



## **Chapter X**

# **Extending the Technology Acceptance Model Beyond Its Country of Origin: A Cultural Test in Western Europe**

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In recent years, the technology acceptance model (TAM) has been widely used by IS/IT researchers in order to acquire a better understanding of the adoption and use of information systems and technologies. TAM is well-established and widely regarded among researchers and academicians as a relatively robust theoretical model for explaining the adoption and use of IT. From a practitioner's perspective, TAM is useful for predicting whether users will adopt new information technologies.

While TAM has been widely applied in the U.S., as the country of origin, there have been no attempts to extend this model to Western Europe. Given the rapid ongoing globalization of business (multinational companies) and networked systems worldwide (resembling a global village), there is a pressing need to understand whether TAM applies in other cultures. However, previous research suggests that the TAM model may not hold equally well across cultures.

This study is an attempt to theoretically and empirically test the applicability of TAM in the Western Europe culture. Thus the study objectives are: 1) to propose whether TAM may well apply to the Western Europe culture using the work of Hofstede on culture's consequences by exploring the impact of cultural differences

on the adoption and diffusion of IT-based innovations such as spreadsheets; 2) to empirically test the applicability of TAM in the United Kingdom as a representative country for the Western Europe culture; and 3) to conclude about the applicability of TAM in selected countries of Western Europe based on these theoretical and empirical endeavors.

Therefore, the current study consists of two main parts: I) a theoretical part where IT adoption and diffusion is put in perspective in relation to cultural consequences, and II) an empirical part where an empirical test is carried out in a representative country of the Western Europe region. The study starts with a brief background on spreadsheets and the role they played in the diffusion of computer technology into organizations and sufficient literature about TAM (including its initiation, objective, popularity, and structure) before getting into the main body of the study.

## BACKGROUND

The emergence of personal computers and networks as powerful information technologies has been perhaps the single and the biggest factor to impact organizations during the past two decades. Undoubtedly, the entry of personal computers into business began as a specific result of the advent of spreadsheet software. Based on the history of personal computers, spreadsheets may be argued to be the most important application area for personal computers.

Spreadsheets have long been one of the most important computer tools for managers. The power and range of application of spreadsheets have grown dramatically in recent years. Spreadsheet models are being increasingly used in decision-making within organizations (Cragg & King, 1993), supporting a wide range of management functions, including planning, cost and budget modeling, schedule simulation, analysis and presentation, and more advanced management tasks such as forecasting, optimization and uncertainty analysis, and trade-off studies.

During that period, IT adoption and use have been major goals of modern organizations. Research into predicting the factors leading to IT acceptance and use has also received a great deal of attention and has led to a wealth of research. The study of diffusion and adoption of new technologies recently gained new attendance after being very popular during the 1980s. Meanwhile, organizations throughout the Western developed countries started to use computer technology, especially personal computers, on a large scale. This new wave of attention was at least partly initiated by the increasing diffusion of networking technologies and the advent of Internet (Rose & Straub, 1998).

User acceptance is often the pivotal factor determining the success or failure of information system projects (Attewell & Rule, 1984; Davis, 1993; Igbaria, 1993; Swanson, 1988). Researchers in this field have, for a long time, been occupied in investigating the critical factors predicting user acceptance of information technology. Several past studies addressed the main theme "why do users accept or reject

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