

Technology and Corporate Commitment to Sustainability: A Case Study of Global Corporations

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ABSTRACT

Technology has been presupposed to play an important role for stimulating and forcing the corporate commitment to sustainability along with other driving forces such as corporate social responsibility (CSR), customer demand for sustainable products, social activism, and government regulation. Advances of environmental technology have been confirmed to support enhancing the competitive advantages of the corporations proactively involved in sustainable product and process innovation. Drivers of sustainability have been observed as interactively reinforcing the impacts of each other, e.g. government regulations promote the business culture of CSR while emerging green technologies lead the customer to prefer to purchase sustainable products and services.

This paper re-examines the impacts of technology advance on the level of corporate commitment to sustainability through a survey of public perception on various sustainability drivers, a content analysis of the CSR reports, and a case study of global corporations. A survey of 102 MBA students at a university in the United States and 181 executive MBA students at a university in South Korea was conducted to estimate the average measures of the relative importance across the key drivers of corporate commitment to sustainability. In the case of the U.S. sample, social activism and customer attitude were more important than government regulation, technology advance and CSR initiatives, while, in the case of the South Korea sample, technology advance, government regulation and CSR initiatives were more important than social activism and customer attitude. Cross-cultural differences in the economic development, business culture towards sustainability, and other social circumstances could explain these contrasting perceptions from this survey.

A content analysis of the CSR reports across the fourteen global corporations indicated that corporate commitment to sustainability was driven by different sets of forces across the industry and corporations. Technology advance was a significant driver for the corporations in the automobile industry such as BMW, Daimler Benz and Toyota as well as the corporations in the electronic industry such as GE, HP and IBM while technology was an insignificant driver for such corporations as Altria, Coca Cola, CITI Group, Disney and McDonald's. In line with the findings from this content analysis, an exploratory case study suggested that the corporations such as GE and IBM could represent the cases of independently proactive approach to sustainability while the corporations such as Coca-Cola and Toyota could represent the cases of collaborative proactive approach. One of the implications of this study is that alternative approaches to sustainability chosen by the corporations are related to the strategic importance and capability available for them to capitalize on the relevant technologies for their sustainable product and process innovation.

Keywords: Sustainability, Technology, CSR, Environmental industry, Collaboration