A Comparison of the Perceived Importance of Information Systems Development Strategies by Developers from the United States and Korea

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ABSTRACT

This study examined the perceptions of Information Systems (IS) developers from the U.S. and Korea with regards to the strategies that are considered crucial for IS success. The results of a principal component analysis revealed that the IS development strategies could be classified into four categories: (1) Organizational Integration, (2) Team Member Characteristics, (3) Project Leader Traits, and (4) Project Development Management. ANOVA results indicated that developers from both countries viewed Organizational Integration as the most important component and Project Development Management as the least important component. However, while IS developers in the U.S. viewed Team Member Characteristics as the second most important component, Korean IS developers rated the Project Leader Traits as the second most important component. Moreover, the IS developers from the U.S. rated Organizational Integration and Team Member Characteristics as significantly more important than did the IS developers from Korea. The results were discussed in terms of Hofstede’s model of national culture.

Keywords: IS developers; IS integration; project development management

INTRODUCTION

In spite of significant technological advances and years of application experience, the development of information systems remains a difficult process plagued with uncertainty (Liebowitz, 1999). While many systems development projects have been successful, many others have failed (Clegg et al., 1998). Numerous studies have been conducted to investigate various development strategies that are associated with IS success (e.g., Abdul-Gader, 1997; Baker, Murphy & Fisher, 1983;
Cleland & King, 1983). Most of these studies have been confined to data collected in the U.S. and other countries with a similar culture. However, the results of investigations conducted in the U.S. regarding the usefulness of various IS development strategies may not be relevant in a global environment.

It has been suggested that as corporations develop and implement global IS, it may be necessary to modify their operating procedures to accommodate the customs of IS developers in the host country (Katz & Townsend, 2000). Thus, a pertinent issue is, how do the IS development strategies believed to be most important in the U.S. compare with the strategies considered to be most important in other nations and other cultures? An understanding of national and cultural differences and similarities with respect to the perceived importance of IS development strategies could prove to be extremely valuable to managers of global IS.

Not only has most of the research on IS development strategies been conducted in nations characterized by a Western culture, but most of the investigations have assessed the value of IS development strategies based on the views of users. That is, measures such as user satisfaction, system usage, and the perceived benefits of the system as assessed by users are typically employed to determine the effectiveness of various IS development strategies (Ginzberg, 1981; McDoniel, Palko, & Cronan, 1993). To some extent, the views of IS developers have been neglected in research on IS development strategies (Lyytinen, 1998).

However, IS developers make a series of important decisions associated with project management and resource allocation during the complex and unstructured process of system development (Dos Santos & Hawk, 1988). IS developers are often responsible for defining, interpreting, and implementing various IS development strategies (Kumar & Bjorn-Anderson, 1990). They have to assess users’ needs and monitor the progress of projects to ensure successful completion (Jiang, Klein, & Balloun, 1998). Thus, how developers view IS strategies will influence their decision making and consequently the likelihood of IS success. If IS developers fail to realize the value of certain crucial strategies, an IS project could fail to accomplish its goals. For example, it has been suggested that the failure of some IS projects may be due to the possibility that developers are overly concerned with the technical aspects of IS development and fail to realize the importance of strategies that are necessary to ensure proper alignment of IS with business goals (Dos Santos & Hawk, 1988; Jiang et al., 1998). Thus, an understanding of how IS developers view various strategies may be useful to managers in coordinating the development of IS projects (Kumar & Bjorn-Andersen, 1990).

The present study compared the perceptions of IS developers in the U.S. with IS developers from South Korea (henceforth, referred to only as Korea) in terms of the perceived importance of potential strategies associated with IS success. There are a couple of reasons why a comparison between U.S. and Korea is important. First, there is a close alliance between the two countries (Chung, Lee, & Jung, 1997). For instance, there are currently a number of economical ties between the two nations, with both countries having subsidiaries and actively marketing goods and services in the other country. In addition, there are a large number of joint ventures and mergers taking place between the U.S.
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