

Chapter 10

Testing for the Applicability of the TAM Model in the Arabic Context:

Exploring an Extended TAM with Three Moderating Factors

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ABSTRACT

The present study attempts to investigate the applicability of the TAM model in the Arab context and to extend TAM with three moderating/interacting human factors. Using a survey sample collected from 722 knowledge workers using desktop computer applications on a voluntary basis in Saudi Arabia, this study sought empirical support for testing the basic structure of TAM. Toward that, the study was successful as the structure of TAM holds well in the Saudi settings. This study also empirically examined an extended TAM by incorporating gender, age and educational level as moderators of the model's core relationships. Our findings emphasize that most of the key relationships in the model are moderated. Specifically, age moderates all the influences of computers usefulness and ease of use on attitudes and intention to use. However, gender and educational level only moderate the influence of ease of use on attitudes. Implications for management and practice of these findings are discussed.

INTRODUCTION

Automation via computerization and other related information technologies (IT) in today's organizations has expanded dramatically as one of the highest priorities and objectives of modern

organizations. Previous research shows that IT has a perceived impact on the work, the individual, and the organization. While developing countries are increasingly deploying IT in recognition of its vital role to solve their developmental problems, studies show that many of their systems are under-

utilized (Anandarajan, Igbaria, & Anakwe, 2002). Financial loans for IT by the World Bank (2006) were in harmony with this direction achieving six times the growth rate of total bank lending and is present in 90% of bank's lending operations (Harris & Davison, 1999).

Although the provision of the technology is a necessary condition to attain the benefits that IT can bring, there is escalating evidence to suggest that this is not sufficient in itself. In fact, computer systems cannot improve organizational performance if they are not used (Davis, Bagozzi, & Warshaw, 1989). Resistance to computer systems by managers and professionals is a wide spread problem in the developed world (Davis et al., 1989; Hu, Chau, Sheng, & Tam, 1999; Venkatesh & Davis, 2000), let alone the developing countries. For a quarter of a century, researchers in the MIS field have frequently addressed the question "why interactive computer systems are sometimes not used by people who might benefit from them?" Unfortunately, the question still persists. Explaining user acceptance of new technology is often described as one of the most mature research areas in the contemporary information systems (IS) literature (e.g., Hu et al., 1999). As a result, the adoption and use of technology in organizational settings has become a topic of broad interest to researchers and practitioners in management and psychology worldwide.

In the study of IT implementations in organizations, there have been a proliferation of competing explanatory models of individual acceptance of IT. This study aims to extend our ability to explain individual acceptance and usage decisions in organizations. TAM is tailored to IS contexts, and was designed to predict IT acceptance and usage on the job. TAM has had a significant research history, with the vast majority of that research being conducted in developed countries (Burton-Jones & Hubona, 2005; Gefen et al., 2003; Lee, Kozar, & Larsen, 2003; Legris, Ingham, & Colletette, 2003; Liu & Ma, 2006). As we shift to a global economy with businesses

becoming increasingly multinational companies (MNCs), the need to carry IT research to developing countries has increased (Niederman, Boggs, & Kundu, 2002). The globalization of businesses has highlighted the need for understanding the effectiveness of IS that span different nations and cultures (Niederman et al., 2002, Shin, Ishman, & Sanders, 2007). Multinational and trans-cultural organizations have a growing need to utilize IT to achieve economies of scale, coordinate global operations, and facilitate collaborative work across distributed locations and diverse cultures (Ives & Jarvenpaa, 1991).

With more globalization of economy and businesses, cultural differences in user evaluations of IS have become an important issue in the evaluation of computer systems. Cultural differences can make the difference between success and failure in the adoption and implementation of IS (Png, Tan, & Wee, 2001, Straub, Keil, & Bernner, 1997). This has resulted in more studies testing TAM in the developing world (Anandarajan et al., 2002; Hubona, Truex, Wang, & Straub, 2006; Mao & Palvia, 2006; McCoy, Everard, & Jones, 2005). However, studies testing TAM in the Arab world have been limited (Niederman et al., 2002; Rose & Straub, 1998; Straub, Karen, & Hill, 2001). Researchers in this area have questioned whether TAM will hold equally well across cultures.

Overseas subsidiaries of many MNCs are mainly in developing countries. These subsidiaries should adopt and use IT effectively similar to those in the subsidizer company to ensure business success. However, the majority of workers in those overseas subsidiaries are (or ought to be) national workers due to policies (like, Saudization) enforced by the host developing country. In Saudi Arabia, Saudization is a development strategy that seeks to replace foreign workers with Saudi nationals (Looney, 2004), as a part of a growing trend in policy for the Arab Gulf Cooperation Council (AGCC) countries to control the flow of foreign labor (Winckler, 1997). Foreign labor is being restricted as a result of reputed negative

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