Determinants of e-government services adoption in developing countries: a field survey and a case study

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Determinants of E-Government Services Adoption in Developing Countries: A Field Survey and a Case study

A thesis submitted in fulfilment of the requirements for the award of the degree of

DOCTOR OF PHILOSOPHY

from

UNIVERSITY OF WOLLONGONG

By

OMAR ALHUJRAN

School of Information Systems and Technology
Faculty of Informatics

2009
CERTIFICATION

I, Omar Alhujran, declare that this thesis, submitted in partial fulfilment of the requirements for the award of Doctor of Philosophy, in the School of Information Systems and Technology, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualifications at any other academic institution.

Omar Alhujran
March 2009
Abstract

The rapid growth of investment in public service delivery through e-government has drawn attention to research on this area. However, both governments and academic researchers recognise the problem of low-level adoption of e-government services among citizens; the common problem in both developed and developing countries. E-government adoption, unlike most of IT adoption by employees in private-sector organizations, is voluntary and occurs often in turbulent social-political environments. Therefore, the problem needs to be addressed comprehensively from technological, social, political, and cultural perspectives. However, e-government adoption research currently lacks a comprehensive conceptual framework for explaining citizen adoption of e-government services. To fill this gap, this study extends the Technology Acceptance Model (TAM) (Davis et al., 1989) by adding a set of social, political, and cultural constructs that are derived from different research literatures: government trustworthiness, perceived public value e-government programs, and national culture dimensions.

The extended model is then tested using multiple research methods: a large-scale, multi-site questionnaire survey of 335 Jordanian citizens, and case study interviews with e-government officials. Structural equation modelling and regressions analysis results indicate that citizen attitude towards using e-government services is the most significant determinant of citizen intention to use e-government services. Moreover, citizen attitude, in turn, is jointly determined by citizen belief: perceived usefulness and perceived ease of use of an e-government service. These results provide new evidence for considering the attitude construct to study citizen adoption of e-government services which is voluntary in nature. Importantly, the results also suggest the importance of perceived public value as a significant determinant of the citizen’s belief. Furthermore, the results show strong evidence of a positive relationship between trustworthiness and citizen belief. Research limitations and future directions as well as managerial implications are also discussed.
List of publications


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### Acronyms

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<th>Definition</th>
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<tbody>
<tr>
<td>ATU</td>
<td>Attitude Toward Using</td>
</tr>
<tr>
<td>BI</td>
<td>Behavioural Intention</td>
</tr>
<tr>
<td>DOI</td>
<td>Diffusion of Innovation</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
</tr>
<tr>
<td>IDV</td>
<td>Individualism/Collectivism</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>IS</td>
<td>Information System</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
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<td>ITD</td>
<td>Innovation Diffusion Theory</td>
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<td>ITT</td>
<td>Information Technology Transfer</td>
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<tr>
<td>LTO</td>
<td>Long-term vs. Short-term Time Orientation</td>
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<tr>
<td>MAS</td>
<td>Masculinity/Femininity</td>
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<tr>
<td>MoICT</td>
<td>Ministry of Information and Communication Technologies- Jordan</td>
</tr>
<tr>
<td>NITC</td>
<td>National Information Technology Centre - Jordan</td>
</tr>
<tr>
<td>PD</td>
<td>Power Distance</td>
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<tr>
<td>PEOU</td>
<td>Perceived Ease of Use</td>
</tr>
<tr>
<td>PPV</td>
<td>Perceived Public Value</td>
</tr>
<tr>
<td>PU</td>
<td>Perceived Usefulness</td>
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<tr>
<td>TAM</td>
<td>Technology Acceptance Model</td>
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<tr>
<td>TPB</td>
<td>Theory of Planned Behaviour</td>
</tr>
<tr>
<td>TRA</td>
<td>Theory of Reasoned Action</td>
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<td>UA</td>
<td>Uncertainty Avoidance</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>WTO</td>
<td>World Trade Organisation</td>
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