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INTENTION TO USE E-GOVERNMENT SERVICES AMONG THE ACADEMIC STAFF IN SAUDI UNIVERSITIES

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DOCTOR OF BUSINESS ADMINISTRATION
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INTENTION TO USE E-GOVERNMENT SERVICES AMONG THE ACADEMIC STAFF IN SAUDI UNIVERSITIES

By

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Thesis Submitted to
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ABSTRACT

E-government diffusion and usage is a global topic that concerns many countries worldwide. E-government is a way for providing services of government over online channels of communication to its citizens. Saudi Arabia has implemented a program of e-government in 2005 to encourage performance of public sectors through acquiring the benefits of Information Communication Technology (ICT) advances. This study focuses on the factors that influence intention to use e-government among the academic staff in Saudi Arabia. In addition, this study is to identify the mediating role of e-government awareness on the relationships between social influence, trust of internet and trust in intermediaries and intention to use e-government and the mediating role of perceived risk on the relationships between trust of internet and trust in intermediaries and intention to use e-government. Based on the Theory of Planned Behaviour (TPB), this study integrated these factors to examine their influences on intention to use e-government. This study utilized a quantitative approach using a survey to reflect consumers’ perspectives towards e-government usage. To examine the hypothesized model, the data were collected from the academic staff working in Saudi public universities. This study employed Partial Least Squares techniques to confirm the validity and reliability of the measurement model and to examine the structural relationships. The findings of the study confirmed the influences of social influence, e-government awareness, trust in intermediary and perceived risk on intention to use e-government. Further, awareness of e-government is influenced by social influence, trust in Internet and trust in intermediary and mediates the relationship between these factors and intention to use e-government. Trust in Internet factor emerged as significant predictor of consumers’ risk perceptions and mediates the relationship between this factor and intention to use e-government. This study has important implications for e-government practitioners, researchers and policy decision makers interested in the implementation of e-government.

Keywords: electronic government, usage intention, perceived risk, awareness, social influence.

Kata kunci: kerajaan elektronik, niat penggunaan, tanggapan risiko, kesedaran, pengaruh sosial.
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In the name of Allah, the Most Gracious and Most Merciful. Praise be to ALLAH, the creator and custodian of the universe. Salawat and Salam to our Prophet Muhammad, peace and blessings of ALLAH be upon him and to his family members, companions and followers.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

The current chapter offers an overview of the background of study, problem statement, the study objectives, research questions and the definition of key terms used in the current study. Then, this chapter provides discussion on the study’s contribution. Lastly, the chapter includes a discussion on the organization of the remaining chapters.

1.2 Background of the Study

Continued globalisation and the Internet growth have prompted many countries to move towards increased use of the information and communication technologies (ICT). The transition to using digital systems is very evident, which in turn, has led to governments succeeding in achieving competitive benefit (Deakins & Dillon, 2002; Whitson & Davis, 2001).

In this context, governments have made huge investments to fully utilize cost-effective operational applications of ICT. This has been done to satisfy their stakeholders with improved, effective and transparent ways to interact with their government services using the advantages of online services (Brannen, 2001). E-government is a way for providing government services using online channels of communication for its citizens (Sharifi & Zarei, 2004).
The contents of the thesis is for internal user only.
REFERENCES


Al-Fulih, K. (2002). Attributes of the Internet perceived by Saudi Arabian faculty as predictors of their Internet adoption for academic purposes (pp. 1-212).


Bates, K., Malakoff, L., Kane, S., & Pulidini, J. (2012). Closing the digital divide: promoting broadband adoption among underserved populations. Available online at:


Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information systems research, 14*(2), 189-217.


Heeks, R. (2003). *Most egovernment-for-development projects fail: how can risks be reduced?*. Manchester: *Institute for Development Policy and Management*, University of Manchester. Available online at:


*European Journal of Scientific Research, 35*(2), 188-197


Myers, M. D., & Tan, F. B. (2003). Beyond models of national culture in information systems research. *Advanced topics in global information management, 2*(1), 14-29.


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