

Accepted Manuscript

A generic planning approach for sustainable supply chain management - How to integrate concepts and methods to address the issues of sustainability?

Dennis Stindt



PII: S0959-6526(17)30570-X

DOI: [10.1016/j.jclepro.2017.03.126](https://doi.org/10.1016/j.jclepro.2017.03.126)

Reference: JCLP 9253

To appear in: *Journal of Cleaner Production*

Received Date: 15 April 2016

Revised Date: 27 February 2017

Accepted Date: 18 March 2017

Please cite this article as: Stindt D, A generic planning approach for sustainable supply chain management - How to integrate concepts and methods to address the issues of sustainability?, *Journal of Cleaner Production* (2017), doi: 10.1016/j.jclepro.2017.03.126.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

A generic planning approach for sustainable supply chain management

How to integrate concepts and methods to address the issues of sustainability?

Dennis Stindt, University of Augsburg, Chair of Production & Supply Chain Management
Universitaetsstrasse 16, 86159 Augsburg, Germany,
Tel.: 0049(0)821-5984364, dennis.stindt@wiwi.uni-augsburg.de

Abstract

Forced by competitive, legislative and customers' pressures, corporate executives are supposed to consider sustainability aspects of value creation which induces a new set of challenges within decision-making. Unfortunately, guidelines supporting comprehensive analysis, especially concerning the evaluation of environmental and social performance of decision alternatives, are missing. This hinders the advancements in corporate sustainability. Questions arise on how to measure and balance respective indicators with traditional economic objectives. To fill this void, this research sets out to develop an intuitive and holistic planning framework for advancing sustainability along supply chains. In a first step, we identify sustainability issues and indicators as well as decision-support methods by scrutinizing literature on sustainable supply chain management. Based on this, we develop a planning framework that supports executives in evaluating and deciding upon corporate sustainability initiatives. The framework comprises three consecutive phases of planning: 'Problem definition', 'Assessment of alternatives', and 'Decision analysis'. For each phase we propose appropriate tools distinguishing concepts of sustainable supply chain management (e.g. Sustainable Logistics and Sustainable Manufacturing), methods for measuring the ecological and social efficiency of decision alternatives, and quantitative decision-support techniques able to balance trade-offs between the three dimensions of the triple bottom line. As a result, this article presents a framework for guiding corporate decision-processes. From the academic angle, the article contributes to the research field by providing a structured integration of concepts and methods utilizable in the pursuit of ecological and social improvements along the value chain.

Keywords: Green Supply Chain Management, Sustainable Development, Sustainable Operations, Operations Research, Decision-making

Word count: 16,581 (incl. title, abstract, main text, tables, references, etc.)

Download English Version:

<https://daneshyari.com/en/article/5479629>

Download Persian Version:

<https://daneshyari.com/article/5479629>

[Daneshyari.com](https://daneshyari.com)