

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

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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 recommends 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.

Key Words: *green supply chain management, Delmonte Company, Kenya*

INTRODUCTION

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.

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.

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.

OBJECTIVES OF THE STUDY

1. To establish the influence of management support on adoption of GSCM strategy at Delmonte Fruit Juice Manufacturing Company.
2. To establish the influence of staff training on the adoption of GSCM strategy at Delmonte Fruit Juices Manufacturing Company.
3. To examine the influence of communication strategy on adoption of GSCM strategy at Delmonte Fruit Juices Manufacturing Company.
4. To determine the influence of market structure on adoption of GSCM strategy at Delmonte Fruit Juice Manufacturing Company.

LITERATURE REVIEW

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 organization 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.

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).

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 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).

RESEARCH METHODOLOGY

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.

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.

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

$$n.' = 384 / [1 + (384/110)]$$

$$\text{Approx} = 86$$

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.

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.

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.

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

RESEARCH RESULTS

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 1: 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 R², 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 2: 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 3: Regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
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 ($p < 0.05$).

Management support

The study 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 study 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.

Staff Training

The study 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.

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 study 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.

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.

Adoption of GSCMS

The study 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.

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CONCLUSIONS

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 study 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 study 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 study 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.

RECOMMENDATIONS

From the study findings and conclusions, the study recommends 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 study further recommends 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 study also recommends 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 study finally recommends 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 recommends 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.

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