Chapter 6
A Comparative Study of the Effects of Culture on the Deployment of Information Technology

George Ditsa
Tshwane University of Technology, South Africa

Saleh Alwahaishi
Technical University of Ostrava, Czech Republic

Shayma Al-Kobaisi
United Arab Emirates University

Václav Snášel
Technical University of Ostrava, Czech Republic

ABSTRACT
Culture is thought to be the most difficult to isolate, define, and measure in the adoption and use of IT (Information Technology) (Hassan & Ditsa, 1999). Consequently, the impact of culture on the adoption and use of IT does not feature prominently in Information Systems (IS) literature. As cultural factors are important to the success of IT adoption and use, this research paper examines culture’s impact on the adoption and use of IT in the United Arab Emirates (UAE). The results of the study were compared along eight cultural dimensions with a study on the adoption and use of IT in developing and developed countries. The results are also used to identify issues that concern the relationship of culture and IT and their implications for IT adoption and use in the UAE. The study results are further used to suggest ways of bridging the digital divide between the UAE and developed countries.

INTRODUCTION

Technology is believed to be culturally neutral and that the process of development, adoption and use of technology is uniform across countries, once basic economic and political conditions are satisfied (World Bank, 1994). This review observed that many technology projects, including information technology (IT), in developing countries failed because the designs were not sufficiently tailored to those countries’ history and industrial traditions. There are problems that cannot be
attributed to the technology process, but rather the cultural differences between designers of the technology and the recipients. And unlike technologies before it, IT is more of a social system deployed in businesses to do things faster, better and smarter (gaining competitive advantage) (Jessup & Valacich, 2008). It is true culture may not be the only factor that influences the adoption and use of IT. Others such as economy, politics, social factors, and education and skill levels may also be deciding factors.

Hasan and Ditsa (1997, 1999) studied the adoption and use of IT in three regions of widely diverse cultures. They conclude that culture is an important ingredient in the identity of the IT products themselves and influences the impact of IT adoption and use in different cultures. Indeed, a study by Avison and Malautrent (2007) also concludes that cultural differences were the main factors for the failure of the deployment of an ERP system in China. Similarly, Kevin et al. (2007) found that culture has effect on the level of use of built-it-now auctions by sellers.

This research carried out a focused study on the impact of culture on the adoption and use of IT in the UAE. The results were compared along eight cultural dimensions and contrasted with the studies of Hasan and Ditsa (1997, 1999). The results of the study were also used to identify issues of concern for the relationship of culture and IT and their implications for IT adoption and use in the UAE. The study results were further used to suggest ways of bridging the digital divide between the UAE and the developed countries.

The rest of the paper is structured as follows. We first present background definitions of IT, culture and the cultural dimensions used in this study, and the term ‘digital divide.’ Next, we present the study, in which we outlined the methodology, the data collection methods used, and the three chosen regions for this study. This is followed by how we reduced and displayed the data collected from the study. We then present the application of the results of the study to three issues of culture and IT, followed by discussion and the implications of the study for the UAE and the IT industry. Finally, we present the limitations of the study, a conclusion and suggestions for further study.

BACKGROUND DEFINITIONS

Information Technology

The term Information Technology (IT) has many connotations in a variety of contexts. We use the term in the context of this paper to primarily mean the development and use of information systems (IS) which are based on computerized hardware and software to support business processes of organizations. Similarly, the term “adoption and use of IT” is used to mean not only the making of decisions to acquire the technology but also its development, implementation and use.

Despite the increase in the development of hardware and software of which the IT is composed of, most of these are still originating from North America, particularly the USA, many of which are from the “silicon valley” in California. Global information systems, such as ERP and SAP, which are used to run businesses worldwide are mainly from the western culture and impose a western way of doing business. More often, the designers and developers of these systems are not aware of the inherent cultural bias that these systems possess. This usually leads to failures of these systems in other cultures (Avison & Malautrent, 2007).

Culture

Culture can be thought of as the beliefs, philosophy, shared values, attitudes, customs, norms, rituals, common practices, and traditions which govern the ways of living of a group of people. Macquarie Dictionary defines the culture of a society as:

The sum total of ways of living built up by a group of human beings, which is transmitted from one generation to another.
Related Content

The Impacts of Network Governance on the Performance of ITO: A Study of Taiwanese Firms
Tzu-Chaun Chou, Shu-Mei Hsu and Gwo-Guang Lee (2013). *Journal of Global Information Management* (pp. 56-76).
www.igi-global.com/article/the-impacts-of-network-governance-on-the-performance-of-ito/99665?camid=4v1a

THE EXPERT’S OPINION
www.igi-global.com/article/expert-opinion/51321?camid=4v1a

Gender Aspects in the Use of ICT in Information Centres
www.igi-global.com/chapter/gender-aspects-use-ict-information/62881?camid=4v1a

Gender and Employability Patterns amongst UK ICT Graduates: Investigating the Leaky Pipeline
www.igi-global.com/chapter/gender-employability-patterns-amongst-ict/62886?camid=4v1a