Comparing U.S. & Japanese Companies on Competitive Intelligence, IS Support, and Business Change

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Increasing business competition forces companies to adopt new technologies to redesign business processes, improve products, and support organizational changes necessary for better performance. The literature on Competitive Intelligence (CI) touts its importance in providing corporate strategic vision to improve company competitiveness and success. To implement their strategic vision companies have to implement changes to their business processes, products, and/or to the organization itself. The voluminous body of literature on the management of change, including sub-areas such as Business Process Reengineering (BPR), Total Quality Management (TQM), and product improvement, implicitly or explicitly propose that company strategic intelligence is a prerequisite for change, and that effective Information Systems (IS) support is a critical requirement for implementing change. There is some empirical evidence supporting these two hypotheses based on U.S. business organizations and there is little reason to believe that the relationships do not hold for Japanese companies. Whether or not U.S. and Japanese organizations are different in any way along these important variables is an interesting question. A field test of how effectively U.S. and Japanese business organizations are identifying strategic problems and opportunities, how effectively they implement business changes, and use IS technology to do so, was undertaken to empirically explore any differences. Despite the relatively small sample size, the results corroborate the importance of competitive intelligence and IS support for effectively implementing business change in U.S. and Japanese companies. The findings indicate, on the average, American companies are more effective in providing IS support for business change and Japanese companies are more effective in CI activities.

Increasing business competition has forced managers to recognize the importance of business innovation. American business organizations have derived substantial benefits from widespread changes to the old business ways. For example, the American manufacturing sector is thought to have become more productive and the erosion of our manufacturing base and the loss of initiative to Japan and Europe has been reversed [Howard, 1994]. In the process of exploring the basic differences between the Japanese and American manufacturing management approaches and applying a host of new methods and techniques, many U.S. firms are redefining the very nature of their businesses [Patterson & Harmel, 1992].

On the other hand, success implementing the required changes is far from assured, with many organizations reporting very disappointing results, given the cost and turmoil caused by the changes [Guimaraes and Bond, 1996]. Two primary approaches for implementing organization change worldwide are known as Total Quality Management (TQM) and Business Process Reengineering (BPR). BPR differs from TQM in two important respects. First, TQM focuses on...
continuous improvement (an incremental performance improvement approach), while reengineering is founded on the premise that significant corporate performance improvement requires discontinuous improvement (breaking away from the outdated rules and fundamental assumptions that underlie operations). With BPR, rather than simply eliminating steps or tasks in a process, the value of the whole process itself is questioned [Gotlieb, 1993]. In conformance with TQM principles, the focus of change is also market driven [Guimaraes and Bond, 1996]. Second, reengineering makes a significant break with previous performance improvement approaches by requiring a high level of state-of-the-art information technology awareness among the entire reengineering team prior to, rather than after, the definition of process changes or improvements [Cypress, 1994]. Some technologies (i.e., imaging systems and expert systems) can provide substantial opportunities for the redesign of business processes [Guimaraes, 1993; Guimaraes, Yoon and Clevenson, 1998].

Regardless of the change methodology being employed (i.e., BPR or TQM) the factors important to innovation success or failure are many, but most authors would agree that strategic awareness or competitive intelligence is an important prerequisite for success. This is deemed particularly important in highly competitive industries [Luecal & Dahl, 1995; Cartwright, Boughton & Miller, 1995]. Competitive intelligence (CI) is the process by which organizations gather and use information about products, customers, and competitors, for their short and long term strategic planning [Ettorre, 1995]. It is the first step guiding the planning and redesign of processes, products, and organization structure. Without this strategic vision, business changes will be conducted in haphazard fashion and are less likely to produce significant results.

To implement their strategic vision, take advantage of strategic opportunities, and address problems, companies have to implement changes to their business processes, products, and/or organization. It is reasonable to assume that knowledge about their markets (customers, competitors, etc.) is a pre-requisite for effective change, and effective Information Systems (IS) support is a critical requirement for implementing business change. There is some empirical evidence supporting these two hypotheses based on U.S. business organizations [Guimaraes & Armstrong, 1998], and little reason to believe the relationships do not hold for Japanese companies. However, an interesting question is whether U.S. and Japanese organizations are different in any way along these important variables. If any differences can be detected, managerial attention can be focused on the impact of strengths or weaknesses on company performance in the two nations. Also, any differences may provide further motivation to explore these important issues from different perspectives, addressing other theoretical constructs, and using improved measures. A field test of how effectively U.S. and Japanese business organizations are identifying strategic problems and opportunities, how effectively they implement business changes, and use IS technology to do so, was undertaken to explore any differences.

![Figure 1: The Main Conceptual Model](image)

**Conceptual Framework and Proposed Hypotheses**

The basic conceptual model for this study is graphically represented in Figure 1. It proposes that effectiveness in competitive intelligence and in using IS technology to support business change will be directly related to company effectiveness innovating in the areas of products, processes, organization structure and culture. An extensive survey of the literature reveals that academics have neglected to address some of these constructs and their relationships from a practical perspective. For example, there is very little work in theory building in the competitive intelligence area, and there is practically nothing in this area regarding intercultural differences. Most of the discussion on these extremely important constructs and their relationships come from the practitioner literature. This situation provides a rich opportunity for rigorous academic research attempting to build theory useful in practice.

**Implementing Business Change**

To take advantage of strategic opportunities and address problems, companies worldwide have to implement changes to their business processes, products, and/or to the organization itself. Similar to the earlier study by Guimaraes and Armstrong [1998], the dependent variable in this case is the degree of company effectiveness in implementing business change. As business competitiveness increases, many business organizations have reacted to expand the value of their products and services to customers by redesigning their business processes to increase efficiency, deliver new products and services, and improve quality of their offerings [Tsang, 1993].

The literature contains considerable evidence showing U.S. and Japanese management differ substantially in many ways [Badawy, 1991; Sherman, 1996; Billings & Yaparak, 1995; Herbig & Jacobs, 1996]. However, there is no evidence organizations in one culture are better managers of innovation than in the other. Quite to the contrary, effectiveness in innovation seems to be a shared gift with neither East nor West excelling at sustained innovation [Sherman, 1996]. Thus we propose:
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