COLLABORATION FOR SUSTAINABLE INNOVATION

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Summary

“Sustainable development” is now a global objective. To achieve this goal, the process of innovation -- the source and origin of development -- must also be sustainable. In this chapter we consider the concept of “sustainable innovation” and propose the need for “champions of collaboration” who can foster collaboration for sustainable innovation.

1. Introduction

Sustainable development and competitive advantage are important but potentially contradictory goals for market driven organizations and nations. We know that sustainable development is important because our future as a species depends upon it. Competitive advantage is important because in a market society the firms who will carry out that development must be competitive in order to survive. A recent Canadian study indicates that firms are the primary engines of sustainable development as they have the financial resources, technical knowledge, and institutional capacity to implement sustainable development (Crabbe 1997).

The difficulty arises because the two objectives have different skill demands. Sustainable development requires a breadth of skills that consider ecosystem implications in all of its richness and nuance. Competitive advantage, on the other hand, requires the depth of skills that can create winning new products for a global marketplace.

Simultaneously managing breadth and depth is a challenge that has eluded many. One solution is to work with partners. In recent years this has led firms to seek inter-organizational linkages in the innovation process. These linkages are also known as “technological collaboration.” Mark Dodgson’s description of the aims of technological collaboration include: 1) improving the development process; 2) enhancing efficiency in the production chain; 3) merging previously discrete technologies and disciplines; 4)
learning through information exchange; 5) corporate strategies; and 6) public policies (Dodgson, 1993). Many of these activities increase an organization’s capabilities for managing breadth and depth and thereby contribute to sustainable innovation.

Bibliography

Allen, P. (2004), Together at the Table, Penn State Press, 248 pp. [One of the few books which deal with food security in first world countries in this case, the United States. It includes a chapter on projects funded by public programs in sustainable agriculture and food security.]

Allenby, B. R. and D.J. Richards, (1994). The Greening of Industrial Ecosystems, National Academy Press, Washington. 226 pp. [Sustainable development in industrialized societies such as Canada and the United States requires collaboration among industry, the professions, government and the general public. This collection of papers include articles from all those areas, It offers examples of dynamic modeling that can be used for sustainable ecosystem management in industrialized environments.]

Green, K., P. Groenewegen and P.S. Hofman,(2001). Ahead of the Curve: Cases of Innovation in Environmental Management, Springer, 244 pp., [Describes how organizations are going beyond regulatory expectations to arrive at more solid environmental sensitivity in use and management of innovation]

Mehdi K-P., (2004), Innovations Through Information Technology, Idea Group Inc, Hershey, PA, U.S.A., 1458 pp. [Provides a collection of unique perspectives on issues surrounding the management of information technology in organizations around the world including the United States and the ways in which these issues are addressed.]


Biographical Sketch

Richard K. Smith, Ph.D. (Simon Fraser) is Associate Professor in the Department of Communications Studies at Simon Fraser University, British Columbia, Canada. He is also Director, Information Society, Information technology in the Center for Policy Research on Science and Technology at the university. His current research examines the role of communication and collaboration networks in the development and diffusion of information technology.