Green supply chain management related performance indicators in 
Agro industry: A Review

Vijay Sharma¹, Pankaj Chandna² and Arvind Bhardwaj³

er.vijaykumar.sharma@ymail.com¹, pchandna08@gmail.com², bhardwaja@nitj.ac.in³

¹,² National Institute of Technology, Kurukshetra, India
³ National Institute of Technology, Jalandhar, India

Abstract

Environmental protection and sustainability issues in food sector have attracted global concerns in the past two decades. Companies and government in many countries have started realizing the importance of greening their supply chains. Green supply chain management has gained special attention of public and many companies are now interested in adopting it as their strategy to advance their brand image, capturing more market share and to win the trust of the customer. The purpose of this paper is to explore the diverse performance indicators and sub-indicators responsible for green supply chain management implementation and to check its reliability and to rank them using analytic hierarchy process analysis. After extensive literature review and consulting Industrial experts, the study has suggested 13 performance indicators and 79 sub-indicators. The quantitative phase was conducted through a survey using standard questionnaire with various agro based companies followed by a qualitative phase, where the duly filled questionnaires were received, edited and further analyzed. It has been concluded that internal environmental management, environmental design and regulatory pressure are ranked as the top three performance indicators. The sensitivity analysis has also been performed to see the effect of weightage on the final ranking of performance indicators. This is one of the first studies that suggest the performance indicators for implementation of green supply chain management in agro industry. The study will certainly aid the related organizations to implement green supply chain management.

Keywords

Analytic hierarchy process, Environmental management system, Green supply chain management, Green Purchasing Network India, Performance indicators, International organization for standardization.

1. Introduction: It has been observed that the industries now embraced the green supply chain management (GSCM) approach to green their supply chains and are very keen to know about the critical factors/performance indicators responsible for its implementation. It has emerged as a contemporary approach in twenty first century to attain efficiency, corporate profit, brand image, market share and to reduce the biological footprints of products, as well as the environmental concerns are increasingly becoming significant in managing the trade today. Considering the environmental regulations and growing demands by the overseas buyers for a lot of eco-friendly merchandise, many corporations across the globe are adopting environment friendly merchandises as their trade strategy for future sustainability and to have a competitive edge over others. In many nations, the Government, industries and some non- Government organizations are operating along to purchase eco products which would eventually benefit the environment and thus the civilization. Limiting damage to the environment has been the major challenge society faces over the coming years. Companies are increasingly being urged to play their part in taking action to avert long term irreversible damage to our planet and they are setting up their environmental programs to incorporate green policy throughout their various stages of the supply chain. GSCM aims to limiting wastes within the production so as to save energy and prevents the debauchery of harmful material into the environment. Organizations are taking steps to develop into more eco-conscious and going green within the limitations of their trade objectives.

The present study focuses on the implementation of GSCM in agro companies and provides them essential performance indicators and sub-indicators in order of their dominance. The introduction of GSCM in agro industry will improve their product design, procurement procedure, internal processing, distribution and re-processing operations etc.
دریافت فوری
متن کامل مقاله

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات