Implementing ERP Systems Globally: A Case Study

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ABSTRACT

Recently, improved communication technology has seen the growth in a convergence of global corporate activities, and in an effort to improve their global operations, many companies are implementing global information systems. One such system, in particular, is the Enterprise Resource Planning system. In this regard, however, companies are faced with a number of complexities when implementing these systems in a single country. Due to this intricacy, considerable research has been conducted on the critical success factors associated with ERP implementations.

INTRODUCTION

There has been a significant growth in international corporate operations. For most companies this has been to take advantage of new opportunities or to leverage existing operations. While there is no “golden rule” as to how these international operations should be implemented or managed, Michael Porter (1986) in his book “Competition in Global Industries” classifies the various global strategies adopted by different corporations along a continuum from multi-domestics through to multi-nationals. According to Porter (1986) multi-domestics refers to offshore operations operating independently and are based upon local business processes supported by a local infrastructure. At the other end of the continuum are multi-nationals; where operations are integrated globally, based on standardized business processes with the ability to account for local differences. Bartlett and Ghosh (1998) also identified a continuum consisting of four strategies which could be employed to support global operations. These strategies are multinational, international, global and trans-nationals. The continuum reflects increasing levels of integration and control between the various global strategies. At one end of the continuum are multinational which by definition are similar to Porter’s (1986) “multi-domestics”. The authors argue that this strategy provides flexibility to respond to domestic opportunities. While the international strategy allows subsidiaries a
level of autonomy but it also provides for the diffusion of the parent company’s knowledge and practices throughout the organization. In a global strategy there is centralized coordination and control involving standardization of all aspects of the value chain. Transnationals are the final strategy in the continuum and supports standardization and a high level of integration across the organization, while at the same time achieving the balance between flexibility and sensitivity to local needs.

GLOBAL INFORMATION SYSTEMS

Underpinning the level of integration and control in each of these strategies is the role of information systems (IS). This is supported by many authors who believe that a catalyst for global operations has been the improvement in the IS and the technological infrastructure that supports the systems (Markus et al., 2001; Ives & Jarvenpaa, 1991; Konsynski & Karimi, 1993). Barlett and Ghoshai (1998) argue that companies operating in a global market will be at a strategic disadvantage if they are unable to control and coordinate their worldwide operations.

The basic purpose of an information system is the provision of information to support decision making. Accordingly the improved flow of information provides companies with the ability to better coordinate and manage their operations while at the same time providing increased visibility to their global supply chain (Sheu et al., 2003). Traditionally this flow of information has been hindered due to a number of factors including: technological infrastructure, poor and disparate systems and lack of standardization. Most international companies operated in a relatively autonomous nature from country to country and the supporting IS was managed and developed in a similar way. However a number of authors argue that it is critical for global operations to have a centrally managed and coordinated IT infrastructure (Freeman, 1985; Carlyle, 1990). Accordingly companies developing IT strategies to facilitate their global operations has resulted in the emergence of global information technology solutions.

Ives and Jarvenpaa (1991) define these types of applications as information systems that:

- Contribute to achieving a firm’s global business strategy
- Utilize information technology platforms to store, transmit and manipulate data across cultural environments.

They went further and identified a number of drivers for global IT applications. These include:

- **Global consumer/customer**
  Corporate customers have operations in numerous locations or due to consumers’ mobility, access to centralized systems is required. This would be relevant in airline, credit card, accommodation related companies.

- **Global Product**
  The IT infrastructure supports the sales of the same product in numerous locations, or the products and/or their components are produced via subsidiaries across the world.

- **Rationalized Operations**
  Subsidiaries are located to take advantage of local opportunities, where increased coordination and control is required.

- **Flexible Operations**
  Due to local opportunities, operations are moved from location to location. This is facilitated by standardized IT infrastructure.

- **Joint Resources**
  Shared services enable subsidiaries to standardize business practices and gain efficiencies through shared resources such as personnel and facilities.
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