

# 審査の結果の要旨

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Dissertation Title: **Corporate Environmental Sustainability (CES) in the retail sector: The case of Japanese and South African supermarket companies**

Sustainable development and social responsibility have become increasingly important strategic issues for companies in virtually every industry. There is increased pressure for the adoption of Corporate Environmental Sustainability (CES) strategies to reduce the environmental impacts of the operations, products and services of private companies. However, literature on key issues related to the adoption and effectiveness of CES strategies in the retail sector is lacking.

Supermarkets, once thought to be accessible solely to middle- and upper-income consumers, have seized the opportunity presented by rapid urbanization, economic development and trade/market liberalization to expand in both developed and emerging economies. In many cases supermarkets have become the primary suppliers of food and general items direct to consumers. As supermarket companies account for a significant fraction of direct sales within the retail sector, they play a critical role in influencing consumers and suppliers to adopt environmentally friendly behavior.

Using a case study approach, this thesis identifies and explores the factors influencing the adoption, implementation and effectiveness of CES strategies in the supermarket sector in Japan and South Africa. The specific objectives are to (1) identify which CES strategies are preferred by supermarket companies in the two countries, and understand the drivers of CES adoption; (2) identify the methods and guidelines used to assess and document CES implementation progress, (3) understand the sustainability impacts and challenges of CES implementation, and (4) understand the visibility, awareness and acceptance of CES to consumers.

Initially an extensive literature review was conducted to situate this thesis in the context of existing knowledge and establish its particular focus. A qualitative content analysis of company reports of the top five supermarkets in Japan and South Africa (based on revenues) was used to identify the main CES strategies promoted in the two countries. Expert interviews with different stakeholders in both countries, which reflected the main groups involved in CES activities in the retail sector (and especially the supermarket sector), were used to elicit perceptions about the drivers, tools, impacts and challenges of implementing CES strategies in Japan and South Africa. A structured survey was administered to supermarket customers in Japan and South Africa to determine (a) awareness and perceptions of supermarket CES activities, (b) purchasing behavior, (c) socio-demographic characteristics and (d) environmental attitudes. The New Ecological Paradigm (NEP)

scale was used to elicit the environmental attitudes of the respondents as it has been widely used to measure environmental attitudes and environmental concern in different thematic and geographical contexts.

Report analysis and expert interviews in both countries suggest that CES adoption is significantly related to risk management activities driven by cost savings and pressure from various stakeholder groups. In both countries, the most widely adopted CES strategies focus on internal operations, seeking to reduce energy use and greenhouse gas (GHG) emissions. Waste management strategies generally focus on recycling and decreased packaging, with particular attention on (a) reducing the amount of food waste being incinerated or sent to landfills, (b) decreasing resource use in packaging materials and (c) engaging with customers to decrease the demand for single use plastic bags. Supply chain strategies have generally focused on the development and marketing of green private label products in leading companies such as Aeon and Woolworths. Other companies have focused solely on improving the efficiency of logistics to reduce fuel/energy use and GHG emissions. Product sustainability certifications are a key CES supply chain focus area in both case study countries, with Woolworths (South Africa) leading in this regard. Japanese supermarket companies are more involved in stakeholder engagement activities among staff and consumers, while leading South African companies focus a lot on engaging with their suppliers around sustainability issues, particularly emerging farmers. CES strategies that seek to improve animal welfare, minimize food waste through collaboration with charities, and participate in international sustainability indices and disclosure projects have become prevalent in South African companies, but are still being explored by Japanese companies.

Report analysis and expert interviews show that companies develop specific targets and key performance indicators for their CES strategies, which are highlighted in their sustainability reports. Internal and external auditing of CES progress is increasingly being undertaken, with annual sustainability reports becoming the products of these efforts, especially to update stakeholders on company sustainability progress. These processes are guided by international frameworks such as the Global Reporting Initiative, International Organization for Standardization (ISO), the Sustainable Development Goals, Carbon Disclosure Project and the United Nations Global Compact. National environmental guidelines and regulations, such as the King III and King IV reporting guidelines (in South Africa) and the Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging (in Japan) play a key role in pushing CES implementation and reporting in the respective countries.

Expert interviews reveal that some of the main challenges that sustainability managers face in implementing CES activities include (a) difficulties changing the perceptions and behavior among top management and store level staff, (b) lack of skills and capacity, (c) availability and costs of new technologies, (d) insufficient funds to finance CES activities, (e) lack of awareness among customers

to change purchasing behavior, and (f) insufficient or inappropriate regulation and incentives for CES adoption. Significant progress has been achieved by some leading companies in energy saving strategies, collaborations to reduce food waste, e-waste take back mechanisms, emerging farmer development, closed loop agriculture and animal welfare.

Customer surveys suggest that a larger proportion of survey respondents in Japan were aware of supermarket CES activities (85%) compared to South Africa (63%). This can possibly be attributed to a more extensive focus of Japanese companies on consumer education and awareness-raising activities. Recycling-related activities were identified in both countries as the CES activities that were most visible and which customers were more aware of. Product quality was the factor ranked the most important to both survey groups when purchasing a product or a service, followed by the price of the product. The environmental impact of the product or service was ranked third (out of four factors) by Japanese respondents and last by South African respondents. This suggests that environmental considerations do not explicitly play a major role in influencing purchasing decisions for the two samples. Furthermore, there were weak correlations between NEP scores and (a) respondents' awareness of CES activities, (b) willingness to change to a more environmentally friendly supermarket company (if all factors remained the same), (c) choice of (and reason for) preferred supermarket, and (d) perceptions that supermarket CES strategies could have a positive effect on the natural environment. This suggests that the respondents' NEP scores, and therefore environmental worldviews, do implicitly play a role in purchasing decisions and perceptions on CES strategies.

By looking critically into the results of this research, it is possible to identify several cross-thematic issues that need to be targeted to improve the adoption and success of CES in the retail sector. These include (a) addressing mismatches between perceptions of management and customers, (b) valuing the role of leader companies in driving CES adoption, (c) exploring the role of NGOs as strategic partners, (d) identifying and promoting value addition with other aspects of company operation or boarder CSR activities, and (e) addressing market maturity issues in emerging and developing economies.

This committee unanimously agreed to award the degree of Doctor of Sustainability Science.

(1204 words)