

A STUDY OF THE EFFECT OF GREEN SUPPLY CHAIN MANAGEMENT'S COMPONENTS ON THE PERFORMANCE OF THE PHARMACEUTICAL DISTRIBUTION COMPANIES SYSTEM IN IRAN

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Abstract

The main objective of this study is to measure the effect of green supply chain aspects, including green consumption, green packaging, green transportation and distribution, green production, green design, green marketing, green supplier and green purchasing, on the performance of pharmaceutical distribution companies system in Iran. Green purchasing and supplier affect the performance of pharmaceutical distribution companies system in Iran. The main objective of this study is to measure the effect of green supply chain aspects on the performance of pharmaceutical distribution companies system in Iran. The components of the green supply chain in this study include green consumption, green packaging, green transportation and distribution, green production, green design, green marketing, green supplier and green purchasing, which the effect of these components on the performance of pharmaceutical distribution companies systems in Iran will be investigated. The results of the research hypothesizes test indicated that the above mentioned factors affect the dependent variable and this impact is significant with a 99% confidence level.

Keywords: Green Supply Chain, Darou Pakhsh Distribution Company, Systems Performance, Green Production, Green Design

Introduction

Over the past few decades, the world have rapidly and astonishingly been developed in terms of economy for accessing the modern technologies, globalizing financial resources and economics, developing global markets and accelerating products transportation and factors of production. Under these conditions, environmental problems, including Ozone depletion, forest destruction, air and water pollution, global warming, acid rain, and so on, threaten human quality of life. Thus, ensuring and the continuation of sustainable development in each country depend on the optimal use and maintenance of the alternative limited natural resources. Supply chain, which includes all of the activities related to the good conversion process from the raw materials phase to delivery to the final consumer, will potentially affect the environment. Recently, the supply chain managements in leading organizations try to use the green supply chain as a valuable source for achieving a sustainable competitive advantage by creating desirability from an environmental perspective in the whole supply chain. Thus, in addition to the costs and common and current issues, the supply chain

managers must consider the environmental aspects and social costs in making decisions (Naseri & Taheri, 2005). With respect to a mutual relationship between the environmental performance improvement and the economic performance improvement, the environmental performance improvement can decrease cost, improve the environmentally unfriendly departments, public organizations and customers' perspective on the organization and its products and increase a comparative advantage. Making green supply chain activities and decreasing environmental pollutants and wastes can lead to a better utilizing of the natural resources, increased efficiency, decreased operational costs, improved market share and the use of the opportunities to enter new markets (Naseri & Taheri, 2005). Of course, creation of a comparative advantage and an increase in the profitability of the supply chain will not be made in short time. Achieving these issues requires an investment in research and development activities in order to perform the green supply chain which will result in a comparative advantage and profitability in competitive global marketplace. The green management model is a new management approach which is adopted by organizations at the global class in order to achieve a sustainable access. This model is designed according to the environmental protection and is used at the international level. The green management model enables the organizations to keep their economic interests and service delivery sustainable through using a new approach. In other words, the green management model has been designed to keep the organizational survival (www.iran-gma.com). The green supply chain of sustainability means creating a cultural, social-economic society and paying a long-term attention to the environmental issues, while the supply chain management consists of all aspects of product life cycle (PLC) including raw materials, processing, manufacturing and production, distribution, retail sales and customer usage (Hervani et al. 2005).

2. Research Problem Statement

Green purchasing and supplier have an impact on the performance of pharmaceutical distribution companies system in Iran. The main objective of this study is to measure the impact of green supply chain aspects on the systems performance of Darou Pakhsh Distribution Company in Iran. The components of the supply chain in this study includes green consumption, green packaging, green distribution and transportation, green production, green marketing, green supplier and green purchasing, which the impact of these components on the systems performance of Darou Pakhsh Distribution Company in Iran will be investigated. Over the past few decades, the world have rapidly and astonishingly been developed in terms of economy for accessing the modern technologies, globalizing financial resources and economics, developing global markets, accelerating products transportation and factors of production. Under these conditions, environmental problems, including Ozone depletion, forest destruction, air and water pollution, global warming, acid rain, and so on, threaten human quality of life. Thus, ensuring and the continuation of sustainable development in each country are depended on the optimal use and maintenance of the alternative limited natural resources. Thus, ensuring and the continuation of sustainable development in each country are depended on the optimal use and maintenance of the alternative limited natural resources. Supply chain, which includes all of the activities related to the good conversion process, from the raw materials phase to delivery to the final consumer, will potentially affect the environment. Recently, the supply chain managements in leading organizations try to use the green supply chain as a valuable source for achieving a sustainable competitive advantage by creating desirability from an environmental perspective in the whole supply chain. Thus, in addition to the costs and common and current issues, the supply chain managers must consider the environmental aspects and social costs in making decisions (Naseri & Taheri, 2005). With respect to a mutual relationship between the environmental performance improvement and the economic performance improvement, the environmental performance improvement can decrease cost, improve the environmentally unfriendly departments, public organizations and customers' perspective on the organization and its

products and increase a comparative advantage. Making green supply chain activities and decreasing environmental pollutants and wastes can lead to a better utilizing of natural resources, increased efficiency, decreased operational costs, improved market share and the use of the opportunities to enter new markets (Naseri & Taheri, 2005). Of course, creation of a comparative advantage and an increase in the profitability of the supply chain will not be made in short time. Achieving these issues requires an investment in research and development activities in order to perform the green supply chain which will result in a comparative advantage and profitability in competitive global marketplace. The green management model is a new management approach which is adopted by organizations at the global class in order to achieve a sustainable access. This model is designed according to the environmental protection and is used at the international level. The green management model enables the organizations to keep their economic interests and service delivery sustainable through using a new approach. In other words, the green management model has been designed to keep the organizational survival (Ibid, 2015). The green supply chain of sustainability means creating a cultural, social-economic society and paying a long-term attention to the environmental issues, while the supply chain management consists of all aspects of product life cycle (PLC) including raw materials, processing, manufacturing and production, distribution, retail sales and customer usage (Hervani et al. 2005 b). With respect to the issues mentioned above, the research questions are as follows:

Main Question

Does the function of the green supply chain's components affect the performance of the pharmaceutical distribution company systems in Iran?

Minor Questions (Secondary Questions)

- Does the green consumption affect the performance of pharmaceutical distribution company systems in Iran?
- Does the green packaging affect the performance of pharmaceutical distribution company systems in Iran?
- Does the green distribution and transportation affect the performance of pharmaceutical distribution company systems in Iran?
- Does the green production affect the performance of pharmaceutical distribution company systems in Iran?
- Does the green design affect the performance of pharmaceutical distribution company systems in Iran?
- Does the green marketing affect the performance of pharmaceutical distribution company systems in Iran?
- Does the green supplier and green purchasing affect the performance of pharmaceutical distribution company systems in Iran?

3. Literature

Khodabakhshi et al. (2014) have studied the role and impact of the green supply chain components on industrial establishments, and the research methodology used for conducting comparative studies and using library resources and scientific-electronic networks is valid and seeks to find a proper solution for this question "What is the impact of observing environmental and naturally friendly requirements in performing the operations of organizations supply chain on improvement of their results?", and finally, it concludes that due to enjoying some strategic advantages such as adaptability with nature, reduction in costs and product innovation (differentiation strategy), the green supply chain is considered as one of the contemporary successful strategies and it has been suggested that in order to benefit these advantages, domestic departments and organizations also try to establish the

components of the green supply chain. Ramezani and Heidarniaye Kohan (2011) have studied the factors affecting the green supply chain of the studied tourism industry: Travel Agencies in the city of Tehran. In this study, after investigating theoretical principles, the potential factors affecting the strategic decision-making process of a real estate agency based on adopting environmental considerations in relations to the different members of the supply chain have been determined by providing a comparative model. In order to study the given potential factors in practice and recognize the more influential possible factors as well as determine the relative importance of each of these factors in tourism industry, especially from the perspective of the state travel agencies, a questionnaire was designed based on the proposed analytical model and used as the basis of semi-open interviews with 15 travel agencies in the city of Tehran. Results show that given that adopting the green supply chain management doesn't lead to significant benefits within the organization from the perspective of the state travel agencies, foreign pressures may be an effective factor to a tendency to use environmental strategies. In addition, the implementation of this strategy would be limited through some organizational factors and strategic narrow-mindedness. Olfat et al. (2011) conducted a study on the requirements for fulfilling the green chain management in Iran's Automotive Industry. In this study, the necessary requirements (stimulus, barriers, proceedings and results) have been investigated in order to achieve the green chain management in Iran's Automotive Industry. Then, the required proceedings were extracted for obtaining a green supply chain management. These proceedings were reviewed by the experts through questionnaires, and finally, the enforcement measures were prioritized with the Fuzzy TOPSIS method.

4. Hypotheses (Each hypothesis must be written as a statement)

Main Hypothesis:

The function of green supply chain management affects the performance of pharmaceutical distribution companies system in Iran.

Secondary Hypotheses (Minor Hypotheses):

- Green consumption affects the performance of pharmaceutical distribution companies system in Iran.
- Green packaging affects the performance of pharmaceutical distribution companies system in Iran.
- Green distribution and transportation affect the performance of pharmaceutical distribution companies system in Iran.
- Green production affects the performance of pharmaceutical distribution companies system in Iran.
- Green design affects the performance of pharmaceutical distribution companies system in Iran.
- Green marketing affects the performance of pharmaceutical distribution companies system in Iran.
- Green supplier and green purchasing affect the performance of pharmaceutical distribution companies system in Iran.

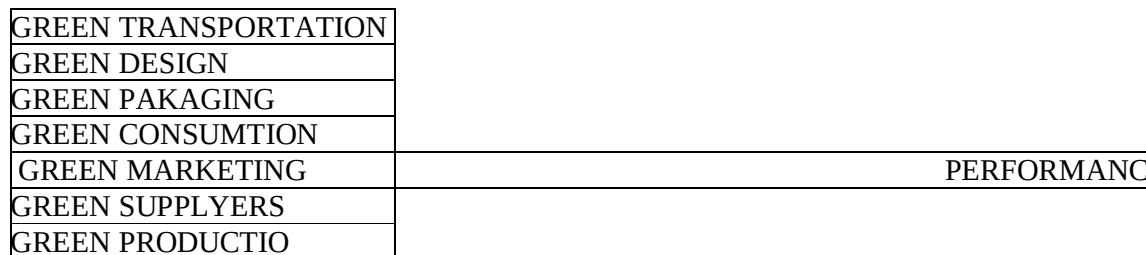


Diagram. 1: Research modified conceptual model (Khodabakhshi, 2014, Gilaninia, 2015)

Green distribution and transportation- Green design-Green packaging- Green consumption-Green marketing-Green supplier and purchasing-Green production

The components of supply chain- The performance of pharmaceutical distribution companies systems.

5. Research Objectives

Main Objective:

Measuring the effect of the green supply chain's aspects on the performance of pharmaceutical distribution companies systems.

Secondary Objectives (Minor Objectives):

- Measuring the green consumption effect on the performance of pharmaceutical distribution companies systems.
- Measuring the green packaging effect on the performance of pharmaceutical distribution companies systems.
- Measuring the effect of green distribution and transportation on the performance of pharmaceutical distribution companies systems.
- Measuring the green production effect on the performance of pharmaceutical distribution companies systems.
- Measuring the effect of green design on the performance of pharmaceutical distribution companies systems.
- Measuring the effect of green marketing on the performance of pharmaceutical distribution companies systems.
- Measuring the effect of green supplier and green purchasing on the performance of pharmaceutical distribution companies systems.

6. Research Methodology

It has been used a casual research methodology in this study. In these kinds of studies, the objective is to find the causes or the causes of an event or accident. Thus, after the occurrence of an Event, the study on it will begin. Here, the author has not manipulated the variables, essentially he is not present and doesn't know them, but he conducts a casual research in order to identify the variables and causes of the event and distinguish the factors affecting the performance.

Data Collection Method (Filed, Library Methods and so on)

A field method has been used for collecting data. The tools for data gathering include questionnaire, interview, observation, test, receipt, tables, sampling, laboratory equipment, data banks, computer networks, satellite networks, and so on. A standard researcher-made questionnaire will be used.

Data Analysis Method

Data analysis method is β coefficients significance testing of univariate (simple) and multivariate (multiple) regression equation. Also, descriptive statistics are used to describe the variables distribution. Of course, it is suggested that the other statistical methods will also be used if necessary.

7. Conclusions and Recommendations

Over the past few decades, the world have rapidly and astonishingly been developed in terms of economy for accessing the modern technologies, globalizing financial resources and economics, developing global markets, accelerating products transportation and factors of production. Under these conditions, environmental problems, including Ozone depletion, forest destruction, air and water pollution, global warming, acid rain, and so on, threaten human quality of life. Thus, ensuring and the continuation of sustainable development in each country are depended on the optimal use and maintenance of the alternative limited natural resources. Supply chain, which includes all of the activities related to the good conversion process, from the raw materials phase to delivery to the final

consumer, will potentially affect the environment. Recently, the supply chain managements in leading organizations try to use the green supply chain as a valuable source for achieving a sustainable competitive advantage by creating desirability from an environmental perspective in the whole supply chain (Gilaninia, et. al (2012). Thus, in addition to the costs and common and current issues, the supply chain managers must consider the environmental aspects and social costs in making decisions. According to the results of studies, it is recommended that all distributors of green cycle process do not focus only on a single part of the chain, but a green supply chain will be made when the green components are used in all steps.

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