Using Information Technology to Coordinate Transnational Service Operations: A Case Study in the European Union

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When multinational organizations operate across borders they must solve a host of problems relating to culture, currencies, language, customs and laws. In addition to these local variables, organizations are under increasing pressure to integrate or coordinate operations. This study explores the information strategy adopted by a new organization located in Holland and serving the European (EU) market. It identifies the way in which local variables affected its strategy and examines the way in which the organization used information technology to coordinate an operation that served over a dozen countries in the EU. Implications are drawn for organizations that find it increasingly necessary to coordinate transaction and planning activities across national borders.

Trade agreements, such as the Treaty of Maastricht and NAFTA, have created unprecedented business opportunities. Indeed, most organizations, in response to these agreements, have already crossed national borders to expand and protect their market share in an increasingly competitive world-wide environment. But as they expand beyond their borders, these organizations often find it necessary to coordinate geographically and culturally dispersed operations. Unless coordination succeeds, they risk the ability to maintain high levels of customer service, control costs, or achieve economies-of-scale (Ives and Jarvenpaa, 1991; Chidambaram and Chismar, 1994).

Coordinating activities across national borders requires that a wide range of management and operational problems, unique to transnational commerce, be addressed. Many of these problems can be attributed to differences in: culture, laws, customs procedures, languages, currencies, markets, and work practices. How the organization addresses these differences, through organizational strategies and structure, can vary greatly. But regardless of how they are addressed, information and telecommunications technologies are frequently at the core of these strategies (Roche, 1992). In fact, information technologies are so important in achieving a competitive plan that Harold Chong, Chief Information Officer of Asia Pacific Division of Compaq Computers, in an interview in the Spring 1993 issue of Global Information Management, contends that the third or fourth person hired when establishing overseas operations should be an information technology (IT) person.

This study focuses on a single international company, and explores the way in which IT was used to support a competitive business strategy for expanding service operations into the European Union (EU). It addresses the way in which local variables affected the development of its information system, and how this system was used to coordinate operations spanning many countries and cultures. The paper begins with a literature review, examines the competitive environment of the firm, and looks in detail at the strategic, infrastructure, operational, and cultural issues which the firm needed to resolve in order to coordinate its information system (IS) activities. Finally, some conclusions are drawn about service organizations engaged in transnational business.

Literature Review

Several studies have explored the way in which global organizations respond to competitive pressures and use information technology to support organizational strategy (Schwarzer, 1995; Simon and Grover, 1993). But their response depends not only upon the IS environment and capabilities of the headquarters operation, but also upon the IS environment, local pressures, and capabilities of the subsid-
iary or host organizations (Karimi and Konsynski, 1991; Simon and Grover, 1993; Cheung and Burn, 1994). Accordinglly, several issues relating to the headquarters and subsidiary organizations must be addressed when organizations expand their operations across national borders.

Palvia (1993) suggests that the nature of these issues can be classified as infrastructure, operational, and strategic. Ein-Dor, Segev and Orgad (1993) contend that variables which affect information systems can be broadly classified as national culture, environmental, structural, behavioral, and procedural. For purposes of this study, the issues affecting transnational information systems will be classified as strategic, infrastructure, operational/management, and culture. The influence of these factors on the firm’s information system is shown in Figure 1.

Bartlett and Ghoshal (1989) tied business strategy to the organizational forces faced by the firm. They identified four broad strategies including multinational, global, international, and transnational. Cheung and Burn (1994) developed a model for distributing global information system resources in organizations. At one extreme is the global multinational corporation (Global MNC), which minimizes differences among headquarters and subsidiary organizations in the interest of maintaining uniform methods and strong centralized control. At the other extreme is the multidomestic MNC, in which methods and procedures are adapted to meet the needs of the local environment.

**Figure 1: Categorization of Issues Influencing Transnational Information Systems**