will focus on value by comprehensive considering the total cost in the process of eliminating waste, which should focus on the business of waste disposal activities. Purchasing activity is the key starting point of eliminating waste, so a key factor of the successful green purchasing is the condition of company recycling and reusing waste. Hokey *et al.*, (2001) proposed that reducing the emissions of exhaust and sewage and so on, not only is the premise of ensuring the implementation of green procurement system, but also is the important way to promote the development of green procurement. The type of companies' resources can influence both the purchasing practice, the technology, equipment and facilities of separating waste can impact the purchasing practice.

Stock (2002) thought that green purchasing can improve a firm's economic position, by reducing disposal and liability costs, conserving resources, and improving an organization's public image. Turner (2010) find that the two most highly rated obstacles to effective implementing green purchasing was cost and revenue. In the process of implementing green procurement, the enterprise is bound to increase investment, training staff costs and the communication costs with suppliers which hence cause the loss of other investment opportunities. Zhu (2004) pointed out that the close cooperation of suppliers and buyers would promote the successful completion of green purchasing activities. In the process of purchasing and procurement, suppliers must consider the ultimate disposition of the materials and components that enter the firm, purchasing managers can ask upstream members of the supply chain to commit waste reduction and provide environmentally friendly product. Suppliers such as transport service suppliers and product suppliers, can impact firms' green purchasing activities and drive green supply chain management (Walker *et al.*, 2008).

2.3.4 Environmental Management Systems

Organizational practices are relevant to the development and implementation of an environmental management system (EMS); a system that helps companies identify and manage environmental issues and consequences related to their operations in a holistic and consistent way (Shang *et al.*, 2010). Environmental management is not just about

being environmentally friendly; rather, it is about good business sense and higher profits. The eagerness of firms to improve their productivity and economic performance on top of the market and regulatory demands has been accompanied by the greater adoption of formal environmental management systems such as ISO 14001 (Corbett & Klassen 2006). Therefore, EMS adoption should be considered as a “spring board” for embarking on green practices rather than simply signaling to the public or stakeholders of environmental commitment (via the certification) without having trouble to explain the complexities of the activities involved (Jiang & Bansal, 2003).

Different from informal or less rigorous set of environmentally-focused activities, ISO 14001 EMS involves a formal system and framework for integrating corporate environmental protection policies, programs, and practices (Morrow & Rondinelli 2002). ISO 14001 is one of the well-recognized international guidelines for EMS. ISO 14001 sets out the criteria for an EMS and to which an organization can be certified. This standard maps out a framework that a company or organization can follow to set up an effective EMS regardless of its activity or sector. Meanwhile, it can provide assurance to top management, employees, and stakeholders of an enterprise including suppliers and customers that its environmental impact is being measured, monitored, controlled, and improved.

2.4 Eco – Friendly Determinants

Environmental research has repeatedly pointed to the finding that the adoption of eco-friendly practices can result in sustainable competitive advantage and improved business performance (Walker *et al.*, 2008). However, the extent to which organizations adopt this practices is influenced by several factors which includes;

2.4.1 Government Policy Requirements

Government regulations relating to environmental marketing are designed to protect consumers in several ways: limit and control the amount of hazardous wastes produced by firms; reduce the production of harmful goods or by-products; modify consumer and industry’s use and/or consumption of harmful goods; and ensure that all types of consumers have the ability to evaluate the environmental composition of goods. Rivera *et*

al., (2009) posits that government policies are regulations that establish price, service standards, environmental standards, marketing or distribution methods, accounting procedures, amongst other things, and these tend to be demanded by existing businesses which are their main beneficiaries. Lack of enforcement may disregard the public policy prescriptions and regulations (Rivera et al., 2009). According to (Delmas & Toffel, 2004) regulations have significant impact on environmental management practices implementation. However, there is still a lack of understanding of the conditions under which these various rationales attempt to explain the adoption of practices beyond regulatory compliance at the organizations (Delmas & Toffel, 2004).

With the deterioration of ecological environment, the Governments has been enacting a series of national laws, regulations and policies to regulate, such as restrict and punish acts of resource consumption and environmental pollution in the use of taxes and charges and other means, encourage and subsidize acts of resources conservation and environmental protection through the form of funds or subsidies, strictly regulate the operation of the organizations through making industrial policy to limit the waste of resources and serious environmental pollution industries, and gradually ask organizations to provide green products. Implementation of green system and buying green products is an important way of the organization adapting to the external environment, and enhancing their competitiveness (Walker *et al.*, 2008).

2.4.2 Eco-Friendly Conscious Consumers

As consumer knowledge of environmental issues is increasing, firms are now targeting the green segment of the market. Eco friendly behavior is a reality and must be understood clearly in order to devise strategies and policies to meet the green consumers' needs, wants and demands (Upadhyaya & Shukla, 2011). Green consumers strongly consider that existing ecological situations are weakening and signify serious difficulties facing the safety of the earth and on the other hand, consumers who do not involve in eco-friendly attitude think that environmental problems will sort out themselves. According to him, one of the main causes that prevent individuals from involving in environmental friendly acts is their perceived level of self-participation towards the safety of the environment. Delmas and Toffel (2004) said that many people may be

highly concerned towards atmospheric issues, but they may think that protecting the environment is the duty of the government and/or huge firms.

Organizations that operate in the more turbulent markets are likely to have to modify their services and products continually in order to satisfactorily cater to customers' changing preferences. A survey of the largest Canadian organizations showed that customer demand was the second most cited source of pressure to adopt an environmental management plan, after government pressure (Jiang and Bansal, 2003).

2.4.3 Level of Competition

Level of competition can be defined as the intensity of rivalry in a situation where competition might be fierce or calm due to the number of competitors in the market and the lack or presence of potential opportunities for further growth (Hokey *et al.*, 2001). Hokey *et al.*, (2001) explains this phenomenon by stating that when rivalry is fierce, products and processes have to be innovated, new markets have to be explored, novel ways to compete have to be found and, finally, ways to differentiate the company from its competitors have to be used. Businesses are willing to comply with environmental protection practices because they perceive benefits from doing so, such as competitive advantage (Delmas & Toffel, 2004).

Regarding environmental factors, empirical studies have shown that competition increases the likelihood of innovation adoption (Sigala, 2006). It is tough rivalry that pushes businesses to be innovative. Competition leads to environmental uncertainty and increases both the need for and the rate of innovation adoption. Thus, managers perceiving a greater level of competition would feel a greater need to turn to environmental practices to gain a competitive advantage, while managers perceiving a lower perceived level of competition would not be faced with a push to be innovative (Sigala, 2006). Hokey *et al.*, (2001) argued that organizations with capabilities needed to achieve environmental practices in connection with pollution prevention, product stewardship and sustainable development strategies, can differentiate themselves and achieve competitive advantage. The organizations with greater resource and capability profiles and a more progressive environmental orientation are better positioned to exploit the opportunities by gaining an environmental competitive advantage.

2.4.4 Greenness at the Organizational Level

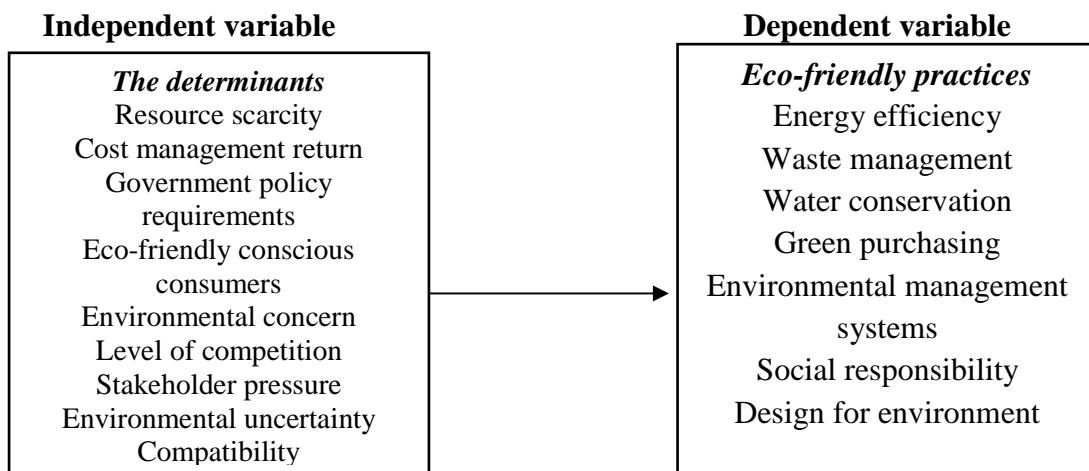
Bohlen *et al.*, (2003) defined ‘greenness at organizational level’ as the awareness and the concern of the organization to protect the environment, and the attitude of the organization towards sustainability. Hoffman (1999) assumes that management implemented values will be widely shared and strongly held by organizational members. Thus, the cultural fix model advocated by Milz and Vang (2009) generally centers on a top-down flow of values from management to the shop floor. In particular, it is managers who have generally been enlisted to further organizations’ environmental practices, and it is (other) managers who may often provide the most formidable obstacle (Milz and Vang, 2009).

Milz and Vang (2009) show how greening at the organizational level can have economic as well as environmental benefits (for example, competitive advantage) and can also deliver the level of environmental practices demanded by green stakeholder (customers, regulators and pressure groups).

2.5 Conceptual Framework

The schematic diagram presented in Table 2.1 on conceptual framework shows the variables relationship between determinants of eco-friendly practices and the eco-friendly practices.

Figure 2. 1: Conceptual Model



(Source: Researcher, 2014)

2.6 Chapter Summary

The importance of the eco-friendly practices being embraced by business entities have been expounded in the literature as well as from the empirical studies done on the subject area. An increasing number of companies are constantly under pressure to develop environmentally responsible and friendly operations, and regard commitment to the natural environment as an important variable within the current competitive scenarios. They are attentive to the concept of enhancing their competitiveness through improvements in the environmental performance, addressing the environmental concerns of their customers, and mitigating the environmental impact of their production and service activities.

The literature was able to identify the common eco-friendly practices being undertaken mostly by business units which include adoption of energy efficient operational system where alternative energy sources can be used for lighting, heat generation, pumping and heating water – which account for a large portion of the energy bill for health facilities in both developed and developing countries; appropriate waste management system; green purchasing and the adoption of efficient environmental management system. The study was able to also identify several eco-friendly determinants which include government policy requirements; eco-friendly conscious customers; competition level and the level of greenness in the organization. The adoption of these eco-friendly practices can be attributed to a number of reasons which include the need to develop offerings that conserve energy and other natural resources in their production process; creating advertisements and other promotional messages that accurately reflect a company's commitment to the environment and also the need to set prices for green products that balance consumers' sensitivity to cost against their willingness to pay more for environmental safety.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter describes the proposed research design, the target population, data collection instruments and the techniques for data analysis.

3.2 Research Design

The research design adopted was a cross sectional survey design. This choice was determined by three factors, namely, the objective of the study, the time period over which the data was to be collected and the type of analysis.

The main advantage of adopting the cross-sectional research design for this study was that the researcher was able to collect and compare several variables in the study at the same time. In addition, the collection of data was less expensive in terms of time and cost; the researcher was also able to secure the cooperation of the respondents since the data was collected at one point in time; and finally, the analysis of the data was done more quickly using statistical software (SPSS).

3.3 Population of Study

A population is a large pool of cases of elements from which the researcher draws a sample and results generalized from the drawn sample. A research study's target population should be clearly defined and the unit of analysis should be identified, which is not easy sometimes.

The population of the study comprised of all the level five private hospitals operating in Nairobi. According to the KMPDB there are 16 level five private hospitals operating in Nairobi and all of them participated hence the study was a census.

3.4 Data Collection

The study used primary data which was collected through self-administered questionnaires. The questionnaires consisted of both open and closed ended questions designed to elicit specific responses for qualitative analysis. The pre-coded ones had

many tick boxes for respondents to fill in, whereas open questionnaires had a few open questions and spaces for respondents to make responses in their own words.

The respondents were the chief executive officers or their deputies in each hospital or an employee of such a senior level. The study being purposive, the choice of these respondents was based on the fact that they would be more versed in the research subject area because of the position they hold in the level five private hospitals.

3.5 Data Analysis

The data collected was analyzed using descriptive statistics (measures of central tendency and measures of variations). Once the data was collected, the questionnaires were edited for accuracy, consistency and completeness. However, before final analysis was performed, data was cleaned to eliminate discrepancies and thereafter, classified on the basis of similarity and then tabulated. The responses were coded into numerical form to facilitate statistical analysis.

Data was analyzed using statistical package for social sciences based on the questionnaires. In particular mean scores, standard deviations, percentages and frequency distribution was used to summarize the responses and to show the magnitude of similarities and differences. Results were presented in tables and charts.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The research objective was to establish the determinants of eco-friendly practices in level five private hospitals in Nairobi, Kenya. This chapter presents the analysis, findings and discussion. The findings are presented in percentages and frequency distributions, mean and standard deviations. A total of 16 questionnaires were issued out and only 15 were returned. This represented a response rate of 94%.

4.2 Demographic Profile

The demographic information considered in the study was respondents' highest level of education, length of service with the hospital, number of employees in the company and the duration of hospital operation.

4.2.1 Highest Level of Education

The respondents were requested to indicate the highest level of education. The level of education was important in order to establish determinants of eco-friendly practices. The results indicate that 68.8% of the respondents have attained post graduate level while 31.2% of the respondents said that university level was their highest level of education. The results indicate that majority of the respondents have attained university level. The results indicate that all the respondents were university graduates and above and therefore they understand the determinants of eco-friendly practices in the hospital sector.

4.2.2 Length of Service with Level Five Private Hospitals

The respondents were requested to indicate the length of service with level five private hospitals. Length of service with the level five private hospitals was important in order to determine the respondents' level of understanding of internal information pertinent to the hospital. The results are presented in Table 4.1.

Table 4. 1: Length of Service with Level Five Private Hospitals

Years	Frequency	Percent
Less than 5	3	18.8
5 – 10	7	43.8
Over 10	5	37.5
Total	15	100.0

The results show that 43.8% of the respondents have worked in the level five private hospital for a period of between 5 and 10 years, 37.5% of the respondents indicated that they have worked in their respective level private hospital for a period of over 10 years while another 18.8% of the respondents indicated that they have worked in the level five private hospital for less than 5 years. The results indicate that majority of the respondents have worked in the level five private hospitals for a long time and therefore they understand the determinants of eco-friendly practices and what needs to be done in order to get it right.

4.3.3 Number of Employees in the Level Five Private Hospitals

The respondents were asked to indicate the number of employees in the level five private hospitals. This was important for the study as the number of employees indicate the size of the hospital. The results are presented in Table 4.2.

Table 4. 2: Number of Employees in the Level Five Private Hospitals

Number of Employees	Frequency	Percent
100-499	12	80.0
500-999	2	13.3
Above 1000	1	6.7
Total	15	100.0

The results on the number of employees show that 80% of the level five private hospitals has between 100 and 499 employees, 13.3% of the level five private hospitals were indicated as having between 500 and 999 employees while 6.7% of the respondents said that the level five private hospital has over 1000 employees. The results indicate that the level five private hospitals have employed many employees and therefore in order to maintain its operational costs, they have to adopt eco-friendly practices.

4.3.4 Duration of Level Five Private Hospital Operation

The respondents were requested to indicate the duration in which the level five private hospitals have been in operation in Kenya. The results are presented Table 4.3.

Table 4. 3: Duration of Level Five Private Hospital Operation

Years	Frequency	Percent
5-10	1	6.6
11-15	4	26.7
16-20	3	20.0
over 20	7	46.7
Total	15	100.0

The results on the duration of level five private hospital indicate that 46.7% of the respondents said that the private hospitals have been in existence for over 20 years, 26.7% of the respondents said that the private hospitals have been in operation for 11 to 15 years, 20% of the respondents said that the private hospitals have been in operation for between 16 and 20 years while 6.6% of the level five hospitals were indicated as having been in existence for a period of between 5 and 10 years. The results indicate that the level five private hospitals have been in operation for a long time and therefore they understand the importance of eco-friendly practices and the determinants of the practices.

4.4 Eco-Friendly Practices

Many organizations are trying to slow the negative impacts that the hospitality industry has on the global environment by implementing practices that are environmentally friendly and safe. It is as a result of the need to implement the practices that the respondents were requested to indicate the eco-friendly practices that have been undertaken by the level five private hospitals in a five point Likert scale. The range was 'very low extent (1)' to 'very great extent' (5). The scores of very low extent and low extent have been taken to represent a variable which had a mean score of 0 to 2.5 on the continuous Likert scale; ($0 \leq S.E < 2.4$). The scores of 'moderate extent' have been taken to represent a variable with a mean score of 2.5 to 3.4 on the continuous Likert scale: ($2.5 \leq M.E. < 3.4$) and the score of both large extent and very large extent have been taken to represent a variable which had a mean score of 3.5 to 5.0 on a continuous Likert scale;

($3.5 \leq L.E. < 5.0$). A standard deviation of >0.9 implies a significant difference on the impact of the variable among respondents

4.4.1 Eco-Friendly Practices Undertaken by the Hospitals

The respondents were requested to indicate the eco-friendly practices that have been undertaken by the level five private hospitals. The results are presented in Table 4.4.

Table 4. 4: Eco-Friendly Practices Undertaken by the Hospitals

Eco-Friendly Practices Undertaken by the Hospitals	Mean	Std. Deviation
Waste management (cut waste and emissions through composting, recycling (including anaesthetic gases), better purchasing (minimizing packaging, using reusable rather than disposable products, and buying recycled products)	3.7526	.68313
Green purchasing (every department in the enterprise consults decision-making to improve business performance by decreasing the using materials cost and end treatment cost, protecting resources and enhancing the enterprise reputation)	3.9375	.85391
Environmental management system	3.9214	.61914
Use of alternative source of energy	3.5157	.80623
Transportation (cutting transportation emissions by effective sitting and programming of medical care delivery, using high-efficiency or alternative-fuel vehicles)	3.8125	.98107
Food (improve patient health by making changes in hospital service menus and practices, including limiting the amount of meat in hospital meals, producing their own food onsite, composting food waste, and buying local and organic produce)	3.5625	.81394
Water (closely monitoring water use, installing water-efficient fixtures and technologies, growing drought-resistant plants, and making sure that leaks are quickly repaired)	4.0184	.81650
Overall mean	3.7887	

The analysis shows that the level five private hospitals have taken measures that will enable them undertake eco-friendly practices. The practices that are being implemented in the hospitals were indicated as water with a mean score of 4.0184. The respondents further noted that green purchasing and environmental management systems with a mean score of mean 3.9375 and 3.9214 respectively was being implemented in the hospitals. The study further found out that transportation (mean 3.8125), waste management (mean 3.7526), food (mean 3.5625) and use of alternative source of energy with a mean of

3.5157 were found to have been practices by the hospitals. From the analysis, it can be concluded that the level five private hospitals have put in place measures that will ensure that they implement the eco-friendly practices that will enable them to reduce its operating costs which affects its performance.

4.4.2 Challenges Affecting Implementation of Eco-Friendly Practices

The respondents were requested to indicate the challenges affecting implementation of eco-friendly practices in the private hospitals. The results are presented in table 4.5.

Table 4. 5: Challenges Affecting Implementation of Eco-Friendly Practices

Challenges affecting implementation of eco-friendly practices	Mean	Std. Deviation
Resource availability (including financial, human and time)	3.2581	1.3416
Personal interest and knowledge of (or lack of) environmental management	3.6375	.9639
General hospital characteristics	3.5379	1.2632
Consumer poor credibility of eco-friendly practices	3.5146	1.2909
Lack of factual information about eco-friendly practices	3.4375	1.0935

The challenges affecting effective implementation of eco-friendly practices by the level five private hospitals were indicated by the respondents to be personal interest and knowledge of (or lack of) environmental management (mean 3.6375), general hospital characteristics (mean 3.5379) and consumer poor credibility of eco-friendly practices (mean 3.5146). On the other hand the respondents were neutral on the influence of lack of factual information about eco-friendly practices (mean 3.4375) and resource availability (including financial, human and time) (mean 3.2581) on the adoption of eco-friendly practices by the hospitals. It can be concluded that the implementation of eco-friendly practices by the private hospitals was being affected by several factors that emanate from within the hospital and outside.

4.5 Eco-Friendly Determinants

The adoption of eco-friendly practices can result in sustainable competitive advantage and improved business performance. However, the extent to which organizations adopt these practices is influenced by several factors.

4.5.1 Eco-Friendly Practice Determinants among Private Hospitals

The respondents were requested to indicate the determinants of eco-friendly practices among level five private hospitals. The results are presented in Table 4.6.

Table 4. 6: Eco-Friendly Practice Determinants among Private Hospitals

Eco-Friendly Practice Determinants among private hospitals	Mean	Std. Deviation
Government policy requirements	4.5824	1.0328
Eco-friendly conscious consumers	4.0626	.9979
Level of competition	4.6250	.8850
Greenness at the organizational level	3.9375	.7719
Hospital size	3.9482	1.0626
Stakeholder pressures	4.2501	1.0000
Compatibility	3.8128	1.0468
Overall mean	4.1471	

The results show that implementation of eco-friendly practices in the level five hospitals was being determined by the level of competition in the sector with a mean of 4.625. It was further noted by the respondents that government policy requirements (mean 4.5824), stakeholder pressures (mean 4.2501) and eco-friendly conscious consumers with a mean of 4.0626 determined the extent to which the hospitals have implemented eco-friendly practices. Other factors that were indicated as the determinants are the hospital size (mean 3.9482), greenness at the organizational level (mean 3.9375) and compatibility (mean 3.8128). The overall mean is 4.1471 and it is an indication that the adoption of eco-friendly practices by the private hospitals is determined by the factors.

4.6 Discussion

Throughout the world, hospitals and other healthcare facilities are dedicated to providing innovative and compassionate patient care that meets high standards of quality in a cost-effective manner. However, in fulfilling this important mission to care for patients, healthcare facilities have an impact on the natural environment which necessitates the implementation of eco-friendly practices by all organizations. The study found out that the level five private hospitals have implemented eco-friendly practices that include

water, green purchasing, environmental management systems, transportation, waste management, food and use of alternative source of energy. The results are consistent with Tzschentke *et al.*, (2008) findings that eco friendly practices within the healthcare industry allow hospitals to protect the environment, exhibit leadership, educate communities, and save money. These practices include using renewable resources, conserving water, and implementing a recycling program. Adoption of eco-friendly practices can be categorized as one of the action carried out by businesses in showing effort of implementing of environmental protection because this action will eventually contributes to a better environment (Chou et al., 2011). Therefore, it is timely for businesses in all sectors including hospitals to engage in eco friendly practices to be competitive and achieve sustainability in the market place.

Successful implementation of eco friendly practices by the level five private hospitals was found to be determined by the level of competition in the sector, government policy requirements, stakeholder pressures, eco-friendly conscious consumers, hospital size, greenness at the organizational level and compatibility. This is echoed by a previous study done showing an increasing awareness of green manufacturing practice issues can increase consumer demand for products (Kleindorfer et al., 2005), and more stakeholders are asking or requiring organizations to be more environmentally responsible and eco-efficient with respect to their products or processes (Rusinko, 2010).

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter gives the summary, conclusion and recommendations and limitations of the study. The suggestion for further research was also highlighted.

5.2 Summary

The study found out that all the respondents were university graduates and above and therefore they understand the determinants of eco-friendly practices in the hospital sector. Majority of the respondents were found to have worked in the level five private hospitals for more than five years and therefore they understand the determinants of eco-friendly practices. The number of employees in the private hospitals varied although most of the hospitals have employed many employees and this indicates that the hospitals are large in size. The study found out that most of the level five hospitals have been in existence for more than ten years and therefore they have knowledge of the health sector and the need to adopt eco-friendly practices.

The study established that in order to respond to environmental problems, the level five hospitals were found to have adopted eco friendly practices that include water, green purchasing, environmental management systems, transportation, waste management, food and use of alternative source of energy. The adoption of the practices by the hospitals helps in reducing the effect of their operations and services on the environment. The implementation of these practices by the hospitals were found to be hindered by personal interest and knowledge of (or lack of) environmental management, general hospital characteristics and consumer poor credibility of eco-friendly practices. Influence of lack of factual information about eco-friendly practices and resource availability (including financial, human and time) were found to have hindered the implementation of the practices to a low extent.

The competition in the health sector has seen hospitals implement several strategies that will give them competitive advantage over its competitors. These strategies include the

adoption of eco friendly practices; however the implementation of the practices is determined by the level of competition in the sector, government policy requirements, stakeholder pressures, eco-friendly conscious consumers, hospital size, greenness at the organizational level and compatibility.

5.3 Conclusion

In order to pursue sustainable development, environmental issues have become critical concerns all over the world. An increasing number of organizations are constantly under pressure to develop environmentally responsible and friendly operations, and regard commitment to the natural environment as an important variable within the competitive scenarios. The health sector provides services to the patients during the process of service provision, energy consumption, water, food and waste disposal often cause serious environmental problems. In order to cope with the environmental crisis, the level five private hospitals have taken measures by adopting eco-friendly practices such as water, green purchasing, environmental management systems, transportation, waste management, food and use of alternative source of energy.

From the study, it can be concluded that the level five private hospitals have adopted practices that will enable them to reduce costs, maintain clean environment and achieve competitive advantage. This was achieved by the adoption of the eco friendly practices. The adoption of the practices is however determined by several factors that needs the management of the hospital to consider.

5.4 Limitations of the Study

The study limited itself to information and details that could be discussed without compromising any part of the private hospitals business aspects as it competes in a very dynamic and competitive industry. Limited accessibility to information in the hospitals due to confidentiality being maintained which strained accessibility of data. There was also lack of cooperation from some staff during data collection as they had to go out of their work schedule to respond. In addition, research issues in broader geographical location all over Kenya should also be conducted. The limitations however did not affect the data collected to undertake the study.

5.5 Recommendations for the Study

The study established that the level five private hospitals have adopted several eco friendly practices and it is recommended that the hospital management should educate hospital staff about climate change issues. For teaching institutions, make environmental health, climate change and the health sector's role in climate change mitigation and adaptation efforts part of the required curriculum. At the same time the hospitals should continue adopting practices that will ensure that they maintain a clean environment.

The government through the ministry of health should strengthen public and policy-maker awareness of the current and projected adverse and inequitable health impacts of climate change, as well as the potential for significant health benefits and consequent cost-savings from well-conceived climate-control policies. At the same time it should prioritize primary health care and pursue disease prevention strategies so as to lower the future need for more resource-intensive therapies, thereby reducing the health sector's costs and climate footprint as well as the burden of disease to which the sector's fossil fuel consumption contributes. Identify, support and publicize health-care facilities and health-care organizations as they work to reduce their climate footprint by adopting sustainable policies and practices.

The study found out that the level five private hospitals adoption of the eco-friendly practices is determined by several factors and it is recommended that the health professionals should encourage professional associations to explore and address the issue of climate change and the role the health sector can play in mitigation. At the same time they should work with associations of health professionals and teaching institutions to make climate literacy a mandatory requirement for all clinical education programmes.

5.6 Suggestions for Further Research

The study was undertaken among level five private hospitals in the health sector. A further research should be undertaken on the extent to which other sectors have adopted eco-friendly practices since some sectors like manufacturing are the ones that have been blamed by environmentalist for high pollution. The findings of the study are based on a single sample of companies from one (small) post-transitional economy. This means that the results may not be relevant to business practice conditions in other environmental settings. Clearly, future research should provide cross-validation with the same instruments and other samples to validate our findings beyond the sample used in this study.

REFERENCES

- Bohlen, G., Diamantopolous, A. & Schlegelmilch, B. (2003), Consumer Perceptions of the Environmental Impact of an Industrial Service, *Marketing Intelligence & Planning*, 11(1), 37- 48.
- Darnal, M., Henriques, G. & Sadorsky, K. (2010), Strategic Resources: Traits, Configurations and Paths to Sustainable Competitive Advantage, *Strategic Management Journal*.
- D'Aunno, T., Succi, M. & Alexander, J. A. (2006), The role of Institutional and Market Forces in Divergent Organizational Change. *Administrative Science Quarterly* 45(4): 679-703.
- De Boer, E. A., & Zandberg, T. (2012), Decision-Making by Organizational Routines: The Influence of Agency and Personality Traits on Deviating from Formal Organizational Routines. *Journal of Quality Assurance in Hospitality & Tourism*, 13 (4), 316-325.
- Delmas, K. & Toffel, A. (2004), EMS-Based Environmental Regimes as Club Goods: Examining Variations in Firm-Level Adoption of ISO 14001 and EMAS in U.K., U.S. and Germany. *Policy Sciences* 35(1): 43-67.
- Delmas, M. A., & Toffel, M. W. (2008), Organizational Responses to Environmental Demands: Opening the Black Box. *Strategic Management Journal*, 29(10), 1027-1055.
- DiMaggio, P. (1998), The New Institutionalisms: Avenues of Collaboration. *Journal of Institutional and Theoretical Economics* (JITE), 154 (4).
- Eltayeb, T. K., Zailani, S. & Jayaraman, K. (2010), The Examination on the Drivers for Green Purchasing Adoption Among EMS 14001 Certified Companies in Malaysia, *Journal of Manufacturing Technology Management*, 21(2), 206-225.
- Elliot, S. (2011), Transdisciplinary Perspectives on Environmental Sustainability: A Resource Base and Framework for IT-enabled Business Transformation, *MIS Quarterly*, 35(1), 197-236.
- Harrison, J. S., & Freeman, R. E. (1999), Stakeholders, Social Responsibility, and Performance: empirical evidence and theoretical perspectives. *Academy of Management Journal*, 42 (5), 479-485.
- Henriques, I. Y. & Sadorsky, P. (2009), The Relationship between Environmental Commitment and Managerial Perceptions of Stakeholder Importance. *Academy of Management Journal* 42 (1), 87-99.

- Hancock, N. (2001), Corporate Boards and Outside Stakeholders as Determinants of Environmental Litigation. *Strategic Management Journal* 23(5): 399-415.
- Hokey, M., Galle, H & William P. (2001), Green Purchasing Practices of US Firms, *International Journal of Operations & Production Management*, 21 (9), 1222-1238.
- Jiang, R.J. and Bansal, P., (2003), "Seeing the Need for ISO 14001", *Journal of Management Studies*, Vol. 40, No. 4, pp. 1047-1067
- Khwaja. Z. R. (2008), Green Marketing in Europe and the United States: An Evolving Business and Society Interface, *International Business Review*, 4(3), 295-312.
- Manaktola, K. and Jauhari, V. (2007), Exploring Consumer Attitude and Behavior Towards Green Practices in the Lodging Industry in India, *International Journal of Contemporary Hospitality Management*, 19(5), 364-377.
- McDougall, B., Morton, I., & Schwartzel, E. (2003), *Breathable Air in Your Community*, Ontario Environment Network, Guelph, ON.
- Milz, H. and Vang, J. (2009), "Consultation on the Role of Health Promotion in Hospitals", *Health Promotion*, 3(4), 425-27.
- Ong'ong'o, J. O. (2012), Factors Affecting Adoption of Green Technology by Firms in Kenya, *Unpublished MBA Project*, University of Nairobi.
- Otieno, W.L (2011), Green Supply Chain Management Practices in the Food Manufacturing Industry in Kenya, *Unpublished MBA Project*, University of Nairobi.
- Pfeffer, J., & Salancik, G. (2008), The External Control of Organizations. *A Resource Dependence*.
- Rivera, J., Oetzel, J., deLeon, P. & Starik, M. (2009), Business Response to Environmental and Social Protection Policies: Toward a Framework for Analysis. *Policy Science* 42, 3-32.
- Sarkis, J., Gonzalez-Torre, P., & Adenso-Diaz, B. (2010), Stakeholder Pressure and the Adoption of Environmental Practices: The Mediating Effect of Training. *Journal of Operations Management*, 28 (2), 163-176.
- Schubert, F., Kandampully, J., Solnet, D. & Kralji, A. (2010), Exploring Consumer Perceptions of Green Restaurants in U.S. *Tourism and Hospitality Research*, 10 (4), 286-300.

- Shang, K.C., C.S. Lu, S.L. (2010), A Taxonomy of Green Supply Chain Management Capability among Electronic Related Manufacturing Firms in Taiwan, *Journal of environmental management*, 91, pp1218-1226.
- Shrivastava, J. (1995), 'A Comprehensive Comparison of Corporate Environmental Reporting and Responsiveness, *The British Accounting Review*, 39, 197-210.
- Singh, T. (2013), Modeling the Barriers of Green Supply Chain Practices: An Indian Perspective. *Int. Journal of Logistics Systems and Management*, 7(1), 81-107.
- Stock, J.R (2002), Investigation on the Drivers of Green Purchasing Towards Environmental Sustainability in the Malaysian Manufacturing Sector[J], *International Journal of Procurement Management*, 3(3), 316-337.
- Tzschentke, N. A., Kirk, D. & Lynch, P. A. (2008), Going Green: Decisional Factors in Small Hospitality Operations. *International Journal of Hospitality Management*, 27, 126- 133.
- Turner, R.K., Pearce, D. & Batement, I. (2010), Environmental Economics. An Elementary Introduction. *Harvester Wheatsheaf*: Hertfordshire.
- Upadhyaya, D. A., and Shukla, D. R. (2011), Environmental Concerns and Influences on Green Consumers: An Empirical Study. *JM International Journal of Marketing Management*.
- Walker, H., Sisto, L.D. & McBain, D. (2008), Drivers and Barriers to Environmental Supply Chain Management Practices: Lessons From the Public and Private Sectors. *Journal of Purchasing and Supply Management*, 14(1), 69–85
- Zhu, Q., and Sarkis, J. (2004), Relationships Between Operational Practices and Performance among Early Adopters of Green Supply Chain Management Practices in Chinese Manufacturing Enterprises. *Journal of Operations Management*, 22(3), 265-289.
- Zhu, Q., Sarkis, J., and Lai, K. (2008), Confirmation of a Measurement Model for Green Supply Chain Management Practices Implementation, *International Journal of Production Economics*, 111(2), 261-273.
- Zhu, Q. (2004), Empirical Study on Practices and Performances of Green Purchasing among Manufacturing Enterprises, *Chinese Journal of Management*, 6(7), 924-929.
- Zhu, Q., GemgYong, N., & Lai, K., (2002), Green Supply Chain Management: Pressures, Practices and Performance Within the Chinese Automobile Industry", *Journal of Cleaner Production*, 15(11-12), 1041-1052.

APPENDICES

APPENDIX I: LETTER OF INTRODUCTION



UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA PROGRAMME

Telephone: 020-2059162
Telegrams: "Varsity", Nairobi
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P.O. Box 30197
Nairobi, Kenya

DATE 30/9/2014

TO WHOM IT MAY CONCERN

The bearer of this letter LIDIA MORAGWA MAREGE
Registration No. D61/79053/2012

is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.

PATRICK NYABUTO
MBA ADMINISTRATOR
SCHOOL OF BUSINESS



APPENDIX II: QUESTIONNAIRE

Please give answers in the spaces provided and tick (✓) in the box that matches your response to the questions where applicable.

Section A: Demographic Characteristics

1. Name of the level five private hospital.....
2. What is your position in the hospital?.....
3. What is your highest level of education qualification? (Tick as applicable)
 - a) Post graduate level ()
 - b) First degree ()
 - c) Tertiary College (Diploma) ()
 - d) Secondary ()
 - e) Primary ()
4. Length of continuous service with the hospital?
 - a) Less than five years ()
 - b) 5-10 years ()
 - c) Over 10 years ()
5. How many employees are there in your hospital?
 - a) Less than 100 () b) 100 – 499 ()
 - c) 500 – 999 () d) 1000 and above ()
6. For how long has your hospital been in operation in Kenya?
 - a) Under 5 years () b) 5 – 10 years ()
 - c) 11 – 15 years () d) 16 – 20 years ()
 - e) Over 20 years ()

Section B: Eco-Friendly Practices

7. To what extent does your hospital undertake the following eco-friendly practices? Use
 1- Very small extent, 2-Small extent, 3-Moderate extent, 4- Large extent, 5- Very large
 extent

Eco-Friendly Practices	1	2	3	4	5
Efficiency in energy usage					
Waste management (cut waste and emissions through composting, recycling (including anaesthetic gases), better purchasing (minimizing packaging, using reusable rather than disposable products, and buying recycled products)					
Green purchasing (every department in the enterprise consults decision-making to improve business performance by decreasing the using materials cost and end treatment cost, protecting resources and enhancing the enterprise reputation)					
Environmental management system					
Use of alternative source of energy					
Transportation (cutting transportation emissions by effective sitting and programming of medical care delivery, using high-efficiency or alternative-fuel vehicles)					
Food (improve patient health by making changes in hospital service menus and practices, including limiting the amount of meat in hospital meals, producing their own food onsite, composting food waste, and buying local and organic produce)					
Water (closely monitoring water use, installing water-efficient fixtures and technologies, growing drought-resistant plants, and making sure that leaks are quickly repaired)					

8. To what extent does the following challenges hinders your hospital from undertaking eco-friendly practices? Use 1- Very small extent, 2-Small extent, 3-Moderate extent, 4- Large extent, 5- Very large extent

Statement	1	2	3	4	5
Resource availability (including financial, human and time)					
Personal interest and knowledge of (or lack of) environmental management					
General hospital characteristics					
Consumer poor credibility of eco-friendly practices					
Lack of factual information about eco-friendly practices					

Section C: Eco-friendly determinants

9. Please tick appropriately the extent to which the following factors determine the eco-friendly practices pursued by your hospital. (Use the scale to tick the most appropriate response). Use 5) Strongly agree 4) Agree 3) Neutral 2) Disagree 1) Strongly disagree

Statement	1	2	3	4	5
Government policy requirements (regulations that establish price, service standards, environmental standards, marketing or distribution methods, accounting procedures, amongst other things)					
Eco-friendly conscious consumers (consumers strongly consider that existing ecological situations are weakening and signify serious difficulties facing the safety of the earth and on the other hand)					
Level of competition (Businesses are willing to comply with environmental protection practices because they perceive benefits from doing so, such as competitive advantage)					
Greenness at the organizational level (awareness and the concern of the organization to protect the environment, and the attitude of the organization towards sustainability)					
Hospital size (large hospitals tend to adopt innovations and eco-friendly practices more easily than small ones because they have sufficient resources and strong infrastructures)					
Stakeholder pressures					
Environmental uncertainty					
Compatibility (eco-friendly practices will be more easily diffused within a company when the practices are more compatible to the company's current technologies and processes)					

Thank you for your cooperation

Appendix III: List of Level five private hospitals in Nairobi

Name	Location
1. Avenue Hospital	Parklands
2. Bristol Park Hospital	Nairobi-Tasia
3. Coptic Church Nursing	Ngong Road
4. Gertrudes Garden Children's Hospital	Muthaiga
5. Guru Nanak Hospital	Pangani
6. Karen Hospital	Karen
7. Mariakani Cottage Hospital	South B
8. Mater Misericordiae Hospital	Industrial Area
9. Metropolitan Hospital	Eastlands
10. MP Shah Hospital	Parklands
11. Nairobi Equator Hospital	Nairobi West
12. Nairobi Hospital	Nairobi
13. Nairobi West Hospital	Nairobi West
14. The Aga khan Hospital	Parklands
15. The Nairobi Women's Hospital-Adams Arcade	Adams Arcade
16. The Nairobi Women's Hospital-Hurlingham	Hurlingham

(Source: KMPBD)