

Green Performance Assessment for Retail Industry in Taiwan

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Abstract

The retail industry in Taiwan plays an important role in people's lives and influences consumers' purchasing behavior. Due to global warming and the depletion of energy and other resources, most retailers are required to obey the green policy of reuse, recycling, and reduction in their operational process, service, and products. Therefore, we first evaluated the environmental performance of retailers using selected green criteria. Then, we assessed the performance of sustainable environmental practices among ten selected retailers using grey relation analysis and the entropy method to derive objective weights for the selected criteria. Next, for continuous improvement of retailers' green performance, we extracted and summarized a self-assessment checklist selected from the questionnaire. Retailers can use the checklist for guidelines for continuous improvement.

Keywords: Retail industry, green environmental performance, grey relation analysis, entropy, checklist.

1. Introduction

The depletion of resources used for raw material and energy for manufacturing and product distribution, as well as wasted products, have increased air and environmental pollution and carbon dioxide emissions, which are unfriendly to a sustainable environment [27]. Because the global warming problem is having more serious and complex effects on climate change, we need to increase concern for environmental issues and legislation requirements among companies, governments, and non-governmental organizations. However, there is a dilemma between economic growth and sustainable environmental development in most countries; the usual concern is that the contribution of the developing green supply chain to the bottom line is not positive in the absence of additional financial support. Therefore, the concept of Triple Bottom Line (TBL), including economic growth, social equity, and ecology, is used for overcoming this dilemma [17]. Clearly, social equity means the enterprise should support better products and services for their customers, which can be the medium to trade off economic growth and a sustainable environment. Observing industry in Taiwan, we find that the retail industry has important