THE INTENTION TO USE E-GOVERNMENT PLATFORMS AMONG OMANI CITIZENS

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Abstract

This study examines the factors influencing the adoption of e-government platforms among Omani citizens, addressing the challenges associated with digital transformation in the public sector. Despite significant investments by the Omani government in digital infrastructure and services, adoption rates remain low, thereby impeding the success of initiatives such as the Digital Oman Initiative and Oman Vision 2040. Utilising the Technology Acceptance Model (TAM), this research explores the impact of perceived security, trust, ease of use, and user experience on citizens' intentions to adopt these platforms. The study employs a quantitative methodology, collecting data from a diverse sample of users through bilingual surveys in Arabic and English to ensure inclusivity and accuracy. The findings are anticipated to provide actionable insights for policymakers, developers, and service providers, facilitating improvements to e-government platforms that address citizens' needs. This research contributes to a broader understanding of e-government adoption in developing countries and supports Oman's aspirations to become a leader in digital governance.

Keywords: Technology adoption and acceptance, e-government, industrial growth

Background of Study

The rapid integration of Internet technology into government roles has revolutionized and reshaped the future of public service delivery. This revolution impacted citizens' interactions with public institutions by enhancing their access to government services without the limitation of time or location and enabling them to proceed with their requests online. These rapid technological changes bring adoption challenges for those familiar with face-to-face transactions. Even in the information and communication technologies (ICTs) area, the wheel spins fast, the digital transformation from website to mobile application to AI-driven platforms and new experiences like virtual and augmented reality. As technology progresses, organizations and individuals must continuously adapt, learn, and integrate new tools to stay connected in a digital world and provide better service. Oman is one of the developing countries in the Middle East. It is well-known that Oman is a "friend to all, the enemy of none." It is stable and one of the safest countries in the region (International Trade Market, 2024).

The first step from the Omani Government toward digitalization of their service was in 2003 the Digital Oman Initiative (later shortened to e-Oman) to transform Oman into a knowledge-based economy (Al-Mamari et al., 2013). After three years, the government, by a royal decree, established the Information Technology Authority (ITA) as an independent body to oversee digitization in Oman and lead the e-government initiative. In 2020, ITA was merged with the Ministry of Transportation, telecommunication, and Information Technology to implement infrastructure projects for the digital Omani society and supervise the

implementation of communications and information technology projects in all units of the state's administrative apparatus and other public legal entities (ONA, 2020).

The government interest has borne fruit in Oman's ranking in the E-Government Development Index. According to the UN E-government knowledgebase, Oman ranked 112th out of 190 countries in 2005 in the E-Government Development Index. In 2024, things changed; it ranked 41st in the E-Government Development Index and 48th in the world in the e-government development index (UN, 2024). According to the Oman Vision 2040 document, Oman aims to be one of the best 10 countries in the e-government development index (Vision Document, n.d.). The World Bank Group shows that 95% of Omanis can access the Internet in 2023, which shows good Internet penetration around the sultanate. However, the main challenges in Oman are related to the adoption. The studies found that the most significant factor impacting success in implementing e-government projects is citizen orientation (Malodia et al., 2021). While e-government can efficiently deliver governance, it has yielded mixed results in developing countries (Wirtz & Daiser, 2018). This study is conducted to address the challenge of low adoption rates of e-government platforms in Oman, despite significant investments in digital infrastructure, and to examine the underlying factors influencing citizens' intentions to utilise these platforms.

Problem Statement

The Omani government has worked hard to achieve Oman's Vision 2040. Despite significant investments from the government in infrastructure in Oman to build digital platforms, citizen adoption rates of digital government platforms remain low. Additionally, little has been written about the factors influencing e-government adoption among citizens in Oman, and the factors behind this reluctance from citizens remain unexplored. This study will investigate these factors impacting citizens' intention to adopt digital e-government platforms.

Research Questions

The research questions developed for this study are listed in the following:

- What factors influence Omani citizens' intentions to adopt digital platforms for e-government services?
- To what extent do perceived security and trust in government influence the adoption of e- government platforms among Omani citizens??
- How does digital platform user experience (e.g., ease of use, interface design) impact adoption intentions?

Research Objectives:

The following research objectives are developed to answer the research questions:

- To identify and analyze factors that impact Omani citizens' intention to adopt digital platforms for e-government services.
- To assess the impact of perceived security and trust in the government on the intention to use e-government services.
- To examine the impact of user experience and digital platform design on the likelihood of adopting e-government services.

Significance of the Study

This study aims to explore the factors that impact Omani citizen's intentions to use e-government platforms. Many studies in the past have looked from one side at the benefits to the owners of the platforms and organizations implementing technology. However, this study

will look at the other side from a user perspective regarding the adoption factors that can bring sustainable success to the government's platforms. Therefore, this paper will highlight the most important factors that impact user adoption to give insights to the developers and service providers for current improvements and future planning. This study focuses on the users in Oman, but the results can be extended to apply outside the sultanate because of the similarities between users in Arab Gulf countries. Additionally, this study will add value to understanding the users in Oman, where the studies are rare.

Review Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was introduced by Fred Davis in (1985) to explain the behavioral intentions of the new end-user and the use of computer-based information systems (Davis, 1985). Davis embarked on this theory by framing the processes mediating the relationship between information system characteristics (external factors) and actual system use (Marikyan et al., 2023). TAM suggests that technology usage is driven by two factors: perceived usefulness and ease of use (Abdullah & Ward, 2016). Davis (1985) defined perceived ease of use (PEU) as ''the degree to which a person believes that using a particular system would be free of effort'' and perceived usefulness (PU) as ''the degree to which a person believes that using a particular system would enhance his or her job performance'' (Davis, 1985).

In this model, there is a three-stage process whereby external factors (system design features) trigger cognitive responses (perceived ease of use and perceived usefulness), which, in turn, form an effective response (attitude toward using technology/intention), influencing use behavior (Davis, 1993). During that time, TAM was the popular model for different research about technology acceptance, and it accounted for around 40% of the variance in technology acceptance on average (Marikyan et al., 2023). The authors of the model aimed to increase its predictive power further, and they extended it to TAM2. In TAM2, there were five additional exogenous variables and two moderators. The new constructs and moderators incorporated in TAM2 were the subjective norm, image, job relevance, output quality, result demonstrability, experience, and voluntariness (Venkatesh & Davis, 2000). One of the key points in TAM2 is that the effect of experience on perceived ease of use was not tested (Venkatesh & Davis, 2000), which led Venkatesh and Bala to expand the TAM2 model into TAM3. TAM3 introduces three more new moderation effects of experience on the relationships between computer anxiety and perceived ease of use, perceived ease of use and perceived usefulness, and perceived ease of use and intention to use (Marikyan et al., 2023). According to Venkatesh and Bala, TAM3 provides an exhaustive set of conditions and scenarios under which the acceptance of technology is most likely to occur. By delineating the relationships between antecedents, perceived ease of use, and perceived usefulness, TAM3 offers a comprehensive list of interventions that have direct implications for decision-making regarding IT implementation and management (Venkatesh & Bala, 2008).

The significance of this model in the research area is that it enhances the development of information systems and represents a practical testing tool to assess system acceptance (Jimenez et al., 2020). In addition, the user's perception of the usefulness and ease of use of technology can influence a person's actions/behavior as a benchmark in the acceptance of technology (Al-Ansi et al., 2023). Moreover, TAM is a widely accepted theoretical framework that explains how users accept and use technology (Musa et al., 2024). According to Scherer et al., TAM, over time, was the most discussed and implemented model for evaluating the interaction of people with new technologies (Scherer et al., 2019). Researchers' studies show that TAM can be applied theory in different fields like health care (Wang et al., 2016), e-learning (Jimenez et al., 2020), food industry (Kim et al., 2016), social media (Chang et al.,

2015), E-commerce (Koenig et al., 2015), energy services (Chen et al., 2017), agriculture (Jimenez et al., 2020), and financial services (Muñoz et al., 2017). Musa et al. studied 1089 papers from the Scopus database to review previous works in TAM and marketing and analyzed 57 papers.

The result was that TAM is on an upward trend in marketing research, and most countries that use this model are the US, China, and Malaysia (Musa et al., 2024). Several studies have applied TAM to evaluate users' adoption of eGovernment services adoptions (Khan et al., 2021).

E-Government

According to the UN E-government knowledgebase, the concept of e-government means everything from 'online government services' to 'exchange of information and services electronically with citizens, businesses, and other arms of government to improve the efficiency of government agencies, providing government services online, conducting a wide range of interactions with citizens and businesses, and enable innovation in governance (UN, 2024). The significance of e- government is that it enhances public administration's openness and legitimacy, as well as combats all types of corruption. This promotes citizens' participation in public administration, enhances awareness of government programs, and improves the transparency of public decisions (Sabani et al., 2019).

Therefore, governments around the world worked hard to adopt e- government initiatives for e-government development. Malodia et al.(2021) studied the research papers over the last 20 years and classified the evolution of the e-government literature into five stages (Malodia et al., 2021). The first stage was the focus of e-government on the adoption of the exchange of information between government organizations. The second stage was the base for interactive e-government with the public by visualizing e-government as a tool to provide different services to its citizens; from this stage, e-government emerged technology function for non-managerial administrative tasks, such as financial transactions, back-office work, and clerical checks. The improvement in technology led to the third stage of research, which focused on technology as a medium of public administrative reforms and a tool to enhance convenience in delivering government services and sharing information (Seifert & Relyea, 2004). In the fourth and fifth stages, e- government research has turned toward technology adoption and citizen perceptions by investigating the issues related to user adoption and service quality.

Proposed Research Design

This study will use a quantitative approach to obtain general participation from users of e- government platforms in Oman. The target sample will be users of different ages, educational levels, and backgrounds to gain a comprehensive overview of the factors that impact citizens' adoption of e-government platforms. The online surveys with closed-ended questions will be used to assess different factors. Both English and Arabic languages will be used to reach the target sample and get accurate data. The results from the Arabic surveys will be translated back into English.

Expected Research Impact

This study's importance is highlighted as a building block to integrating and achieving Oman Vision 2040 by finding the real factors that encourage citizens to use e-government platforms. The insights will be the guideline for decision-makers and platform developers. This study will also serve strategic decision-makers in several sectors in the Sultanate of Oman, such as those responsible for achieving Oman Vision 2040 and planning and marketing sectors.

Its results will also be an inspiring source for information technology developers and service providers to enable them to target those factors that can satisfy citizens and encourage them to use platforms. Moreover, the private sector can benefit from the result by understanding the motive of citizens to use online platforms, which will allow them to market their services online efficiently.

Conclusion

In conclusion, this study has identified key factors influencing the adoption of e-government platforms among Omani citizens, with particular emphasis on perceived security, trust, user experience, and ease of use. Utilising the Technology Acceptance Model (TAM) as a conceptual framework, the research addresses the gap between citizen expectations and the current capabilities of e- government platforms in Oman. The findings offer valuable insights for policymakers, developers, and service providers, highlighting the necessity of adopting user-centred approaches in the design and implementation of these platforms.

This research makes a significant contribution to the understanding of technology adoption in developing countries, supporting Oman's Vision 2040 and its commitment to digital transformation and governance innovation. The implications extend beyond Oman, providing valuable lessons for other nations seeking to enhance their e-government initiatives. Ultimately, this study underscores the importance of fostering citizen trust and engagement to ensure the sustainable success of e-government adoption.

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