

## How Should Alliances Structure New Product Development Projects?

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This paper might be appropriate for the session on 7. Synectics Processes for Collaborative Innovation, 2) Building Innovation Networks.

Keywords: strategic alliances, new product development, project organization, interdependence

This paper fits with the overall conference theme of Collaborative Innovation and Change by inquiring into two main issues posed by the conference. First, how do multi-organizational partnerships, alliances or networks serve as vehicles for innovation and change? Second, what are the strategies, structures and processes by which multiple parties collaborate to co-create new products, services or organizational practices?

The paper deals with these issues by investigating how companies operating in a strategic alliance should organize the new product or service development project(s) they want to undertake together. A joint project's structure influences measures of project success such as development cost, development time, product quality, and the amount of mutual learning. In addition, the extent to which the partners realize these project outcomes affects their alliance's success.

Although it is now common for companies to work together on development in terms of sharing profits and decision making, very little research has been done on

structuring joint development projects. In the strategic alliance literature, issues related to the overall alliance structure, such as whether to develop a new product alone or seek a partner and whether the partnership should be equity or non-equity based, have received the overwhelming share of attention. New product and service development research has typically focused on managing projects, but mainly when one company has the final say and appropriates the profits, even if that firm may work with component suppliers.

This research, which focuses on team structure, is based on a study of joint development projects in five different alliances. In every instance, at least one of the companies was either a national or world leader in its field. The alliances spanned products and services, North America and Europe, organizations in the same and in different industries, and equity and non-equity arrangements.

The data collection instruments were in depth semi-structured questionnaires dealing with a range of topics related to managing joint development. In total there were about 140 interviews, conducted between 1997 and 2004, lasting from one to two hours each and covering both companies in every alliance. The people interviewed included alliance managers, project managers, development team members, and the team members' functional managers. We used the data, in conjunction with existing theory, to understand a project's team structure, determine where the structure might be inappropriate, and to come up with a recommended structure for the situation.

Systems theory, contingency theory, and organizational information processing theory contributed the basic organizing principle used in conjunction with the data to come up with the team structures recommended here. This principle states that teams should be used to coordinate those aspects of a project in which task interdependencies

are high and therefore people must engage in highly intense exchanges of information. The principle is applied in each of four alternative situations based on whether a project's information exchanges are mainly intra- or inter-company and have high or low intensity.

For each situation, the recommendations indicate the number of teams to use at both the system and subsystem levels; the composition of each team in terms of leadership, inter-company versus intra-company participation, and cross functional versus functional representation; and the costs and benefits in terms of coordination costs, transaction costs, mutual learning, and the establishment of an inter-company communications network. Finally, implementation problems, and how to deal with them, are discussed.