

**FACTORS INFLUENCING THE ADOPTION OF GREEN SUPPLY CHAIN
MANAGEMENT STRATEGY IN INDUSTRIES: A CASE OF DELMONTE
COMPANY**

BY

WALTER NDEGE MACHOGU

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DECLARATION

This research project is my original work and has not been presented for academic purposes in the University of Nairobi or any other University.

Signed Date

Walter Ndege Machogu

L50/65352/2010

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

Signed Date

Augustine Mwangi

Department of Distance Studies

University of Nairobi

DEDICATION

This research is dedicated to my Mother Florence Machogu for her prayers and support.

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LIST OF ABBREVIATIONS

EM	-	Environmental Management
EMS	-	Environmental Management system
EU	-	European Union
GSCM	-	Green Supply Chain Management
ISO	-	International Organization for Standardization
RDT	-	Resource dependence theory
RL	-	reverse logistics
SPSS	-	Statistical Package for Social Sciences
TQEM	-	Total Quality Environmental Management
TQM	-	Total Quality Management

ABSTRACT

Green supply chain management (GSCM) is an approach to improve performance of the process and products according to the requirements of environmental regulations. The purpose of the study was to establish factors influencing adoption of Green supply chain management strategy in a Manufacturing Company in Kenya. The objectives of this study were to establish the influence of management support, staff training, communication strategy and market structure on the adoption of GSCM strategy at Delmonte Company. The study adopted descriptive research design. The target population of the study was 110 managers in all level of Management employees from Delmonte. The study used stratified random sampling in coming up with 86 staff from Delmonte. The study relied on primary data which was obtained using questionnaires. This study generated both qualitative and quantitative data. Qualitative data was analyzed by the use of content data analysis and quantitative data was analyzed using descriptive statistics including percentages, frequencies, means and standard deviation. Regression analysis was conducted to show how management support, Staff training, communication strategy and market structure influences adoption of GSCM. Presentation of quantitative data was done using frequency tables while presentation of qualitative data was done using prose form. The study found that management support influence the adoption of GSCMS in the companies through budgetary allocation, encouragement of employees to adopt GSCMS. Communication of strategies influences the adoption of GSCMS in the companies to a very great extent. The study further deduced that staff training through the formal process of training, career progression influence the adoption of GSCMS in selected agro manufacturing companies. The study concludes that staff training had the greatest effect on the adoption of GSCMS, followed by management support, then policy framework while level of communication of strategies had the least effect to the adoption of GSCMS. The study recommended that the government should set rules for disposing waste and consider more investment in recycle plants. It is recommended that the management at the companies should be dedicated to encourage teamwork among the employees and also support their juniors to achieve objectives. The companies should encourage teamwork, improve the working environments and set clear roles and responsibilities. The management should encourage team building and train skilled laborers for reverse logistics management.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Green Supply Chain Management (GSCM) is a kind of sustainable strategic development for enterprises in today's competitive workplace, which has emerged as a new innovative approach to achieve both financial and environmental benefits simultaneously, by reducing environmental risk and impact (Van Hoek, 1999). Due to increasing flow of environmental degradation in recent decades, organizations have been forced to pay more attention to their ecological footprint by changing their strategic viewpoints and adopting green initiatives in their production line. With increasing competition in today's global market, the firms have to look to the modern strategic manners, in order to gain sustainable organization and competitive advantage.

The rapid change in global manufacturing scenario, environmental and social issues are becoming more important in managing any business (Doonan, Lanoie & Laplante, 2005). Natural environment becomes a challenging issue to business organizations in recent years as a result of global and local environmental problems. Business operations, such as sourcing, manufacturing, and logistics, are believed to be responsible for most of these problems.

The field of supply chain management has more recently directed its attention to the role of the supply chain in both impacts to the natural environment and the generation of environmental performance change. The concept of Green Supply Chain Management (GSCM) first appeared in 1970s, but actually flourished in 1987 when WCED (The World Commission on Environment and Development) released the Brundtland Report which was titled 'Our Common Future' in Oxford, United Kingdom. This shift in expectations for the supply chain has arisen from growing social pressure, legislative changes around packaging and end-of-life goods, identified supply chain risks, and increasing use of environmental requirements being cascaded from customers to suppliers (Beamon, 1999). Environmental pollution is a major factor that is perceived to have the potential to lead to the extinction of mankind on earth if not addressed (Chien & Shih, 2007). Out of the various kinds of pollution, organization waste is one of major environmental pollution which needs immediate attention.

The economic growth increases the level of energy and material consumption, which contribute to the environmental issues and resource depletion problems. It has become increasingly significant for organizations facing competitive, regulatory, and community pressures to balance economic and environmental performance. Nowadays, most organizations are starting to go green in their business as a concern to environmental sustainability. They have realized the greater benefit of the green technology adoption in business operation, which also affect suppliers and customers. Environmental issues under legislation and directives from customer especially in the US, the European Union (EU), and Japan have become an important concern for manufacturers (Ninlawan, Seksan, Tossapoln & Pilada, 2011). This resulted due to pressure from lobby groups and various stakeholders including environmentalists and customers and advocacy by consumer federations for the manufacturers to be environment sensitive. As a result, Green Supply Chain Management (GSCM) emerges as a new systematic environmental approach in supply chain management and has been increasingly accepted and practices by forward-thinking organization.

With the more environmental concern during the past years the issue of environmental toxic waste incidental to industrial growth in African countries should be addressed together with supply chain management as the most important part in production chain, therefore contributing to initiatives of GSCM (Sheu, Lee & Niehoff, 2005). In a developing country such as Egypt, the attention is mainly focused on cost reduction. Seldom, if any, consideration is given to environmental impacts of business operations; GSCM practices. This lack of awareness explains the gap in the literature about the application of GSCM in Egypt.

Neumayer and Perkins (2005) in a study of GSCMS in Ghana emphasize the same fact that, broadly speaking there are two sources of drivers which induce firms to adopt these kind of initiatives and standards and become certified in compliance with them; on the one hand internal motivation linked to efficiency (efficiency led), which is the advancement in performance, productivity, and profitability ;and on the other hand external or institutional drivers linked to social pressure poses by different groups and communities to convince company to adopt such practices. These factors are consistent with those by Kannan et al (2013) in their study of the Nigerian electronics sector

The growth rate of the manufacturing industry in Kenya is primarily driven by growth rates and market trends within various end markets. Growth rates vary from a low of 3.2% for beverages to a high of approximately 5% for health care products. The largest end market, food, has historically grown at slightly less than 4% annually (Raman, 2006). It should be noted that sub-segments of an end market may grow at higher rates than the end market itself. For example, while the beverage market has generally been a low growth market, the bottled water sub-segment of the beverage market has recently achieved very strong growth.

In Kenya, one of the controversies in GSM and customer relationships is whether customer interest in environmentally sound products relates to actual purchase. The environmental factors and by-laws have played a big role in types of manufacturing to be used. However, polythene paper bags which have then omicron were banned and as such suppliers and customers were forced to change manufacturing technologies. Bottled water produces over 1.5 million tons of plastic waste each year. This is going to create a large problem if the industry does not start working on how to deal with waste disposal problems.

Del Monte Kenya Ltd is a Kenyan company that operates in the food processing industry. The company is dedicated to meeting the current and future needs of consumers worldwide. The variety of products that the company had satisfy today's health and wellness-conscious consumer demands with a level of convenience that fits perfectly into their active lifestyles. For over 100 years, consumers around the world have recognized the Del Monte brand as a trusted symbol of product quality, freshness and reliability. This is combined with steadfast commitment to quality, innovation and responsible business practices that allows to consistently delivering outstanding financial results to shareholders.

1.2 Statement of the Problem

GSCM is a highly important element of organizational success. Despite the large number of businesses that understand the importance of GSCM in the wake of increasing environmental pollution, the number of firms that actually engage in such practices is significantly lower (Wilkerson, 2003). This is because many procurement professionals and their organizations managers are still unaware, uncertain or struggling to find the best way to approach it.

Furthermore, the public's focus on the environment, benefits attributed to reducing a company's environmental impact are not in the forefront of managers and supply chain executive's minds. It appears that many executives are still unaware that improved environmental performance means higher profits, reduced cost and good will from the environmentally conscious citizens.

It is clear from the aforementioned studies that despite the pollution occasioned by the activities that industries engage in, some industries have adopted GSCM while others haven't. This study seeks to establish the factors that have influenced adoption of GSCM so that the same factors can be used for other industries to adopt the strategy.

Related studies have been carried out investigating firms' responses to the changing environment in Kenya (Yatich, 2001, Kombo, 1997). However, no study to the knowledge of the researcher had focused on the factor influencing GSCM as a strategy for enhancing organization performance. It is in light of this realization that the research needs to bridge this knowledgeable gap by evaluating factors influencing GSCM as a strategy for enhancing organization performance in Kenya with specific focus to Delmonte Fruit Manufacturing Company.

1.3 Purpose of the Study

To investigate the factors influencing adoption of green supply chain management as a strategy in Delmonte Fruit Juice Manufacturing Company

1.4 Objectives of the Study

The study was guided by the following specific objectives.

- i. To establish the influence of management support on adoption of GSCM strategy at Delmonte Fruit Juice Manufacturing Company.
- ii. To establish the influence of staff training on the adoption of GSCM strategy at Delmonte Fruit Juices Manufacturing Company.
- iii. To examine the influence of communication strategy on adoption of GSCM strategy at Delmonte Fruit Juices Manufacturing Company.
- iv. To determine the influence of market structure on adoption of GSCM strategy at Delmonte Fruit Juice Manufacturing Company.

1.5 Research Questions

The following research questions was answered:

- i. What is the influence of management support on adoption of Green Supply Chain Management strategy in Delmonte Fruit Juice Manufacturing Company?
- ii. How does Staff training influence adoption of GSCM strategy in Delmonte Fruit Juices Manufacturing Company?
- iii. How does communication strategy influence adoption of GSCM strategy in Delmonte Fruit Juice Manufacturing Company?
- iv. What is the influence of market structure on adoption of GSCM strategy in Delmonte Fruit Juice Manufacturing Company?

1.6 Significance of the Study

Increasing pressures from a variety of directions have caused the supply chain managers to consider and initiate implementation of green supply chain management (GSCM) practices to improve both their economic and environmental performance. This study would be of great benefit to the Delmonte Fruit juice Manufacturing Company as it outlines the factors influencing green supply chain management strategy for enhancing performance. The study also outlines the influence of market structure, top management support, communication strategy and staff training in adoption of GSCM strategy.

To the government of Kenya, the study would provide information that can be used to formulate policies in relation to GSCM strategy which can lead to mitigation of environmental pollution. The study would also recommend on whether market structure, top management support, communication strategy and staff training influences adoption of GSCM strategy.

To the researchers and academicians, the study would provide a base upon which secondary material on assessment of the factors influencing adoption of Green supply chain management strategy in Delmonte Fruit Manufacturing Company can be drawn. The study also would provide good literature on green supply chain management. To the general academic fraternity the study will form a base for further studies on the factors influencing adoption of Green supply chain management strategy.

1.7 Delimitation of the Study

This researcher set out to analyze the factors influencing adoption of Green supply chain management strategy in Delmonte Fruit Manufacturing Company. The study was limited to four variables that is, market structure, top management support, communication strategy and staff training. The study was carried out in Delmonte Fruit Manufacturing Company, Thika branch.

1.8 Limitations of the Study

The researcher had time constraint as the period allocated for the study was limited and had to combine the study and work given that the researcher is employed. The researcher therefore focused on a small proportion of the total population as a representative of all the possible respondents. The researcher also had financial constraints in the research process given that the researcher is self-sponsored.

1.9 Basic Assumptions of the Study

The researcher made the assumption that the respondents would be cooperative enough to give the required information of the study. The researcher assumed that all information collected from respondents was true to give a clear and true picture. The researcher also assumed that external factors like strike would not arise as this would affect the process of data collection and hence the completion of the project. The researcher assumed that the cited respondents had some knowledge on GSCMS.

1.10 Definition of the Terms

Green Supply Chain Management is an approach that emphasized to improve performance of the process and products according to the requirements of the environmental regulations. It is a company practice that continuously monitors the environmental impact of a supply chain and improve its results.

Communication strategy Two-way process of reaching mutual understanding, in which participants not only exchange (encode-decode) information, news, ideas and feelings but also create and share meaning. In general, communication is a means of connecting people or places. In business, it is a key function of management.

Management support This is when high level managers in a corporation seek to help lower-level employees to develop a certain behavior or assist them perform their duties.

Market structure The interconnected characteristics of a market, such as the number and relative strength of buyers and sellers and degree of collusion among them, level and forms of competition, extent of product differentiation, and ease of entry into and exit from the market

Staff Training Organized activity aimed at imparting information and/or instructions to improve the recipient's performance or to help him or her attain a required level of knowledge or skill. Employee training is increasingly required to assist the work force in using modern techniques, tools, strategies and materials in their jobs.

1.11 Organization of the study

The study is organized into five chapters. Chapter one contains the introduction to the study. It presents background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the Study, delimitations of the study, limitations of the Study and the definition of significant terms. On the other hand, chapter two reviews the literature based on the objectives of the study. It further looked at the conceptual framework and finally the summary. Chapter three covers the research methodology of the study. The chapter describes the research design, target population, sampling procedure, tools and techniques of data collection, pre-testing, data analysis, ethical considerations and finally the operational definition of variables. Chapter four presents analysis and findings of the study as set out in the research methodology. The study closes with chapter five which presents the discussion, conclusion, and recommendations for action and further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides an extensive literature and research related to green supply chain management and factors that influence green supply chain management strategy for enhancing organization performance. This literature review summarizes a diverse spectrum of views about green supply chain management. The chapter is thus structured into theoretical, conceptual and empirical review. The study also presents the knowledge gap the chapter seeks to fulfill.

2.2 Theoretical Orientation

This section focused on the theoretical underpinnings of the study including the information theory, institutional theory and resource dependence theory.

2.2.1 Information Theory

Information theory proposed by Spence (1973) states that companies seek to communicate their environmental performance to outside stakeholders, but may not always find this easy to do since they may lack full knowledge of the products, processes and materials flowing through their supply chains. Typically, suppliers may hold more information about their environmental performance and the performance impact is to be experienced by the customers. A major advantage of greening supply chains is derived from the capability to market and sell green products. Such capability potentially develops new products and hence builds competitive advantages for enterprises. Yet, companies may not be able to reap this image benefit due to the information asymmetry arising from consumers' inability to discern how green the products or materials from the supply chain are (Delmas & Montiel, 2009).

The role of information sharing is critical for coordinating a supply chain (Wong, Lai, & Cheng, 2009). The control and sharing of information is important not only for issues related to image, but also for international regulatory requirements. Enterprises are thus heavily dependent on suppliers to disclose environmental information about raw materials, semi-manufactured products, and other resources needed, e.g., energy and water. One of the current issues is that

information from the upper echelon in the supply chain is required. If the environmental influences from further upstream in a supply chain occur, it becomes more important to collect information from suppliers (Erlandsson & Tillman, 2009). Overall, it is easier for firms with greater power and closer relationships to acquire this information. Thus, with more power, greater trust, or coordination, the likelihood of high information asymmetry is lessened (Lai, 2009).

Sometimes organizations seek to maintain information asymmetry to develop power within the supply chain, but whether this benefits environmental supply chain performance is still in need of investigation. Whether or not coordination, closeness, congruence, and collaboration result in reduced information asymmetry and improved environmental performance and image are also critical and open questions with respect to the information theory. Another relationship to information theory that mitigates information asymmetry is signaling theory. Signaling theory suggests mechanisms for the transfer of information to another party with the target to resolve information asymmetries (Spence, 1973). An example of signaling that a supply chain is environmentally sound is to have the ISO 14001 certification standard implemented among supply chain partners (González, Sarkis & Diaz, 2008).

Research has shown that enterprises are more likely to certify their practices when information asymmetries with their stakeholders (e.g., customers and suppliers) are high (Jiang & Bansal, 2003). This certification is a signal to the market that firms within the supply chain operate with recognized environmental management practices. However, it has been found that a significant portion of ISO 14001 certification are not awarded to the best environmentally performing enterprises. Thus, the idea of ‘satisfying signaling’ has been proposed where poorly performing multi-plant organizations adopt ISO 14001 to signal to the market that they are improving operations, but this is usually confined to well-performing units (Terlaak, 2007). Recently, some work on how signaling from the adoption of environmental management systems has changed because green practices become more prevalent as revealed by recent investigation (Etzion, 2009). There is significant opportunity to study satisfying and dynamic signaling theory applications to GSCM practices and the performance implications.

2.2.2 Institutional Theory

Institutional theory proposed by Hirsch (1975) examines how external pressures influence a company. Within institutional theory, there are three forms of isomorphic drivers namely, coercive, normative, and mimetic. Coercive isomorphic drivers occur from influences exerted by those in power. Institutional theory can be used to study how a company addresses green issues due to external pressures (Jennings & Zandbergen, 1995), and thus institutional theory has become a major research direction to explain environmental related practices (Lounsbury, 1997). Government agencies are an example of powerful institutions that may coercively influence the actions of an organization through, for example, fines and trade barriers (Rivera, 2004). Normative isomorphic drivers cause enterprises to conform in order to be perceived as having legitimate organizational activities. Social normative pressures can explain environmental management practices among enterprises (Ball & Craig, 2010). Mimetic isomorphic drivers occur when enterprises imitate the actions of successful competitors in the industry, in an attempt to replicate the path of their success (Aerts, Cormier & Magnan, 2006).

Coercive pressures are key to drive environmental management (Kilbourne, Beckmann & Thelen, 2002). Previous studies show that governments are key groups to promote voluntary environmental management practices (Rivera, 2004). In developed countries such as the U.S.A., coercive pressures through laws and regulations were demonstrated to improve environmental awareness, and thus drive environmental management practices. Coercive pressures by governments were shown to drive enterprises to adopt voluntary green initiatives while such pressures become weaker for those rich in organizational resources for environmental strategies (Clemens & Douglas, 2006). Regulations in developed countries have also caused an increase in institutional pressures for improved environmental management by enterprises in developing countries, many typically surpassing local requirements. Developing countries such as China have enacted increasingly strict environmental regulations which drive manufacturers to implement GSCM practices (Zhu & Sarkis, 2007).

Socially related requirements such as those from the customer and market and their increasing environmental expectation form the core normative pressure for manufacturers to implement GSCM. In developed countries, consumers have increasing environmental awareness. Thus,

normative social pressures in developing countries such in Africa continent are found to be mainly originated from consumers' ethical values and ecological thinking (Ball & Craig, 2010). Previous studies show that consumers in developing countries have increasingly heightened environmental awareness and are starting to opt for green products (Harris, 2006). In addition to normative pressures from consumers, exports and sales to foreign customers are two more important drivers that prompt manufacturers to adopt GSCM practices for developing countries such as China (Christmann & Taylor, 2001).

Organization may follow or 'mimic' competitors merely because of their success, where such behavior in operations and manufacturing is typically defined as competitive benchmarking. The rationale is simply to follow the actions of successful competitors to replicate their successful paths. Imitation plays a significant role for enterprises in developed countries such as Canada, France, and Germany to implement GSCM related practices (Aertset *al* 2006). Globalization has created opportunities for manufacturers in developing countries such as China to learn from their foreign competitors to implement environmental management practices. Joint ventures in a developing country may implement GSCM practices such as eco-design by imitating their parent companies, and then diffuse their experiences to other enterprises in the developing country (Zhu &Liu, 2010).

Institutional theory may explain how external drivers promote GSCM practices. Both external drivers and internal resources drive environmental management practices (Clemens &Douglas, 2006), but it is unclear how external and internal factors interactively promote GSCM practices. Motivation of a core company in a supply chain is key to green its suppliers and customers (Hall, 2001). Governmental regulations can be key drivers for enterprises to implement environmental management practices (Rivera, 2004). However, what kind of enterprises can be considered to be core companies in supply chains, and what kinds of mechanisms should be established to motivate such core companies still need further studies.

Developed countries such as Canada and England shows that normative pressures drive enterprises to be more environmentally aware, but the study also argues that new institutional theory, integrating new perspectives such as ethical values and ecological thinking, is needed to

understand organizational response to environmental issues (Ball & Craig, 2010). With the development of global supply chains, mimetism provides opportunities for encouraging cooperation among enterprises from different countries operating under the same supply chain, but the diffusion mechanism for such cooperation need further research. One interesting relationship to institutional theory is whether the ‘logic’ and ‘rules’ of GSCM can themselves become institutional rules, similar to that proposed for life cycle thinking and life cycle analysis. Already through the supply chain, the expectations of normative forces are beginning to play this role (Zhu, Sarkis, Cordeiro & Lai, 2008).

2.2.3 Resource Dependence Theory

Resource dependence theory (RDT) postulated by Godfrey (1998) suggests that, in the supply chain, member firms should be dependent and collaborate to seek higher performance gains in the long-run instead of pursuing short-term benefits at the expense of others. In RDT, firms are dependent on resources provided by others in order to sustain growth, as well as other organizations who may be dependent on them (Paloviita & Luoma-aho, 2010). One important assumption of the RDT is that firms cannot be fully self-sufficient with regards to strategically critical resources for survival.

In GSCM, eco-design of products and materials recovery are exemplary organizational resources requiring supply chain partnership to effectuate performance benefits. These resources can also be converted to relationship-specific assets, similar to those identified in transaction cost economics, on which partner firms depend to generate sources of advantages (Zhu, Sarkis & Lai, 2007). On the other hand, firms need to control or access critical resources, e.g., standards, procedures, enabling technologies, materials sources, and distribution channels, to implement GSCM practices and fully realize the potential gains.

The interdependency of supply chain partners as well as the quality and effectiveness of their collaboration that determine the success of implementing GSCM should not be ignored. One important insight from RDT is that firms lacking the required resources to attain their goals are likely to develop relationships with others for acquisition of the resources. This perspective considers customer and supplier relationships as important linkages for firms to reduce the

uncertainty surrounding their operating environment. In many instances, inter-organizational relationship is essential for managing the internal and external coordination for GSCM to gain the performance outcomes (Zhu & Sarkis, 2007), where partner coordination and resources sharing are beneficial for environmental and productivity improvements. The power development aspect of resource dependence argues for the diffusion of environmental practices through the supply chain. For example, it has been found that larger firms, given their power over smaller firms, will require environmentally sound practices to be adopted by small supplier firms.

There is empirical evidence showing a positive relationship between resources dependency and supply chain performance (Yang, Wang and Li, 2008). Though there is a void of studies relating RDT to GSCM, this theory is Z valuable for extending this line of research in understanding inter-organizational behaviors in GSCM implementation. For instance, it helps to predict organizational responses for implementing GSCM with respect to the level and nature of dependence of partner firms and their relative power in the supply chain (Hsu & Hu, 2008). In adopting GSCM practices, e.g., green purchasing and customer cooperation, this theory provides insights on how to facilitate and improve the resources acquisition process considering the dependency of upstream and downstream supply chain partners (Godfrey, 1998).

2.3 Management Support

The most important factor when adopting strategic management is the top level management's commitment to the strategic direction itself. This is undoubtedly a prerequisite for strategy adoption. Therefore, top managers must demonstrate their willingness to give energy and loyalty to the management process. This demonstrable commitment becomes, at the same time, a positive signal for all the affected organizational members. Alexander (2005) found that coordination of implementation activities is one of the causes of success or failure of set strategies.

Top management support is necessary for any strategic program success (Hamel & Prahalad, 1989; Zhu & Sarkis, 2007). Top Management support is especially useful for environmental practices such as GSCM. Top management has significant ability to influence, support actual formation and implementation of green initiatives across the organization (Sarkis, 2009). Top

management provides continuous support for GSCM in the strategic plans and action plans for successfully implementing them (Ravi & Shankar, 2005). Therefore, we assume that lack of top management support is one of the barriers to implement of GSCM in Indian automobile industry. In general, management support is a critical element of adoption and implementation of innovations in an organization, especially environmental systems. Organizational innovations may remain stuck at the initial idea stage absent dedicated champions. Top management support can affect new system initiatives success by promoting employee empowerment, by facilitating employee involvement by promoting a cultural shift and increased commitment by the organization's employees, by instituting rewards and incentives systems to affect employee behaviour, by providing training and increasing communication across units and encouraging teams and teamwork in the organization. Top management support has been associated with the success of information technology diffusion within organizations, business process reengineering, virtual enterprise formation, environmental purchasing, ISO 14000 implementation, enterprise resource planning (ERP) and EMS. Cross-functional efforts like GSCM are likely to benefit too. Like most other major environmental efforts, GSCM is a broad-based pervasive organizational Endeavour with cross-functional programs. As such, it has the potential to benefit from top management support. It is not just top-level managers from whom support is needed; support from mid-level managers is also important to successful implementation of environmental practices. Support from middle-management levels is important because environmental management is related to almost all departments in an organization, and cross-departmental cooperation is important to successful practices (Sarkis, 2009).

Beer and Eisenstat (2000) mention the quality of direction, which describes multiple ways in which senior management can be ineffective. Senior management sometimes bypasses middle management, and directly obtains information from and gives orders to the lower level employees, causing ineffective communication lines in the implementation team. Additionally, this causes a situation in which conflicts are avoided and value-adding discussions on decision-making are lost. Beer and Eisenstat (2000) state that leadership in many teams does not make the necessary trade-offs they face during the adoption. Instead, they create vague strategic objectives which do not provide effective direction for adoption or formulation of sound process. For over

two decades, GSCM has become an important environmental practice for companies to achieve profit and increase market share in such a way that environmental risks are lowered and ecological efficiency are raised. Realizing the significance of the Green Supply Chain Management implemented by the organizations, Sarkis (2009) developed a strategic decision framework that aids managerial decision making in selecting its alternatives and product life cycle, operational life cycle (including procurement, production, distribution and reverse logistics (RL)), organizational performance measurements and environmentally conscious business practices serve as the foundation for the decision framework.

Ifinedo (2008) recognize the role of middle managers arguing they are the key actors' who have a pivotal role in strategic communication and giving direction towards achieving organization goal. Furthermore management commitment on ensuring successful strategy adoption has been receiving a considerable amount of attention is the impact of an organization's existing adoption controls and particularly its budgeting systems. Zwikael (2008) define three other types of control, namely result controls, which are similar to output control, action controls, which are comparable to behavior control, and personnel or cultural controls. Personnel or cultural controls are related to personal controls though they entail more than influencing behavior through personal contact.

Young and Jordan (2008) confirmed that the essence of top management support related to effective decision-making to manage green supply chain and to authorize business process change. A crucial part of a successful proposal is top management support that is related to improve decision making in order to manage strategy. Top-level management responds to business processes and manages strategy. Successful mitigation or bearing of strategy is contingent upon commitment and support from top management. Moreover, commitment and support from top management plays a key role in influencing the success in almost any initiative within an organization (Ifinedo, 2008). Top management formulates and decides objectives and strategies for organizational GSCM management activities, mission and overall objectives (Zwikael, 2008).

Strategic decisions create a wave of sub-decisions that must be successfully managed (Mintzberg, 1998). Typically, the manager-leader (middle managers and supervisors) is held accountable for formulation or adoption of these sub-decisions that requires a sequence of tasks to be carefully executed so that a favorable business outcome can be achieved in the medium to short term. It is clear that the particulars of such management vary widely from decision to decision, but virtually all decisions require efficient formulation to be successful (Wong et al, 2009). In other words, a brilliant decision can prove worthless without efficient management commitment. Even the best decisions fail to be managed due to the inadequate supervision of subordinates from the executive among other reasons. Wong further emphasizes that those who implement decisions to the best of their ability are usually those who commit themselves as they are aware of the expected outcomes.

2.4 Staff Training

Training and education are the prime requirements for achieving successful implementation of GSCM in any organization (Ravi & Shankar, 2005). Management may encourage employees to learn green information. Organizations may provide rewards for green employees. Employees may be helped when they face green problems and may be provided support to learn green information (Hsu & Hu, 2008). The success of an organization is related to its ability to manage effective cooperation (Tyler, 2003). It is inevitable that the success of an organization depends upon its staff or employees. It is important to ensure that an adequate supply of staff is equipped with the appropriate skills for special departmental or managerial positions. The endless brief, but vital is if strategy is to be adopted the organization should commit to offer training to the staff. A strategy manager should set up training sessions through the directorate manager for members of staff and through strategic management team for consultants.

Successful competitive strategies and outcomes (including those in the environmental area) depend on the development, effective deployment and maintenance of these resources and capabilities over time. Staff training systems can be viewed as an especially important capability within this resource-based framework since, especially when coupled with an organizational emphasis on continuous improvement, they can help organizations build from more basic

complementary capabilities such as those associated with ISO 9000 and TQM systems experience, for example, to more complex systems (especially in terms of higher-order learning proficiencies) such as TQEM, EMS, ISO 14001 and eventually GSCM practices (Wong et al, 2009).

Staff training systems facilitate the intelligent and complementary deployment of a firm's existing resources and capabilities to affect a desired end. This deployment typically occurs through the development of new organizational routines and activities across functional departments via the development of coordination and skills as necessitated by the organization's unique structure, culture and product and process innovations already in place. GSCM practices are especially amenable to the benefits derived from learning because of their people-intensive nature and their dependence upon tacit skill development via employee involvement and coordination of team effort and shared expertise. Using socially complex and intangible knowledge-based processes, it taps the organization's embedded expertise and permits the creation of congruence across the organization's range of strategic, structural and cognitive systems, arguably at lower cost. Ifinedo (2008) suggest that organizational capabilities are closely tied to environmental performance, and that organizations possessing greater capabilities can more easily adopt proactive environmental management practices.

Other research supports the role of Staff training systems in particular promoting higher levels of environmental capabilities by drawing on expertise developed earlier in basic levels of environmental management by developing or acquiring the necessary socially complex or process-based resource (Sarkis, 2009). The fact that Indian organizations have quality management experiences that far exceed their environmental management experience may help to provide learning that helps promote successful environmental management practice and associated GSCM practice. Thus, the issue of Staff training systems, and their potential on GSCM practice adoption, is quite salient at this time and will continue to be so for the foreseeable future.

Today, almost all companies provide some type of training to their employees. Some companies have a very formal process of training while other companies use outside consultants to conduct

employee training sessions (Hughey & Mussnug, 2007). Training is an integral part of every company's agenda. Because of the implications of training, it is important to have training that is effective. Studies have proven that more costly but effective training can save money that is wasted on cheap but inefficient training. Unfortunately, there is no rule of thumb or one for all method of effective training. Methods of training have to be analyzed and studied before companies rely on them to train a competent workforce.

Zhu et al., (2008) founded that there are some main drivers behind applying GSCM in Chinese manufacturing industry, such as straightforward cost reduction to facilitate the development of co-operative relationships with suppliers and encouraging life-cycle. On the other side, despite that there is an increasing environmental awareness; there is a slow implementation of GSCM across enterprises, and it is approved through the study that turning the awareness and pressures into practices and performance will take some time in Chinese manufacturing industry.

2.5 Communication Strategy

Strong communication between business managers and environmental professionals with management support is also necessary for effective management of both business and environmental issues. Informal linkages and improved communication help the organizations to adopt Green's practices (Yu & Hui, 2008). Developing new products is a multifaceted procedure engaging individuals with various backgrounds and management position .Broadly speaking, the product success relies on the efficient communication and cooperation among the different team members. Toroy (2008) stated that "cross-functional integration" impacts directly product and process development success. Russo and Harrison (2005) stated that the efficiency of green initiatives regularly involves collaborative relationship network among Environment Management System players, engineers and production employees.

Most small companies are often lack of awareness and information, the management may not be aware of what is going wrong in the organization. They may not understand the environmental impacts of activities of the organization. Also, internal communication in the organization may be weak. Other than that, lack of exposure is another common problems faced by companies. Management does not have information on what initiatives have been taken by other

organizations and how successful they have been. Benefits of a system based and business-environment integrated approach are often not known to the top (Yu & Hui, 2008).

Once the strategy has been formulated, communication is one of the most important vehicles for successful implementation. Managements are supposed to inform all employees about the content, meaning and reasons for the new strategy set. However, they should not only inform the employees, they should also leave room for questions from and discussion with the employees. Communication also involves the explanation of new tasks and responsibilities to the employees. Throughout the implementation process, communication should flow bottom-up to allow management to monitor the implementation process and determine whether changes to the approach are needed (Clutterbuck & Hirst, 2002).

Communication is an important skill for leaders and top-level management. The effective leader or managers who are good at communication can set clear mutual expectations, objectives and goals that clearly explain aim of the strategy. Communication ensures that the team members understand and support not only where the team is now but also what they want to be (Clutterbuck & Hirst, 2002). Even though studies point out that communication is a key success factor within strategy adoption and implementation, communicating with employees concerning issues related to the strategy management is frequently delayed until the changes have already crystallized (Finniston, 2005). In this context, many organizations are faced with the challenge of lack of a two-way-communication pattern that permits and solicits questions from employees about issues regarding the formulated strategy.

It is essential both during and after any organizational strategy to communicate information about organizational developments to all levels in a timely fashion. The way in which a strategy is presented to employees is of great influence to their acceptance of it. To deal with this critical situation, an integrated communications plan must be developed. Such a plan is an effective vehicle for focusing the employees' attention on the value of the selected strategy to be implemented. In addition, many large organizations are creating teams whose role it is to make the large range of risks in the organization to be understood, provide information about security risks and advise executive management on business decisions (Harris, 2006).

The communication process provides opportunities for members to understand their roles and responsibilities as the structure of the organization changes. In case, the wide range of people from a broad cross-section of the business. There is involved in the GSCM identification and assessment process and if there are no “taboo” subjects who prevent conventional wisdom within the organization being challenged when necessary (Harris, 2006). Manufacturing companies need to consider the concept of verifiability. If a different group of members were making the same decision about the importance of strategy adopted, it would come to the same conclusion (Carlson, 2004).

Most organizations accept that good communication is extremely important. Different employees have different views and discussion between them is therefore based on different conclusions. They simply want to get a clear message across and discussion may be an appropriate channel to deliver messages. Other employees may wish that senior management discuss future plans with staff. Finniston (2005) pointed out that the gathering, storage, delivery and communication of information in the broadest sense is a growing business. There is an ever-increasing need for communication professionals to ensure that employees are posted of relevant happenings both inside and outside their organization (Forman & Argenti, 2005). A good manager must also be an effective communicator and training in communication must play a larger role in managerial training in the future.

2.6 Market Structure

In today’s scenario market uncertainty is very high due to global competitiveness, and customer’s requirements (Yu & Hui, 2008). Research and benchmarked global competitors develop and deploy strategies. The external environment in which a firm conducts its business will also influence the innovative capability as well as intention to adopt innovations (Hosseini, 2007). We assume that market competition and uncertainty is most important barrier to achieve GSCM in Indian automobile industry.

Innovative green practices are associated with the explicitness of green practices, accumulation of green related knowledge, organizational encouragement and quality of human resources (Yu & Hui, 2008). Innovative green practices involves hazardous solid waste disposal, energy

conservation, reusing and recycling of materials. Innovative green practices promote innovative design, new market opportunities and makes their quality better than others. However, due to market competition and cost implications, organizations try to save cost. Implementing GSCM practices initially involves high investment. Financial constraints also lead to resistance to implementing green practices (Ravi & Shankar, 2005).

Stakeholders' concepts penetrated to business management area, for the first time, as Freeman stated stakeholders approach, in 1994. Broadly spiking stakeholders including any individual or group community, who may influence or is influenced by the organization. External stakeholders who have effect on GSCM adoption include: suppliers, customers, communities, Non Governmental organizations (NGOs) and regulators (Hosseini, 2007). Based on Hosseini (2007), in addition to other specialists, the GSCM practices main external stakeholders are believed to include, customers, suppliers and community stakeholders.

Customers' ask for green products and services have now become the most significant driver for green initiatives (Doonanet *al.* 2005). But these customer calls are still evolving. As Chan and Lau (2001) conducted a comparison between green purchasing behavior of Chinese and American consumers. They investigated that, "translation of green purchasing intent into identical behavior is more effective among American consumers". In order to gain more long lasting solution, the environmentally sound product producers most meet and exceed the customers' need and requirement. Researches on U.S.A customers purchasing behavior demonstrates that approximately 75% of consumers affirm that the company's environmental good name affected their purchasing choices, and 80% of them have enthusiasm to pay extra for environmentally sound commodities.

Suppliers support and participate in the whole supply chain performance, and a supplier "poor" performance can influences the overall supply chain performance (Sarkar & Mohapatra 2006). Furthermore, manufacturer- supplier association, could be considered as a vital factor of acquiring a sustainable competitive advantage for companies. Partnering with suppliers who consider their ecological footprint, now become a major criteria in most of the companies. In this

regard, some business leaders of developed countries have started to assess their second-tier suppliers (suppliers' suppliers) in addition to their major direct suppliers.

Community stakeholders are distinct as group of individuals who are not essentially include in the firm's group of partners, but they have familiarity with the community and company (Paloviita & Luoma, 2010). As health impacts and sustainable solutions are to be recognized with confidence, it is necessary that community perceptions be sufficiently represented and that they affect decision-making process. Most of the experts have stated that, stakeholders' community has the potential power to affect and change the society's feelings of a firm.

The increasing cost of energy and raw materials has forced businesses to find new ways to reduce their energy use in order to reduce cost and remain competitive in the in the market. This has made Green supply Chain management an important strategic tool. Organizations' operations or activities have been known to have an impact within the environments in which they operate. Bastioli (2001) argues that the wastes and emissions caused by the supply chain have become the main source of current environmental problems. It is due to this realization that Governments and regulators in effort to conserve the environment have passed regulations aimed at controlling the effect of businesses activities on the environment. However, most of the adopted green solutions, especially in developing countries, remain to be the traditional command-and-control or "end-of-the- pipe" solutions where a firm tries to eliminate or reduce negative environmental impacts, after they have created it rather than adopting a proactive approach to reduce the sources of waste or pollution (AlKhidir & Zailani, 2009).

Zhu and Sarkis (2007) have investigated the occurrence of thirteen pressures and drivers for automobile industry and other industries in China. Results indicated that pressures and drivers for automobile industry in China are the greatest among other Chinese industries. Regulatory compliance is indicated as one from the main pressures on Chinese automobile industries due to China's entry to WTO. Results showed that automobile industry in China have a good opportunity in gaining a competitive advantage and being an environmentally aware industry which is considered in itself as a driver to green its automobile supply chain.

Kannan et al (2013) conducted a study to identify and analyse the factors that affect the adoption of Green Supply Chain Management practices based on empirical evidence from the Nigerian electronics sector. Data are collected in a survey of 100 electronics companies and analysed using statistical analysis of variance and regression methods. The study finds that the size of the company, previous experience with Environmental Management Systems, and the use of hazardous inputs are positively correlated with GSCM practices adoption. Surprisingly, formal pressure from the stronger tier/player in the supply chain is not correlated with the adoption of GSCM practices.

2.7 Conceptual Framework

A conceptual definition is an element of the scientific research process, in which a specific concept is defined as a measurable occurrence or in measurable terms; it basically gives one the meaning of the concept (Mugenda & Mugenda, 2003). Conceptual framework is a diagrammatic presentation of the relationship between dependent and independent variables. In this study, the dependent variable would be adoption of Green supply chain management strategy while the independent variables would be market structure, top management support Communication strategy and Staff training.

Independent variable

Moderating variables

Dependent variables

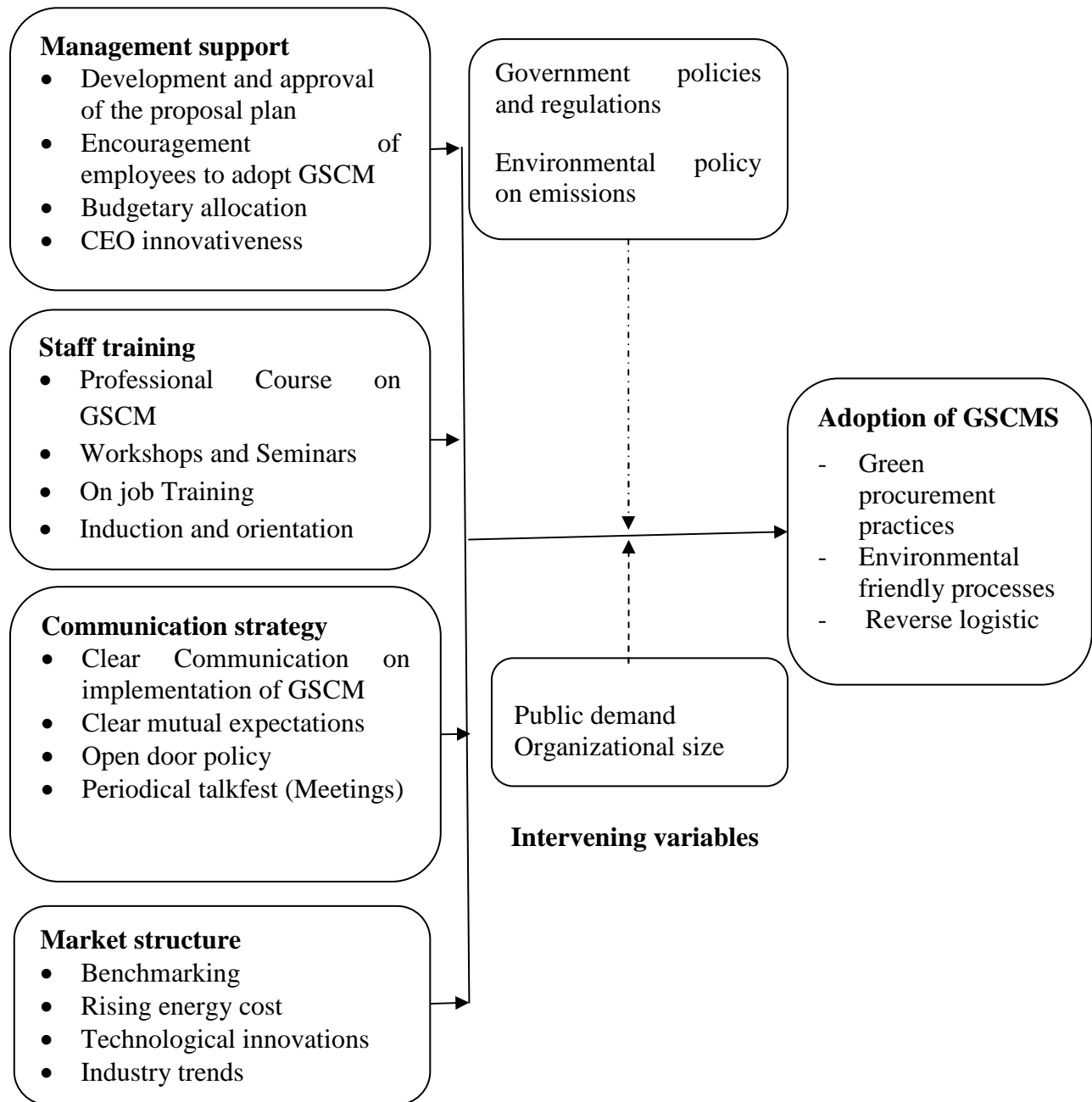


Figure 1: Conceptual Framework

2.8 Summary

Supply chain management has traditionally been viewed as a process where in raw materials are converted into final products, and then delivered to the end-consumer. This process involves extraction and exploitation of the natural resources (Srivastava, 2007). It is important to note however that we live in a decade where environmental sustainability has been an important issue to business practice. The waste and emissions caused by the supply chain have become one of the main sources of serious environmental problems including global warming and acid rain. Green supply chain policies are desirable since reactive regulatory, to proactive strategic and competitive advantages. Greening the supply chain is increasingly a concern for many business enterprises and a challenge for logistics management in the 21st century. Of particular concern is how to arouse organizational environmental awareness and put environmental activities into practice in the logistics activities of their supply chains. This study therefore seeks to establish the factors influencing the adoption of green supply chain management as a strategy in an organization in Kenya with specific focus on Delmonte Fruit Juice Manufacturing Company.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the methodology the researcher used when collecting data: the research design, target population, sampling design, sample size, data collection instruments and data analysis and presentation methods used.

3.2 Research Design

The study adopted descriptive survey research design. A descriptive design is concerned with determining the frequency with which something occurs or the relationship between variables (Bryman& Bell, 2003). Thus, this approach was appropriate for this study, since the study collected detailed information through descriptions and was useful for identifying variables. Mugenda and Mugenda, (2003) noted that a descriptive design seeks to obtain information that describes existing phenomena by asking questions relating to individual perceptions and attitudes.

3.3 Target Population

The target population was 110 management staff working in Delmonte Fruit Manufacturing Company in Thika. This comprised senior and middle level managers in the following departments: Corporate Social Responsibility, Public Relations, Human Resource and Operation Department. These respondents were targeted as they are conversant on the strategies adopted by the organization on the adoption of GSCM. Further, the respondents are accountable on the daily operation of the company. Delmonte Fruit Manufacturing Company was chosen as it is one of the organization that is dealing with manufacturing of its end product and its waste may be pollution to the environment if not controlled.

Table 3.1: Target Population

	Population	Percentage
Senior Managers	24	22
Middle level managers	86	78
Total	110	100

Source: Delmonte Fruit Manufacturing Company, (2012)

3.4 Sample Size and Sampling Procedure

The sampling plan describes the sampling unit, sampling frame, sampling procedures and the sample size for the study. The sampling frame describes the list of all population units from which the sample was selected (Cooper & Schindler, 2003).

A sample population of 86 was arrived at by calculating the target population of 110 with a 95% confidence level and an error of 0.05 using the below formula taken from Mugenda and Mugenda (2003):

From Normal distribution the population proportion can be estimated to be

$$n = \frac{Z^2 PQ}{\alpha^2}$$

Where: Z is the Z – value = 1.96

P Population proportion 0.50

Q = 1-P

α = level of significance = 5%

$$n = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2}$$

$$n = 384$$

Adjusted sample size

$$n' = \frac{384}{[1 + (384/110)]}$$

$$\text{Approx} = 86$$

The study employed stratified random sampling technique in coming up with a sample size of 86 respondents from a total of 110 in specific department in Delmonte Fruit Manufacturing

Company in Thika. Stratified random sampling is unbiased sampling method of grouping heterogeneous population into homogenous subsets then making a selection within the individual subset to ensure representativeness (Bryman & Bell, 2003). The goal of stratified random sampling is to achieve the desired representation from various sub-groups in the population. In stratified random sampling subjects are selected in such a way that the existing sub-groups in the population are more or less represented in the sample (Mugenda & Mugenda, 2003). The method was used since the population could be divided into distinct groups bearing distinct characteristics. From each stratum, simple random sampling was used to select the respondents for the questionnaires.

Table 3.2: Sampling Frame

Departments	Population	Sampling ratio	Sample
Senior Managers	24	0.78	19
Middle level managers	86	0.78	67
Total	110	0.78	86

3.5 Data Collection Instruments

Primary data was collected using questionnaires from the respondents. A questionnaire is a pre-formulated written set of questions to which respondents record their answers, usually within rather closely defined alternatives which is very valuable method of collecting a wide range of information from a large number of respondents (Sekaran, 2006). Kothari (2007) terms the questionnaire as the most appropriate instrument due to its ability to collect a large amount of information in a reasonably quick span of time. It guarantees confidentiality of the source of information through anonymity while ensuring standardization (Chandran, 2004). It is for the above reasons that the questionnaire was chosen as an appropriate instrument for this study.

The questionnaire was structured to provide respondents with easy fill-in the data. The questionnaire contained both open ended and close ended questions. The questionnaire had two sections. Section one collected information on the bio data of the respondents while the second

section focused on the study variables. Secondary data was obtained from organization's brochures, their websites, journals and periodicals and other relevant sources that were available to the researcher using a check list.

3.5.1 Validity of the Research Instruments

According to Mugenda and Mugenda (2003), validity is the accuracy and meaningfulness of inferences, based on the research results. One of the main reasons for conducting the pilot study was to ascertain the validity of the questionnaire. To establish the validity of the research instrument the researcher sought opinions of experts in the field of study especially the lecturers in the department of business administration. This helped to improve the content validity of the data that was collected.

3.5.2 Reliability of the Research Instruments

Reliability of the questionnaire was evaluated through administration of the said instrument to the pilot group of 20 respondents from the target population. The higher the score, the more reliable the generated scale is. A construct composite reliability co-efficient (Cronbach alpha) of 0.7 or above, for all the constructs, was considered adequate for this study. Nunnaly (1978) has indicated 0.7 to be an acceptable reliability coefficient but lower thresholds are sometimes used in the literature.

The table shows that all the five variables were reliable as their reliability values exceeded the prescribed threshold of 0.7 with a mean score of 0.843.

Table 3. 3: Reliability Analysis

Scale	Cronbach's Alpha	Number of Items
Management support	0.854	7
Staff training	0.833	4
Communication strategy	0.876	4
Market structure	0.813	4
Adoption of GSCMS	0.837	5
Average	0.843	5

3.6 Data Collection Procedure

The questionnaires were self-administered. Self-administered questionnaire enabled one to clarify the questions or probe for more answers. This made it clear and is likely to yield relevant responses. To increase the response rate, an introduction letter from the University was attached as this assured the respondents of their safety, trust and confidentiality.

3.7 Data Analysis and Presentation

Data obtained from the field in raw form must be cleaned, coded into a computer and analyzed. It is the result of such analysis that researchers are able to make sense of the data (Mugenda & Mugenda, 2003). The study gathered both primary qualitative and primary quantitative data. Data was coded and entered into Statistical Packages for Social Sciences (SPSS V 21). In order to effectively analyze the primary quantitative data, descriptive statistics including percentages, frequencies, means and standard deviation was used. Qualitative data was analyzed by the use of content data analysis, where the factors affecting adoption of Green supply chain management strategy were grouped into related themes.

Presentation of quantitative data was done using frequency in tables. Presentation of qualitative data was done in prose form, involving explanation of the factors influencing green supply chain management as a strategy for enhancing organization performance from the questionnaires as indicated by the respondents. Regression analysis was conducted to show how management support, organizational learning, communication strategy and market structure influences adoption of GSCM.

The regression model was:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Where: Y = GSCM strategy;

β_0 = Constant Term;

$\beta_1, \beta_2, \beta_3$ and β_4 = Beta coefficients;

X_1 = Management support;

X_2 = Staff training;

X_3 = Communication strategy;

X_4 =Market structure;

ε = Error term

3.8 Ethical Issues

The researcher collected sensitive information and therefore had a moral obligation to treat the information with utmost care. The researcher assured the respondents confidentiality of the information given to ensure that the respondents are not reluctant to give the information as sought by the study. This was done by using the transmittal letter (Appendix I) indicating that the data collected was only for academic purposes.

3.9 Operationalization of Variables

The operationalization of variables is shown in Table 3.1

Table 3.4: Operationalization of variables

Objective	Variable	Indicators	Measurement scale	Tools of analysis	Type of data analysis
To establish the influence of management support on adoption of GSCM strategy at Delmonte Fruit Juice Manufacturing Company.	Independent: Management support	Development and approval of the proposal plan Encouragement of employees to adopt GSCM Budgetary allocation CEO innovativeness	Ordinal Ordinal Interval Ordinal	Mean Percentage	Descriptive Regression
To establish the influence of training on the adoption of GSCM strategy at Delmonte Fruit Juices Manufacturing Company.	Staff training	Professional Course on GSCM Workshops and Seminars On job Training Induction and orientation	Ordinal Ratio Ordinal Ordinal	Mean Percentage	Descriptive Regression
To examine the influence of communication strategy influence adoption of GSCM strategy at Delmonte Fruit Juices Manufacturing Company.	Communication strategy	Clear Communication on implementation of GSCM Clear mutual expectations Open door policy Periodical talkfest (Meetings)	Nominal Ordinal Ordinal Interval	Mean Percentage	Descriptive Regression

<p>To determine the influence of market structure on adoption of GSCM strategy at Delmonte Fruit Juice Manufacturing Company.</p>	<p>Market structure</p>	<p>Benchmarking Rising energy cost Technological innovations Industry trends</p>	<p>Ordinal Ratio Interval Ordinal</p>	<p>Mean Percentage</p>	<p>Descriptive Regression</p>
	<p>Dependent: Adoption of GSCMS</p>	<p>Green procurement practices Environmental friendly processes Reverse logistic</p>	<p>Ordinal Ordinal Interval</p>	<p>Mean Percentage</p>	<p>Descriptive Regression</p>

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter discusses the interpretation and presentation of the findings. This chapter presents analysis of the data on the factors influencing the adoption of green supply chain management strategy in industries: a case of Delmonte Fruit Juice Manufacturing Company. The chapter also provides the major findings and results of the study.

4.1.1 Response Rate

The study targeted a sample size of 86 respondents from which 67 filled in and returned the questionnaires making a response rate of 77.9%. This response rate was good and representative and conforms to Mugenda and Mugenda (1999) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent.

4.2 Demographic Characteristics

The researcher sought to establish the background information of the respondents and the companies including respondents' highest level of education, Duration of work in the company and whether the departments have strategies that are intended to conserve environment.

4.2.1 Level of Education

The researcher also sought to establish the respondents' highest level of education.

Table 4. 1: Respondents' highest level of education

	Frequency	Percent
Postgraduate	12	17.9
Undergraduate	36	53.7
Diploma	11	16.4
Certificate	8	11.9
Total	67	100.0

According to the findings, the majority of the respondents (53.7%) had an undergraduate degree, 17.9% had a postgraduate degree, 16.4% had a diploma while 11.9% of the respondents had a certificate.

4.2.2 Work Experience

The researcher also sought to establish the years of service/working period at Delmonte Fruit Juice Manufacturing Company.

Table 4.2: Duration of work in the company

	Frequency	Percent
1 to 5 years	16	23.9
6 to 10years	4	6.0
11 to 15 years	18	26.9
16 to 20 years	9	13.4
21 years and above	20	29.9
Total	67	100.0

On the years of service/working period at Delmonte Fruit Juice Manufacturing Company, the findings in table4.3 4.4 show that 29.9% of the respondents had worked for 21 years and above, 26.9% had worked for 11 to 15 years, 23.9% had worked for 1 to 5 years, 13.4% had worked for 16 to 20 years, while 6% had worked for 6 to 10years.

4.3 Management Support

The researcher sought to establish the influence of management support on adoption of Green Supply Chain Management strategy at Delmonte Fruit Juice Manufacturing Company. The most important factor when adopting strategic management is the top level management’s commitment to the strategic direction itself. This is undoubtedly a prerequisite for strategy adoption. Top Management support is especially useful for environmental practices such as GSCM.

4.3.1 Extent that management support influence the adoption of GSCMS

The researcher sought to establish the extent that management support influence the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company.

Table 4.3: Extent that management support influence the adoption of GSCMS

	Frequency	Percent
Moderate extent	3	4.5
Great extent	7	10.4
Very great extent	57	85.1
Total	67	100.0

Regarding the extent that management support influence the adoption of GSCMS, majority of the respondents (85.1%) indicated that management support influence the adoption of GSCMS to a very great extent, 10.2% said to a great extent while 4.5% of the respondents felt that management support influence the adoption of GSCMS to a moderate extent. This is undoubtedly a prerequisite for strategy GSCMS adoption.

4.3.2 Aspects of management support influencing adoption of GSCMS

The researcher inquired the extent that aspects of management support influence adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company.

Table 4.4: Extant that aspects of management support influence adoption of GSCMS

	Mean	Std. Deviation
Budgetary allocation	4.5373	.65893
CEO innovativeness	3.9552	1.17335
Development and approval of the proposal plan	3.9104	1.01102
Encouragement of employees to adopt GSCMS	4.0597	.71522

On the extent that aspects of management support influences adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company, the respondents indicated that budgetary allocation influence adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company to a very great

extent as shown by a mean score of 4.5373. The respondents indicated that the aspects of management support influence adoption of GSCMS to a great extent include encouragement of employees to adopt GSCMS, CEO innovativeness and development and approval of the proposal plan as shown by a mean score of 4.0597, 3.9552 and 3.9104 respectively.

4.3.3 Agreement with statements regarding management support

The researcher also required the respondent to indicate their level of agreement with statements regarding management support towards implementation of GSCMS.

Table 4.5: Agreement with statements regarding management support

Statement	Mean	Std. Deviation
Our managers support actual formation and implementation of green initiatives across the organization	4.1940	.67955
There is transparency collaboration and integration of systems between staffs and trading partner in the supply chain is requirement	4.4030	.67554
Traditional mindset and suppliers' interests being different from those of the total network had affected implementation of GSM	3.5373	1.03468

From the study findings, majority of the respondents agreed that there is transparency collaboration and integration of systems between staffs and trading partner in the supply chain is requirement as shown by a mean score of 4.4030, the managers support actual formation and implementation of green initiatives across the organization as shown by a mean score of 4.1940 and that traditional mindset and suppliers' interests being different from those of the total network had affected implementation of GSM as shown by a mean score of 3.5373.

4.4 Staff Training

The researcher further sought to find out the influence of staff training on adoption of Green Supply Chain Management strategy at Delmonte Fruit Juice Manufacturing Company.

4.4.1 Extent that staff training influence the adoption of GSCMS

The researcher sought to establish the extent that staff training influence the adoption of GSCMS at Delmonte.

Table 4.6: Extent that staff training influence the adoption of GSCMS

	Frequency	Percent
Little extent	4	6.0
Moderate extent	6	9.0
Great extent	14	20.9
Very great extent	43	64.2
Total	67	100.0

From the study findings portrayed in table 4.6, most of the respondents (64.2%) indicated that staff training influence the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company to a very great extent, 20.9% said to a great extent, 9% said to a moderate extent while 6% of the respondents were of the view that staff training influence the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company to a little extent.

4.4.2 Aspects of staff training influence adoption of GSCMS

The researcher also wanted to establish the extent that various aspects of staff training influence adoption of GSCM at Delmonte Fruit Juice Manufacturing Company.

Table 4.7: Extent that aspects of staff training influence adoption of GSCMS

	Mean	Std. Deviation
Professional Course on GSCM	4.6716	.56106
Workshops and Seminars	4.5373	.63552
On the job Training	4.4925	.68253
Induction and orientation	4.1926	.68253

According to the findings, majority of the respondents indicated that the aspects of staff training influence adoption of GSCM at Delmonte Fruit Juice Manufacturing Company to a very great extent include professional Course on GSCM and workshops and Seminars as shown by a mean

score of 4.6716 and 4.5373 respectively while on the job training and induction and orientation had a great influence as shown by a mean score of 4.4925 and 4.1926 respectively.

The respondents were also required to indicate the aspects of staff training that affect adoption of GSCM at Delmonte Fruit Juice Manufacturing Company. From the findings, the respondents indicated that staff training systems can be viewed as an especially important capability within this resource-based framework since, especially when coupled with an organizational emphasis on continuous improvement, they can help organizations build from more basic complementary capabilities such as those associated with ISO 9000 and TQM systems experience, for example, to more complex systems (especially in terms of higher-order learning proficiencies) such as TQEM, ISO 14001 and eventually GSCM practices.

4.5 Communication of Strategies

The researcher further sought to establish the influence of communication of strategies on adoption of Green Supply Chain Management strategy at Delmonte Fruit Juice Manufacturing Company.

4.5.1 Communication of strategies influences the adoption of GSCMS

The researcher further inquired on the extent that communication of strategies influences the adoption of GSCMS at Delmonte.

Table 4.8: Extent that communication of strategies influences the adoption of GSCMS

	Frequency	Percent
Moderate extent	1	1.5
Great extent	19	28.4
Very great extent	47	70.1
Total	67	100.0

From the findings as shown by table 4.8, 70.1% of the respondents indicated that communication of strategies influences the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company to a very great extent, 28.4% said to a great extent while 1.5% said communication of strategies influences the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company to a moderate extent.

4.5.1 Aspects of strategies of communication influence adoption of GSCM

The researcher sought to establish the extent that aspects of strategies of communication influence adoption of GSCM at Delmonte Fruit Juice Manufacturing Company.

Table 4.9: Extent that strategies of communication influence adoption of GSCM

	Mean	Std. Deviation
Clear Communication on implementation of GSCM	4.6866	.49875
Clear mutual expectations	4.6418	.51745
Open door policy	4.5166	.59548
Periodical talkfest (Meetings)	3.9254	.85835

The researcher found that the aspects of communication of strategies that influence adoption of GSCM at Delmonte Fruit Juice Manufacturing Company to a very great extent include the Clear communication on implementation of GSCM, open door policy, clear mutual expectations and clear communication on implementation of GSCM as shown by a mean score of 4.6866, 4.6418, and 4.5166 respectively. They also indicated that periodical talkfest (meetings) had a great influence on adoption of GSCM at Delmonte Fruit Juice Manufacturing Company as shown by a mean score of 3.9254.

4.6 Market Structure

The researcher sought to explore the influence of market structure on adoption of Green supply chain management strategy at Delmonte.

4.6.1 Market structure influence on adoption of Green supply chain management

The respondents were requested to indicate the extent that market structure influences the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company.

Table 4.10: Extent that market structure influence adoption of GSCMS

	Frequency	Percent
No extent	5	7.7
Moderate extent	2	2.9
Great extent	16	23.8
Very great extent	44	65.6
Total	67	100.0

Majority of the respondents (65.6%) indicated that market structure influences the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company to a very great extent, 23.8% said it influences to a great extent, 7.7% said it does not influence at all while 2.9% of the respondent indicated that market structure influences the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company to a moderate extent.

4.6.2 Aspects of market structure influence adoption of GSCMS

The researcher also sought to determine the extent that aspects of market structure influence adoption of Green supply chain management strategy at Delmonte Fruit Juice Manufacturing Company.

Table 4. 11: Extent that aspects of market structure influence adoption of GSCMS

	Mean	Std. Deviation
Competitor standards benchmarking	4.4908	.86225
Rising energy cost	3.8718	.79898
Technological innovations	4.1941	.96770
Industry trends	3.7363	.96827

On the extent that various aspects of market structure influence adoption of GSCMS in the company, majority of the respondents indicated that the aspects of market structure influence adoption of GSCMS Delmonte Fruit Juice Manufacturing Company to a great extent include competitor standards benchmarking as shown by a mean score of 4.4908, technological innovations as shown by a mean score of 4.1941, rising energy cost as shown by a mean score of 3.8718 and industry trends as shown by a mean score of 3.7363.

4.7 Adoption of Green Supply Chain Management Strategy

The researcher sought to know the extent to which Delmonte Company had adopted GSCMS

4.7.1 Strategies that are intended to conserve environment in the departments

The researcher also sought to determine whether the departments that respondents serve have strategies that are intended to conserve environment.

Table 4.12: Whether the departments have strategies that conserve environment

	Frequency	Percent
Yes	34	50.7
No	33	49.3
Total	67	100.0

From the findings, majority (50.7%) of the respondents indicated that their departments have strategies that are intended to conserve environment while 49.3% said that theirs don't have.

4.7.2 Aspects of Green Supply Chain Management Strategy

The researcher sought to establish the extent that Delmonte Fruit Juice Manufacturing Company is successful in various aspects of GSCMS

Table 4.13: Extent that Delmonte is successful in various aspects of GSCMS

	Mean	Std. Deviation
Reduction of waste during processing	4.7164	.59813
Recycling of materials	4.5373	.70342
Reuse and the substitution of materials.	4.5821	.65480
Environment conservation through adoption of the integrated method of pollution control	4.5522	.65790
Green procurement practices/Green purchasing	4.1194	.89650

On the extent that companies are successful in various aspects of GSCM, majority of the respondents indicated that to a very great extent, their company as successful in reduction of waste during processing as shown by a mean score of 4.7164, reuse and the substitution of materials as shown by a mean score of 4.5821, environment conservation through adoption of the integrated method of pollution control as shown by a mean score of 4.5522, recycling of materials as shown by a mean score of 4.5373 and promotion of environmental and social behavior as shown by a mean score of 4.5224. They also indicated that their company was successful to a great extent in green processing and green purchasing as shown by a mean score of 4.4627 and 4.1194 respectively.

4.8 Regression Analysis

In this study, a multiple regression analysis was conducted to test the influence among predictor variables. The research used statistical package for social sciences (SPSS V 21.0) to code, enter and compute the measurements of the multiple regressions

Table 4.14: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.8662	0.7503	0.6902	0.7325

R-Squared is a commonly used statistic to evaluate model fit. R-square is 1 minus the ratio of residual variability. The adjusted R^2 , also called the coefficient of multiple determinations, is the percent of the variance in the dependent explained uniquely or jointly by the independent variables. 69.02% of the changes in the adoption of green supply chain management strategy at Delmonte Fruit Juice Manufacturing Company could be attributed to the combined effect of the predictor variables.

Table 4.15: Summary of One-Way ANOVA results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.223	4	2.306	3.334	0.015
	Residual	42.876	62	0.692		
	Total	52.099	66			

The probability value of 0.015 indicates that the regression relationship was highly significant in predicting how market structure, management support, communication of strategies and staff training influenced adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company. The F calculated at 5% level of significance was 3.334 since F calculated is greater than the F critical (value = 2.5252), this shows that the overall model was significant.

Table 4.1: Regression coefficients of the relationship between adoption of GSCMS and the four predictive variables

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	1.053	0.217			2.889	5.31E-03
Market structure	0.682	0.149	0.613		5.309	1.58E-06
Management support	0.701	0.181	0.149		3.210	2.10E-03
Communication of strategies	0.599	0.196	0.234		4.255	7.19E-05
Staff training	0.763	0.091	0.138		3.989	1.78E-04

As per the SPSS generated table above, the equation ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$) becomes:

$$Y = 1.053 + 0.682X_1 + 0.701X_2 + 0.599X_3 + 0.763X_4$$

The regression equation above has established that taking all factors into account (market structure, management support, communication of strategies and staff training) constant at zero adoption of GSCMS will be 1.053. The findings presented also show that taking all other independent variables at zero, a unit increase in the market structure would lead to a 0.682 increase in the scores of adoption of GSCMS and a unit increase in the scores of management support would lead to a 0.701 increase in the scores of adoption of GSCMS. Further, the findings shows that a unit increases in the scores of communication of strategies would lead to a 0.599 increase in the scores of co adoption of GSCMS. The study also found that a unit increase in the scores of staff training would lead to a 0.763 increase in the scores of adoption of GSCMS.

Overall, staff training had the greatest effect on the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company, followed by management support, then market structure while level of communication of strategies had the least effect to the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company. All the variables were significant ($p < 0.05$).

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presented the discussion of key data findings, conclusion drawn from the findings highlighted and recommendation made there-to. The conclusions and recommendations drawn were focused on addressing the objective of the study.

5.2 Summary of Findings

The study sought to establish the influence of management support, staff training, communication strategy and market structure on adoption of GSCM strategy at Delmonte Fruit Juice Manufacturing Company

5.2.1 Management Support

The researcher deduced that management support influence the adoption of GSCMS to a very great extent such that a unit increase in the scores of management support would lead to a 0.701 increase in the scores of adoption of GSCMS. This is mainly through budgetary allocation, encouragement of employees to adopt GSCMS, CEO innovativeness and development and approval of the proposal plan.

5.2.2 Staff Training

The researcher further established that staff training influence the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company to a very great extent. The aspects of staff training influence adoption of GSCM at Delmonte Fruit Juice Manufacturing Company to a very great extent include professional Course on GSCM, workshops and Seminars, on the job training and induction and orientation.

5.2.3 Communication Strategies

The researcher established that communication strategies such as communication pattern used, open door policy, clear mutual expectations and clear communication on implementation of

GSCM influence the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company to a very great extent.

5.2.4 Market Structure

This researcher also learnt that market structure influences the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company to a very great extent mainly through competitor standards benchmarking, technological innovations and rising energy cost. Overall, staff training had the greatest effect on the adoption of GSCMS, followed by management support, then market structure while level of communication of strategies had the least effect to the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company.

5.3 Discussion

This section sought to discuss the effect of management support, staff training, communication strategy and market structure on adoption of GSCM strategy in the light of previous studies done.

5.3.1 Management support

The researcher deduced that that management support influence the adoption of GSCMS to a very great extent. This agrees with Alexander (2005) who posited that the most important factor when adopting strategic management is the top level management's commitment to the strategic direction itself. This is undoubtedly a prerequisite for strategy GSCMS adoption. The study found that budgetary allocation influence adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company to a very great extent. The aspects of management support influence adoption of GSCMS to a great extent include encouragement of employees to adopt GSCMS, CEO innovativeness and development and approval of the proposal plan. These findings correlate with Ravi & Shankar, (2005) who indicated that top management provides continuous support for GSCM in the strategic plans and action plans for successfully implementing them. Further, Young and Jordan (2008) confirmed that the essence of top management support related to effective decision-making to manage green supply chain and to authorize business process change. A crucial part of a successful proposal is top management support that is related to improve decision making in order to manage strategy.

The researcher found that there is transparency collaboration and integration of systems between staffs and trading partner in the supply chain is requirement, the managers support actual formation and implementation of green initiatives across the organization and that traditional mindset and suppliers' interests being different from those of the total network had affected implementation of GSM. The findings are consistent with Sarkis (2009) who observed that top management has significant ability to influence, support actual formation and implementation of green initiatives across the organization.

5.3.2 Staff Training

The research revealed that staff training influence the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company to a very great extent. This is in agreement with Ravi & Shankar, (2005) who observed that training and education are the prime requirements for achieving successful implementation of GSCM in any organization. The aspects of staff training influence adoption of GSCM at Delmonte Fruit Juice Manufacturing Company to a very great extent include professional Course on GSCM and workshops and Seminars while on the job training and induction and orientation had a great influence. This concurs with Hsu & Hu (2008) who posited that the management may encourage employees to learn green information. Organizations may provide rewards for green employees. Employees may be helped when they face green problems and may be provided support to learn green information.

It was clear that staff training systems can be viewed as an important capability within this resource-based framework since especially when coupled with an organizational emphasis on continuous improvement, they can help organizations build from more basic complementary capabilities such as those associated with ISO 9000 and TQM systems experience, for example, to more complex systems (especially in terms of higher-order learning proficiencies) such as TQEM, EMS, ISO 14001 and eventually GSCM practices. This is in line with Wong et al (2009) indicated that staff training systems can be viewed as an especially important capability within this resource-based framework since, especially when coupled with an organizational emphasis on continuous improvement, they can help organizations build from more basic complementary capabilities such as those associated with ISO 9000 and TQM systems experience, for example,

to more complex systems (especially in terms of higher-order learning proficiencies) such as TQEM, EMS, ISO 14001 and eventually GSCM practices.

5.3.3 Communication of Strategies

Strong communication between business managers and environmental professionals with management support is also necessary for effective management of both business and environmental issues. Informal linkages and improved communication help the organizations to adopt Green's practices (Yu & Hui, 2008). The study findings indicated that communication of strategies influences the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company to a very great extent. These findings are in line with those by King and McGrath (2002) who indicated that once the strategy has been formulated, communication is one of the most important vehicles for successful implementation.

The researcher deduced that the aspects of communication of strategies that influence adoption of GSCM at Delmonte Fruit Juice Manufacturing Company to a very great extent include the communication pattern used, open door policy, clear mutual expectations and clear communication on implementation of GSCM. Periodical talkfest (meetings) had a great influence on adoption of GSCM at Delmonte Fruit Juice Manufacturing Company. This is in line with Clutterbuck & Hirst (2002) who indicated that managements are supposed to inform all employees about the content, meaning and reasons for the new strategy set. Communication also involves the explanation of new tasks and responsibilities to the employees. Throughout the implementation process, communication should flow bottom-up to allow management to monitor the implementation process and determine whether changes to the approach are needed.

5.3.4 Market Structure

On the extent that various aspects of market structure influence adoption of GSCMS in the company, the study found that the aspects of market structure influence adoption of GSCMS Delmonte Fruit Juice Manufacturing Company to a great extent include competitor standards benchmarking, technological innovations, rising energy cost and industry trends. This is

consistent with Doonan *et al.* (2005) who observed that customers' ask for green products and services have now become the most significant driver for green initiatives.

In today's scenario market uncertainty is very high due to global competitiveness, and customer's requirements (Yu and Hui, 2008). Research and benchmarked global competitors develop and deploy strategies. The external environment in which a firm conducts its business will also influence the innovative capability as well as intention to adopt innovations (Hosseini, 2007). We assume that market competition and uncertainty is most important barrier to achieve GSCM in Indian automobile industry. In line with this, the study revealed that market structure influences the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company to a very great extent.

5.3.5 Adoption of Green Supply Chain Management Strategy

The research revealed that to a very great extent, the companies were successful in reduction of waste during processing, reuse and the substitution of materials, environment conservation through adoption of the integrated method of pollution control, recycling of materials and promotion of environmental and social behavior. It was also clear that the company was successful to a great extent in green processing and green purchasing. These findings are consistent with Sarkis (2009) who developed a strategic decision framework that aids managerial decision making in selecting its alternatives and product life cycle, operational life cycle (including procurement, production, distribution and reverse logistics (RL)), organizational performance measurements and environmentally conscious business practices serve as the foundation for the decision framework. Sarkis observed that in a developing country such as Egypt, the attention is mainly focused on cost reduction. Seldom, if any, consideration is given to environmental impacts of business operations; GSCM practices. This lack of awareness explains the gap in the literature about the application of GSCM in Egypt.

5.3 Conclusion

The present system of functioning of the industries /services is deteriorating the environment and soon a day will come when the damages done to our Earth will become irrevocable. Thus, it can

be concluded that GSCM is inevitable if the Earth is to be kept green and appropriate methodology may be adopted by the industries/services to minimize the detrimental effect on the environment. From the findings, the study concludes that management support influence the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company through budgetary allocation, encouragement of employees to adopt GSCMS, CEO innovativeness and development and approval of the proposal plan. The managers support actual formation and implementation of green initiatives across the organizations.

The reseach further deduced that staff training through the professional Courses on GSCM, workshops and Seminars, on the job training and induction and orientation influence the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company.

The research also concludes that communication of strategies influences the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company to a very great extent. This is mainly through communication pattern used, open door policy, clear mutual expectations and clear communication on implementation of GSCM.

The research revealed that the aspects of market structure such as competitor standards benchmarking, technological innovations, rising energy cost and industry trends influence the adoption of GSCMS at Delmonte Fruit Juice Manufacturing Company. The study finally concludes that staff training had the greatest effect on the adoption of GSCMS, followed by management support, then market structure while level of communication of strategies had the least effect to the adoption of GSCMS.

5.4 Recommendations

From the research findings and conclusions, the study recommended that the top management in agro-manufacturing firms should ensure that they fully support implementation of GSCMS strategy by allocating enough resources to them in order to gain a competitive edge. It is recommended that the management at the companies should be dedicated to encourage teamwork among the employees and also support their juniors to achieve objectives.

The researcher further recommended that there is need to improve on the efficiency of communication between the branches and interdepartmental communication at Delmonte Fruit Juice Manufacturing Company. This will enhance the adoption of the GSCMS at the companies as communication enhances better understanding of policies and fastens decision making. The companies should encourage teamwork, improve the working environments and set clear roles and responsibilities.

The researcher also recommended that the administration at the companies should enhance the effectiveness of the training needs analysis, self actualization, coaching and mentoring, creating distinctive capabilities and tapping and developing talent. The management should encourage team building and train skilled labors for reverse logistics management. The study recommend that the employees should be trained on the importance of GSCMS and how to implement it through seminars and workshops as the study found lack of adequate information to a major factor affecting adoption of GSCMS.

The researcher finally recommended that there should be government programs that encourage voluntary and promotes GSCM practices. These programs increase the probabilities that facilities will assess their suppliers environmental performance and require suppliers to undertake specific environmental practices. The study also recommended that the government should set rules for disposing waste and consider more investment in recycle plants. It should set a direct responsible unit to take in charge of waste only which will increase reverse logistics efficiently and promote refurbishing and recycling through campaigns/ activities to raise reuse/recycle awareness in electronics consumption. Governments are the largest buyers of products and services. Thus government purchasing policies focused on environmental performance can have more direct effect than any other type of environmental pressure. Governments may be constrained in the selection of suppliers by rules regarding low bid selection; nonetheless, suppliers can be questioned regarding their environmental performance.

5.5 Suggestion for Further Studies

Following this study, another study should be done to investigate the factors influencing the adoption of green supply chain management strategy in other agro-processing companies. A

similar study should also be done on other small companies since their operations are different from that of large companies. Further studies should be done on the influence of the adoption of green supply chain management strategy on performance of companies.

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APPENDICES

Appendix 1: Transmittal Letter

Walter NdegeMachogu

P.O. Box

Nairobi.

June, 1st, 2013

Dear Sir/Madam,

RE: **REQUEST FOR PARTICIPATION IN A RESEARCH STUDY**

I am a final MA degree student at the University of Nairobi. My area of specialization is project planning and management. I am currently undertaking a research on “**Factors Influencing The Adoption Of Green Supply Chain Management Strategy: A Case Of Delmonte Company**”.

I would be grateful if you could spare some time from your busy schedule and complete the enclosed questionnaire. All the information provided will be used purely for academic purposes only and will be treated with utmost confidentiality.

Thank you for your cooperation.

Yours faithfully,

Walter NdegeMachogu

Appendix II: Research Questionnaire for Managers

Kindly answer the following questions by writing a brief answer or ticking in the boxes provided.

PART A: BACKGROUND INFORMATION

1. Which department are you working at?.....

2. Which is your highest level of education?

Post Graduate []

Undergraduate []

Diploma []

Certificate []

Any other (specify).....

3. How long have you worked in this institution?

1 to 5 years []

6 to 10years []

11 to 15 years []

16 to 20 years []

21 years and above []

4. Does the department that you serve have strategies that are intended to conserve environment

Yes [] No []

PART B: Management support

5. To what extent do you think management support affect adoption of GSCM?

Very great extent [5] Moderate extent [3] Very low extent [1]

Great extent [4] Low extent [2]

6. To what extent do the following influence adoption of Green supply chain management strategy in your company?

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
Development and approval of the					

proposal plan					
Encouragement of employees to adopt GSCM					
Budgetary allocation					
CEO innovativeness					

7. In your opinion, how does the stated management support affect adoption of GSCM in your company?

.....

8. To what extent do you agree with the following statement regarding top management support towards implementation of GSM? Where 1- strongly agree, 2- agree, 3- neutral, 4- disagree, 5- strongly disagree

Statement	1	2	3	4	5
Our managers support actual formation and implementation of green initiatives across the organization					
There is transparency collaboration and integration of systems between staffs and trading partner in the supply chain is requirement					
Traditional mindset and suppliers' interests being different from those of the total network had affected implementation of GSM					

PART D: Staff training

9. To what extent does staff training support influence adoption of GSCM within organization?

Very great extent [5] Moderate extent [3] Very low extent [1]

Great extent [4] Low extent [2]

10. To what extent does the following influence adoption of Green supply chain management strategy in your company?

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
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Professional Course on GSCM					
Workshops and Seminars					
On the job Training					
Induction and orientation					

11. How does Staff training influence adoption of GSCM within your company?

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

PART E: Communication strategy

12. To what extent does communication strategy influences adoption of Green supply chain management?

- Very great extent [5] Moderate extent [3] Very low extent [1]
- Great extent [4] Low extent [2]

13. To what extent do the following influence adoption of Green supply chain management strategy in your company?

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
Clear Communication on implementation of GSCM					
Clear mutual expectations					
Open door policy					
Periodical talkfest (Meetings)					

14. How do the facets of communication above influence adoption of GSCM within your company?

.....

PART F: Market structure

15. To what extent does market structure influence adoption of Green supply chain management?

Very great extent [5] Moderate extent [3] Very low extent [1]

Great extent [4] Low extent [2]

16. To what extent do the following influence adoption of Green supply chain management strategy in your company?

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
Competitor standards benchmarking					
Rising energy cost					
Technological innovations					
Industry trends					

PART G: Control factors

17. To what extent do the following influence adoption of Green supply chain management strategy in your company?

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
Government policies and regulations					
Environmental policy on emissions					
Market demand					
Organizational size					

PART H: Adoption of GSCM

18. To what extent is your company successful in the following aspects of GSCM?

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
Reduction of waste during processing					
Recycling of materials					
Reuse and the substitution of materials.					
Environment conservation through adoption of the integrated method of pollution control					
Green procurement practices/Green purchasing					

THANK YOU FOR YOUR PARTICIPATION