INCORPORATING GREEN PURCHASING AS A BEST PRACTICE IN PROCUREMENT OF IN-FLIGHT PRODUCTS AT KENYA AIRWAYS LIMITED

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DECLARATION

STUDENTS DECLARATION

This is to declare that this research project is my original work and has not been presented for an award for amufegree^to any other University or Institution of Higher Learning.

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DECLARATION BY SUPERVISOR:

This is to declare that this project has been submitted for examination with my approval as the university supervisor—.

Date: 8/10/2011

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LIST OF ABBREVIATIONS

EPP	Environmental Preferred Purchasing
EU	European Union
GM	General Motors
HITS	Hazardous Inventory Tracking System
HSE	Health Safety and Environment
HP	Hewlett Packard
LCA	Life Cycle Assessment
NGO	Non Governmental Organisation
SHE	Safety, Health and Environment
SME	Small Medium Enterprise
UNEP	United Nations Environment Programme
WCO	World Class Organisation

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I wish to express my sincere appreciation to my family for their understanding and support during the project. I would also like to express my sincere thanks to the supervisor for having agreed to supervise this research paper and her patience in reading the drafts and occasionally guiding me, without which the research would not have been a reality.

Lastly I thank Almighty God for his guidance and providence which enabled me to undertake this project that was too involving in term of time and resources.

DEDICATION

This study is dedicated to my loving family, for their support, encouragement and patience during the entire period of my study and continued prayers towards successful completion of this course.

May God bless you all.

TABLE OF CONTENTS

ABSTRACT

Companies are perceived as important actors in the drive for sustainability. Linked to this, and in response to increasing demands from various stakeholder groups, companies start to look at their supply chain to enhance their overall sustainability profile. Two major triggers can be identified: (1) focal companies are held responsible for environmental and social problems caused by their suppliers, which become more and more important as (2) an increasing share of value is created at the supplier level. In response to such demands, companies have to find ways to incorporate environmental and social aspects into their supply (chain) management. Therefore, environmental and social standards are integrated into supply management by amending the purchasing processes. This paper presents an approach to integrate Green Purchasing into supply policy and supply management at the Kenya Airways limited, a 3-star airline projecting to become world Class Company and a 7 star airline by 2020.The objectives of the study was to establish the ways in which Kenya Airways Limited incorporates Green Purchasing as a best practice in procurement of in-flight Products as well as the challenges being faced in incorporating Green Purchasing. The findings of this research were geared to establish the "as is" situation for green purchasing and this was a case study. Focused interviews were conducted with stakeholders who are the key participant in supplier prequalification and purchase decisions through competitive bidding process. This was a qualitative research focusing on collecting precise and exact facts hence data collected was analyzed using content analysis. The results showed there is limited scope to incorporate green purchasing in purchase decision of core products and even less for support products. The company has a SHE evaluation policy for its suppliers which are a key step to environmental considerations in purchasing. Involvement of the Industrial safety team in supplier pre qualification points to the increased step towards best practices and this is a platform to advance green purchasing practices into supply chain. The study recommends consideration of the environment in procurement may include considering the environment from the outset. There is most scope available early on when defining needs and specifications, and early action is more likely to be successful. Additionally an array of strategies to institutionalize green purchasing in Kenya Airways into their procurement practices has been spelt out. At the end of the study are recommendations for further research in the gray area of green purchasing such as to what extent purchasers are expected to have environmental competence and expertise to face challenges of green purchasing and scope of green purchasing for core products and support products.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The uptake of green purchasing by business and industry has shown to be rather limited. A decade ago, green purchasing practices mainly occurred in some high-profile organizations and were mainly confined to chemical firms and/or to those firms in the consumer goods sectors that have experienced green consumer pressure directly. Compared with other environmental initiatives, few companies had implemented extensive programmes for green purchasing and social ethics in their procurement structures and supply chain. Environmental concerns are finally finding its way from strategy and board room meetings to operations and to supply chain management (SCM). A growing number of companies have realized the world over that implementing supply chain management is only one of the objectives they need to realize. The other important agenda is to make this SCM environmentally friendly. This has catapulted SCM to a new height by looking beyond their own facilities but also involving their suppliers in environmental initiatives and agendas. This is done by screening suppliers for environmental performance, working collaboratively with them on green design initiatives and providing training and information to build suppliers' environmental management capacity

1.1.1 The Concept of Green Purchasing

Environmentally Preferable Purchasing (EPP), often referred to as "green purchasing," is the affirmative selection and acquisition of products and services that most effectively minimize negative environmental impacts over their life cycle of manufacturing, transportation, use and recycling or disposal. Examples of environmentally preferable characteristics include products and services that conserve energy and water, minimize generation of waste and releases of pollutants; products made from recycled materials and that can be reused or recycled; energy from renewable resources such as biogases fuels, solar and wind power; alternate fuel vehicles; and products using alternatives to hazardous or toxic chemicals, radioactive materials and biohazardous agents.

Green purchasing is adding environmental aspects to price and performance criteria when making purchasing decisions. Ultimate goal is to reduce environmental impacts of sourcing and to increase resource efficiency. Such impacts may be associated with any stage in the production, use or disposal of a product. Tuitoek (2007) in her research project stated that Environmental life cycle assessments of products have shown that the environmental impacts created when a product is used are often much greater than those resulting from manufacture of the product. The aim of green purchasing is to buy products or services that have less impact on the environment than otherwise comparable products hence it's important for to take the costs of these into account when comparing products.

There is a range of green purchasing strategies available to companies. Different strategies have different effects on the environmental behavior of suppliers. The strategies can be grouped into three major categories: product standards, behavior standards, and collaboration. The effect of the various strategies on supplier environmental performance tends to follow a continuum from low (product standards) to high (collaboration). In general, more effort by buyers is needed to increase the environmental performance of suppliers. Thus buyers must make a cost-benefit analysis regarding how much they want their suppliers to improve.

Lastly, Green Purchasing is responsible purchasing going beyond price and volume. In global market economy stock listed, responsible companies are expected to be transparent and manage their reputation. Transparency calls for responsibility and cooperation of all players in supply chain. Environmental standards apply for all operations everywhere and throughout the supply chain. Responsible purchasing is hard work and requires systematic auditing and controls. The most uniformly successful way to promote improved environmental performance is through the supply chain. No supplier will ignore a justified request from an important buyer who wants to know about the supplier's environmental performance, and such requests demonstrate to suppliers that there is a serious market reason to achieve improved environmental performance. There

are a small but growing number of companies that have demonstrated that buyer-supplier collaboration on environmental issues results in better economic as well as environmental performance for both parties. Lessons from these experiences should be examined and disseminated widely to business as a means for improving environmental management practices.

1.1.2 Green Purchasing as a Best Practice

Drucker, (2005) defines a best practice as a technique, method, process, activity, incentive, or reward that is believed to be more effective at delivering a particular outcome than any other technique, method, process, etc. when applied to a particular condition or circumstance. The idea is that with proper processes, checks, and testing, a desired outcome can be delivered with fewer problems and unforeseen complications. Best practices can also be defined as the most efficient (least amount of effort) and effective (best results) way of accomplishing a task, based on repeatable procedures that have proven themselves over time for large numbers of people.

The purchasing handbook (2007) expounds essential elements of an effective Purchasing program from where best practices can be drawn as among others: Understanding the principles of Continuous Quality Improvement and how they can be applied to the purchasing process, Utilizing Continuous Quality Improvement tools to perfect processes and procedures to better serve customers, working cooperatively to reach consensus on major issues that impact stakeholders and familiarity with the latest forms of technology, products or services available in the marketplace and the ability to communicate this information to stakeholders in order to cooperatively assist them in the procurement process. Russell, (1998) argued green purchasing is adding environmental aspects to price and performance criteria when making purchasing decisions. Ultimate goal is to reduce environmental impacts of sourcing and to increase resource efficiency. Such impacts may be associated with any stage in the production, use or disposal of a product. Borrowing from this we can incorporate green purchasing as a best practice in procurement.

1.1.3 Aviation Industry in Kenya

The aviation industry in Kenya is made of private and commercial airlines. Privately owned aircraft are for rentals or private use. The commercial airlines ferry passengers and include Kenya Airways which is the national carrier and third largest airline in Africa, Jet link Express, Fly 540, ALS- Aircraft Leasing Services, 748 Air Services, East African Safaris, African express, Air Kenya, Delta Connection, Safari link Aviation, Astral Aviation and CMC aviation. Kenya Civil Aviation Authority (KCAA) is a state corporation under the Ministry of transport that is responsible for regulating the aviation industry in Kenya and for providing air navigation services in the Kenya flight region. This is the registered regulator for the aviation industry. Aviation in Kenya is dominated by Kenya Airways with tight competition from the low cost carriers for local and east sAfrican destination. Aviation Industry in Kenya is expanding with passenger traffic numbers increasing over the years. At the main Airport Jomo Kenyatta International airport 4.92 million passengers were served in 2008 and the figure increased to 7 million (unpublished) in 2009.

The Aviation infrastructure is developed compared to neighboring east Africa countries. In Kenya Jomo Kenyatta International Airport, Nairobi is the 7th most frequented African airport. Moi International Airport, Mombasa is the second biggest of the Kenya airports. It grew from a military air base established there during the Second. World War. It's located 10 km north-west of Mombasa. It serves close to 1 million passengers each year. Also there is Wilson airport located 5 km's south of Nairobi. It's essentially an airstrip with a few buildings around it - it has no real terminal. It's mainly used for domestic flights with light aircrafts to Kenya airports like Mombasa, popular places along the coast (Lamu, Malindi) and national parks like Masai Mara, Amboseli and Samburu. There are also flights to Tanzania, Somalia and the Democratic Republic of Kongo. Further off Kisumu Airport located outside Kisumu, in the far west of Kenya (Nyanza province). It's the third busiest of the Kenya airports, even though it doesn't handle any international flights.

The number of passengers has quickly grown from 70,000 in 2004 to 240,000 in 2007and now over 500,000 a year and it's planning to expand. Eldoret International Airport This airport is located 16 km south of Eldoret in the far west of Kenya. It was opened especially for transportation of export products (for example,, flowers, which is a fast growing business in Kenya). Malindi Airport is located 3 km's west of Malindi on the coast, has 2 runways and a small terminal. It's only used for domestic flights, though the airport is trying to get international status, like the big Kenya airports, so that it can receive flights directly from Europe. Lastly we have Manda Airstrip located at the coast in Manda, just in front of Lamu island which is a popular tourist destination. From the airstrip, you can cross the 800 metres of sea to Lamu island by boat and Ukunda Airstrip is another popular tourist destination at the coast, 30 km's south of Mombasa.

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Challenges that faced airlines and the aviation industry as a whole over the last few years, has forced the industry to rethink how they do business on both a financial and operational level. Most airlines have faced up to these challenges, and as a result have been remarkably successful at turning around ailing companies, in many cases completely reinventing themselves. Although high fuel prices are affecting profitability, airlines are now in a much stronger position then 2000, due to unprecedented demand for air travel. The notion of restructuring and cost cutting has been embraced wholeheartedly local airlines as a viable way to secure their long-term security. The air transport has gone through a period of unprecedented change, during the global slowdown. Major factors that have resulted in this ever changing landscape is airlines have been operating under major losses over the last few years, resulting in bankruptcy and the need for massive restructuring. We have small aircraft operators have been withdrawn from service, Revenue raised from business traffic has been greatly reduced, the emergence of low cost carriers and the growth of business via the internet.

Aviation industry foresee economic recovery coupled with the steadying of world markets, has resulted in the return of business confidence and corporate investment in the aviation industry. The political environment has also begun to slowly stabilize; this has resulted in high level growth in the demand for worldwide leisure travel. While the introductions of safety initiatives are clearly reducing the number of incidents, the cumulative cost of those incidents to the insurance industry is on the increase. Kenya in an effort to revamp its aviation industry through Kenyan Transport and Communications Ministry plans to revamp the country's aviation industry to promote inter-African

transportation. Key among expected changes is the immediate de-linking from the civil service of the country's Directorate of Civil Aviation, which will now be run by a Civil Aviation Authority. Other measures include the plans to develop Nairobi's Jomo Kenyatta International Airport (JKIA) into a premier hub for Eastern and Central African region.

1.1.3 Kenya Airways Limited

Kenya Airways limited is the National carrier of the republic of Kenya and the Third biggest Airline in Africa. 'Kenya Airways was established in February 1977 following the breakup of the East African Community and subsequent disbanding of the jointly-owned East African Airways. In 1995 Kenya Airways signed a Shareholders' Agreement and a-Master Cooperation Agreement with Royal Dutch Airline KLM thereafter an Initial Public Offer for shares js issued in March 1996. Since then Kenya Airways has invested in acquisition of modern fleet which range from Boeing 737 classic series and New Generation series, Boeing 767 Long range aircraft and new generation Boeing 777 jumbo as well as Embrear E170 jets. Orders have been made for the environmentally friendly next generation airlines the Boeing 787 commonly known as Dreamliner.

Kenya Airways has expanded by acquiring 51% of precision Air of Tanzania. Kenya Airways has an exhaustive network within Africa and on core hubs in Europe, Middle East and Far East. Currently flying to 50 destinations this is made seamless by being an associate member of Sky Team alliance the second biggest airline alliance after the Star Alliance. Kenya Airways has a good safety record with only two air accidents in Abidjan and Douala. Kenya Airways has been awarded a 2 year renewal on its IOSA (IATA Operational Safety Audit) registration. The company has also had a good profit record making'revenues of up to Kshs 70billion. The main cost drivers are Fuel costs, Aircraft lease and maintenance then staff costs. Kenya Airways has undertaken to be a world class organization (commonly known as WCO) and this is an ongoing project that will see the company operationally aim at eliminating waste and be profitable through adopting the best practices and benchmarking against the best in the industry. World class for Kenya Airways means being able to compete with the best in the aviation industry (safety,

profitability, customer service, connectivity), compliance to all the aviation industry and industrial safety requirements, customer needs first - Meeting and Exceeding Customer expectations, focusing the minds of all employees on the company's strategic objectives (safety, profitability, customer service, connectivity), through effective communication and developing and empowering all employees to continuously improve performance.

Procurement in Kenya Airways is a function of supply chain under the finance department. Purchases within the airline are classified and range from aircraft acquisition, technical spares, Fuel sourcing, service outsourcing, In-flight products, IT infrastructure hardware and software, uniform, stationery and the list goes on(full list attached in appendix). For all these we have the users who give specifications and make requisition and we have buyers who source for the products or services from suppliers either via open bids, tenders or contracts. In- Flight products include: Food and beverages, On board cutlery, On Board aerosols, towels, Blankets, Pillows, magazines, and duty free products.

The in-flight products can be recyclable or one use items that is disposed after use. For in-flight products there is a system based approach to orders. Suppliers are normally tied on contract basis which gives the company benefits of service level agreements that guarantees better prices, discounts, quality standards, timely deliveries and after sale services. Hence a case to consider environmental and social factors is at the supplier prequalification stage and evaluation of tender documents. This cuts across the board and not just for in-flight products. As a positive step Kenya Airways in its vendor evaluation places 25% of the total marks on compliance to safety, Health and Environmental (SHE) checklist. This assures that Kenya Airways is dealing with safe suppliers.

In a world class firm as Kenya Airways endeavors to be supply management plays a key role in selecting outside suppliers, establishing a price for the raw materials and services, and managing supplier relationship. Supply management concerns outside production by keeping suppliers cost low, high quality and good relationship.

[n order to bring the supply management to world class status Kenya airways senior management must recognize supply management critical nature and support the required jansformation. One of the most visible ways is to appoint a chief supply officer (this is ilready in place by having Head of supply chain) and getting top management committed $_0$ its success. Kenya Airways must know where to bench mark (know where they are in elation to where they want to be) and establish best practices and developing metrics to ichieve world class. Another way is for Kenya Airways to incorporate environmental igenda in the current programs rather than creating new programs from scratch. This can je enforced with the TQM program currently in the firm. Kenya Airways need to set a $_{,r}$oss functional pollution avoidance that will address questions of: where is the material vasted, at what stage was it planned in the supply chain and why was it build in the lupply chain.

fhe team to follow waste stream from the consumer and distribution system over the nternal supply chain links to the company through the supplier. The team has to [etermine where the material waste is produced and focus on internal processes that ould be logistics or warehousing, production or purchasing requirement. Once the ihysical location of the wastage had been identified the team to go further analyzing the emaining portions to get the supply link that leads to waste in the chain,

zlany progressive buying organizations monitor their critical supplier's performance in oth a contract and aggregate level. This is used to control supplier contract performance nd also used during source selection for follow up on procurement to ensure that only atisfactory performers are considered.

Lenya Airways can use three to six months moving averages for aggregate evaluation of erformance of supplier. This allows the supplier to start over at some point and prior lisdeeds do not haunt them forever. They are motivated to improve. The length of the /indow is important and should be case specific, a short window maybe ineffective as a upplier may get off the hook so easily while a longer window maybe punitive and self efeating. Kenya Airways can adopt evaluation plans such as categorical plans, weighted oint plans and cost ratio plans.

1.2 Research Problem

Oboya (2007) in his research project stated globalization increases the opportunities for buyers to source from in an increasing number of countries. As buyers increase their focus on environmental improvement, the issue of supplier environmental performance will increase in importance. As this phenomenon percolates along the supply chain, ultimately it can result in the "greening" of the entire supply chain. Beth Liddell (2003) stated that many corporate firms recognizing the tremendous power they wield in the marketplace are attempting to reduce their impacts on society and the environment by purchasing products they deem environmentally preferable or sustainable. These purchasing efforts vary widely, ranging from simple buy recycled programs to complex environmental and sustainable procurement strategies. Strategies that integrate both environmental and social considerations into purchasing are typically called sustainable purchasing dubbed environmentally preferable purchasing (EPP).

Another research was Jungman (2007) focused on Corporate Responsibility in Supply Chain Management - Case Environmentally Responsible Procurement. Jungman introduced the dimension of corporate responsibility and the concept of supply chain management and then concentrated on different procurement functions. He also combined the two parts in his literature by studying how environmental issues should be taken into account in different phases of the procurement. In conclusion there aren't any established practices for taking environmental issues into account in procurement and the practices vary between the different business areas. In most cases suppliers' environmental performance is controlled in a very general stage and environmental requirements as well as object setting for the suppliers on environmental issues are insufficient.

Tuitoek (2007) explains that senior management has to realize that most if the industry has addressed a multitude of environmental concerns while some have done so because of legal pressure others have realized the opportunities that exist in this new direction. Pollution and wastages reduction saves money and is good for profits and the environment. Management has to understand that environmental care and economic

growth are neither mutually exclusive nor antagonistic goals. Companies with most environmental strategies are the most competitive, profitable and secure in the industry Inorder to get the most out of embracing environmentalism the firm has to find ways of benefiting economically. These points suggest that the operational aspects of social and environmental concerns in procurement are increasingly of importance.

Considering this an extended scope of challenges, not only strategic or tactical, but also operational, is increasingly essential for implementing procurement best practices. Moreover, purchasers need to both know how to measure objectively and using valid variables how the suppliers rank in environmental and social ethics compliance and may need request the information and know how to process it and integrate it into their decision-making.

Looking at the best practices articulated on most purchasing books they relate to contract management, cost management in procurement and supplier relationship management. Environmental and social factors remain a gray area with little light shed by regulators and firms seeing it as an extra mile hence often ignored. This leads to the question that need be articulated and solutions found as regards: is there lack of comprehensive picture of the importance that incorporating environmental and social issues in procurement as a best practice and institutional purchasing settings can yield to the company now and in the long run. Secondly, to what extent are these concerns addressed in pre qualifying and evaluation of suppliers for the companies and what weight do they carry? To date, research offers limited studies that focus on how an organisation can take into consideration social and environmental issues in their supply chain as relates procurement practices.

The research study therefore focused on how a business entity can incorporate environmental and social factors in its procurement processes and the study sought to answer the following research questions: 1.What are the ways in which Kenya Airways Limited can integrate Green purchasing into procurement best practices for its in-flight products? 2. What Challenges does Kenya Airways Limited face in its endeavor to attain Green Purchasing as a best practice in procurement of its in-flight products?

1.3 Objective of the study

The objectives of the study were to: (i) Establish the ways in which Kenya Airways Limited can integrate Green purchasing into procurement best practices for its in-flight products, (ii) Determine What Challenges Kenya Airways Limited faces in its endeavor to attain environmentally preferred purchasing EPP as a best practice in procurement of its in-flight products.

1.4 Value of the study

At the centre of the research is green purchasing as a best practices that Kenya Airways need to definitely adopt in its quest to become world class and 7 star airlines by 2020.The scientific importance of this study can be considered to be relatively significant because only limited number of studies has been conducted on the subject and the results can be utilized in developing possible further studies and actions in the case company. This research has sought to understand the perceptions of stakeholders in the process of green purchasing because despite limited studies and exploitation of this initiative the roles that the purchasers currently play in the operationalization of green purchasing seems to be substantial, therefore, the need for this research.

CHAPTER TWO: LITERATURE REVIEW

In this chapter we shall have a look at scholars and environmentalists pushing for green purchasing as a core concept in modern procurement. Discussed is the concept of green procurement, the best practices in purchasing and scholarly articles on integrating green purchasing as a best practice. Also stipulated is the economic benefit of green purchasing that drives the initiative for give value for money and life cycle approach to costing a product where green purchasing is seen to have minimal cost in the whole life cost associated with a product.

2.1 Green Purchasing Concept

For all types of products, it is now possible for purchasers to integrate environmental and, to some extent, social requirements. This is known as "green purchasing" Purchasers can consider and assess the performance of the product, how it was produced, and who produced it. A range of environmental and social factors may be considered as part of green purchasing. Handfield et al, (2000) claims the important position that purchasers hold in supply chains and in the economy at large, offers an opportunity for green purchasing practices to positively impact both environmental and financial performance of their companies. Furthermore, an important opportunity that purchasers have is to improve customer/user safety.

The purported environmental benefits from green purchasing are that buying organizations can exert influence on the market by awarding the production of greener products. This works by exerting pressure on industry, stimulating lower prices of greener goods, stimulating the design, development and production of greener products and setting a good example. They can also influence the behavior of other socio-economic actors by providing, developing and requesting environmental product information upstream and downstream. This way they can foster greater awareness of consumption-related issues among other actors. Moreover, they can improve the

sustainability of in-house consumption by considering the environmental, health, safety and overall quality of products consumed and used within their premises.

The potential environmental gains of green purchasing, whether in the public or private sector, can be powerful. Studies on this topic have, so far, mainly been executed for the public sector but the findings suggest that the potential environmental gains from green purchasing are impressive. There are many indications that the role of businesses in society is changing, and as such, expectations on business practices are also changing. Many companies experience rapt attention to their actions from a number of stakeholders, among others customers, media, governments and investors. Mont and Leire, (2009) have claimed that over time, this attention has compelled the organizations to incorporate non-economic criteria into their purchasing practices. The range of aspects that can be associated with production that have come under the scrutiny of media and research are manifold: mining companies that have come under attack for collusion with corrupt governments, apparel retailers that have faced scandals over the use of sweatshop conditions for their workers and/or the use of child labour, oil companies have been criticized for engaging in activities that drive people countries and toy manufacturers production of lead contaminated children's toys and major mobile telephone manufacturers faced scrutiny for breaching international conventions on working conditions and workers' rights.

According to Grankvist and Biel, (2007) purchasing has a direct impact upon companies' ability to reduce their contribution to environmental and social problems. Combating environmental and social problems includes improving performance throughout complex supply chains. Studies of supply chain issues have raised the important question of the allocation of responsibilities between different actors in the supply chain. Another important question, moreover, is the extent to which they are able to fulfill this task. Among the actors in the supply chain, producers, retailers and purchasers play a critical role. Preuss, (2005) views from a life cycle perspective, it is more or less impossible to envisage environmental protection initiatives without involving supply chain management. Purchasers hold a particularly influential position because they serve as

gate-keepers of an organization, and influence the properties and amounts of the materials and components that enter it.

Brian, (2006) views most companies procurement policy is that all procurement should be based on value for money, having due regard to propriety and regularity. It is important to understand that the procurement policy of achieving value for money in procurement - defined as the optimum combination of whole life cost and quality (fitness for purpose) to meet the user's requirement - applies to the award stage of the procurement process. It is for company supply chain to decide what to buy and to set the specification, in the context of their overall objectives, and subject to the normal expenditure tests of need, affordability and cost-effectiveness. It is at this earlier stage that there is most scope to consider environmental issues.

This distinction between the award stage and the specification stage has often been misunderstood. For example a Department can choose to purchase low emission vehicles (even where they might be more expensive than standard vehicles). They must, however, achieve value for money in awarding the contract that is the contract for low emission vehicles should be awarded to the bidder offering the best combination of whole-life cost and quality to meet that requirement. And the requirement itself, for low emission vehicles, must be tested for need, affordability and cost-effectiveness in the context of the Department's overall objectives. However, this is a matter of prudent financial management generally rather than specifically one of procurement policy.

In Europe Directive 2004/17/EC and Directive 2004/18/EC all public procurement procedures must comply with the EC Treaty. The key principles of the Treaty, from a public procurement point of view, are the free movement of goods and services, and non-discrimination on the grounds of nationality. The treaty has considerable consideration to environmental and social issues. The important social issues here include fair treatment, fair competition, and non discrimination on basis of nationality, proportionality, mutual recognition and openness to competition. Buttressing public procurement in sound socially responsible principles seems essential if only to disseminate consciousness on

the importance of such principles within the business community. Public authorities have a duty to raise awareness on this issue and follow a coherent approach in their procurement. The possibility to take fully into account such principle to promote social goals has been laid down in recitals 28, 33 and 34 of Directive 2004/18/EC and in the corresponding recitals of Directive 2004/17/EC. Yet these guiding principles failed to be developed in the core text of both Directives, thus introducing some unwarranted doubts on their legal status. It should be reminded that recitals are an integral part of any legal text and this point should be made clearer in the guide of the EU treaty.

In general, social issues taken into account during the procurement process are more limited than that for environmental issues because, by virtue of their nature, they are less likely to be clearly related to the subject of the contract. And, frequently, there will be other, more efficient and effective, means of achieving social outcomes than through their consideration in the procurement process. Canoon, (1998) argues however, there will be cases where social issues can legitimately be taken into account. Services contracts, for example, are much more likely to have a social aspect than supply contracts. Sustainable procurement is no meant to conflict with the underlying principles of efficiency agenda. Efficiency need not equate to the lowest price ad must still be compatible with the legal and policy framework both to achieve value for money and save the environment. It is therefore anticipated that procurement in many companies will continue to reflect framework of values and incorporate whole life costs and quality considerations.

Here home, the Kenyan government has a procurement and disposal act, (2005)which aims to establish procedures for procurement and the disposal of unserviceable, obsolete or surplus stores and equipment by public entities to achieve the following objectives -to maximize economy and efficiency; to promote competition and ensure that competitors are treated fairly; to promote the integrity and fairness of those procedures; to increase transparency and accountability in those procedures; and to increase public confidence in those procedures and to facilitate the promotion of local industry and economic development.

2.2 Drivers for green purchasing

Russel, (1998) explains there is great belief in the use of green procurement as a driver in the creation of markets for more sustainable goods and services. Due to the large quantities purchased, organizations have a great potential to influence the production and consumption patterns in the society. In macroeconomic terms, according to Commission Proposal COM, (2008) purchasing volumes in the public sector in OECD countries are equivalent to about 16% of total GDP in Europe and this figure varies among countries. In Sweden as researched by Falk et al, (2004) public purchasing makes up about 25% of the GDP in Sweden. Corporate purchasing, in comparison, equals approximately 50% of the GDP 0 and up to 25% of total GDP in Sweden meaning that the main internal and external drivers of green purchasing practices in both the public and private sectors centre on regulation, possibility to gain competitive advantage or respond to societal and stakeholder pressures. Walker et al., (2008) claims Green procurement in both public and private sector can bring about significant benefits to the society by sending a clear message to various stakeholders by buying sustainably, stimulating their behavior change by setting the example, by directly effecting the environment, regional development and social conditions by advancing economic performance through capitalizing on efficiency opportunities and improving profile of public spending.

MTF-SPP, (2006) noted by stimulating the market for sustainable products and services, making these more economic to produce, and hence increasing the general demand for them. Specifically, by choosing more environmentally sound products and services, green procurement can stimulate markets and production in a more environmentally sound manner, which could lead to reduced climate change impacts, conservation and preservation of limited natural resources, creation of markets for recycled and reused products and for reduction of volume of waste for landfills, leading to the reduction of C02 emissions from landfills. According to Commission Proposal COM, (2008) the main argument with the environmental potential of green public procurement is that the

aggregated public purchase expenditures are substantial and could as such serve as a considerable driver for the greening of products on the market, both to stimulate the penetration of labels on the product market, and also to contribute to the a higher adoption of product and process improvement. Moreover, UNEP, (2003) green procurement is coupled with other advantages for various stakeholders in the society, such as effective partnerships and knowledge development and transfer; it can help encourage innovation, which is claimed to be another critical competitiveness factor for organizations facing environmental challenges. Some of the potential environmental savings from green procurement in the public sector have been investigated in a study funded by the European Commission. The study by Russell (1998) claims that if all public authorities across the EU demanded green electricity, this would save the equivalent of 18 % of the EU's GHG reduction commitment under the Kyoto Protocol (60 million tons of C02). Nearly the same saving could be achieved if public authorities opted for buildings of high environmental quality. Moreover, if all European public authorities demanded more energy-efficient computers, this could lead to the significant changes on the European computer market and would result in saving of 830 000 tons of C02.

Finally the Commission Proposal COM, (2008) if all European public authorities chose efficient toilets and taps in their buildings, this would reduce water consumption by 200 million tons (equivalent to 0.6 % of total household consumption in the EU. Rtidenauer et al, (2007) claimed besides the environmental benefits, governments increasingly justify green public procurement as a way to internalize the external costs of their purchases, compensating for the lack of other policy instruments that would account for these externalities. A recent study on costs and benefits of green public procurement in Europe revealed that joint procurement initiatives of public authorities typically have a positive impact on the purchase price and to some extent also on life cycle related costs of products and services, including maintenance and energy consumption.

Marron (1997) observed often, higher purchasing prices are compensated for by lower operating costs in the use phase. Market office equipment that was compatible with the

use of recycled paper. At the same time, domestic consumers became more accepting of recycled paper. In other words, the choice of recycled paper over conventional paper in the public sector affected domestic, as well as industrial consumers, and has also given the supply of recycled paper a significant competitive edge. Since then, recycled paper has not only become a standard supply, but also cheaper than the previously conventional (chlorine bleached) paper. The demand from public organisations allowed producers to lower costs through scale economies and learning-by-doing. Leire, (2006) Green purchasing may also open up opportunities for the purchasing organisation itself. These are mainly business improvements, such as reduced operation and environmental costs, higher level of knowledge and competence, the prevention of disturbances in operations, the provision of assistance with environmental problem solving in the customer firm, higher trustworthiness, and better image. Other opportunities can be competitive advantages and possibilities for business development

2.3 Barriers to green purchasing

So far as put by Russell, (1998) the potential of green procurement has been just tapped in, but not fully explored and utilized for the societal good. According to a recent study, only 14 Member States had so far adopted National Action Plans for greening their public procurement, with 12 Member States still working on developing them. Several barriers have been identified for more prominent success of green procurement. Some of the barriers are relevant for both public and private sectors, while others are more specific for certain types of organisations. A recent study by European Commission, (2004a; IEFE, 2005) has identified six main barriers for public organisations. The first barrier pertains to the availability of information for developing criteria for green procurement, which is relevant for both public organisations and private companies. It has been demonstrated that there is still lack of clear and comprehensive information sources, such as databases, which can be used by various purchasers for setting up the right environmental criteria in tender documents. Another barrier related to availability of information concerns lack of information about and consequently insufficient awareness of the benefits of environmentally sound products and services.

In green procurement Falk, (2001) buyers require significant amount of information in order to make informed purchasing choices. They need to know what environment impacts to focus on, how to translate them into purchasing criteria, what product alternatives exist on the market and what is their environmental profile, as well as how to compare these product or service alternatives. In addition, they need to know suppliers and their environmental practices, they need to be aware about general environmental issues relevant in the society, and have access to operational green procurement procedures and tools.

The third barrier as per- (European Commission, 2004a; IEFE, 2005) linked to the low general awareness of both buyers and sellers about the benefits of environmentally benign products and services stems from lacking understanding of life cycle cost of products and services. This is a significant barrier, especially considering the existing perception in society that green products are more expensive than traditional products. Taking into consideration life cycle cost, green products often become less expensive, contrary to if they are judged only on purchasing price. Environmental criteria in tender documents have been identified as yet another important barrier. There has been a number of Directives and other policy documents at the EU and national levels aiming to clarify the legal boundaries. Still, a lot of uncertainty remains at the operational level

Falk, (2001) touched on the lack of political commitment and support needed for facilitating progress in green procurement has been also identified as an important barrier. It has been highlighted that especially training of purchasers in public and private organisations needs to become more widespread. There is furthermore a lacking coordination and dissemination of best practices in various organisations and levels: national governmental procurement, local municipal procurement practices, as well as success cases from businesses from different sectors. Handfield et al., (2002) noted some companies report that green procurement process may lead to decreased lead-times and decreased flexibility. Allocation of responsibilities within the company may also pose a

certain problem since different departments in the company usually make purchases for different purposes. The diversity of products and services bought by private companies varies greatly, depending on the type of their activity. Christensen & Staalgaard, (2004) found for many public and private organisations, one of the main challenges is the lack of knowledge and expertise for evaluating different alternatives in terms of their environmental aspects and impacts. This may lead to that purchasers feel reluctant to priorities green procurement because they need concrete knowledge of which environmental requirements are relevant for a particular product group.

Handfield challenges related to the evaluation include the uncertainty on how to define a green product and how to weight the relative importance of different life-cycle performance indicators. Also, there is a perceived lack of concrete product selection guidance, resulting in problems in identifying greener product alternatives. In addition, there is a perception of lack of knowhow or resources for possible verification and follow up of the life cycle oriented information. Insufficient individual capacity is another information-related challenge. The capacity aspect can be related to knowledge, insights on environmental issues, environmental education, and can have a bearing on the usefulness of a particular type of information. The feeling of inability or inadequacy can also stem from a lack of enthusiasm or intellectual understanding. Russell, (1998) advises managers, including purchasing managers of course, can have a variety of attitudes toward environmental issues, and sometimes also have an ambivalent perception regarding the potential and immediate costs and gains of green purchasing initiatives.

Bowen, (2001) Compared to single criteria considerations, the life cycle perspective adds to the complexity of green procurement in that the number and scope of purchasing criteria is increased and needs to cover various stages of a product life cycle. The scope is extended to. include not only the characteristics of the product per se, but also how it has been produced and distributed, as well as its environmental impact during use and disposal stages. In addition to lacking awareness, cost issues and lacking clarity in regulation, business companies mention poor supplier commitment and industry specific barriers.

Walker, (2008) identifies lacking of managerial support and practical tools, as well as training, as additional barriers for green procurement. Bouwer et al., (2006) however, saw the largest barrier for private companies to implement green procurement practices is lacking regulatory demands and clear regulatory framework for criteria development, evaluation and incorporation, as well as for comparing alternatives and for following up the supplier performance.

2.4 Environmental supply chain management as a pillar to green purchasing

Environmental concerns are finally finding its way from strategy and board room meetings to operations and to supply chain management (SCM). A growing number of companies haye realized the world over that implementing supply chain management is only one of the objectives they need to realize. The other important agenda is to make this SCM environmentally friendly. This has catapulted SCM to a new height that promises to give a major contribution to the company's overall strategy. The companies are implementing ESCM (Environmental SCM) by looking beyond their own facilities and to their key supplier's facilities to take care of SCM. Russell, (1998) observes companies are also involving their suppliers in environmental initiatives and agendas. This is done by screening suppliers for environmental performance, working collaboratively with them on green design initiatives and providing training and information to build suppliers' environmental management capacity.

Environmental supply chain management recognizes the crucial role to be played by the purchasing and the function's involvement in activities that include reduction, recycling, reuse and the substitution of materials. Working with suppliers on environmental issues not only generates significant environmental benefits, but also opportunities for cost containment, improved risk management and enhanced quality and brand image. This will also help companies streamline their supply base and develop more co-operative, long-term relationships with key suppliers, a practice that has fostered greater opportunities for companies to work together with suppliers on environmental issues.

However large scale adoption of environmental aspects within the framework of supply chain management is essential. The starting point as for any other major strategy is the top management commitment to the environmental issues. This is not only essential but is critical for the overall success of the project. It should be the mission of the company's top management to sensitize everyone in the company towards environmental issues. It will also be a good idea to have a separate environmental department reporting directly to the top management. This department should look at all the aspects of the environment barometer and track its progress on a regular basis. Any discrepancy is immediately reported to the CEO. However, it is equally important to make everybody participate in the process with the same gusto. This can happen by empowering the employees to act immediately in response to the environmental problems, rather than simply offering suggestions. The rewards and incentive structure also emphasizes results.

Seuring and Miller, (2004) noted it is important to spread the message to the customers and thereby making them participate in the environment journey. This can be achieved by branding the company and its products on environmental lines. This can be done by bringing out the synergy between the company's strategy and its strong environmental image and reputation, and environmentally sensitive products, suppliers etc. it deals with. Next it is important to connect with the most vital link of the company - its suppliers. A holistic approach, such as supply chain integration to environmental management links reduction in energy consumption to waste generation and release of pollutants. Setting aggressive and progressive environmental goals is important. This can be done by using tools such as life-cycle management and environmental audits improve environmental and operating performance.

Supplier audits on environmental issues are an absolute must and this process should be a cross-functional initiative. This should involve employees from quality assurance, environmental affairs and purchasing. Similarly, teams should include financial analysts who decide whether suppliers will be the most productive from the perspective of

maximizing Environment Value Add make-or-buy decisions. Adherence of suppliers to quality and environment standards is a necessary prerequisite for achieving a company's various objectives. Jungman, (2007) claimed early sourcing and early supplier involvement in basic product developmental work is required and while doing so it will be easy for the companies to strictly adhere to the norms it has prescribed for itself. These sourcing decisions must also take into consideration safety issues, capacity of suppliers, and ability to treat compounds and effluents. Products and processes should be subjected to continual critical analysis at every stage of the value-added process. The early integration of suppliers into all decisions affecting them is critical to environmental effectiveness. The close alignment of supplier capabilities with buying firm's environmental goals is critical to program success. This alignment can be achieved " through an alliance supporting organizational and informational framework and the benchmarking of performance with environmental, quality, and cost parameters.

Jungman argued purchasing with its proximity to its suppliers needs to play a broader role in the company's environmental agenda. It needs to conduct timely supplier evaluations using criteria such as risk and environmental capability. Because of the emphasis on environmental value-added performance, companies turn to suppliers for use of their waste treatment facilities. Companies also seek to develop suppliers who can collect, clean and reship process waste back to the company. Finally, companies must carefully justify all environmental changes through either cost reduction or customer satisfaction issues. The focus of continuous improvement (used so effectively during TQM program implementation) can be applied quite effectively to improving environmental efficiency and effectiveness. The cross-functional relevance of environmental supply chain management is ensured by its direct impact on the supplier selection and management processes. Change should be viewed as a competitive tool and environmental efficiency viewed as a positive catalyst for change.

2.5 Best Practices in Procurement

According to Drucker, (2005) a best practice is a technique, method, process, activity, incentive, or reward that is believed to be more effective at delivering a particular

outcome than any other technique, method, process, etc. when applied to a particular condition or circumstance. The idea is that with proper processes, checks, and testing, a desired outcome can be delivered with fewer problems and unforeseen complications. Best practices can also be defined as the most efficient (least amount of effort) and effective (best results) way of accomplishing a task, based on repeatable procedures that have proven themselves over time for large numbers of people. Ansoff, (1990) argued given best practice is only applicable to particular condition or circumstance and may have to be modified or adapted for similar circumstances. In addition, a "best" practice can evolve to become better as improvements are discovered. Despite the need to improve on processes as the environment changes, best-practice is considered by some as a business used to describe the process of developing and following a standard way of doing things that multiple organizations can use for management, policy, and especially software systems.

Brian, (2006) articulated that Price increases are impacting companies at unprecedented levels and plans to keep profits at the same level, or even increase your profitability despite this increase in costs have been: Reduce capital spending, Implement yet another round of layoffs, GM and Ford are currently pursuing this strategy, Increase employee share of health insurance and raise prices. However, if you want to maintain your stature as a "best in class organization" you cannot continue to rely on the above four methods to improve your profits. Your competitors are increasing capital spending, adding employees, offering competitive benefit packages and actually lowering prices to their customer's year after year. Their Secret — Implementing best practices in purchasing.

In his article on how to achieve world class organisation, cost containment strategies looked at how long it takes to become a best in the world purchasing organization. The short answer is, a very long time. That means inch-by-inch, day-by-day, and price increase by price increase. However the best practices evolve over time - if you decide you want to become a master purchasing organization you have to recognize that change is inevitable, keep a positive attitude and passionately believe in the process improvement

cycle. Some of the ten keys to effective procurement that have been developed by the some of the best purchasing gurus in the world are:

First, improve your vendor relationships - According to Carter and Drenser, (2001) suppliers don't stay the same from year to year? This means avoid cozy or adversarial relationships with suppliers keeping in mind sitting down with vendors once or twice a year to collaborate eliminates surprises from both you and them. Other strategies here include order in a manner that keeps the vendor's cost low, work with the best vendors, taking into account local, regional, national and global players for the goods and services you are purchasing, competitive pricing is key, focus on the overall best total cost. Companies working with too many vendors, find a great vendor or two and utilize your leverage by giving them all of your business hence firms should develop an annual cost, reduction plan; the best vendors will understand this concept.

Secondly Leire, (2006) advised purchasers to develop a scorecard for keeping track of vendors' service, quality, delivery and pricing. Here the strategies include track the quality, service and price performance of your vendors, communicate the results of your scorecard to the vendors, understand what is important to your vendors and make sure they understand what is important to your company and involve the vendor in the design of your product from the beginning. The third strategy is to obtain the right information and right sizing your vendor list and vendor costs. This involves leverage your volume with your vendors, purchasing and finance should form a team to identify current spending and where the greatest opportunities for improvement exist and brainstorm ideas for product improvements.

Jungman, (2003) claims the human resources as relates creating a purchasing staff with the following characteristics: Analytical —ability to get into the details of the items you are looking to buy, negotiation skills, business knowledge - understanding your business goals and the focus of your suppliers business, compliance to policies, Legal knowledge - creating contracts that benefit the company and monitor your vendors to make sure they comply with the agreements put in place and ability to work in other parts of the

organization (Sales, operations, finance). Another strategy is getting the executive team behind purchasing with top officials having a direct line to purchasing so they can understand the impact of price increases will have on their business and make decisions as to whether increases should be passed on to your customers. A team approach to purchasing helps to focus on the priority areas within a company. As a best practice, Fernandez and Ortiz, (2006) proclaim to enforce a preferred vendor list which in turn preferred vendor lists prevent your total vendor list from getting out of control. If every buyer continues to buy from those vendors they like to do business with, you will lose the leverage, the pricing and the efficiencies of consolidating your spend with one or two selected vendors for an expense area. Consider structure centrally led, but locally implemented teams, in order to obtain the best leverage available to your organization you will need to gather data in a central point so that you can evaluate your total spending by area. The local team will be critical to implementation of the suggested improvements. It is extremely difficult to implement a process improvement without local support.

Thomson, (2004) in his CIPS text Purchasing Context wants buyers to develop strong negotiation skills and use technology to propel yourself ahead of your competition. Have a system you utilize everyday can handle incredible tasks and automate things that you are handling manually and lastly, design an incentive program that actually profits the individual and the company in order to implement these best practices, one should develop an effective plan, form a team that will be compensated for their results, implement the plan and track performance. Once the plan is implemented, meet quarterly to share additional successes achieved along the way.

2.6 Integrating Environmental Factors into Procurement Best Practices

In the work of Beth Liddell, (2003) stated that many corporate firms recognizing the tremendous power they wield in the marketplace are attempting to reduce their impacts on society and the environment by purchasing products they deem environmentally preferable or sustainable. These purchasing efforts vary widely, ranging from simple buy recycled programs to complex environmental and sustainable procurement strategies.

Strategies that integrate both environmental and social considerations into purchasing are typically called sustainable purchasing, but for the sake of simplicity such strategies will be included under the EPP designation for the remainder of this document.

Beth, (2003) conducted to gain an ovep/iew of the EPP-related activities of public and private sector organizations throughout the United States. The information gathered was used to generate a list of over two dozen EPP leaders, each of which was then contacted and asked to contribute to this report. In the end, twenty-one representatives from fifteen public sector organizations and six representatives from three private sector organizations agreed to be interviewed. The scope of this report was limited to EPP activities involving seven product categories: paper goods, office equipment/electronics, cleaning supplies, paint, and carpet,, lighting, and office furnishings. These categories were chosen because they (1) are most closely associated with the everyday office environment and (2) tend to be the early targets of EPP initiatives. While several of the categories are considered to be building materials, this report will not address comprehensive "green building" efforts. In addition, it will not delve into EPP efforts related to pest management, vehicle procurement and maintenance, "green power," or road maintenance.

The main recommendations from this paper were ways to integrating EPP into procurement practices. These strategies may include: Awarding contracts based on a best value purchasing approach, rather than a low bid approach, Instituting purchaser incentive programs, Mandating the purchase of environmentally preferable alternatives in certain product categories, Establishing price preferences for certain environmentally preferable products, Developing preferred supplier programs based on environmental criteria and Engaging in EPP outreach and education efforts as essential to the institutionalization of EPP. Towards the end of their interviews, report participants were asked to describe the greatest challenges their organizations face in trying to institutionalize EPP. Responses varied, but the most commonly cited challenges were as follows: Lack of resources, Decentralized purchasing, Purchaser and end-user behavior, Vendor resistance, Product pricing, Lack of reliable product information, Attribute conflicts and prioritization issues and Tracking problems.

In another research was by Jungman, (2007) focused on Corporate Responsibility in Supply Chain Management - Case Environmentally Responsible Procurement. This thesis was one of the few to study environmental responsibility in procurement. The results of this thesis increased the awareness on how environmental responsibility issues are taken into consideration in the procurement of the case company. The results can be used as a ground for creating green procurement practices for the case company as well as other companies. In the thesis it was also studied how companies can improve their environmental performance and image as well as gain economical benefits by controlling also the beginning of the supply chain. Jungman began with an introduction the three dimensions of the corporate responsibility. After this the first part of the review concentrated on the different elements of the environmental responsibility such as drivers for the environmental responsible business, environmental management system and methods, environmental accounting and environmental auditing and reporting. The second part of the literature review first introduced the concept of supply chain management and then concentrated on different procurement functions. The third part combined the first two parts of the literature review by studying how environmental issues should be taken into account in different phases of the procurement.

The results of this study indicated that the weight of environmental issues in the case company's procurement should be increased. There aren't any established practices for taking environmental issues into account in procurement and the practices vary between the different business areas. In most cases suppliers' environmental performance is controlled in a very general stage and environmental requirements as well as object setting for the suppliers on environmental issues are insufficient. Public and private sector environmental purchasing initiatives are underway all around the world. In the USA, Federal agencies must take environmental issues into account in their purchasing decisions, and are supported in this by the US Environmental Protection Agency's (EPA) Environmentally Preferable Purchasing Program, (2000). In Canada, Federal green purchasing is well established as a key part of an overall Sustainable Development

Strategy. European environmental purchasing is particularly strong at the municipal level, and the European Union and many national governments also have programmes in this area. The United Nations Environment Program also has a focus on sustainability in public procurement and provides a database of relevant purchasing criteria. The Netherlands, Norway, Japan, the UK, South Africa and many other OECD countries have commenced and are committed to work in this area. The Australian Government Office of Government Commerce Department for Environment, Food & Rural Affairs, (2003), as part of its Greening of Government Programme, is promoting environmental purchasing to address a wide range of environmental issues, including waste minimization, energy efficiency, water conservation and reductions in greenhouse gas emissions. Companies can use their purchasing power to achieve substantial environmental benefits and at the . same, time reduce its costs. Reducing environmental health impacts and pollution can reduce costs to the Australian community of addressing these effects. In addition, by creating markets for new products, environmental purchasing can contribute to the establishment of new local businesses and jobs. Russell, (1998) showed environmental purchasing can achieve a number of benefits: reduce energy and water consumption (which can reduce costs), improve resource use efficiency, reduce waste (which can reduce waste disposal costs), reduce environmental health impacts of products and services, reduce pollution, provide markets for new environmentally preferable products, "close the loop" on recycling, improving the viability of recycling, provide leadership to the community and encourage industry to adopt cleaner technologies and produce products with lower environmental impacts.

2.7 Social considerations in purchasing

Russell, (1998) argued Purchasing interacts with other aspects of society, and the application of increasingly powerful information technology must be expected to affect those interactions. In some cases existing problems may be ameliorated and new opportunities created; in other instances, however, problems may be exacerbated and new problems may arise. In the social report to Australian commonwealth by a university researcher Roger Clarke, (2004) explains in addressing effects of purchasing to society companies look at three perspectives mechanisms whereby society's resources are allocated; social considerations, by which is meant factors concerned with the interests of

individuals, groups, communities and society as a whole, and which generally involve interventions into inherent economic mechanisms; and political considerations, by which is meant factors arising in relation to the interplay among individuals and organized groups which results in the exercise of will. Legal considerations are treated as the means of expression of political will.EU Directive 2004/17/EC in an effort to explore social factors in considerations of purchasing he had an approach under the headings of people as employees, people as consumers, urban and regional development, people as communities, the environment, and international considerations. EAUC - EAF Programme, (2004) did a three year project to Reducing negative environmental and social impacts through purchasing.

The Ethical Purchasing Practices' identified the following; forced labour, employee relationships, child labour, discrimination, wages and working hours, law, treatment of labour of employees, health and safety. The key questions in procurement are to establish whether social issues identified in your current purchasing strategy or policy, social issues identified as a priority by any other part of the business, obligations relating to social legislation been considered and could you take a risk based approach to identify high spend / risk areas. As recommendations firms should consider social issues from the outset, there is most scope early on in the process, carefully plan the procurement process to ensure it is accessible to a suitable variety of suppliers, use performance or functional specifications where appropriate for desired social outcomes to encourage innovative solutions, assemble relevant expertise procurement specialists and end users and early dialogue with the supplier community - tell them what is important to you.

Chapman, (2002) in his research on how green is public procurement in EU; the scope to take social issues into account during the procurement process is more limited than that for environmental issues because, by virtue of their nature, they are less likely to be clearly related to the subject of the contract. And, frequently, there wili be other, more efficient and effective, means of achieving social outcomes than through their consideration in the procurement process. However, there will be cases where social issues can legitimately be taken into account. Services contracts, for example, are much

more likely to have a social aspect than supply contracts. This section aims to outline briefly where these opportunities are most likely to arise. The following describe the circumstances in which the consideration of social issues during the procurement process is most likely to be appropriate. Firstly, Race equality in considering the user need the procurement office should consider how race equality impacts on user requirement. Consider excluding tender's who have contravened the race relations act and request for evidence of aspects of equality policies where relevant to the subject of the contract. Consider technical skills that are important to the particular contract relating to race relations for example, language awareness, cultural awareness and staff diversity training.

Where the authority has obligations of a social nature, for example under the Race Relations Amendment Act (2002), in relation to a particular function the performance of which it is contracting out, it can legitimately pass these on to the contractor. For example, an obligation on a public authority running a prison to monitor the ethnicity of the prisoner may need to be passed on to the contractor as a contract condition. Secondly, Disability Equality is considered. In identifying your user need, considers disability issues relevant to requirement. Consult with all parties to determine relevance and reflect, where appropriate, within your specifications in a non discriminatory manner. Consider excluding tenders for those who have contravened disability discrimination act and take into account the effect of any disability requirement may have on other social initiatives as with environmental issues, it is often best to take social issues into account early on in the procurement process.

Thirdly Core labour standards of EU as per EU European Commission, (2000) where Use selection stage to identify any convictions or contravention of labour laws by tendering party. Poor labour laws may mean more contraventions and consider what these may impact to your procurement for example, insufficient health and safety provisions could be critical to the quality of the supplies or successive delivery of the contract. If a candidate has breached social or employment legislation, or has been guilty of grave professional misconduct in the course of their business then they can be excluded from tendering for a contract. This could apply, for example, to a conviction for use of illegal

labour. Chapman, (2002) gave an example where a contractor is to work either on the authority's own premises or construction site, or where the contractor's staff will be interacting with the authority's staff, there may be codes of practice, for example, which it will be necessary to apply to all staff in order to ensure that the organisation or site operates safely and effectively. Where this is the case, adherence of staff employed on the contract to such a code of practice can be a legitimate condition of contract. Where the contract requires particular skills or expertise of a social nature, this can be reflected in the specifications, or in selection criteria. For example, it is quite legitimate to require specific language skills or other relevant expertise from staff in order to meet the needs of the community they serve. Searing and Muller, (2004) argued working with suppliers post-award, on a voluntary basis, provides further opportunity to manage the social impact of the procurement. Assessing suppliers regarding their performance on the social dimension of sustainability is much more difficult.

Overall, social aspects are not very often taken up in related publications. First approaches are nevertheless appearing. These authors use terms such as "ethical sourcing" (Roberts 2003), "purchasing social responsibility" (Carter 2005) or "social responsible buying" (Drumright 1994). One starting point is "ethical" sourcing initiatives, which might even include avoiding "obscure" contracts, but covers a wide range of aspects both regarding suppliers and customers Carter 2000; Cooper et al. 2000). One particularly relevant sector, the textile industry, has seen a great number of focal companies being blamed for unethical sourcing (Seuring/Goldbach 2006) with typical problems reported are illegal child and forced labour, low wages, and discrimination. This has further led to the establishment of the Social Accountability 8000 (SA 8000) standard (Rohitratana 2002), helping suppliers to signal that they fulfill related requirements. Overall, the role of focal companies is of key importance in developing the field further. They "have to" integrate environmental and social criteria into their supply policies and processes. This is specified on a normative level, but implies operational implications, such as early warning systems for related problems or the operational implementation of related criteria in the supply processes.

2.8 Green Purchasing as part of sustainable Procurement

In a research conducted by Julia Koplin, (2003) for Volkswagen, an analysis of impacts of environmental and social guidelines on purchasing decisions the research was based on the assumption that it is necessary to incorporate sustainability issues into supply (chain) management. Therefore the paper answers the following question: How can environmental and social standards be integrated into the supply policies and supply processes? As part of the findings it purchasers need clear, careful consideration given to environmental issues during the procurement process. Sustainable development means achieving four objectives at the same time: Effective protection of the environment, Prudent use of natural resources, Social progress that recognizes the needs of everyone, Maintenance of high and stable levels of economic growth and employment. Environmental procurement, in support of these objectives, is therefore an important component of sustainable procurement and a contributor to the long-term goal of sustainable development.

Bowen et al (2001) addressed basically, two different forms of environmental supply management can be distinguished: (1) The integration of environmental criteria/standards into product and production related decisions along the whole supply process ("greening the supply chain") and (2) the optimization of the environmental compatibility of purchased goods ("product-based green supply"). For the integration of environmental standards into all purchasing decisions, additional information about the environmental performances of suppliers must be gathered and evaluated. Their classification and rating schemes can be helpful, as they support related supplier selection and evaluation. One related trend is the increasing international diffusion of standardized environmental management systems (EMS), such as ISO 14001 (Corbett/Kirsch 2001). Focal companies establish this as an "order qualifier", which has to be met before a supplier is considered at all (Zhu/Sarkis 2004). Therefore it is necessary to incorporate specific environmental criteria into the purchasing guidelines.

The greening of the product as the second major option regards all stages of the life cycle and includes for example, packaging, recycling, and disposal. Hence, Bowen et al. 2001 claimed purchased products can often be improved or replaced by other more environmental friendly products. Yet, for technically more advanced products, which are produced according to the requirements defined by the customer, environmental criteria form part of the product requirement specifications. These specifications are usually measurable afterwards, so they are much easier to evaluate.

Handfield et al, (2005) discussed programs that intend to bring about environmental improvement can often be most efficiently implemented if the whole product chain, or system, is involved. Environmental supply chain management (ESCM) involves the organization and management of activities that address the performance of materials, components, and goods and services that an organization buys and uses. At its most developed, ESCM involves identifying the most significant environmental improvement opportunities by considering the entire product system and working cooperatively with suppliers to reduce environmental impact. There are three dimensions to environmental supply chain management: supply chain that is. Network involved, through upstream and downstream linkages, in processes and activities delivering value in the form of products to users, environmental that is. Materials, energy inputs and outputs and their related environmental impacts/aspects and management - the conducting or supervising of a business/organization.

In his earlier text Handfeild, (2002) organizations applying ESCM impose certain requirements to bring suppliers in line with the organization's standards of environmental management. Requirements may be specific, such as lists of substances that are banned, restricted or targeted for phase out or specifications on recycled content. There may also be broader requirements, such as conformance to an environmental management system.
In general environmental supply chain management requirements address one or more of the following elements: energy efficiency, material and resource management, efficiency and control, safe and clean production, distribution and logistics, total costs, risk and liability, secure supply and innovation management. While the above approach is

common, there are other ways that ESCM is used. In some cases, a collaborative approach is utilized where organizations and suppliers work together to improve environmental performance in both organizations. For example, if the procuring organization has particular expertise to share, they may organize training session for their

2.9 Economic drivers

With the expansion of federal government's efforts to prosecute environmental violations today's companies have to comply with environmental statutes. Burt et al, (2008) states that mere acceptance to the law is not enough but environmental protection must be internalized with management challenge being to develop and implement environmentally sound strategies which satisfy environmental legislation, environmentally conscious customer demands and preserve firms competitive position. Burt et al (2008) explains that senior management has to realize that most if the industry has addressed a multitude of environmental concerns while some have done so because of legal pressure others have realized the opportunities that exist in this new direction. Pollution and wastages reduction saves money and is good for profits and the environment. Management has to understand that environmental care and economic growth are neither mutually exclusive nor antagonistic goals. Companies with most environmental strategies are the most competitive, profitable and secure in the industry
Inorder to get the most out of embracing environmentalism the firm has to find ways of benefiting economically. First gain economic gain through cost reduction and second is through increased sales and profit.

Baker, (1994) stated that maintaining global economic growth without compromising the environment means developing processes generating less pollution per unit. Greater process efficiency can result not only in less pollution and creating more output. Arthur (2001) put the second strategy is to benefit from new environmental awareness is to promote green advantages of the firm's products. The consumer will switch to brands if quality and price are the same but environmental impact less destructive hence a new economic opportunity.

2.9.1 Principles Life cycle costing and value for money

The Simpson, (2005) states that Good environmental performance can be considered to add value to a product. An environmentally friendly product may, for example, reduce the risk to employees, contractors and the environment associated with product use. It may make more efficient use of energy, water and materials - and efficiency normally leads to lower costs, particularly on a whole-of-life basis. Evidence from studies in Australia and overseas indicates that a high standard of environmental performance by a service provider may be associated with a high standard of management generally, and could, therefore, represent reduced risk and better quality service for Australian Government agencies. Suering, (2004) observed that in many cases, an environmentally friendly option will reduce costs, either initially or over the life of the product. Even where an environmentally friendly product or service costs more than a conventional product or service, consideration of Value for Money requires purchasers to give due regard to the benefits obtained from good environmental performance. For example, although a contract to recycle paper and other wastes may cost more than a contract that sends all waste to landfill, there are clearly environmental benefits from recycling, which should be considered. As many suppliers of environmentally preferable goods and services are small to medium enterprises (SMEs) and Australian companies, environmental purchasing can also make a positive contribution to the SME and industry development objectives of Australian Government procurement policy.

2.9.2 A life cycle approach

Liere, (2006) argued environmental purchasing is based on reducing the environmental impacts of products and services. Such impacts may be associated with any stage in the production, use or disposal of a product. Environmental purchasing therefore needs to consider impacts throughout a product's life cycle. Environmental life cycle assessments of products have shown that the environmental impacts created when a product is used are often much greater than those resulting from manufacture of the product. This is generally the case for products that use power, water, fuel or other consumables. Similarly, the costs of such consumables over the lifetime of a product may be far greater than the initial cost of the product. It is therefore important for a purchasing evaluation to

take the costs of these consumables into account when comparing products. This can help to ensure that appropriate and comprehensive Value for Money decisions is made.

It is Australian Government policy, (2003) to assess Value for Money on a whole of life basis so that all costs and benefits across the procurement cycle can be adequately considered. The Department of Finance and Administration has further guidance on Whole of Life Costs in relation to Value for Money, and the Australian National Audit Office has produced a Life Cycle Costing Better Practice Guide to help Government departments. It is important to note that these costing procedures only take account of direct costs to the Australian Government. They do not assign costs to the environmental impacts associated with the life cycle effects of the product: that is, to the environmental costs of resource extraction, manufacture, use, and disposal of products. These external costs are real and are borne by the community as a whole. They are often called "externalities". The environmental purchasing programmed described here is based on a life cycle approach and aims to provide both an understanding of whole of life environmental issues and a system for considering them in procurement. It does not, however, encompass detailed life cycle assessment (LCA) of environmental effects.

2.9.3 Value for money policy

Koplin, (2005) describes Value for money is not about securing the lowest initial price; it is defined as the optimum combination of whole-life costs and quality to meet the user's requirement. This emphasis on whole-life cost encourages the consideration of environmental issues. Resource consumption (for example, energy, and water) and disposal costs are examples of possible award criteria. It is also useful to consider such whole-life cost issues at the earlier specification stage. Another concept he brought forth was Quality and fitness for purpose meaning taking quality into account also allows certain sustainability aspects of a bid to be considered. For example, considering the noise produced by an appliance and lastly. The objective of achieving value for money applies to the award of a contract to meet the user's requirement, not to determining the requirement itself It will be possible to have most impact by taking account of environment

2.10 A case for effective supplier management

Suppliers are an important, critical resource for the success of a company. Sheth and Sharma, (1997) constitute that "value creation by suppliers has become an area of interest to firms. Vale creation can manifest itself in access to technology, access to markets, and access to information. Business customers will realize that suppliers provide access to value creation that will provide them with sustainable competitive advantage." The integration of environmental and social standards into strategic supplier management is the basis for a sustainable supply (chain) management. Therefore it is necessary to coordinate a collective vision, missions and measures of both parties (buyer and supplier) for long term business relations. Supplier management consists of three parts: (1) Management of the supplier basis (election, evaluation and monitoring), (2) supplier development and (3) supplier integration, principally, every company has its own process for supplier management fitting them to variable organizational characteristics.

Nevertheless, Webster and Wind (1972a, b) tried to outline a universal organizational buying decision process, including the cycle of five fundamental steps: First, Identification of demand: A purchasing situation exists if there is a need for any product or service, which cannot be satisfied by the company itself and has to be bought from an external contractor. Brannigan (2008) pointed questions to be asked here are: What do we want to buy, Why do we need this product or service, Can the need be met another way, Is a suitable product available elsewhere in the institution, Can the requirement be met by renting, sharing rather than purchasing, Is the quantity requested essential, Is the specification currently used the correct one for the purpose and can the product serve a useful purpose after its initial use?.

Second, definition of targets and specifications: This step includes the exact determination of the product/service acquired in the purchasing requirements. These purchasing requirements are also influenced by other business unit's for example, technical development, quality assurance, and logistics. According to Brannigan (2008) of interest in 'Modern Procurement Practice'. Thirdly, types of specification are generally

used Functional - defines function and duty of the product or service, Performance - defines performance (output specification) and Technical - physical characteristics on an item- By placing the emphasis on the functional and performance based specifications this provides an opportunity for the supply market to innovate including reducing environmental and social impact.

Also key as this indicates to suppliers that environmental and social considerations are important to the client for example, Fitness for purpose and value for money, Resource, energy and water efficiency, Minimum use of virgin and non-renewable materials, Maximum use of post consumer materials, Non (or reduced) polluting with minimum use of toxic chemicals, CFC'c ozone and other pollutants, Maximum durability, reparability, reusability, recyclability and upgradeability, Minimum packaging, Design. for disassembly, Fault controls to prevent unnecessary waste, Health and safety standards and Biodegradability

Thirdly finding purchasing alternatives: Jungman, (2007) explains the requirements and the schedule is set up, the market can be checked for available purchasing alternatives (supplier). Therefore, already- used supply sources as well as new potential suppliers are included according to the description of the product/service. If necessary, other business units will be factored into the supply process for the election decision.

Fourth, Evaluation of all alternatives: coding to Mont and Leire, (2009) The evaluation of supplier alternatives represents the main part of the whole buying process. It consists of balancing the different offers on the basis of the supply targets and product specifications defined in step two. For an elementary product, most of the time, the price is the final decision criteria. But for a complex product, uncertainties and problems in finding a solution can exist because of divergences of the offers. Decision making makes it necessary to assess the targets and specifications, and to distinguish the acceptable trade-offs.

Fifth, Supplier selection: Thomson, (2004) with the election of a supplier for the contract, the organizational buying decision process will be completed. Supplier appraisal is used to assess the supplier's environmental and social impacts and more important for high risk goods or services or on strategically important contracts. Also using questionnaires can be a they are a familiar tool, can be cost effective way of gathering information, can produce a lot of data quickly and can be used at pre-contract to influence the tendering process or post contract as part of contract management.

Sixth the Tender evaluation: gives opportunity to incorporate your priorities into tender for goods and services, helps integrate into an essential part of business operations, need to set out contract award criteria at an early stage, opportunity to apply weighting to environmental criteria and award criteria must be linked to the subject matter of the contract.

Lastly, Contract management: Set target related to your own organisational objectives and relevant to the contract - KPI's, encourage innovation around reducing environmental and social impacts, this sends out a clear message to the market that this is on the agenda and will develop further, use past performance in award of new contracts, discuss alternative products & services with suppliers, Continuous improvement which work with suppliers to improve, set targets and monitor improvement through contract review, allows organisations to accept issues are apparent but are working to address them, train your suppliers, provide guidance and give awards.

Consequently, environmental criteria form part of the requirements placed on suppliers aiming to reduce the input of natural resources and minimize environmental risks by improving the efficiency of suppliers (Simpson/Power 2005). Sustainability thereby covers external impacts upstream and downstream in the supply chain along the product life cycle and the involved actors (supplier and customer) (Seuring 2004; Green et al. 1996). One main objective is the economic success of a company's supply chain by complying with environmental and social standards on the basis of collaboration and corporate development between buyer and supplier (Preuss 2005). Environmental impacts and violations of human rights should be discovered and stopped early in the

supply chain. Thus, a rising influence of environmental and social standards on product and production decisions is expected for the future (Zhu et al. 2005). The starting points for environmental and social requirements in supply management are the interaction of three different trends: (1) the increasing strategic importance of supply management (Goldbach et al. 2004), (2) the increasing importance of buyer-supplier-partnership both for "normal" business, but also facing environmental and social problems (Harland et al. 1999), and (3) the awareness of the connection between supply decisions and a firm's environmental and social or sustainable performance (Seuring/Muller 2004; Bowen et al. 2001). As a result, sustainability in supply management accrues from the general adaptation of products to changed environmental and social conditions along the chain concerning design, ingredients, production systems, recycling, and disposal (Green 1996).

2.11 World class supply management

Porter et al, (1995) discusses world class supply management philosophy reflects those actions and values responsible for continuous improvement of the design, development and management processes of an organization supply system with the objective of improving profitability and ensuring its survival. The term world class recognizes that companies compete in global environment hence spans functional boundaries and company borders. The function of world class decision making from an internal department or single company focus toward optimization of the supply chain. Through continuous improvement world class supply management is ever moving target that focuses on supply chain improvement. This requires the development and management of institutional trust. It is strategic in nature concentrating on proactively improving processes with the long term goal of upgrading competitive capacity of the firm and firm supply chain

To understand this supply management will be observed from three perspectives as put by Brian, (2006) first as a function of business, second as one of the basic elements required to accomplish productive work and third as key departments responsible for outside manufacturing services. Supply is one of the functions common to all types of

business enterprises. These functions are basic because no business can operate without them. They include production, finance, supply, personnel and distribution. By its very nature, supply management is a basic and integral part of business management. For a business to be successful all its individual parts must be successful. A successful supply activity is required for any business to achieve its full potential.

2.12 Research and value based analysis

Koplin (2006) in her thesis the specific manner in which an environment and cost based value analysis is performed cannot be standardized. Management require analysts to follow several steps designed for supply chain for example, the value analyses checklist, functional environment and cost approach, use of brainstorming as well as customers and suppliers. The checklist should contain a number of general questions followed by several highly specialized questions. During the environmental and cost approach, questions would be do a particular function performed justify environmental impact and cost? The use of brainstorming stimulates creative solution. Value analysis possesses tremendous potential. However for the potential to be realized those responsible for administration of the value analysis program must adopt broadly based management point of view. This is important because value analysis should be optimized to total value efficiency.

In summary, the literature review has looked at some key research and cases put forward for green purchasing citing how best to incorporate the issues and likely challenges faced. Lessons from these research and articles should be examined and disseminated widely to business as a means for improving environmental management practices. Multinational and large companies and governments have a number of opportunities to promote green purchasing and to take advantage of the trends in globalization to improve the environmental performance.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter gives a brief description of the methodology that was used to carry out the study. This was a case study for Kenya Airways with a focused interviews to be done with key stakeholders to Kenya Airways supply chain to establish the as is situation and a gap analysis. The choice of Kenya Airways was key as the airline aims to become World class organisation (WCO) and a 7 star airline by 2020.

3.2 Research Design

The research design method used was a case study for Kenya Airways with a focused interviews to done with key stakeholders to Kenya Airways supply chain to establish the as is situation and a gap analysis. Interviews were administered to Procurement officers (Non-operational spend, In-flight and contracts), procurement managers (In-flight and Contracts), Head of Supply Chain and Industrial Safety Officer as they are the people involved in supplier evaluation and an interview is to get an in-depth understanding of the concept for Kenya Airways limited. This was a qualitative research focusing on collecting precise and exact facts about the "as is" hence this research is qualitative and exploratory.

3.3 Data Collection

The study was based on a rich utilization of primary and secondary sources of information. The primary data was based on focused interviews to Procurement officers (Non-operational spend, In-flight and contracts), procurement managers (In-flight and Contracts), Head of Supply Chain and Industrial Safety Officer. These are the key participant in supplier qualification and purchase decisions through competitive bidding process. The secondary data was retrieved from company archives and manuals complemented by the use of industry-related sources of information such as airline in house journals, company manuals and the internet.

The kind of information sought required much insight into the realities of green purchasing and could be best provided by key people in Kenya Airways Limited supply chain and industrial safety department. The focused interview had the benefit of positive rapport with the respondent, high validity as people talked about something in depth and complex questions clarified and corrected.

3.4 Data Analysis

Content analysis method was used to analyze the data. This entailed analyzing the qualitative statements to identify themes and patterns in decisions, actions and changes. Secondary data was both qualitative and quantitative in nature and it was important to collaborate it with evidence qualitative form. Since only a small number of people were interviewed and the objective of the study was restricted to the nature of information required, content analysis was the right tool for this analysis. This descriptive analysis technique has been used in the past by Jungman, (2007), oboya (2007) and Namatsi (2008)

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

This chapter documents the findings on the incorporation of green purchasing in procurement practices for Kenya airways limited. The data was collected through interviews with buyers, procurement managers, analyst industrial safety, tender committee members, Company journals and Company certified manuals. The data was analyzed to capture the as is situation on factors that lay a platform for green purchasing, the avenues to incorporate green purchasing as a best practice, Challenges faced and ways to deal with the same.

4.2 Response Rate

The focused interview was conducted for Buyers, Tender committee members, Procurement managers and head of supply chain as well as industrial safety and environment. The below matrix is for the response rate:

Table 1: Response Rates

Position	Total Numbers in KQ	Total Interviewed as per Data collection Plan	Response Rate as per data collection plan
Procurement Officers	11	3	67%
Procurement Managers	4	2	100%
Industrial safety	4	1	100%
Head of Supply Chain	1	1	100%
Overall Response rate based on data collection plan			83.25%

4.3 Current Trend

Procurement in Kenya Airways is a function of supply chain under the finance department. Purchases within the airline are classified and range from aircraft acquisition, technical spares, Fuel sourcing, service outsourcing, In-flight products, IT infrastructure hardware and software, uniform, stationery and the list goes on(full list attached in appendix). For all these we have the users who give specifications and make requisition and we have buyers who source for the products or services from suppliers either via open bids, tenders or contracts. In- Flight products include: Food and beverages, On board cutlery, On Board aerosols, towels, Blankets, Pillows, magazines, and duty free products.

4.3.1 Identification of Material needs

In the discussions from the interview education and awareness was a key component of developing a sustainable purchasing process. Employees and suppliers must be aware of the organization's sustainable purchasing goals and objectives. Training needs on procurement best practices have been performed but limited knowledge shed on Green purchasing practices. The procurement officers are generally not aware of sustainable procurement through green purchasing however material life cost is considered in the purchase decision of core products.

4.3.2 Purchase requirement

Formal guidelines are required to provide direction to team members involved in purchasing decisions. Elements to consider include development of policies and procedures, determination of transport and delivery needs, identification of material specifications, and identification of associated costs. Kenya Airways does not have an environmental policy statement however a Safety Health and Environment (SHE) policy has been developed for its suppliers and a checklist done. In the last supplier prequalification done in June 2010

4.3-3 Supplier selection

Suppliers and contractors play an increasingly important role as they become more integrated into the supply chain process. Elements to consider include development of qualifications, the audit of operations, and evaluation of systems and monitoring of performance. Among the suppliers there are no standard or generic environmental systems. Internal audits of some suppliers have been done as per the regulatory requirements and not all suppliers have environmental policy statement but most have an HSE policy.

4.3.4 Material Purchases and suitable packaging materials

The manner in which materials are purchased provides an opportunity to make favorable contributions to environmental performance and sustainability. Elements considered include evaluation of delivery and storage, management of packaging materials, impact of product handling, evaluation of the process of order placement, and the payment process. Kenya Airways has adopted e-commerce and online procurement.

4.3.5 Monitoring and Evaluation

Packing materials sent to the organization by outside suppliers or purchased for internal use can increase the organization's issues regarding safety and health as well as the environment. When answering the following questions, think about the extent to which the company evaluates and controls the types and amount of packing materials.

4.4 Avenues for Green Purchasing Practices

The thesis research confirms that the levels of green purchasing practices and the current scope of green purchasing practices have remained limited. It is clear that in Kenya Airways purchasers so far apply environmental and social requirements only to a limited extent, and that the green purchasing activities are mainly fragmented and ad hoc. Moreover, it was found that purchasers often overrate the level of green purchasing activity that they engage in. The environmental and social aspects that Kenya Airways has integrated into their purchasing are mainly based on single issues or aspects.

However, progress could be detected in that compared with environmental requirements in purchasing, the speed with which social issues are addressed are extremely low in this research. The findings indicate a lower level of green purchasing activity in purchasing of support products compared to core products and the difficulty in implementing green purchasing to reach every employee who makes purchasing decisions. Alternatively, it can be explained by the fact that the purchasers for core products take the initiatives themselves and then anchor the costs with the managers. As for environmental requirements the experiences among purchasers revealed a number of problems. The predominant ones pertain to knowing the environmental characteristics of products and developing environmental requirements. As for social requirements, the problems differed slightly. Here it was found that the purchasers face challenges in not only setting purchasing criteria, but also in verifying. General to the setting of both environmental and social requirements was the low level of practices, and that many times the purchasers do not see that there are any problems.

Surprisingly, however, the findings in this research point to a feeling among purchasers to have the mandate to include and expand environmental and social requirements in their purchasing activities. Brown et Al, (2001) for supply chain management capabilities in an organization, a proactive strategy together with a strategic supply and purchasing process is imperative. However, judging from the green purchasing patterns identified in this research, it can be concluded that they confirm other research findings that holds that green purchasing practices are still mainly reactive. There appears to be a link between the corporate stance and the purchasing staffs actions. Sharma, (1999) stated Managers' interpretations of the environmental issues as either threats or opportunities are associated with the reactive or proactive corporate environmental strategies respectively. So far, it seems that many of the environmental initiatives take place in business and industry function as stand-alone activities, and that management lack, judging from the experiences shared by the purchasers, an overview and ambition to streamline the different initiatives. Moreover, according to the findings in this research, green purchasing sometimes takes place as a bottom-up initiative while other times it was top-down. Handfield, (2005) claimed that a top-down communication structure is unable

to result in green purchasing that is integrated in the business strategy and that whether the purchasing function is centralized or decentralized, each staff member making purchasing needs to be invited, at least to contribute ideas to the analysis and decision-making on green purchasing. To extend the idea further, green purchasing is not simply a task for the purchasing function, but can be initiated by a broad array of functional areas within a company. Therefore, also other internal units may need to be involved in the work to better structure the green purchasing efforts internally in an organization.

It can be hypothesized that the structure, routines, targets and formality of the green purchasing task for the purchasers have an important bearing also on workload of the suppliers in green purchasing. A system for green purchasing for all the purchasers would enable the information to be better used in the decision making. .From the current research, it seems that currently there is a risk that the environmental and social information that purchasers ask for is not used even if it is dutifully given by the suppliers. On this end, Kenya Airways Limited can improve the preconditions for the purchasers so as to allow for more effective incentives, better structures, as well as clear targets and action plans. In other words, corporate leadership can facilitate the possibilities not only for top-down initiated green purchasing activities to take place, but also for the bottom-up initiatives to be spurred and well received.

Handfeild, (2005) stated for corporate management can clarify the goals for all the green purchasing practices, and to do so externally to suppliers as well as internally to each unit. The green purchasing strategies and approaches undertaken in the purchasing department need to be more integrated in the overall business strategy, just like purchasing must adopt a strategic orientation in order to be included in a business-level strategy. In concrete terms, to make green purchasing a strategic activity for the company, the corporations' management can assist by placing agenda the coordination of the different environmental initiatives that take place in the organization. They can also assign internal environmental experts who are tasked to scan the market for different tools and information. Initial and ongoing cost-benefit analyses of using the tools and information towards meeting the goals of green purchasing can be useful.

4.4 Use of Informational Tools in Green Purchasing

From the research on green purchasing practices in Kenya Airways Limited, it is clear that there is an opportunity to improve the use of information tools among purchasers. Several types of information can be provided by suppliers to answer to the requirements posed in green purchasing. Information tools exist that either promote good environmental performance or cut-off the laggards. In both types, they can originate either from the supplier (product specific) or from some party outside of the purchaser-supplier relation. The findings from this research demonstrate the use of information tools is limited. One explanation to the generally low use of tools could be that in green purchasing practices, it seems that rather a limited number of green purchasing activities actually target products. Instead, more focus is given to supplier qualifications. The role of information tools in the supplier-focused green purchasing is likely to be lower. One plausible explanation is that there is simply less information tools available that focus on supplier performance and criteria.

The value of an information tool is close to none unless it is used, and unless it is used correctly. From the findings presented in this thesis, it is possible to conclude that some purchasers seem to view information as "nice to have", while other purchasers see it as "need to have". However Premkumar et al, (2005), decision-making performance is a result of both the information processing needs, and the information processing capability. However, from the findings in the studies, the purchasers do not seem to be aware of all the types of information tools that are available. It can also be speculated that the purchasers are not yet aware about the potential benefits that can be harnessed with green purchasing.

The findings might indicate that the purchasers have a hard time conceptualizing the tools just based on the information needs that they experienced in green purchasing. The improvement of the preconditions to use of information tools may also facilitate support of green purchasing also for the suppliers. My research found that suppliers are oftentimes bombarded with different information requests, which is a waste of time and resources for them.

Therefore, standardized information tools that make it easier for the suppliers could be useful for improving overall green purchasing practices across the supply chain. There are some qualities criteria for the information tools to be useful for green purchasing that emerge from the findings of this research. This includes: 1. First, the information tool should be life cycle oriented. Taking a life cycle perspective when choosing environmental requirements in green purchasing helps minimize the risk of trade-offs between different environmental impacts. 2. The specificity and environmental or social stringency needs to be set at a suitable level. If criteria are too stringent, no product or suppliers will be able to meet them. If too low, the environmental gains may be compromised and requirements may lose credibility with broader stakeholders to the organization. 3. The environmental and social, requirements that an organization applies should preferably be of a dynamic nature to account for changing circumstances and needs. 4. The tools need to be facilitating for the supplier. This means that the tools should aim to streamline the requirements that regard a certain product. 5. The environmental and social requirements that are forwarded to the supplier should be agreed upon thereby avoid conflicts and information over-loading. 6. An ease of use is crucial for most types of purchasers and lastly the information tools should be credible in the view of the user, that is. The purchasers, in regard to the information and to the approach to improve the environmental and social issues.

1.5 Challenges Faced in Incorporating Green Purchasing

lowards the end of the interviews, report participants were asked to describe the greatest hallenges their organizations face in trying to institutionalize Green Purchasing, esponses varied, but the most commonly cited challenges were as follows: Lack of Resources where almost everyone interviewed said a lack of resources poses a major hallenge to the institutionalization of green purchasing. The respondents said that •adequate funding prevents Kenya Airways from hiring dedicated staff, performing :oduct-specific research, monitoring vendor compliance with contract specifications, acking the impacts of their EPP activities and/or conducting outreach and education forts such as purchaser training and pilot programs.

Decentralized Purchasing also poses a challenge where large number of participants believes that decentralized purchasing hinders the institutionalization of EPP/ green purchasing. Kenya Airways will have problems convincing dozens of purchasers at individual departments that EPP is a worthwhile endeavor. Some representatives tied these problems to a lack of resources for EPP outreach and education, particularly purchaser training programs. Others, however, blamed a "stubborn" purchasing community, saying that with or without EPP training, a large number of purchasers are still reluctant or unwilling to integrate environmental or sustainability considerations into their procurement practices.

Resistance to change poses a challenge for majority of those interviewed said behavior change is one of the most challenging aspects of green purchasing. One commonly cited reason for this was that purchasers tend to become very comfortable with a particular set of purchasing procedures, so they are often resistant to the introduction of new, unfamiliar procedures which may add more time to complete the purchase transaction. A more frequently cited reason was negative perceptions of environmentally preferable products is purchasers think of environmentally preferable products as being more expensive, because they still tend to focus on the initial cost or the purchase price of a product, rather than its life cycle costs.

Most report participants said that their organizations have not developed a strategy for prioritizing environmental and social attributes, largely because they have found it to be extremely difficult. Some representatives noted, however, that the organization has been forced to make "trade-offs" when attempting to purchase products with multiple environmental attributes. Last but not least tracking Problems were bottlenecks with those interviewed saying that tracking the impacts of their organizations' EPP efforts is enormously challenging. The most common reason given for this was a lack of resources to establish electronic tracking systems and databases.

Another reason, given mostly by interviewees in Kenya airways was decentralized purchasing structures, was inadequate tracking and reporting by purchasers. Sentiments by participants commented that Kenya Airways could be so busy trying to implement EPP initiatives that they can't monitor results, while others said that their organizations are having problems linking specific environmental or social improvements to EPP efforts.

Quality Criteria also pose a challenge is the specificity and the environmental stringency of the requirements. Purchasers need to know that the requirements they use are strict enough to bring an environmental gain. However, too strict environmental requirements can lead to difficulties in finding products that correspond to the demands. It can also require much skill from the purchasers and/or cause problems in the follow-up and verification of the claims. An overly demanding requirement can put the user's confidence at risk when it turns out too difficult to verify producers' claims. One challenge for the purchasers is to know what types of information a supplier is able to provide. Dealing with challenges citied based on interviews with representatives however, some information was derived from documents and web pages. Among them is Selection of Product Categories and Attributes that promote Green Purchasing, using information tools to track purchases for example, a hazardous Inventory Tracking System (HITS), a computer database that allows the business to track a hazardous material from its entry onto the installation through the material's use, to its end-of-life disposition. Green Purchasing / EPP Outreach and Education are key to promote the virtue.

CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In this chapter we shall look at the summary and the main conclusions from the study. Also highlighted are the key limitations of the study as well as recommendations from this research study. At the end I have pointed out how the study will contribute to the target audience by looking at implication on policy and practices.

5.2 Summary of the study

The study was conducted by use of focused interviews with questions of exploratory nature to establish the as is situation for green purchasing in Kenya Airways Limited. The interviews were to key stakeholders in supplier prequalification and content analysis was used to analyze the data. Using this the extent to which Kenya Airways incorporates green Purchasing as a best practice was determined. The results showed there is limited scope to incorporate green purchasing in purchase decision of core products and even less for support products. The company has a SHE evaluation policy for its suppliers and this is a key step to environmental considerations in purchasing. Also the involvement of the Industrial safety team in supplier pre qualification points to the increased step towards best practices and this is a platform to advance green purchasing practices into supply chain.

5.3 Conclusion of the study

The study concludes a lower level of green purchasing activity in purchasing of support products compared to core products and the difficulty in implementing green purchasing to reach every employee who makes purchasing decisions. Alternatively, it can be explained by the fact that the purchasers for core products take the initiatives themselves and then anchor the costs with the managers. As for social requirements the purchasers face challenges in not only setting purchasing criteria, but also in verifying. General to the setting of both environmental and social requirements was the low level of practices, and that many times the purchasers do not see that there are any problems.

The study further concludes the challenges facing the purchasers in their effort to incorporate green purchasing as a best practice to include: lack of resources, lack of training, decentralized purchasing (has now been addressed and all purchasing will be controlled centrally) ,lack of information and tracking tools to establish criteria and resistance to change as well as change management.

The conclusions in this study is in line to previous studies done in the area of environmentally preferred purchasing (EPP) by Handfeild, (2005) who advocated that for green purchasing to prosper a company needs to embrace environmental supply chain management by identifying the most significant environmental opportunities by considering the entire product system and working closely with suppliers to reduce environmental impact. Just as concluded by Russell, (1998) where he argued that it's more difficult to measure social variables in green procurement, the study shows limited scope and knowledge and subjective view among implementers of what social considerations need be taken to enforce green purchasing. Lastly, the feedback from the interviews conducted in this study agree to some of the best practices as advocated by Brian, (2006) such as effective supplier management is required to build vendor relationship and through long term relationships vendors can keep costs low and invest in environmentally friendlier products.

5.4 Limitation of the study ; - .

A limitation for the purpose of this research was regarded as a factor that was present and contributed to the researcher getting either inadequate information or responses or if otherwise the response given would have been totally different from what the researcher expected. The main limitations of this study were: Some respondents did not respond to the interview request or did not fully go through the interview questions. This reduced the probability of reaching a more conclusive study. However, conclusions were made with this response rate.

The small size of the sample could have limited confidence in the results and this might limit generalizations to other situations. Most of the respondents were busy throughout and had to continuously be reminded and even persuaded to provide the required information. Time- Due to official duties time was a major concern. The study required a lot of input from top executives who are involved with making decisions on the procurement practices, however there availability was very limited due to the nature of their work. This provided a lot of challenges in the study since I had to rely on a few top executives and middle level managers to complete the study.

5.5 Recommendations

Some key points for successful consideration of the environment in procurement may include considering the environment from the outset. There is most scope available early on when defining needs and specifications, and early action is more likely to be successful. A careful planning of the whole procurement process and use performance or functional specifications where appropriate. Assemble relevant expertise of Procurement specialists and end-users should be involved along with environmental managers and others with relevant knowledge or experience. Initiating early dialogue with the supplier community. This can be useful in finding out what is available, in informing the market of future requirements, and in stimulating more innovative responses. Care should be taken not to distort competition and process should not give any advantage to particular suppliers.

Considering green purchasing in strategic concept is advisable where Kenya Airways need to develop an environmental purchasing strategy and be clear about how sustainable development fits with other objectives and, in particular, how it fits into the organizations' overall procurement strategy. Also the business should secure commitment to your environmental purchasing strategy at a senior level and consider developing a risk-based approach to enable prioritization of actions.As a caution by authors don't confuse obtaining value for money with awarding contracts on the basis of lowest price, Act in such a way as to distort competition or leave consideration of the environment until too late in the process.

Ultimately, organizations that wish to institutionalize EPP must develop strategies to integrate EPP principles into their procurement practices. These strategies may include: 1. Enhance supplier evaluation criteria to include aspects that promote green purchasing. This is by enriching the current SHE form (see appendix) to include variables that measure environmental compliance. 2. Awarding contracts based on a best value approach, rather than a low bid approach. 3. Instituting purchaser incentive programs for that that are environmentally proactive. 4. Mandating the purchase of environmentally preferable alternatives in certain product categories. 5. Establishing price preferences for certain environmentally preferable products. 6. Developing preferred supplier programs based on environmental criteria. This can be borrowed from the purchasing handbook 2007 (see table in appendix). 7. Engaging in EPP outreach and education to suppliers, purchasers and stakeholders.8. Lastly but most important the role, to ensure Green Purchasing should lie with the procurement section and not a KPI for environment and industrial safety as currently is with Kenya Airways.

The budget and time permitting Kenya Airways Limited can establish an Environmental Purchasing Task Force shall research opportunities to (a) expand the purchase of environmentally preferable products; (b) identify environmentally preferable alternatives; (c) recommend goals, where practicable, to practice alternative processes within (jurisdiction) operations that will reduce the use/disposal of hazardous substances and will promote resource conservation; and (d) collect and maintain up-to-date information regarding manufacturers, vendors, and other sources for locating/ordering environmentally preferable products. The Task Force and/or Coordinator(s) shall provide applicable information to departments.

5.6 Implication on Policy and Practice

The main target audience of the study is Kenya Airways Limited but borrowings from this research can be extended to other sectors of the economy to include researchers, practitioner, policy makers and governmental agencies. For Kenya Airways limited the study can add value to policy and procedures by having set evaluation criteria for acquiring important and objective environmental performance for the suppliers and a benchmark as well as minimum threshold as a best practice in supplier qualification and

review. This can be in the purchasing manuals for the airline and need consultative efforts among all actors. For researchers, the study that I have conducted can help to expand the body of knowledge on green purchasing in regards to measuring the green purchasing activity level in the private sector and researcher can compare with public sector. For practitioners the research can guide in the implementation of new green purchasing practices. The findings in this research should allow for practitioners to do less of the "re-inventing of the wheel". For policy makers and governmental agencies this research provides a preliminary guide to the role of information tools for the practitioner.

5.7 Suggestion for further research

From this study its emanates that the different green purchasing practices and the different problems that are encountered for different product groups should be taken into consideration when creating expectations on responsibility on green purchasing in the production chain. This means the possibilities to conduct green purchasing are not equal in all situations, depending on a number of obstacles and barriers. Therefore, it can be concluded that the work to bring environmental or social improvements into the production of one particular project is not evenly spread out to the actors that are involved. Hence a need to study to what extent can purchasers be expected to have environmental competence and expertise in order to face the challenges that are likely to arise in these situations?

Secondly the research presented in this study has distinguished between two product categories: core and support products. The findings have proven this distinction useful, and revealed sufficient difference between the two categories. One aspect that can be studied in regards to the two different product groups is the required knowledge, type and level that are useful to aim for in different types of purchasing situations and a quest to know to what extent that information tools can be expected to help advance green purchasing in the different purchasing situations? A more general question is how to make companies put more focus on a greater range of product groups, especially those for which there already exists easy to use, credible and dynamic environmental information about the products, information that does not require much from the purchasers.

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APPENDICIES

APPENDIX I: INTRODUCTORY LETTER

Kenya Ait ways
The Pride of Africa
ASSOCIATE

TI/R.2/041

04th January, 2011

Dennis Munene Muthike
P.O. Box 530-60200
Mem Central
Kenya

Dear Dennis,

SUBJECT: REQUEST TO CARRY OUT RESEARCH AT KENYA AIRWAYS

This is in response to your request to carry out a research project at K&nya Airways on the subject below.

We understand that you would like to carry out a research on Kenya Airways and therefore you would want to administer a questionnaire / interview staff on the subject, **"Incorporating green purchasing as a best practice in procurement of in-flight products".**

We further understand that this research project is a partial fulfillment of your studies.

We have considered your request and are pleased to advise that the request has been granted on the following conditions:

a) The findings will be used purely for the research purposes and therefore shall not be published in the press or other publications without prior authorization from the Kenya Airways Group Managing Director and the CEO.

b) The responsible Director or his appointee will review the report before submission to the university.

c) You will not disclose any matter regarded as confidential in the process of carrying out the research.

d) You will provide one copy of the final report to the KQ library.

Yours sincerely,

4/01/2011

1>f. MbithVAnzaya
Head of Learning & Development

APPENDIX II: UNIVERSITY MEMO

UNIVERSITY **OF** NAIROBI

^fiA PROGRAM - LOWfeR KABETE CAMPUS

Telephone: 020-2059i 62
Telegrams. "Varsity". Nairobi
Telex:' . 22095 Varsity'

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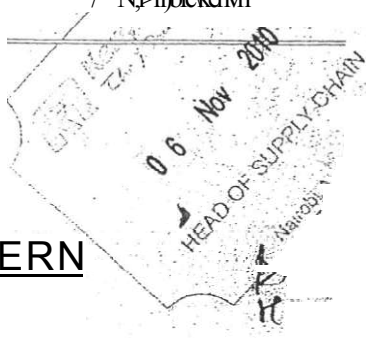


DATE.....:;... .HQ^MUV; f^Tf^f

TO WHOM IT MAY CONCERN

The bearer.of this letter...

Registration No: . .. *^//rfl*?/.¥:*I%P. P*__

is a Master of Business Administration (MBA) student of the University of Nairobi.

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 if you assist him/her by allowing him/her to collect data in your organization for the research.

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.

UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA OFFICE
P. O. Box 30197
NAIROBI

DR. W.N. IRAKI
CO-ORDINATOR, MBA PROGRAM

APPENDIX III: DATA COLLECTION GUIDE

Kenya Airways

Data Col^ti^A^r^fWrde

Date: November 05, 2010

Reference Number: RP/001-11

Name of Student: _Muthike Dennis Munene

Project Title: incorporating green purchasing as a best practice in procurement of in-flight products at Kenya airways limited

	Question	Yes	No
1	The data is for the completion of a certificate program		No
2	The data is for the completion of an undergraduate degree program		No
3	The data is for the completion of a masters degree program	Yes	
4	It is a self-administered questionnaire	Yes	
5	Are respondents required to provide their personal details?		No
6	Are respondents required to state their income?		No
7	Are respondents required to state their job grade or category?		No
8	Are respondents required to state their Age?		No
9	Are respondents required to give information on KQ strategies?		No
10	Are respondents required to give information on KQ strategies for 2006/7 year or earlier?		No
11	Are respondents required to give information on KQ strategies for 2007/8 year or later?		No
12	Is the information required available in 'the public domain'?	Yes	
13	Are you a KQ staff member?	Yes	
14	How many people would you like to complete the questionnaire?'	7	
15	Have you attached a copy of the questionnaire?	Ok	
16	Have you attached a copy of a letter from youHnstitoffe^.	OK	
17	Will the findings of the study/project be availablq^KQ o^. ^ /	Yes	

Data collection approved: ^ H ,,o^v

Data collection declined:

Reasons:

Please note: Please ensure you do this in your time and not 'Company' lime. This means that you will collect data during your free time and that respondents will give you the information required and/or answer your questionnaire during their free time and hot company time. That way, it will not affect your or your respondent's performance and productivity. While you collect data for your studies, please remember that the staff are under no obligation to give you information for your individual studies. Also, please ensure the process does not antagonize staff. Good luck with the data collection and with your studies.

APPENDIX IV: FOCUSED INTERVIEW GUIDE

1. Demographic Information

Name of the respondent.....**(Optional)**

Department

Position/ designation

Number of years in the position

Number of years at Kenya Airways Limited

2. Open Ended Questions:

2.1 Identification of materials needs

- Has a training needs analysis been performed?
- Are employees knowledgeable concerning Environmental sustainability?
- Are material life cycle costs considered in purchasing decisions?
- Do material specifications include opportunities for Green Purchasing?
- Has an assessment been conducted to identify barriers to Green Purchasing?

2.2 Establishment of purchasing requirement

- Do purchasing procedures incorporate sustainability aspects and support the environmental Policy Statement?
- Has a green Purchasing checklist been developed?
- Is preference given to green products within the price guidelines?
- Does contract language incorporate provisions for environmental considerations and sustainability terminology?

2.3 Supplier Selection

- Does the supplier have an Environmental Policy Statement?
- Have criteria been established for selecting environmentally responsible suppliers?
- Can suppliers certify recycled content/green aspects of materials provided and meet other product environmental standards?
- Are suppliers able to participate during product design/service delivery discussions?

2.4 Material purchases and suitable packaging material

- Is there a process in place for the reuse or disposal of unused or surplus materials?
- Have current purchases been assessed for environmental sustainability?
- Are Material Safety/Technical Data Sheets reviewed prior to purchase to minimize hazardous material purchases and disposal costs?
- Has packaging been eliminated or returnable packaging been specified?
- Do contractual purchasing terms and conditions address significant environmental packaging issues?
- Has packaging been marked/labeled to promote and encourage reuse and/or recycling?

2.5 Monitoring and Evaluation

- Has product environmental cost accounting been evaluated?
- Are life-cycle evaluations performed and documented to demonstrate continuous improvement?
- Have steps been implemented to educate stakeholders concerning product Green Purchasing opportunities? *

2.6 Challenges faced in achieving green purchasing

2.7 Recommendation to the business .

APPENDIX V: SAFETY, HEALTH AND ENVIRONMENT.

This questionnaire forms part of Kenya Airways Tender evaluation process and is to be completed by Tenderers and submitted with their tender offer. The objective of the Questionnaire is to provide an overview of the status of the Tenderers Safety, Health, & Environmental Management system. Tenderers will be required to verify their responses noted in their questionnaire by providing evidence of their ability and capacity in relevant matters.

TENDOR NO: **P**

"ONTRACT DESCRIPTION

SPONSIBLE PERSON

)NTRACTOR

iTE

iderer Safety, Health, & Environmental Questionnaire	**YES**	**NO**
Aspects.		
SHE Policy & Management *Is there a written company Safety, Health, & Environmental Policy* If yes provide a copy of this Policy		
Does the company have a SHE Management system certified by recognized independent authorityfe.g. ISO 18001, ISO 14001) If yes provide details.		
Is there a company SHE Management System manual or plan? if yes provide a copy of the content page(s)		
Are Safety, Health & Environmental responsibilities clearly identified for all levels of Management and staff? If yes provide details		
Are there documented Safe Work Practices and Procedures for the normal work done by the company?		

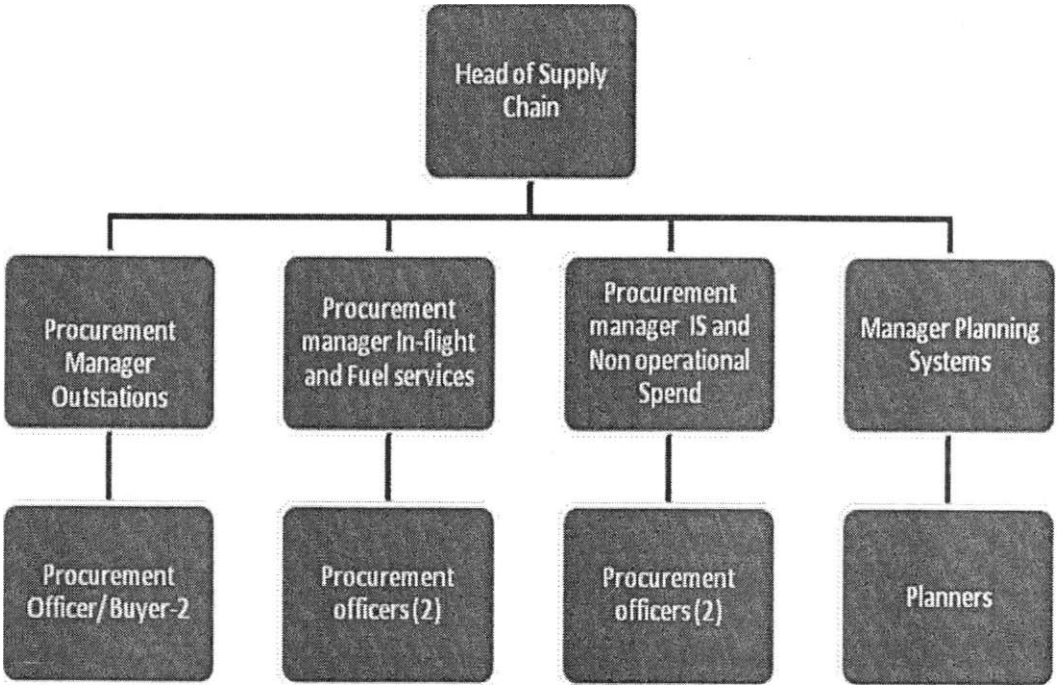
6.0	*Has the company prepared safe operating procedures or specific safety instructions relevant to its operations?*		
6.1	If yes provide a summary listing of procedures or instructions		
7.0	*Is there a register of injury document?*		
7.1	If yes provide a copy		
	Tenderer Safety Health & Environmental Questionnaire	YES	NO
8.0	*Is there a documented incident investigation procedure?*		
8.1	If yes provide a copy of a standard incident report form		
9.0	*Are there procedures for maintaining, inspecting and assessing the hazards of plant operated/owned by the company?*		
9.1	If yes provide details		
10.0	*Are there procedures for storing and handling hazardous substances?*		
10.1	If yes provide details		
11.0	*Are there procedures for identifying, assessing and controlling risks associated with manual handling?*		
11.1	If yes provide details		
12.0	SHE Training		
12.1	Describe how Safety, Health & Environmental training is conducted in your company		
12.2	Is a record maintained of all training and induction programs undertaken for employees in your company?		
12.3	If yes provide examples of safety training records		
13.0	Safety, Health & Environmental Workplace Inspection		
13.1	Are regular Safety, Health & Environmental inspections at worksites undertaken?		
13.2	If yes provide details		
13.3	Is there a procedure by which employees can report hazards at workplaces?		
13.4	If yes provide details		
14.0	Safety, Health & Environmental Consultations		

14.1	Is there a workplace Safety, Health & Environmental committee?		
14.2 14.3	Are there employees involved in decision making over SHE matters? If yes provide details		
14.4	Are there employee elected Safety, Health & Environmental representatives?		
15.0	SHE Performance Monitoring		
15.1 15.2	Is there a system of recording and analyzing Safety, Health & Environmental performance statistics including number and type of injuries and incidents? If yes provide details		
15.3 15.4	Are employees regularly provided with information on company Safety, Health & Environmental performance? If yes provide details		
15.5 15.6	Has the company ever been convicted of an occupational Safety, Health & Environmental offence? If yes provide details		
16.0	Company Reference		
16.1	Provide the following information for the three (3) most recent contracts completed by the company.		

Other Comments:

Signed: **Name:** **Designation:**

APPENDIX VI: ORGANISATION STRUCTURE, KENYA AIRWAYS COMMERCIAL SUPPLY CHAIN



APPENDIX VII: LIST OF IN-FLIGHT PRODUCTS AT KENYA AIRWAYS

Item	Item Description
151CUT32500	9 IN 1 CUTLERY PACK WITH KQ LOGO CTN OF 400PCS
151INS42000	AEROSOL BOMBS AIRCRAFT INSECTICIDE TIN 30ML
151TEC13000	AIRFRESHNER, P/N 108 TUTTIFRUTTI
151BAG12600	BAG CUTLERY WITH KQ LOGO 150GM. SIZE 4" x 9"
151BAG12800	BAG GARBAGE SIZE 40" x 40". 400GM YELLOW
151BAG13010	BAG OVEN 25 X 38 CM PALLET PACKING = 6 000 PCS
151BAG12000	BAG AIRSICKNESS WITH KQ LOGO
151BAG13200	BAG POLYTHENE 80GM SIZE16'X22'
151BAG13300	BAG POLYTHENE HEADSET WITH KQ LOGO SIZE 31*19 CM
151BAG13008	BAG, BLANKET BIG
151BAG13006	BAG, BLANKET SMALL.
151BAG13000	BAG, CABIN GARBAGE.
151BAG12200	BAG, CARRIER POLYTHENE 250GM
151BAG13304	BAG, LINEN WHITE WITH KQ LOGO SIZE 33 * 26.5' 200GM
151BAG13380	BAG, WASTE
151BAG12400	BAG,CROCKERY POLYTHENE WITH KQ LOGO
151BAG12900	BAG,GARBAGE SIZE 40X40 CLEAR 400GM
151BLA15000	BLANKETFIREPROOF EMERALDGREEN RED(TOP&BOTTOM)
151BLA17000	BLANKETS J/C **design** 8 B **new** 70x50".
151BOW88030	BOWL SQUARE ROTABLE SMALL.
151CON27850	CASSEROLE ALUMINIUN DISH SMALL Y/C.
151PLT88070	CHINA WARE BASE PLATE (UNIT PER CTN PACKING = 60)
151BOW88068	CHINA WARE BOWL (PACKING / CTN = 72)
151PLT88064	CHINA WARE CASSEROLE (UNIT PACKING / CTN = 48)
151DIS33400	CHINA WARE DISH BUTTER (UNIT PER CTN PACKING = 144)
151SCE88062	CHINA WARE SAUCER (UNIT PACKING / CTN = 96)
151POT88060	CHINA WARE SHAKER PEPPER (UNIT PACKING / CTN = 120)
151POT88040	CHINA WARE SHAKER SALT (UNIT PACKING / CTN = 120)
151PLT88072	CHINA WARE SIDE PLATE (PACKING PER CARTON = 72 PCS)
151CUP88066	CHINA WARE TEA / COFFEE CUP
151CL026200	CLOTH GLASS SIZE 30 * 20 F/C WITH KQ LOGO
151CL026600	CLOTH TABLE LINEN "SIZE211/2 WITHKQLOGO F/C
151CL026610	CLOTH TROLLEY SIZE 38*28 WITH KQ LOGO SUPPLIER E.O.Q 300
151STR88016	COCKTAIL STIRRERS 6 INCHES
151POT88080	COFFEE SERVER P/N MISC 3201
151UNI88000	CONTAINER, STD UNIT.P/N BB001052
151COV30500	COVER CHINA BOWL JC
151COV30700	COVER CHINA SIDE-PLATE JC
151COV22000	COVER HEADREST J-CLASS; JACQUARD WOVEN COTTON 29*41 CM 200G
151COV23500	COVER PILLOW DISPOSABLE WITH KQ LOGO & ANIMAL PICTURES
151COV27800	COVER ALLUMINTUM OVALCLMED.FORY/C FOIL.
151COV30150	COVER BOWL ROTABLE 1 CARTON OF 2400PCS

151COV30600	COVER CHINA PLATE.
151COV30000	COVER FOILLARGE SIZE 241 MM X 870MM
151COV23000	COVER HEADREST DISPOSABLE WITH KQ LOGO AND ANIMAL PICTURES.
151COV27900	COVER, ALLUMINIUM FOIL FOR CASSEROLE DISH SMAL
151CUP33000	CUP MELAMINE TEA/COFFEE.
151CUP32400	CUP PLASTIC WHITE 150ML YC WITH KQ LOGO
151DOL35500	DOYLES MEDIUM SIZE 5 1/2 (14).
151DOL35000	DOYLEY LARGE 71/2(19CM)DIA
151DRW36500	DRAWER PLASTIC P/N DK004007
151DRW36100	DRAWER. ALLUMINIUM BEVERAGE WITH KQ LOGO
151FSK11000	FLASK,COFFEE
151FSK12000	FLASK,TEA
151CON27750	FOIL CONTAINER OVAL Y/C WITH KQ LOGO.
151FOK77200	FORK JCL
151FOK37500	FORK SERVING STAINLESSSTEEL WITHKQLOGO F/C
151GLS40200	GLASS BRANDY & LIQUER (UNIT PACKING / CTN = 32 PCS)
151GLS40100	GLASS TUMBLER (UNIT PACKING / CTN = 32 PCS)
151GLS40000	GLASS WINE & CHAMPAGNE
151INS86624	GLASS DIVIDER PLASTIC
151GLS38401	GLASS PLASTIC DISPOSABLE WITH KQ LOGO BOX OF 1360
151GLS34000	GLASS PLASTIC, FOR OFFICE USE (1 eta = 1,250 pes)
151GLS39300	GLASS WINE PLASTIC
151HAN39400	HANGARCOAT
151DRW36150	ICE DRAWER HIGH DDO 18002.
151BUC86550	ICE PAILS 1/12
151JUG44600	JUG, MILK PLASTIC
151JUG44700	JUG,MILK STAINLESS STEEL SMALL TYPE.
151KNF77100	KNIFE JCL
151MAT50900	MAT 1/1TRAY PAPER NON-SKID LARGE SIZE247*347 Y/C
151MAT50100	MAT 1/2TRAY PAPER NONSKID SMALL SIZE160*235MM
151MAT50500	MAT 2/3TRAY PAPERNONSK1D MEDIUM
151CUP31200	MUG,TEACERAMIC 250ML (FOR OFFICES USE)
151NAP55520	NAPKIN, LINEN
1510PN10000	OPENER
151INS86610	OVEN INSERT MFG P/N 1A034001
151INS86620	OVENTRAY P/N DLH205-054.
151PAP58000	_PAPERCOASTERS 8CMDIAMETER
151PAP59200	_PAPER HAND TOWEL KQ LOGO ON CARTON.
151PAP58300	_PAPERNAPKIN COCKTAIL; PKTX50SHT25CMX25CM
151PAP58600	_PAPERJ>OLYTHENE ROLL
151TIS80000	_PAPER TISSUE KLEENEX FACE SOFT 2PLY SIZE 70 * 48
151PAP58500	^APER,SERVIETTES.WH3TE(PKTX50)
151PAP58800	PAPER,TOILET ROLL WHITE SMOOTH 2PLY.
151CL025220	J^LLOW COVER LINEN F/C
151CL025200	PILLOW COVERS LINEN LARGE J/C
151PIL63000	PILLOW SMALL SIZE 15X12 F/C WITH KQ LOGO
151PLT66000	!LATE_PLASTIC YC
151SAL70000	^ALT&PEPPER TWINS SATCHETS WITH KQ LOGO.

151SEL70900	SEAL PULL UP GREEN
151SEL71000	SEAL PULL UP PURPLE
151SEL71100	SEAL PULL UP WHITE
151SEL70700	SEAL PULL UP BLUE
151SEL71200	SEAL PULLUP GREY
151SEL72300	SEAL, PULL UP BLACK
151SEL72000	SEAL, PULL UP YELLOW
151SEL72200	SEAL, PULL-UP ORANGE
151SEL70800	SEAL, PULL-UP RED
151SOP76000	SOAP, TABLETS ROUND 6 GMS
151SPN77500	SPOON COFFEE TEA PLASTIC
151SPN77300	SPOON DESSERT JCL
151SPN77400	SPOON TEA JCL
151SPN78000	SPOON, SERVING STAINLESS KQ LOGO
151TEC14000	SPRAY GUN, P/N 10502
151PIC62000	STICK TOOTHPICK WOODEN ROUND SMOOTH
151BOW19000	SUGAR BOWL
151TOG80100	TONGS, BREAD
151TOG80200	TONGS, ICE
151CL025500	TOWEL FACE PREMIER CLUB (8-PACK)
151CL024800	TOWEL HOT DISPOSABLE 1 CARTON = 2000 PCS
151TOW88020	TOWEL LARVEX CLEANSING TOWELETIE WITHKQLOGO
151TOW88019	TOWELS SANITARY
151TRA82100	TRAY,ATLASSTD SMALL 1/2WHITEY/C WITHKQLOGO
151TRA83100	TRAY,LARGE1/1 ATLASSTDY/C SIZE3 80*272 * 17MM WITHKQLOGO
151TRA82600	TRAY,MEDIUM2/3 ATLASSTDWHITEY/C SIZE255*272*17MM WITHKQLOGO
Dry Store	
Item	**Item Description**
152BBM10001	BABY MEAL, BREAKFAST
152BBM10003	BABY MEAL, DESSERT
152BBM10002	BABY MEAL, MAIN
152COF16204	COFFEE GROUND 90GM
152COF16202	COFFEE INSTANT 20GM SATCHET
152COF16206	COFFEE DECAFFEINATED
152COF16200	COFFEE, INSTANT 50GM TIN
152CRM64004	CREAMER,SATCHETS 2.5GRMS WITH 2 COLOR PRINT LOGO
152JCE37400	JUICE B/F BLEND.
152JCE37050	JUICE ORANGE ILTR (PKT)
152JCE37200	JUICE TOMATO ILTR (PKT)
152JCE37040	JUICE, APPLE ILTR (PKT)
152CHT17000	MILO, SATCHETS 20GMS (144 SATCHETS IN A CARTON)
152NUT49002	NUTS MIXED.
152PT055001	POTATOE CRIPS 50GM
152SCE54000	SAUCE TABASCO RED
152SUG86000	SUGAR LOOSE(1 PACKET OF 2KG)
152SUG64001	SUGAR, 5GM SATCHETS

152SUG64002	SWEETENERS SACHETS.
152TEA67060	TEA BAGS WITH KQ LOG.
152TEA67064	TEA HERBAL HIBISCUS
152TEA67062	TEA HERBAL, CHAMOMILE
Duty Free	
Item	**Item Description**
158KIT97520	AMENITY KIT
158LIQ52202	BAILEY FULL BOTTLE
158BER56000	BEER HEINKEN CANNED (PALLET =160X24)
158BER57000	BEER TUSKER 330ML CANNED.
158BRA13610	BRANDY CAMUS COGNAC MINITURES 30ML
158BRA13600	BRANDY, REMMY MARTIN VSOP 0.7LTR (KLM ART 52040)
158CHA18000	CHAMPAGNE, RAUL COLLET 0.50ML
158PEF77400	EAU DE TOILETTE 100ML.
158GIN45500	GIN, BOMBAY SAPHIRE MINITURES
158GIN45000	GIN,BOMBAY SAPHARE F/B.
158JCE37040	JUICE APPLE 1LTR (PKT).
158JCE37050	JUICE ORANGE 1LTR (PKT)
158JCE37200	JUICE TOMATO 1LTR (PKT).
158JCE37400	JUICE,B/F BLEND.
158LIQ53000	LIQUORCOINTREAU 500ML.
158PEF77300	LOTION HAND AND BODY 100ML
158CHA18100	NEDERBURG CUVEE BRUT
158RUM77600	RUM BARCADI.
158MIN60000	SODA COCA COLA CAN. EA 150ML
158MIN68200	SODA DIET COKE CAN. 150ML
158MIN63000	SODA FANTA ORANGE CAN. 150ML
158MIN65000	SODA KREST SODA WATER CAN. 150ML
158MTN68000	SODA KREST TONIC WATER CAN. 150ML
158MIN62000	SODA SPRITE CAN. 150ML
158MIN61500	SODA GINGERALE CAN. 150ML
158PAC97420	UNSET KDDIE BAG FOR CHTLDREN(4 TO 7)YEARS
158PAC97440	UNSET KIDDIE BAG CHILDREN(0 TO 3)YEARS.
158PAC97430	UNSET KIDDIE BAG FOR CHILDREN(8 TO 12)YEARS.
158VDK78000	VODKA ABSOLUT F/B
158VDK80000	VODKA, ABSOLUT 0.05LTR
158WHS85500	WHISKY, JOHNIE WALKER BLACK 750ML
158WHS87600	WHISKY,CHIVAS REGAL 12YRS OLD (KLM ART NO. 51161)
158WHS87550	WHISKY,DEWARS WHITE LABEL
158WIN11000	WHITE, WINE MCL TERRA ANDINA 187 ML
158WIN97500	WINE MICHEL LAROCHE CABLIS (WHITE) FULL BOTTLE
158WIN97370	WINE RUPERT & ROTHSCHILD BARON EDMUND
158WIN97000	WINE, CHATEAU D'ESCOT MEDOC CRU BOURGEOIS (RED)
158WIN97322	WINE, DOUGLS GREEN RUBY PORT
158WIN10000	WINE, RED MCL TERRA ANDINA 187 ML
158W1N97200	WINE, WHITE KLEINE ZALZE CHENIN BLANC
Duty Paid	

Item	Item Description
159BTU68050	BEER TUSKER LAGER 330ML
159BRA13050	BRANDY, MARTEL 750ML FULL BOTTLE
159GIN28200	GIN GORDONS MINITURES
159GIN28001	GIN, GORDONS FULL BOTTLES 750ML
159LIQ43150	LIQUOR KENYACANE750ML
159LIQ43160	LIQUOR,AMARULA CREAM F/B 750ML.
159LIQ43050	LIQUOR,COINTREAU700ML.
159LIQ43200	LIQUOR,TLA MARIA.
159WIN20000	RED, WINE MCL TERRA ANDINA 187 ML
159BRA14000	RUM, BARCADI 750ML FULL BOTTLE
159VDK73100	SMIRNOFFVODKA BLUE750ML
159MIN46050	SODA COCA COLA CAN. 150ML
159MIN46100	SODA FANTA ORANGE CAN. 150ML
159MIN46400	SODA DIET COKE CAN 150ML
159MIN46200	SODA SPRITE CAN. 150ML
159MIN46350	SODA TONIC CAN 150ML
159MIN46300	SODA WATER CAN 150ML
159MIN46150	SODA,GINGERALE CAN. 150ML
159VEM73050	VERMOUTH, CAMPARI FULL BOTTLE 750ML
159VDK73150	VODKA SMIRNOFF MINITURES
159WHS76060	WHISKY, GRANTS MINITURES
I59WHS76001	WHISKY, JOHNY WALKER BLACK LABEL FULL BOTTLE 750ML
159WHS76050	WHISKY, JOHNY WALKER RED LABEL FULL BOTTLE 750ML
159WIN21000	WHITE, WINE MCL TERRA ANDINA 187 ML
159CHA16000	WINE,CHAMPAGNE PIPER HEIDSIECK 750ML.
159WIN77700	WINE,MARTIN DRY 750ML.

Source: Kenya Airways I-procurement Module (ERP) report date Jan 16, 20

APPENDIX VIII: INCORPORATING ENVIRONMENTAL ISSUES IN SUPPLIER EVALUATION

Source Purchase Handbook 2007

This table is designed to illustrate how environmental issues can be considered at each stage. It should be used in conjunction with the relevant sections of this guide, which provide more detailed advice.