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Green Supply Chain Management: Development Direction for Businesses in Vietnam

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Abstract
In an economy that increasingly focuses on environmental protection and building green economies, the green supply chain is also a new direction of development for businesses, helping to create a competitive and profitable position. An environmentally friendly brand. Green supply chain management is the incorporation of environmental factors into supply chain management, including product design, raw material sourcing and selection, production processes, and final product distribution to consumers. Use and end-of-life management of the product after its use. Green supply chain management involves traditional supply chain management practices that integrate environmental standards or concerns into organized procurement decisions and long-term relationships with suppliers. Green supply chain management is associated with the management of its links, including green design, green operations, green purchasing, green input and output logistics, waste management, green production... Article Write theoretical research on green supply chain management, the current status of green supply chain management for businesses in Vietnam and from there find solutions to promote green supply chains for Vietnamese businesses next time.

Keywords: Green Supply Chain, Green Supply Chain Management, Vietnamese Businesses

1. Introduction

From a national perspective, green supply chains along with the concept of "green public procurement" are the main driving force for green growth. From a business perspective, green supply chains are part of the green investment strategy, which means creating an effective competitive business model while still ensuring environmental friendliness and effective use of natural ecological resources. Course.

Currently, in Asia, consumers tend to be willing to pay higher prices for green products. That's because they are starting to realize that using these products is not just a choice, but a necessity.

In a recently conducted survey of more than 13,000 people in 17 countries, about 70% of Japanese consumers said they are willing to accept higher prices to use green products. Followed by Australia with 57% and Singapore with 55%.

Another reason why companies in Asia are starting to adopt green supply chain practices is pressure from retailers. For example, Europe's strict regulations on the reduction of hazardous substances (RoHS), waste electrical and electronic equipment (WEEE) and registration, evaluation, licensing and restriction of chemical substances (REACH) forces suppliers in Asia to change production methods, while governments try to harmonize their laws with commercial realities.

To be effective, a green supply chain needs to be implemented in all stages, from planning, sourcing, production to the export of finished goods. The sourcing phase involves collaborating with suppliers in designing green products.

During the production phase, businesses can deploy a "green design" solution, which means incorporating environmental considerations into product design and development to bring green value to customers. Products, green packaging design to green improvements in warehouse management and operations. In the stage of exporting goods, businesses focus on building a green transportation system.

Therefore, studying the current situation of financial leasing activities in Vietnam and offering solutions to develop this form in the future is very meaningful and necessary.

2. Theoretical basis

Supply Chain Management (SCM)

SCM is a vital component of any business worldwide (Monczka, R.M., Handfield, R.B., Giunipero, L.C. & Patterson, J.L., 2016) [2] SCM integrates areas such as manufacturing, purchasing, transportation and distribution. It involves essential business processes such as procurement, logistics, reverse logistics and operations management. Rouse, M., (2010) [4] defines SCM as the flow of materials, financial resources and information between processes from suppliers to manufacturers, to wholesalers/distributors, to sellers. retail and ultimately the end customer. Therefore, it involves the coordination of material flows and activities both inside and outside of the enterprise. Supply chains are constantly evolving to face a constantly changing business environment. Different types of supply chains have emerged throughout the years such as lean, hybrid, flexible, standard, and green supply chains (Nelson, D., Marsillac, E., & Rao, S., 2012) [5]. SCM is a word that has been used and conceptualized by various academic texts. The explanation for this is because the description and scope of SCM differs between businesses in the ever-changing economic environment (Stock, J.R. and Boyer, S.L., 2009) [6]. Some concepts focus on supply activities while others emphasize material flows and interorganizational relationships. Some SCM concepts mentioned are as follows:

According to Monczka *et al* (2016) [2] SCM is an upstream movement of resources from suppliers and downstream movement of goods to final customers. SCM is also seen as the integration of business processes from original suppliers, which deliver products, information and services to end users through value-adding processes. The Council of Supply Chain Management Experts defines SCM as: "Including planning and managing all activities related to sourcing and procurement, conversion, and all logistics management activities." need. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates the management of supply and demand within and between companies."

Authors such as Stock and Boyer (2009) [6], Naslund and Williamson (2010) [8] and Lau (2011) [9] say that this concept is the definitive concept of SCM. SCM is a word that has been used and defined by various academic texts. The reason for this is that the description and scope of SCM vary across businesses and the definition evolves with changes in the economic environment. Some definitions focus on supply activities while others emphasize material flows and interorganizational relationships.

Green Supply Chain Management (GSCM)

GSCM is becoming an increasingly popular practice for businesses globally trying to improve their environmental performance. According to Zsidisin and Siferd (2001) [12], GSCM is the set of supply chain management policies, actions taken and relationships formed to meet concerns related to the natural environment, relating to the design, acquisition, production, distribution, use, reuse and disposal of its goods and services. Pressure created from both internal and external factors has forced businesses globally to adopt GSCM (Kumar, R., & Chandrakar, R., 2012) [13]. Resource reduction and increasing natural disasters are some of the many factors forcing businesses to improve their environmental friendliness.

GSCM studies have been popular among researchers since the early 20th century and have grown significantly since 2010. The difference between SCM and GSCM is the difference in environmental concerns. The concept of 'green' is known as 'acting while integrating environmental or ecological concerns. Overall, it can be said that the concept of GSCM is very broad, and there is no clear, comprehensive definition available to describe it. Because this concept is defined differently by researchers, it is difficult to describe GSCM according to a single definition (Council of Supply Chain Management Professionals, 2016) [10]. Although there are differences between definitions, there is one commonly used definition: The integration of environmental concerns into supply chain management practices is called "green supply chain management." (Sarkis, J., 2012) [1]. Below are a number of different definitions of GSCM that have been compiled by the author from previous studies.

Table 1: Concept of Green Supply Chain Management (GSCM)

Numerical order	Concept	Source
1	Apply environmental management principles to all activities across all customer order processes, including design, procurement, manufacturing and assembly, packaging, logistics and distribution.	Handfield, R.B., Walton, S.V., Seegers, L.K., Melnyk, S.A., 1997 [15]
2	A key framework for businesses to achieve their profit and market share goals by reducing risk and environmental impact while improving their ecosystem efficiency.	Zhu, Q., Sarkis, J., Geng, Y., 2005 [14]
3	Green purchasing + Green production / Green raw materials + Green distribution / Marketing + Reverse logistics.	Sarkis, J., (2012) [1]
4	The combination of the product manufacturing supply chain and the reverse logistics chain of used products.	Zigiaris, S., 2000 [3]
5	Integrate environmental thinking into supply chain management, including product design, sourcing and selection of raw materials, manufacturing processes, distribution of final products to consumers, and management End-stage management of a product after its life cycle.	Monczka, R.M., Handfield, R.B., 2016 [2]
6	Practices to monitor and improve environmental performance in the supply chain need to occur throughout the product life cycle.	Rouse, M., 2010 [4]
7	The Olympic Green Supply Chain is characterized by the Olympic five-ring flag as zero emissions, zero waste in operations, zero waste of resources, zero use of toxic substances, zero waste in the life cycle products, in addition to green inputs and green outputs.	Nelson, D., Marsillac, E., & Rao, S., 2012 [5]
8	Các lựa chọn quản lý môi trường lành mạnh được tích hợp với quá trình ra quyết định	Stock, J.R. and Boyer, S.L.,

	để chuyển đổi tài nguyên thành các sản phẩm có thể sử dụng.	2009 [6]
9	The purchasing organization's plans and operations should integrate environmental issues into supply chain management to improve the environmental performance of suppliers and customers.	Croxton, K.L., García-Dastugue, D.S., 2001 [7]
10	A strategic approach is addressed to extend environmental measures to the entire supply chain.	Naslund, Dag & Williamson, Steven. (2010) [8]
11	Integrate environmental considerations into supply chain management, including product design, raw material sourcing, manufacturing processes, final product delivery to consumers, and lifetime management of products green products.	Lau, K.H., 2011 [9]
12	The complexity of operational mechanisms implemented at the corporate and plant level to assess or improve the environmental performance of a supply facility.	Council of Supply Chain Management Professionals (2016) [10]
13	Management between suppliers, their products and the environment, means that environmental protection principles are included in the supplier's management system. Its purpose is to add environmental protection awareness to input products and improve market competitiveness.	Testa F., Iraldo, F., 2010 [11]
14	One way for companies to achieve profit and market share goals is by reducing environmental impact and increasing eco-efficiency.	Zsidisin, G., & Siferd, S., 2001 [12]
15	Minimize and preferably eliminate the negative impacts of the supply chain on the environment.	Kumar, R., & Chandrakar, R., 2012 [13]

Source: Compiled by author

GSCM spans the entire value chain from supplier to buyer. The overall aim of GSCM is to reduce the environmental impact of a business on the environment and therefore includes both direct and indirect impacts. GSCM starts at the product design stage, through the end of the product life cycle and finally to the product disposal or recycling stage, by considering the environmental impact at each step of the supply chain. Integrating environmental concerns into supply chain management practices is called “green supply chain management”. The characteristics of SCM identified in this article provide a basis for proposing new concepts for GSCM. Based on the previous discussion in this article, GSCM can be conceptualized as: “The creation of coordinated supply chains through the voluntary integration of environmental concerns with business systems. important inter-organizational ventures, they are designed to effectively manage the materials, information and capital flows involved in procuring, manufacturing and distributing products or services to meet stakeholder requirements. And improve the organization's profitability, competitiveness and resilience in the short and long term.” The need to address the bottom line of environmental considerations is clearly stated in the concept. As explained previously, the need to address these considerations has been widely recognized in previous conceptualizations of GSCM.

3. Current status of green supply chain management of businesses in Vietnam

Green supply chain management is the incorporation of environmental factors into supply chain management, including product design, raw material sourcing and selection, production processes, and final product distribution to consumers. use and end-of-life management of the product after its use. Green supply chain management involves traditional supply chain management practices that integrate environmental standards or concerns into organized procurement decisions and long-term relationships with suppliers.

Green supply chain management is associated with the management of its links, including green design, green operations, green purchasing, green input and output logistics, waste management, green production...

For example, green purchasing: Is the practice of purchasing products that have a low impact on human health and the environment, when compared with competing products and services that serve the same purpose. use. For example: Avoid buying products that can only be used once, buy energy-saving products, etc.

Or green production: Enterprises produce environmentally friendly "green" products, especially products used in renewable energy systems & "clean" technology equipment. For example, Toyota offers engines that minimize CO2 emissions.

Businesses make their production "green" through: Reducing pollution and waste by minimizing the use of necessary resources, recycling and reusing what is considered waste; Reduce emissions in production. For example, BMW aims to green supply chain with solid waste recycling programs and reducing the need for landfills, water conservation initiatives help save 9.5 million gallons of water/ year.

For the environment: Green supply chains help reduce waste, reduce waste, and reduce pressure on the environment.

For the economy: Green supply chains help improve production processes, reduce raw material costs, create competitive advantages, increase flexibility and connections with partners.

For society: Helps protect human health, reduce negative impacts from industrial waste, reduce negative impacts on the community and demonstrate the social responsibility of each business.

In fact, for many years now, many supermarkets in Vietnam have been using shrink wrap and self-destructing plastic bags to package food. However, replacing vegetable and tuber products with banana leaves is the most practical way for supermarkets and consumers to raise awareness of environmental protection, especially in the context of production, distribution and consumption. Using products with environmentally friendly packaging (green packaging) is one of the priorities of many countries around the world.

Furthermore, consumer awareness of the safety and environmental benefits associated with environmentally friendly packaging (biodegradable packaging, reusable or recyclable packaging) is increasing.

The production and use of environmentally friendly packaging is forecast to become a production and consumption trend in the future because this type of

packaging not only provides a safe solution for people's health and intelligence. humans, replacing harmful packaging, but also helping to reduce waste generation and environmental pollution.

In Vietnam, on average, nearly 19,000 tons of plastic waste are generated every day, of which on average each family uses 5-7 plastic bags to serve daily needs. Research shows that, if destroyed, plastic from nylon has the ability to pollute the air, leading to many respiratory diseases. If released into the environment, a plastic bag takes 500-1,000 years to completely decompose. In the long term, this will seriously affect both the living environment and people's health.

Faced with concerns about environmental pollution with increasing amounts of plastic waste, the recent response by Vietnamese consumers to the movement to use green packaging in supermarkets is a positive sign, reflecting reflects people's awareness of health protection and environmental protection has improved significantly.

Therefore, retail distribution businesses in Vietnam need to grasp this change well to have environmentally friendly methods of purchasing and distributing products as well as packaging products with environmentally friendly materials. consistent with the growing trend of green living in the region and the world.

For many years, the Ministry of Industry and Trade has been very supportive of businesses that have proactively implemented practical and specific measures to minimize the harmful effects of plastic bags, actively contributing to changing awareness, responsibility and habits. Use plastic bags by supermarkets and consumers, protect the living environment for the benefit of the community. The Ministry of Industry and Trade has closely followed and implemented programs related to greening business models; which focuses on replacing plastic bags with environmentally friendly products in business and consumption activities.

The Ministry of Industry and Trade has chaired and coordinated with relevant ministries, branches and agencies to submit to the Prime Minister for approval the National Action Program on sustainable production and consumption to 2020, with a vision to 2030. (Decision No. 76/QD-TTg dated January 11, 2016 of the Prime Minister) including implementing the task of "Greening the distribution system and developing the supply chain of environmentally friendly products and services". school".

To carry out this task, the Ministry of Industry and Trade has approved two tasks, including researching and proposing policies to develop environmentally friendly product distribution channels (focusing on researching distribution channels for household electrical products). applications, energy-using products).

In addition, build a system of criteria and indicators for evaluating and certifying green retail distribution systems in Decision No. 2308/QD-BCT dated June 8, 2016 of the Minister of Industry and Trade on approving green retail distribution systems. Approve the budget for the 2017 mission to implement the national action program on sustainable production and consumption to 2020, with a vision to 2030.

In particular, the Ministry of Industry and Trade also implemented a "Handbook on environmental management in goods distribution facilities" to overview environmental issues in the operations of distribution systems and management organizations. state on environmental protection; environmental management and protection during the construction investment preparation phase for the distribution system; environmental management and protection during the construction phase of the distribution system; environmental management and protection during the operation phase of the distribution system.

Vietnamese businesses are increasingly aware of the role and importance of sustainable production and consumption in general; including the development of production and consumption of environmentally friendly product packaging in particular.

4. Green supply chain development solutions for businesses in Vietnam

To effectively green Vietnam's supply chain, Vietnamese businesses need to implement some of the following solutions:

Firstly, businesses need to seriously implement legal documents related to the environment. Environmental documents are associated with the development of the economy, it is related to the protection of natural resources and the reduction of water, air and noise pollution by businesses.

Second, businesses need to apply the set of environmental management standards (ISO14000) issued by the International Organization for Standardization (ISO) to help businesses minimize harmful impacts on the environment and often Continuously improve environmental performance. Currently, around the world, by applying this set of standards, businesses can approach environmental management issues, improve business capacity in implementing environmental commitments and remove barriers. trade when businesses participate in supply chains and operate environmentally friendly activities.

Third, businesses need to plan between applying green supply chains and their goals to create strategic value. Accordingly, businesses need to clearly orient their business goals, including: Creating product differentiation such as using natural materials or products designed to reduce environmental pollution; Create competitive advantage over competitors; Reduce costs; Risk management; Redefining the market. When the green supply chain program matches its goals, there will be indicators to evaluate the success of the business, including: Environmental indicators; Motivation for innovation activities; Support from relevant organizations.

Fourth, businesses need to evaluate the supply chain as a system that includes: Minimizing input factors (including: Raw materials, energy, capital) and output factors (waste, emissions, wastewater); Optimize the production cycle within the impact of the environment; Maximize output factors such as products and profits.

Fifth, managers need to see the green supply chain as a driving force to improve the organization's operating processes with the goal of reducing costs. Pollution and waste represent the non-standardized and inefficient use of raw materials. Therefore, the application of green supply chains by businesses will bring business efficiency in both financial aspects and corporate image in the eyes of investors and the social community.

Sixth, businesses need to perfect their business model towards greening the supply chain. Accordingly, businesses need to overcome internal barriers to implement organizational change, create unity in the supply chain, and

focus on the goals and results pursued.

5. Conclusion

Green supply chain management is about creating an effective competitive business model while still ensuring environmental friendliness and effective use of natural ecological resources. When participating in this process, the business's capacity will be improved and it will be motivated to enhance its reputation in the market. What is more important is that consumers will be able to use "clean" products. Thanks to that, businesses not only create more value from products and services but also increase their customer base by penetrating new markets. Choosing to follow this trend will help businesses have more customers as well as expand export markets, and can even attract investment capital from foreign businesses and develop sustainably. In addition, green supply chain management will help businesses stay ahead of the trend of standards that are becoming increasingly strict both in terms of resource use and control of production and business processes.

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