Chapter VII
Organizational Innovation Strategy

INTRODUCTION

There are three dominant themes that run through this chapter on organizational innovation strategy: the rate and nature of change; attitudes, behaviors, and strategic change; and the role of research in organizational strategy. The first section begins with Fry (1982), who examines the interaction between technology and organizational structure in an effort to uncover how this kind of interaction affects how organizations function.

Ettlie, Bridges, and O'Keefe (1984) then look into the food processing industry as an example of organizations that draw clear distinctions between radical and incremental outcomes to support their innovation process model, one which suggests that any organizational innovation process requires a unique implementation strategy and organizational structure that is responsive to the organizational conditions, rather than a more traditional approach, that can be characterized as incremental as opposed to radical change.

Dewar and Dutton (1986) continue the general discussion of rate of change, presenting a study that contrasts the size of firms to their attitudes toward innovation, and finding that investing resources into people as opposed to infrastructure can be a strong facilitator of innovation adoption. Henderson and Clark (1990) also contribute to the discussion regarding the continuum of incremental-to-radical innovation by taking a very close look at the innovative process—from manufacture to end user sale. Ulrich (1995) concludes the first section by drawing from multiple research domains, such as design, software engineering, and operations management,

bringing these strands together in an effort to understand how product architecture affects the performance of manufacturing firms.

The second section, with its focus on strategies, attitudes, and behaviors, and their impact on organizational change, begins with Zmud's (1984) discussion of how the values of upper management—and how an organization's members respond to change—affect the organization's use of process innovations. Damanpour (1991) then tests a hypothesis concerning organizational constructs and how they relate to innovation to identify dimensions of innovation that are derived from determinants such as specialization, professionalism, and managerial attitudes toward change. Maidique and Zirger (1984) report on the results and analysis of two surveys regarding industrial innovation in the United States, intended to identify the conditions that contribute to the success of new products, while Tushman and Anderson (1986) find that technological change that contributes to environmental variation is an important factor in how people respond to innovative practices. Kettinger, Teng, and Gusha (1997) examine the methods, techniques, and tools (MTTs) that provide IS professionals with a quantitative basis for business process reengineering (BPR) and places them within an empirical framework. Prahalad and Hamel (1990) conclude this section, making the claim that innovative strategies, to be successful in the 1990s, include de-emphasizing the role of executives as organizational shape-shifters, and identification, growth, and implementation of organizational core competencies that facilitate innovative product development. Research's role in strategic change is the subject of the final section of the chapter, beginning with Henderson and Cockburn's (1994) data, gathered from ten pharmaceutical companies, that help in determining the role of 'competence' in that industry's research. Looking specifically at component and architectural competence, Henderson and Cockburn demonstrate that these two types of competence can explain the nature of variance in research productivity in that industry. Bettis and Hitt (1995) conclude the chapter as they seek to expose technological trends and other factors contributing to the nature of competition in organizations undergoing strategic change, factors such as the rate of technological change and diffusion, and the intensity of the role and importance of knowledge in an increasingly information-based global environment.

RATE AND NATURE OF CHANGE

Fry (1982) presents the results of his review of empirical studies designed to determine "the extent to which the use of different conceptions, levels of analysis, and measures has influenced findings in research on technology-structure relationships" (p. 532). His goal is to "derive a homogeneous body of technology-structure