

# **An Overview of Green Supply Chain, Green Supply Chain implementation and Organizational Factors**

**Prof. Dr. Serdar Saydam**

Dean of Business Faculty, Girne American University, Cyprus

serdarsaydam@gau.edu.tr

**Mohammad Ali Khalil Al-smairat**

PhD Student at Business Faculty in Girne American University, Cyprus

Moh\_cis2004@yahoo.com

**Abstract.** This research aimed to explore overview about green supply chain management, supply chain management, and green supply chain management activities. Additionally, this research seeking to address on organizational factors as acritical and important factors in green supply chain management implementation in all sectors. Furthermore, from reviewing of previous studies this paper found that many of these study focused on supply chain and green supply chain performance and sustainability. However, this study is trying to investigate the organizational factors (external and internal) and implementation of green supply.

**Keywords:** GSC, SC, green supply chain, organizational factors.

## **Abbreviations**

<b>GSCM</b>	<b>Green Supply chain Management</b>
<b>GSC</b>	<b>Green Supply chain</b>
<b>SC</b>	<b>Supply chain</b>
<b>SCM</b>	<b>Supply chain Management</b>

## **IRESEARCH BACKGROUND**

Today's world is witnessing a great development in all fields of industry, service and technology. The increasing globalization combined with a rapidly changing business environment have led to the growth of a technological and cultural revolution characterized by a wide, quick growth and spread of companies, which led to increased challenges and responsibilities for companies.

The probability of success for companies that focus on the environment and what is happening around is high. Accordingly, they are able to avoid barriers and challenges. In their

attempt to do so, companies have become concerned with performance in a range of issues including, quality control, management by objectives, business re-engineering, total quality management, knowledge management, and SC management and GSC management (Rifai, 2004).

Due to the SC's focus which is caring for customers and responding to them, as well as taking into consideration the company's capabilities and knowledge of the external environment it requires a high degree of efficiency (Brazil, 2012). Moreover, SC has the most interaction with the internal and external environment it plays an important role in the performance and aims to integrate the activities of the major parts of a company, including the planning, control, services, information flow and production to provide the product to the end user.

SC can be defined as a complex network of procedures (raw materials, production, distribution, recycling) resulting in the delivery of the product to the end-customer (Ninlawan; 2007; Sarkis, and Lai, 2010).

Beyond that traditional idea of SC, the GSC is focusing on the same tasks and processes experienced by the traditional SC with large emphasis on environmental concerns by reducing the pollution ratio of the production and distribution process, reducing the use of energy and waste. (Hervani, 2005).

Since the world is experiencing an increasingly strong interest in environmental awareness and its effect on the global society, the level of responsibility for companies has to be directed towards increasing their consideration for environmental issue while delivering products and services to the society.

Nevertheless, there are a several external and internal organizational factors influencing the implementation of GSC in all industry generally and in the food sector in particular. Therefore, this study will explore the external and internal organizational factors that might affect the implementation of GSC in the Jordanian food industry.

## 2 SC MANAGEMENT

The aspiration of organizations is to achieve competitive advantage through maximizing profits, reducing costs, and increasing the efficiency of production combined with providing benefits to consumers. To meet this objective, it is necessary for companies to integrate between partnership activities in coordination with other organizations that share in the flow of their goods and services in order to add tangible value to the final product; this is the aim of SC management (Hassan, 2009) (Idris, 2006). The beginning of interest in SC was in the eighties of the last century. The interest emerged due to the apparent benefits through the Contribute to the improvement of the efficiency of the production of goods operations or the provision of services and lowered cost.

There is no specific agreed upon definition for SC management in theoretical literature (Feldmann, 2003). This is because the concept of SC management composes two distinct tracks: The first relates to purchasing and supply management, and the second relates to transportation and logistics management (Tan, et al. 1998).

Considering the number of different definitions regarding this term, it is necessary to take a brief look at some of the most important definitions in order to attempt to synthesize these definitions into one comprehensive definition. One definition for instance as defined by (Leukel & Kirn, 2008) is a network or system of units directly interested in the production of goods and services, assembled, and converted from suppliers to customers according to their demands. While (Gavish and Harrison, 1999) defined SC as a network of facilities, works and alternatives working on material processing and converting these to semi-processed materials (intermediate) and finished products, and the distribution of those products to customers.

Whereas (Jordan & Graves, 1995) defined it as a group of products and factories interconnected directly or indirectly by deciding and pinpointing which products to produce so there is no product in the chain that is produced by a factory outside of the chain, nor will any factory produce products outside the chain. Alternately, (Hugos, 2006) defined SC as the coordination of production, inventory, location, and transportation between the participants in the SC to achieve better efficiency of services and products.

The preceding definitions can be summarized in a single sentence, that the SC is the presence of a network of entities (suppliers, customers, and other organizations). Where this network provides raw materials, and carries out the process of production and converting to a final product as well as the delivery to the end user efficiently and effectively, all phases of a production life cycle (resources, manufacturing, using, reusing, recycling) will have an effect on SC process and performance.

### 3 GSCM

The environment consists of different natural resources around societies, for example animals, atmosphere, soil, water, plants, rock mineral and solar radiation etc., which are the material heart of human survival. As global environment issues have become more notice about the consumers, companies and governments have also taken notice as a result of increased production and consumption levels (new, green, and Morton, 2002; Azzone and Manzini, 1994; Azzone and Bertelè, 1994; Azzone and Noci, 1996; Plambeck, 2007; Roberts, 2009).

GSCM as term consists of three main parts: the first is management, which is the main activities of the organization: planning, organizing, leading, and controlling, the second part is the chain means interdependence between the main parts, the third part is the processing includes processing materials, products, services and knowledge (Ameri, 2008). The green refers to the environmentally friendly processing activities, which is a sequence of processing, storage and distribution operations (Chien & Shih, 2007).

This resulted in interest and scarcity of natural resources to the growing concern in the international market to the issues of "green" and which forced companies to display SC strategies from an environmental perspective. Furthermore, there is a significant number of organizations that are becoming aware of the possibility of gaining competitive advantage with the achievement of environmental goals at the same time. It therefore need to SC management with the implementation of green initiatives.

Recently, GSC has become one of the most significant research topics. This is because of the pressures faced by the organization and the change in the business environment in addition to increase awareness of organization in relation to performance (Vijayvargy & Agarwal, 2014). As well as, GSC established because of the pressures and motivations of environment and customer awareness and need for preservation of the environment (Srivastava, 2007).

GSC include all elements of traditional SC, taking into account the addition of environmental component. The goal of design and implementation of GSC is to take advantage of waste from production and keep the organization energy and eliminate hazardous substances harmful to the environment and benefit from the recycling process. Over the years, many studies have shown the concepts and activities of GSCM, for instance green purchasing, production, transportation and waste management as well as green recycling (Guide & Srivastava, 1998; Srivastava, 2007).

The previous literature reported many definitions of the term or the concept of GSC. According to (Min & Kim, 2012) a study has uncovered in the period between 1995 to 2010 more than 519 definitions of the GSCM. We will mention here some of these definitions.

According to (Green Morton, 1998) green supply is the method in which the perspective of the environment is foremost in SC manufacturing management.

Whereas in GSCM all phases and practices observing and development environmental performance by creating mix between SC and awareness of environment in addition to concern of manufacturing cycle (Dheeraj,2012) (Klassen & Johnson, 2004). While (Srivastava, 2007) (Zhu & Sarkis, 2004) on the same definition, Interest in the management of recycling Goods after completion of used in order to preserve the environment and took advantage of resources.

In view of the previous definitions, we find that it dealt with the GSC of the same dimensions and aspects. Where it can be said that the GSC is an episode of operations starting from obtaining raw materials and stages of production and product life cycle, which ends in delivering the goods to the end user. Furthermore, it features from operations recycle waste products after finishing used or disposed of appropriate way. With taking into consideration in all these stages of environmental issues and environmental performance in order to reduce the pollution rates and maintain the competitive advantage of the organization.

On the other hand, it can be said green value chain from the perspective of the owners of companies is divided into three sections( Boks and Stevels, 2007):

Scientific aspects in GSC: it is used to determine the impact of products and systems used for production on the environment, in addition to what is the amount of pollution of the production.

Government in GSC: it is containing geographical location, population density and the availability of energy sources and other factors. Which affected the performance of the government to improve the quality of life.

Customers in GSC: it includes the amount of consumer awareness about safety, health and the preservation of the environment.

In addition, the following table shows the difference between green and traditional SC:

Table no.1. Differences between Tradional and GSC

characteristics	GSC	Tradional SC
<b>Aims and value</b>	Economical& environmental	Economical
<b>The ideal environment</b>	Environmental impact is low	Environmental impact is high
<b>Suppliers standard Choice</b>	Price and relationships on long-term	Price and relationships on short-term
<b>Cost &amp; price</b>	High costs and high prices	High costs and low prices
<b>Speed and Flexibility</b>	low	High

Source: Johnny C. Ho, Columbus, Maurice K. Shalishali, Tzu-Liang and David S. Ang, "Opportunities in GSCM", Coastal Business Journal, Volume 8, Number 1, 2009, p21.

#### **4 IMPORTANCE & BENEFIT OF GSC IMPLEMENTATION**

Despite the presence of scientific evidence to the contrary, there is still a widespread belief that the implementation of GSC increases the costs to the organization. However, many studies discussed positive aspects and benefits of green implementation in the organizations. These benefits include benefits for companies, for customers, and for society. For example, (Porter & van Linde, 1995) found it noteworthy that the company benefits from the implementation of green several benefits, including reduced production costs, waste minimization and increase in supply savings. In addition, organizations can also achieve economic advantage by the implementation of GSC (Hoek, 1999) (Seuring, 2004).

These objectives can be achieved through increasing the organizations attention to thinking better about reducing costs with an emphasis on performance. This is achieved through optimal utilization of available resources, reducing of waste and benefiting from the recycling process. Additionally, the green implementation reduces the production life cycle and uses the materials effectively and efficiently, as well as reducing the energy used to produce the product (Braker & Liao, 2006).

There are many other benefits for implementation of GSC, which are (Emmet & Sood):

- Effective management of Suppliers.
- Using advanced techniques of communication between the chain partners.
- Transparency of the SC.
- Large investments and risks are shared among partners in the chain.
- Increased quality of control in production.
- Increased sales and revenue.
- Beneficial uses for waste.

The GSC activities can be implemented to all sections in the organization. In addition, organizations should implement green because: targeted marketing, resources sustainability, lowered costs/increased efficiency, differentiation of product and achieve competitive advantage (Smith 2005). However, (Stevels, 2002) mentioned the benefits of GSC to different parts of the SC containing environment and society in terms of different groups: material, immaterial, and emotion that are shown in following table.

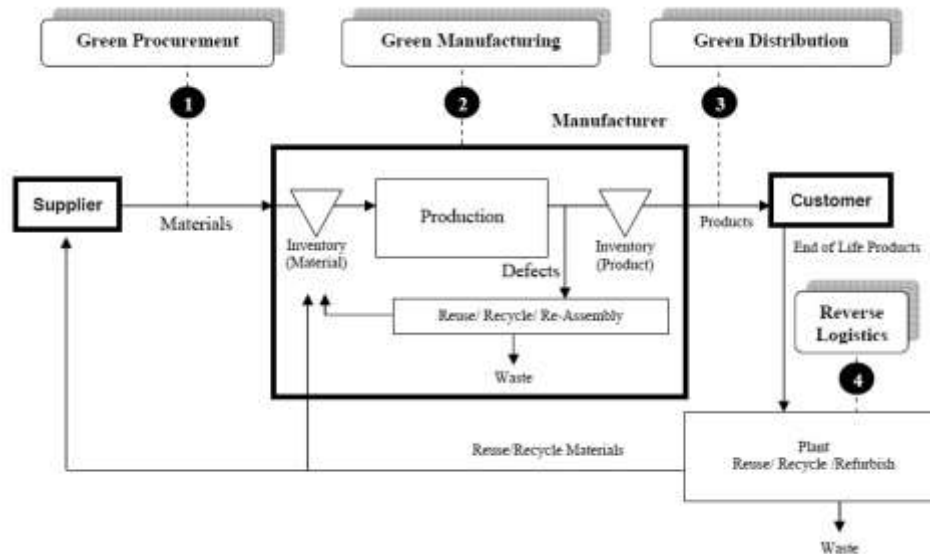


Fig 2. Activities in GSCM (Ninlawan, 2010).

## 5 GSC ACTIVITIES

This study presents some of these activities in a little more detail which are green purchasing, green manufacturing, green marketing, green distribution & logistic, reuse, as well as green consumption.

### 5.1 GREEN PURCHASING

With the growing interest in environmental issues, the pressure on the organization to implement green processes in product inflow to and from the organization's operations are increased. In other words, green implementation in the purchase and sale operations within the organization.

Green purchasing refers to focus at producers in organizations to purchase green productivity of inputs, which include the purchase suitable products for the production of green materials with consideration for the specific environmental standards, with the need to reduce the level of energy, as well as reduction in packing materials (Ottman, 2004).

According to (Dheeraj & Vishal, 2012) we can define green purchasing as procedure of choice and purchase of product or services that contribute to decrease the negative affect overall the production, recycling and transportation life cycle. While green procurement or purchasing development can be classified into three sections which are: resource transfer, green communication transfer, and management and organizational practices (Bai & Sarkis, 2010). Whereas (Walton, et al, 1998) mentioned the impact of purchasing activities on the environment within five parts: resources used in product design for the environment, producing processes, improvement of supplier procedure, evaluation of supplier, and inbound logistic processes.

The companies can achieve many advantages and benefits from implementation of green purchasing. For instance: improve organization image in the society, obtaining customer satisfaction through increased organization responsibility in protection the environment and contribution to reduction in pollution rate. Furthermore, the organization can benefit from reduced raw materials cost with reduced risks.

## **5.2 GREEN MANUFACTURING**

Many organizations have started thinking about green manufacturing due to its importance in the preservation of the environment, and to achieve a competitive advantage for the organization (Prakash, 2002). In the context of globalization, many business organizations began to reconsider their social responsibilities and ethical practices in productivity, through the attention in green industry as a new strategy for the organization and work to achieve the ideal environmental production.

(Prakash, 2002, 215) see that green manufacturing is a term referring to the process of design and manufacture of products which is friendly with environment through the optimal use of available resources and the proper use of raw materials that Environmentally friendly at the lowest possible energy. While (Nimawat & Namdev, 2012) defined green manufacturing as a process involving reliable and speedy of production methods and energy effective production tools aimed at reducing waste and improving production life cycle.

While (Nouri & al-Bakri, 2007) mentioned that the organization needs to implement green manufacturing to rely on a set of principles such as: produce and make recyclable products in order to benefit from recycling process in addition to using recycled materials and use materials that are friendly with environment, as well as, use of minimum materials and energy consideration for production quality and performance. (Al-Odeh & Smallwood, 2012) associated green manufacturing with clean production method, efficient technology, reduced raw materials and resources so as to reach low input, high output and low pollution while (Amemba et al. 2013) advocated for use environmentally friendly energy sources like solar energy, recycling of raw materials and use biodegradable energy sources and materials in manufacturing operations.

(Ninlawan et al. 2010) mentioned that Green Manufacturing as a productive method aims to achieve optimum use of available resources "raw materials and energy" in all stages of the productivity process; as well as reduce pollution size and gases emitted which leads to reducing the costs of injuries to workers due to pollution. So companies need replacing polluting materials with other materials or eliminating the sources of those pollutants through continuous review of the materials falling within the production process.

To summarize, we can say that green manufacturing is the use of clean production methods with the best use of modern technology and available resources, as well as, use of environmentally friendly energy sources such as solar power, taking advantage from the recycling process in order to reach the efficiency in the use of inputs while maintaining a high level of output.

## **5.3 GREEN DISTRIBUTION**

It well known that common means of transportation lead to the emission of large quantities of hazardous gases and other pollutants lead to the spoiling of air quality and the potential for climate change and acid rain and the generation of smog in cities. This emissions causing of



cancer- disease, respiratory diseases and others especially to those people who suffered greatly (Hamadan, 2010).

Green transportation is one of logistics operations which refers to increasing the amount of products that are transported with minimal damage to the environment Which contributes to reduce the size of emissions of carbon dioxide caused by transportation and facilitate the transfer process (Wang & Lua ,2010).

On the other hand, (Ho et al., 2009) state that green transportation includes many factors for example: Better packaging, along with rearranged filling designs, can decrease materials usage, increase utilization of space in the warehouse and in the trailer. To simplify, we can say that green transportation is an organizations ability to provide and use advanced transportation ways with modern technology while achieving several benefits:

Preservation of the environment by reducing the proportion of emitted gases.

Reduced transportation costs through use of modern transportation such as vehicles that run on electricity (hybrid cars).

Organizing the transportation operations and using it with optimization.

## **5.4 GREEN MARKETING**

Day by day, the interest in marketing linked to the environment is increasing with interest to get rid of harmful and unwanted materials, which deal with (Al-Odeh & Smallwood, 2012) where it is said that companies need to achieve sustainable marketing make and keeps biological balance that needs keeping and increasing the awareness to environmental protection.

So green marketing is a process of development and promotion Products have the ability to meet the demands and wishes of customers in terms of low cost, high quality and outstanding performance without any damage to the environment (François & Loïc ,2009).

While (Bäverstam & Larsson, 2009) finds green marketing as the planning, implementation of the goals and process of evolution in the prices of products and distribute a manner that ensures the achievement of three basic criteria: meeting the needs of customers, achieving organizational goals and the ability to compatibility with environmental regulations.

## **6 INTERNAL ORGANIZATIONAL FACTORS**

Internal environment of the organization considered as the environment in which it operates individuals within the same organization and framework that is working through it (Abdul Aziz, 2003). Internal organizational factors play an important role within the organization because it has a great impact on to strategy and organization plan as well as plan of environment. This study focused on four Internal Organizational factors: existing facilities, employee qualifications, strategic direction and cost of implementation.

### **6.1 EXISTING FACILITIES**

Due GSC implementation, organization may need to redesign the operations and process. The existing facilities, equipment, machines and systems may not be suitable with the green processes. So, organization needs to confirm that implementing new structures will not affect



current processes. Beyond financial cost, green implementation requires time to be ready to use.

## **6.2 EMPLOYEE QUALIFICATIONS**

Employee qualifications are a set of elements include knowledge, Capacity, and ability that matches or makes someone appropriate for a responsibility , position or workplace.in GSC implementation it is considered as qualifying and training of staff to use the new systems of production In addition, giving them the necessary skill to deal with the green products and production.

The existence-qualified staff to work on the implementation of green activities contributes and affect the management willingness within organization to implement the GSC in a positive or negative way.

## **6.3 STRATEGIC DIRECTION**

Organization seeks to achieve competitive advantage and maintain its competitive position in the market and its market share through the strategy of the organization in the short or long term. Therefore, the strategic direction of the organization affect the GSC implementation in a positive or a negative way. For example, in the implementation of the green, the organization may get a competitive advantage and attract the consumer especially with the prevailing awareness about the environment cost of implementation.

Implementation cost of GSC is one of the key things is being considered by the organization and affect its decision for the green implementation. Although organization need only a small justification to the processing system or procedure. Some examples include necessity of new equipment and new system requirement such as software and hardware which supporting system.

## **7 EXTERNAL ORGANIZATIONAL FACTORS**

External environment is a set of factors surrounding the organization and affecting on it and strategies. In this study, External organizational factors mean Factors surrounding the organization that effect on organization management willingness to implement GSC which include: Suppliers, Customer orientation, Legal environment and Government Pressure.

### **7.1 SUPPLIERS**

Suppliers is an important part in the traditional SC or green because it is supporting and providing raw materials for production, processing and equipment to the Organization. In addition, Suppliers include all organizations that supply of inputs and the various elements of production such as raw materials, components, services, money, and information to and from other organizations (Alani, 2011).

Because of that, it is necessary to know the extent of their impact the implementation GSC through identification of their ability to keep up with the changes that the organization needs to implement GSC. Therefore, provision of raw materials green-friendly environment is the first step in the application of the Green Series. As well as Suppliers considered an external organizational factor that plays an important role influencing the management willingness to implement the GSC (Walker et al., 2008).

## 7.2 CUSTOMER ORIENTATION

The important role of the consumer in the activity of factories that provide their products to him, it cannot be any factory to succeed in achieving its objectives, unless the consumer to determining those products, and to recognize the role played by the consumer. Organization can know that through the study of consumer behavior and predictable to know his views and suggestions to identify their needs. So we cannot produce the right product unless directed to those who have been identified this product. (Louis & Bonse, 1980: 102).

The term customer orientation is willingness or tendency of customer to respond positively or negatively to certain stimuli in the market Such as products, procurement methods, promotion and other methods permanently or temporarily (Shaaban, 2008).

In particular, Consumers can support the organization and contribute to GSC implementation through a number of ways, such as:

- Desire to buy green products.
- Assisting in the recycling process.
- Provide feedback about products or green services.

So, customer orientation considers as important key which affecting on organizational management willingness positively or negatively to implement GSC and protection the environment.

## 7.3 LEGAL ENVIRONMENT

Organizations are trying to become the compatibility with different environmental conditions and changing environmental factors. In order to maintain the organization and put it competitive position through trying to save the relationship and interaction with the environmental elements and factors. The legal environment includes many factors which are: Laws and regulations, relationship with the government, the relationship with the officials, the research methods of rights, consumer protection laws, professional associations, and other factors (Ulgen & Mirze, 2004).

Organization affected by the legal environment for the implementation GSC. In details, government facilities to the companies and governmental laws and legislation that related to the environment and the consumer have a huge positive or negative impact on the management willingness for the implementation of green activities. As well as, this facilities and regulations works to encourage the organization to adoption and implement the green innovation.

## 8 CONCLUSION

Many recent studies have discussed GSC issues, and have argued and debated about factors that affect the implementation of GSC in organizations. Lee (2008) identified three main factors that influence the implementation of GSCM including buyers, government and suppliers. However, Sarkis (2010) extended his classification of these factors to include cultural, technological organizational, proximal, political, informational, temporal, legal, and economic. More systematic classification of these factors were provided by Lee et al (2008) who classified these factors into internal and external factors. Nevertheless, their external factors included a limited set of factors including functional, political and social factors. Additionally, internal factors included firm's strategies, internal resources and capabilities.

One could argue that in spite of the importance of such factors, there might be more relevant external and internal factors that could have more potential impact on the implementation of GSCM.

Recently, Huang (2015) stated more comprehensive list of factors including:

- Regularity pressures (environmental rules and regulations, cost, marketing)
- Customer pressures
- Public pressures
- Supplier
- Internal drivers (personal commitment, aspiration to build up a positive environmental-friendly image and save energy within an enterprise).

As one could argue, many previous studies have addressed various internal factors such as: saving energy, organizational strategies and resources. On the other hand, other studies have focused on external factors exclusively.

In terms of the objectives of the previous literature, it is revealed that some of them tried to find the relationship between the GSC on the one hand, and financial or environmental performance within the organization on the other. Others have simply provided an overview of the field. Additionally, others have focused on sustainable GSCM and compared between green and traditional SC chains. Some studies have concentrated on just one particular aspect of the GSC, such as manufacturing, logistics or recycling, depending on the particular field of study.

Issues and factors that affect GSC implementation, as mentioned by previous studies, include environmental or financial performance-related factors, internal or external organizational factors, globalization, governmental factors, and industrial factors, amongst others. These studies have primarily explored these factors.

## References

- Al-Odeh, M., & Smallwood, J. (2012). *Sustainable Supply Chain Management: Literature Review, Trends, and Framework*. International Journal of Computational Engineering & Management, 15(1) 85-90
- Amemba, C. S., Nyaboke, P. G., Osoro, A., & Mburu, N. (2013). *Elements of Green Supply Chain Management*. European Journal of Business and Management, 5(12), 51–61.
- Azzone, G., & Bertelè, U. (1994). *Exploiting green strategies for competitive advantage*. Long Range Planning, 27(6), 69-81. [http://dx.doi.org/10.1016/0024-6301\(94\)90165-1](http://dx.doi.org/10.1016/0024-6301(94)90165-1)
- Azzone, G., & Manzini, R. (1994). *Measuring strategic environmental performance*. Business Strategy and the Environment, 3, 1-15. <http://dx.doi.org/10.1002/bse.3280030101>
- Bai, C., Sarkis, J., (2010). *Green supplier development: Analytical evaluation using rough set theory*. Journal of Cleaner Production, 18(12), 1200-1210
- Bakker, E. F. & Kamann, J. F. (2010). *Netherlands "Selection and Supply Chain Relations"*. Available at: [www.Griponpurchasing.com/publications/en](http://www.Griponpurchasing.com/publications/en).

- Bakri, Yasser Thamer. (2008). *Marketing strategy*. Amman. Yazouri for publication and distribution .2008.
- Boks, C., & Stevels, A., (2007),” *Essential Perspectives for Design for Environment*”, Experiences from the Electronics Industry, International Journal of Production Research, 45 (18- 19), 4021-4039.
- Chien, M. K.& Shih, L. H., (2007) “*An empirical study of the implementation of green supply chain management practices in the electrical and electronic industry and their relation to organizational performances*”, Int. J. Environ. Sci. Tech., Vol. 4, No. 3, pp 383-394.
- Dheeraj, N. & Vishal, N. (2012).*An Overview of Green Supply Chain Management in India*. Research Journal of Recent Sciences 1(6)77-82
- Emmet & Sood .(2010).*Green Supply Chains : An Action Manifesto*. <http://globalscgroup.com/benefits-of-green-supply-chain>.
- Feldmann, M., & Müller, S. (2003). *An incentive scheme for true information providing in supply chains*. OMEGA 31(2), 63–73.
- François, Craecker and Loïc, Wulf,( 2009). *Integration of Green Marketing within the automotive industry: A case study of four car manufacturers on the Belgian market ”*, Master thesis, School of Business and Engineering, University of Halmstad, Sweden .
- Green K., Morton B., and New S.(1998).*Green purchasing and supply policies: Do they improve companies’ environmental performance* Supply Chain Management, 3(2),89-95 (1998).
- Harrison, A., Christopher, M., Van Hoek, R.I.,(1999).*Creating the Agile Supply Chain*, 1999 (Institute of Logistics and Transport).
- Hervani, A.A.; Helms, M.M.; Sarkis, J., (2005). *Performance measurement for green supply chain management*, Benchmarking: An Int. J., 12, 4,330-353
- Ho, J.C., Shalishali, M.K., Tseng, T. and Ang, D.S. (2009). *Opportunities in green supply chain management*. The Coastal Business Journal, vol.8, no.1, 18-31.
- Hoek, V. R. I. (1999). *From reversed logistics to green supply chains*. Supply Chain Management: An International Journal, 4(3), pp. 129-135.
- Hugos, Michael, (2003), “*Essentials of Supply Chain Management*”, John Wiley & Sons, Inc., Hoboken, New Jersey.
- Idris, Thabet Abdul Rahman. (2006). *Introduction to Business Management logistics supply and physical distribution*, Alexandria, University House.
- Johnny C. Ho, Columbus, Maurice K. Shalishali, Tzu-Liang and David S. Ang.(2009). *Opportunities in GSCM*”, Coastal Business Journal, Volume 8, Number 1, 2009, p21.
- Klassen, R.D., and Johnson, P.F. (2004), “*The green supply chain*”, in New, S. andWestbrook, R. (Eds), Understanding Supply Chains: Concepts, Critiques, and Futures, Oxford University Press, New York, NY
- Lee, S. and Klassen, R.D. (2008) ‘*Drivers and enablers that foster environmental management capabilities in small- and medium-sized suppliers in supply chains*’, Production and Operations Management, Vol. 17, No. 6, pp. 573-86
- Lee H.L. &S Whang S., (2010) “*E-Business and supply chain integration*”*Stanford university*, Available:<http://www.EBSO.com>.

- Leukel, J.; Kirn, S.; 2008: *A Supply Chain Management Approach to Logistics Ontologies in Information Systems*. Proceedings of the 11th International Conference on Business Information Systems (BIS 2008), Innsbruck, Österreich, 5.-7. Mai 2008, 7; S. 95-105
- Min, H., & Kim, I. (2012). *Green supply chain research: past, present, and future*. *Logistics Research*, 4(1), 39-47. <http://dx.doi.org/10.1007/s12159-012-0071-3>
- Morton, B, M McInnes and C Foster (2002), *Practitioner Volume 2. Environmental Purchasing in Practice*. Guidance for Organisations (Institute of Environmental Management and Assessment).
- Nimawat, D., & Namdev, V. (2012). *An overview of green supply chain management in India*. *Research Journal of Recent Sciences*, 1(6), 77-82.
- Ninlawan, C. – Seksan, P. – Tossapol, K. – Pilada, W. (2010): *The implementation of green supply chain management practices in electronics industry*. Proceedings of International MultiConference of Engineers and Computer Scientists 2010 Vol III. Hong-Kong
- Ninlawan, C. Seksan, and Tossapol P., K, and Pilada Wales, (2010). *The Implementation of Green Supply Chain Management Practices in Electronics Industry"* , Proceedings of the international MultieConference of Engineering and Computer Scientist Voll 3 , Hong Kong.
- Plambeck, L.E. (2007). *The greening of Wal-Mart's supply chain*. *Supply Chain Management Review*, 18-25.
- Porter, M. and Van Der Linde, C. (1995). *Green and Competitive: Ending the stalemate*, *Harvard Business Review*, v.73, n.5, pg. 120-134.
- Prakash, A. (2002). *Green marketing , public policy and managerial strategies*. *Business Strategy and the Environment*, 11, 285-297.
- Rifai, Mamdouh Abdul Aziz. (2004), *the basics of supply chains*. *Journal of Business Administration*, Arab Business Association, Egypt.
- Roberts, D. (2009). *Wal-Mart CEO lays out ambitious social and environmental goals for his company*. Retrieved January 04, 2012, from: <http://grist.org/business-technology/great-scott/>
- Sarkis, J. and Cordeiro, J.J.(2001).*An empirical evaluation of environmental efficiencies and firm performance: pollution prevention versus end-of pipe practice*.*Eur. J. Oper. Res.*, 2001, 135, 102–113
- Smith, D. C. (2005, August). *The Green Imperative. Soap, Perfumery, and Cosmetics*, 78 (8), pp. 24-26.
- Srivastava S.K.(2007).*Green supply chain management: A state of the art literature review*, *International journal of management reviews*, 9(1), 53-80 (2007)
- Srivastava, S. K., (2007), “*Green supply-chain management: A state-of-the-art literature review*”, *International Journal of Management Review*, 9(1), 53-80.
- Stevels, A. (2002). *Green Supply Chain Management Much More Than Questionnaires and ISO 14.001*. *IEEE*, 96-100.
- Tan KC, Kannan VR, Handfield RB. (1998). “*Supply chain management: supplier performance and firm performance*”. *International Journal of Purchasing and Materials Management*, 34(3):2–9.
- Ülgen , H., Mirze, S.K. (2004). *İşletmelerde stratejik yönetim. İstanbul ,Literatür Yayınları*.

- Walker, H., diSisto, L. and McBain, D. (2008), "*Drivers and barriers of environmental supply chain practices: lessons from the public and private sectors*", *Journal of Purchasing and Supply Management*, Vol. 14 No. 2, pp. 69-85.
- Walton, S. V. (1998). *The Green Supply Chain: Integrating Suppliers into Environmental Management Processes*. *International Journal of Purchasing and Materials*, 34 (2), 2-11.
- Zhu Q., Sarkis, J., & Geng, Y. (2004). *Green supply chain management in China: Pressures, Practices and performance*. *International Journal of Operations & Production Management*, 25 (5) 449- 468.