The Co-pursuit of Sustainability: Leveraging Supply Chain Relationships in Support of Sustainability Efforts

Research Proposal by

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Project Description

One of the hallmarks of any outstanding business relationship is the ability to achieve more by working together than can be achieved by working in isolation. Researchers have examined several situations where companies have worked together in pursuit of mutually beneficial goals. These include companies examining how to enhance product development efforts, how to pursue operations efficiencies and how to improve joint marketing activities. Several world-class organizations are investing time and resources to look within their enterprise to find sustainability opportunities. However, to date, only limited research has been undertaken that focuses on how companies may jointly pursue the realization of sustainability initiatives that are becoming increasingly prevalent in today's business environment.

As an example of one potential area of focus, there has been a change in the nature of the relationships between logistics service providers (LSPs) and firms who purchase these types of services (Lieb and Bentz 2005; Capgemini et. al. 2005). Moving away from the traditional arms-length relationships, firms have found that building close, long-term interactive relationships with their 3PLs can be a source of competitive advantage (Panayides and So 2005; Sinkovics and Roath 2004). World-class organizations that are forming these types of relationships take care to align the interests of all the firms in their supply chain with their own (Lee 2004). However, most companies do not focus efforts on influencing the behavior of their supply chain partners. Instead, they expect the supply chain to work efficiently without interference. However, companies within a supply chain often look out for their own interests and ignore those of their network partners (Narayanan and Raman 2004). Consequently, supply chains may under perform. Supply chain management extends across several functions

and many companies, each with its own priorities and goals. Yet, to achieve an aligned supply chain all those functions and firms must pull in the same direction in order to deliver goods and services to consumers quickly and cost effectively (Lambert 2008).

While alignment towards common goals would seem to be of particular importance for members of a supply chain, only limited research has been undertaken to understand why organizations use or decide against using certain strategies to align the members across a particular supply chain. This project aims to fill this gap in the logistics and sustainability literatures by meeting three primary research goals:

1. It will identify and collect information on the characteristics and relative use of various sustainability strategies across several company demographic categories (i.e., small versus large companies, industry, geography, and position in the supply chain).

2. It will assess how organizational characteristics of the supply chain members influence a firm's ability/desire to work engage other members of their supply chain (such as their LSPs) in pursuit of sustainability strategies.

3. It will establish a foundation for understanding current interactions between companies in support of sustainability strategies and how these interactions can be enhanced.

The first step of the research project will be carried out with qualitative interviews with companies to answer these questions. These interviews are personal meetings or telephone- interviews. We will follow a so called "grounded theory approach" i.e. the qualitative interviews will be carried out in a semi-structured (please find the attached interview guideline) way to collect impressions of the concerns of companies in sustainability to then aggregate that information to theory. We guarantee absolute confidentiality for our interview partners, all information will only be published in an aggregated and anonymous state.

Stage 1: Interviews with Firm Executives. Protocols will be designed and long interviews held with executives at about twenty organizations (10 in Europe and 10 in North America). The organizations will come from various industries and positions within the supply chain.

These interviews will be taped to (a) avoid loss of information or distortion of meaning and (b) allow for an assessment and verification of content validity after interviews were transcribed. During the interviews, supporting archival documents and records will also be collected. The taped interviews will be subsequently transcribed, checked for integrity, and triangulated against the archival data collected.

The information obtained from these interviews will serve to evaluate the substantive validity and the significance of the research framework and hypotheses outlined above. The information will also enable the assessment of constructs used within the hypotheses and avenues to measure the constructs in a practically relevant fashion.

Stage 2: Survey. Construct scales grounded on prior academic theory, along with the outputs from Stage 1, will contribute to the design of a survey questionnaire. This questionnaire will serve to collect relevant data pertaining to the primary or particularly important function(s) supporting a firm's design and implementation of an effective sustainability strategy across the supply chain.

The survey will be administered in accordance with guidelines stated by Malhotra and Grover (1998) and Biemer (1991). The survey's sample will be drawn from list of North American and European companies obtained either from an industry association or trade publication. The decision on the final sample will be based on the desire to gather data from sources that represent a broad cross section of industries and on the need to collect data with a high level of accuracy.

Once an appropriate sampling base is identified, a pilot test of the survey will be conducted. This will enable an assessment of the quality of the sample and the validity of the scales used to capture the constructs in the hypotheses. Subsequently, the remaining executives will be administered the final survey. The data collection process for both the pilot test and the final survey will begin with a pre-notification letter followed by two waves of surveys. This should ensure an adequate response rate to support data analysis and hypothesis testing.

Institutional Descriptions

The "Institute of Business Logistics and General Management" is part of the business school of the Hamburg University of Technology (TUHH) which is one of the leading German Technical Universities. The TUHH campus provides an excellent and international learning environment. Hamburg is the German logistics metropolis. The institute's mission is to foster excellence in their study, research, and professional programs in order to contribute toward the development of management and logistics studies driving their academic community to the achievement of innovative, useful and successful solutions for themselves and their stakeholders within today's fast-changing business world.

Since the mid-1960's, the Fisher College of Business at The Ohio State University has been committed to delivering a globally recognized program in the area of Logistics Management, spearheaded by the Raymond E. Mason Professorship. The Ohio State University was one of the first universities in the world to offer a degree in Logistics Management. Their undergraduate and graduate Logistics Management programs have been consistently ranked in the

top-tier of teaching and research programs worldwide as well as representing the top ranked specialty area within the Fisher College of Business.

Principal Investigators

Professor Dr. Wolfgang Kersten is the head of the Institute of Business Logistics and General Management at the Hamburg University of Technology (TUHH), Germany. Professor Kersten has long-time industrial experience as senior manager of three different planning departments at Daimler AG in Stuttgart. He was senior researcher at the department of Logistics at the Technical University Munich (TUM) and professor of Production and Operations Management at the Hamburg University of Technology. His research areas include logistics and supply chain management, supply chain risk management, variety and complexity management, electronic business and process optimization. The Institute of Business Logistics and General Management carries out various public, public-private and private projects in these fields. The EU project LogOnBaltic was one of them during the last two years.

A. Michael Knemeyer is an Associate Professor of Logistics at the Fisher College of Business, The Ohio State University. Michael received a BSBA in Business Logistics and Marketing from John Carroll University, where he was named the Outstanding Logistics Student in his graduating class. His Ph.D. is from the University of Maryland at College Park, where he majored in Business Logistics, and minored in Marketing and Research Methods. While in the Ph.D. program, Michael received the National Association of Purchasing Managers (NAPM) Dissertation Award for his dissertation examining logistics outsourcing relationships. In 2007, Michael received the 2007 Daniel Westerbeck Teaching Excellence Award. This award recognizes teaching excellence, based on input from students. In 2006, he was awarded an ISM Senior Research Fellowship, which is intended to support emerging scholars that have demonstrated exceptional academic productivity in the areas of research and teaching. His research program focuses on the development and maintenance of collaborative supply chain relationships in support of achieving mutual goals. His work has been accepted for publication in major academic journals, including the *Transportation Journal*, *Journal of Business Logistics*, *Journal of Supply Chain Management* and *International Journal of Logistics Management*. Michael's research has also appeared in leading practitioner journals such as *Harvard Business Review* and the *Wall Street Journal*. In terms of industry experience, Michael has participated on several consulting projects in the areas of logistics outsourcing and reverse logistics. His work experience also includes positions with Anixter Brothers and CSX Intermodal.

Sebastian Brockhaus is research associate with Prof. Dr. Wolfgang Kersten at the Institute for Logistics and General Management at the Hamburg University of

Technology (TUHH). He holds a diplom degree of business administration from the University of Hamburg. During his studies and his diplom thesis he worked in the terminal-development-unit of the Container Terminal Altenwerder of Hamburgs' port operator HHLA. His diplom thesis deals with the information flow in the hinterland supply chain. Sebastian's research focus is in the field of sustainability in supply chains, container logistics and co-operation and integration strategies in supply chains.

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