Chapter XI

Strategic Alliances for Environmental Adaptation: The Support of Virtual Networks

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Abstract

Although the literature on strategic alliances defines the role of information technologies (IT) as important, any reasoned explanation of it is still anecdotic. This study focuses on a particular type of technological relationship between firms and institutions for developing environmental management innovations through virtual cooperation. It goes into particular depth on the economic and strategic reasons explaining the formation of alliances based on IT. The development of environmental adaptation strategies can be effectively supported with public initiatives for providing advanced, knowledge-intensive services through the creation of technological extension infrastructures. The market’s failure to provide useful public goods for improving environmental development may be...
corrected effectively using virtual inter-organizational networks facilitating collective learning. This study presents an example of a regional initiative for a cooperative platform based on IT that can result in the assimilation of technological and organizational competences in environmental management by firms located in the area.

**Introduction**

A common line of thought in current strategy literature is that the innovations introduced by companies are largely based either on collective processes in which firms, institutions, and other agents located in a given geographical context take part or on inter-organizational cooperation agreements. Strategic alliances with institutions, competitors, consumers and suppliers, whether or not they are local, appear to be increasingly important for strategic reasons (they generate value by producing sustainable competitive advantages) and for financial ones (they reduce transaction and production costs). By contrast, despite the fact that the literature on networks defines the role of IT as important, the explanation of the causes of this is still anecdotic. This study focuses on a particular type of technological relationship between firms and institutions for developing environmental management innovations through virtual cooperation. This case study allows us to look in depth at the financial and strategic reasons explaining the formation and maintenance of networks based on IT.

Environmental adaptation falls within the social and strategic action of companies, and here the subject of social responsibility is probably the one considered by management to be most important (Owen & Scherer, 1993). But the adoption of environmentally committed attitudes is no longer merely a matter of ethics and social responsibility. Instead, it has grown to become a spearhead for change towards business management based on the concept of sustainability (Andersson & Wolff, 1996; Jennings & Zandbergen, 1995; Roome, 1992; Shrivastava, 1995a, 1995b, 1995c). Companies that do not internalize environmental considerations will have little chance in the future, when the changes have to be made more urgently (Vastag, Kerekes, & Rondinelli, 1996).

However, there is a large group of firms that have problems adapting in an environmentally proactive way. The development of environmental adaptation strategies may be effectively supported with public initiatives for providing advanced, knowledge-intensive services through the creation of technology extension services. In particular, public policies based on inter-organizational networks have been studied as effective actions for correcting market failures to provide useful public goods for improving the environmental performance of