

Chapter 3

Cultural Impacts on Acceptance and Adoption of Information Technology in a Developing Country

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ABSTRACT

This study investigates technology adoption behavior of Saudi Arabian knowledge workers using desktop computers within the context of TAM2, and the unique effects of Saudi culture on IT adoption within the developing, non-Western, country. Following the guidelines of the etic-emic research tradition, which encourages cross-cultural theory and framework testing, the study findings reveal that the TAM2 model accounts for 40.3% of the variance in behavioral intention among Saudi users, which contrasts Venkatesh and Davis' (2000) explained 34-52% of the variance in usage intentions among U.S. users. The model's explanatory power differs due to specific Saudi Arabian emic constructs, including its collectivist culture and the worker's focus on the managerial father figure's influence on individual performance, a stark difference from TAM findings in more individualistic societies. The authors' findings contribute to understanding the effects of cultural contexts in influencing technology acceptance behaviors, and demonstrate the need for research into additional cultural factors that account for technology acceptance.

INTRODUCTION

Advances in information systems technology (IT) are rapidly modernizing the way we live and work across the globe. Despite incredible advances in technology, organizations are still

facing the problems of underutilization or rejection of implemented technologies. In developing countries, the adoption and use of technology in organizational settings is a topic of increasing interest. The vast number of findings on adoption and use of organizational information systems in

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developed nations are not necessarily applicable to less developed nations. With the accelerating trend of transnational globalization of companies, in particular the extensive economic developments in the countries within the Gulf Cooperation Council (GCC), it is necessary to understand how models of technology acceptance apply to organizations that are located in these regions. Such an understanding will assist the growing number of organizations in these regions to further their economic development in the globalized economy through the adoption of information technology.

Due to differences in cultural social norms, beliefs and behaviors, it is reasonable to expect that the impact of social influence processes, such as subjective norm, voluntariness and image, on an individual's acceptance of technologies in developing countries, such as the GCC, might differ substantively from industrialized Western nations, such as those in North America and western Europe (Hubona, Truex, Wang, & Straub, 2006). Using a specific example of a GCC nation, Saudi Arabia, technology acceptance success factors have been reported to differ from those in developed nations (i.e., individual, technology and organizational factors (Al-Gahtani, 2004)). These disparate findings encourage further research into technology acceptance factors in developing nations. Along these lines of inquiry, this individual research was part of a larger group of studies, including the Theory of Planned Behavior (TPB) (Baker, Al-Gahtani, & Hubona, 2007) and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Al-Gahtani, Hubona, & Wang, 2007), to further investigate technology acceptance factors in a developing country with a non-Western culture, specifically Saudi Arabia. What makes Saudi Arabia unique is their societal structure; they are strongly attached among each other through family bonds and obligations, limiting their geographic

and occupational mobility (Palmer, Alghofaily, & Alminir, 1984). Hill et al. (1998) suggest that while selectively borrowing ideas from Western culture, Arab culture and history is a complex cultural system with contradictions and opposing forces. Arab culture seems to exert a stronger social influence than Western culture on its society through the development and enforcement of social norms and common beliefs (Al-Gahtani & Shih, 2009). In addressing the interaction between organizational culture and IT from the social identity perspective (Tajfel, 1978), Gallivan and Srite (2005) argue that in-group relationships among members would initially cause fragmented and differentiated interpretations of their identities, which would ultimately shape their beliefs and behaviors of IT in the cognitive process.

Using the extended Technology Acceptance Model (TAM2) (Venkatesh & Davis, 2000), this study investigates how social influence factors and cognitive instrumental factors affect technology acceptance in Saudi Arabia. The primary contribution of this research is to utilize TAM2 to predict technology acceptance of information systems in Saudi Arabia, a developing GCC country, while also examining any Saudi cultural influences that might affect technology acceptance. The next section relates the theoretical background of TAM2 for investigating technology acceptance in a developing country and discusses the primary TAM2 constructs and how they might be influenced by Saudi culture. The third section details the research methodology and explains the survey sample characteristics and measures. The fourth section describes the data analysis procedure and presents the results of the study. The fifth section considers the implications of the findings for both researchers and practitioners. Finally, the last section presents and discusses the conclusions of the study.

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