

COMPLETION REPORT

Strengthening Japan-Malaysia Trade Ties: Green Supply Chain Management in Malaysian Organizations, Practices, Performance, Barriers and Opportunities

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There are three main findings from this research. Firstly, from the Federation of Malaysian Manufacturers (FMM), Malaysian Investment Development Authorities (MIDA) and Malaysia External Trade Corporation (MATRADE) data, we found there are only 524 companies or 20% of the companies registered in Malaysia exporting to Japan. Of these companies which export to Japan market, 199 have ISO14001 certification, 218 are non-ISO14001 certified (but have other certification) and 107 do not have certification. As for the non-exporting group of ISO14001 certified companies to Japan we found about 1052 of them. These indicate that there is still a large base of untapped Malaysian suppliers without ISO14001 certification but could potentially export to Japan market in future.

Secondly, we found some differences between Japanese companies' environmental requirements and the US/European companies' environmental requirements. For Japan, in addition to the ISO14000 certification, it also emphasizes its numerous Japan Industrial Standards (JIS) as important export and import requirements. Adherence to JIS standards will be given preferential treatment in procurement decisions. For US/European market, in general the ISO standard is used as the basis for legislation for trade. US has its Environmental Protection Agency (EPA) which enforces food and product safety and hazardous waste. EU's import requirements are listed in its Export Helpdesk which provides comprehensive information for developing countries to access the EU market. This also covers the adherences to the Waste Electrical and Electronics (WEEE) Directives (for manufacturers who export electrical and electronic goods to EU market must comply with this directive) and Restriction of Hazardous Substance (RoHS) Directive (to restrict the use of six hazardous materials in the manufacture of electronic and electrical equipment).

Our third finding from this research identified two main factors that could influence the adoption of environmental and sustainable supply chain management in Malaysian companies. They are institutional pressures and organization identity. Institutional pressure is an external factor comprising government rules and regulations, competitors' pressure and market needs compelling companies to adopt environmental and sustainable supply chain management practices. Organizational identity is an internal factor, culturally and deeply rooted in an organization that nurtures the environmental and sustainability thinking among the employees in their daily work and processes. From our survey among manufacturing companies in Malaysia, 118 companies responded and statistical analysis shows organization identity in green and sustainability as well as institutional pressures are positively associated with the adoption of sustainable supply chain management practices in the organizations. In addition to these two factors, where the absence or lack of forces have become barriers to implement environmental and sustainable practices in organizations, our research also have ultimately identified and introduced pathways to sustainable supply chain triple bottom line performance for these companies. These pathways are potentially useful to qualify Malaysian non-exporting companies with features suitable for the Japanese market. These quality features go beyond certification. A research framework for further sustainable supply chain management has been derived from the linkages of institutional pressures and organizational identity to environmental and social sustainable practices. The framework shows the superordinate goal of sustainable supply chain are met by unyielding external pressures and desirable organization identity driving the unequivocal environmental and responsible social practices of firms. This framework is useful to organizations to enhance their understanding on effects of different interventions which will lead to improved firm performance. With improved firm performance, supply chain operations will raise the quality of Malaysian firms so desired by the Japanese market.

In summary, the main objective of the research which is to identify the opportunities to improve the sustainable environmental conservation capability of Malaysia's exporters and non-exporters to Japan is achieved. The researchers deeply appreciate and are thankful to the funding support and efficient administration of Sumitomo Foundation to realize the successful completion of this research within the stipulated time.

Publication of the Results of Research Project:

Verbal Presentation (Date, Venue, Name of Conference, Title of Presentation, Presenter, etc.)

5th October 2016, 4th International Conference on Business, Accounting, Finance and Economics 2016, "Organization Identity in Sustainable Supply Chain Management: A Proposed Framework for Research", Kai Chong Thong & Wai Peng Wong

Thesis (Name of Journal and its Date, Title and Author of Thesis, etc.)

1. Forthcoming paper/ article: "Pathways for Sustainable Supply Chain Performance - Evidence from Malaysia" – submitted to Journal Industrial Management and Data Systems' on 11 April 2017 – currently under review.
2. PhD (Mixed Mode) Thesis Title - A Brief Review on Sustainable Supply Chain Management (SCM) and A Proposed framework for future research. Thong Kai Chong, January 2017. Supervisor: Associate Professor Dr. Wong Wai Peng.

Book (Publisher and Date of the Book, Title and Author of the Book, etc.)

Research Report (as attached)