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# International Information Technology Transfer: A Research Model for the Determinants of the Extent of Adoption

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# **International Information Technology Transfer: A Research Model for the Determinants of the Extent of Adoption**

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The competitive global environment forces firms to look for new ways to add value to the business, driving them towards the development and acquisition of new information technologies (IT) that may improve the financial position of the firm. The transfer of information technology to facilities located abroad plays a major role for certain firms in being successful in that particular market. Despite the fact that existing research seems to emphasize the importance of information technology transfer at the organizational level of analysis, most of the work concentrates on economic analyses or conceptual models without supporting empirical evidence.

## **Theory Review**

Extensive work in defining the issues that determine success or failure for a firm's international operations strategy has been undertaken. Goshal (1987) emphasizes the importance of shared learning across organizational components in different products, markets or businesses. Bartlett and Goshal (1987) state that the challenge for global corporations resides on the task to optimize efficiency, responsiveness, and learning in a simultaneous fashion. This challenge requires adaptation of structure that involves tradeoffs between flexibility and control (Anderson and Gatignon, 1986). But the structure adopted for venturing into foreign markets will also be determined by other factors, such as cultural (Kogut and Singh, 1988) and strategic (Hill, Hwang, and Kim, 1990). The importance of IT for the strategic goals will be heterogeneous across industries, depending on the relevance of existing and future applications (Cash, McFarlan and McKinney, 1988).

## **Proposed Research Model.**

A comprehensive research model to understand the extent of information technology transfer and adoption by foreign components of firms, depicted in Figure 1, is used in this study. It is the premise of this work that the underlying theories of the firm are not in competition, but rather complement each other to study the information technology transfer process across borders. The following research questions can be stated:

1. How do the choice of entry mode, the industry dynamism, and the strategic relevance of IT affect the extent of transfer and adoption by a foreign operations unit?
2. Are there significant differences in the process among countries with different development levels?

A sample survey study, using existing and new instruments for data collection is intended. Linear models will be used to assess main, moderating and mediating effects, as well as significant differences across countries where operations are undertaken by the firm. A sample of 1000 firms with foreign operations other than simple exports will be randomly selected. If the response rate is low, follow up mailings are intended. Convergent and discriminant validity will be assessed with factor analysis. If the final sample is not big enough, item-item and item-total correlations will be used. Cronbach's  $\alpha$  will be calculated to assess the reliability of the instruments used.

References available upon request from the author.

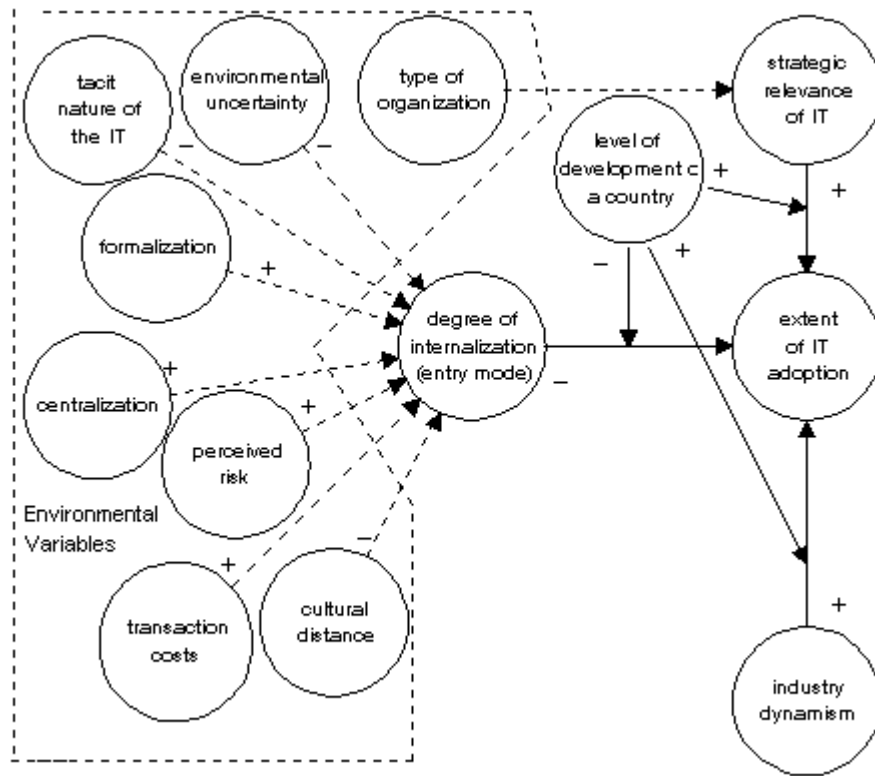


Figure 1. Proposed Research Model.