

Interactively Developed Capabilities for Environmental Management Systems: An Exploratory Investigation of SMEs

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Abstract : Environmental concerns from stakeholders (e.g., governments & customers) have pushed firms to integrate environmental management systems into business processes such as R&D, manufacturing, and marketing. Environmental systems include managing environmental risks and pollution control (e.g., air pollution control, waste-water treatment, noise control, energy recycling & solid waste treatment) through raw material management, the elimination and reduction of contaminants, recycling, and reuse in firms' operational processes. Despite increasing studies on firms' proactive adoption of environmental management, their focus is primarily on large corporations operating in developed economies. Investigations in the environmental management efforts of small and medium-sized enterprises (SMEs) are scarce. This is problematic for SMEs because, unlike large corporations, SMEs have limited awareness, resources, capabilities to adapt their operational routines to address environmental impacts. The purpose of this study is to explore how SMEs develop organizational capabilities through interactions with business partners (e.g., environmental management specialists & customers). Drawing on the resource-based view (RBV) and an organizational capabilities perspective, this study investigates the interactively developed capabilities that allow SMEs to adopt environmental management systems. Using an exploratory approach, the study includes 12 semi-structured interviews with senior managers from four SMEs, two environmental management specialists, and two customers in the pharmaceutical sector in Chongqing, China. Findings of this study include four key organizational capabilities: 1) 'dynamic marketing' capability, which allows SMEs to recoup the investments in environmental management systems by developing environmentally friendly products to address customers' ever-changing needs; 2) 'process improvement' capability, which allows SMEs to select and adopt the latest technologies from biology, chemistry, new material, and new energy sectors into the production system for improved environmental performance and cost-reductions; and 3) 'relationship management' capability which allows SMEs to improve corporate image among the public, social media, government agencies, and customers, who in turn help SMEs to overcome their competitive disadvantages. These interactively developed capabilities help SMEs to address larger competitors' foothold in the local market, reduce market constraints, and exploit competitive advantages in other regions (e.g., Guangdong & Jiangsu) of China. These findings extend the RBV and organizational capabilities perspective; that is, SMEs can develop the essential resources and capabilities required for environmental management through interactions with upstream and downstream business partners. While a limited number of studies did highlight the importance of interactions among SMEs, customers, suppliers, NGOs, industrial associations, and consulting firms, they failed to explore the specific capabilities developed through these interactions. Additionally, the findings can explain how a proactive adoption of environmental management systems could help some SMEs to overcome the institutional and market restraints on their products, thereby springboarding into larger, more environmentally demanding, yet more profitable markets compared with their existing market.

Keywords : capabilities, environmental management systems, interactions, SMEs

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