

Electronic Government Services Adoption from Multi-Nationalities Perspectives

Isaac Kofi Mensah, Jianing Mi, Cheng Feng

Abstract—Electronic government is the application of Information and Communication Technologies (ICTs) by the government to improve public service delivery to citizens and businesses. The purpose of this study is to investigate factors influencing the adoption and use of e-government services from different nationalities perspectives. The Technology Acceptance Model (TAM) will be used as the theoretical framework for the study. A questionnaire would be developed and administered to 500 potential respondents who are students from different nationalities in China. Predictors such as perceived usefulness, perceived ease of use, computer self-efficacy, trust in both the internet and government, social influence and perceived service quality would be examined with regard to their impact on the intention to use e-government services. This research is currently at the design and implementation stage. The completion of this study will provide useful insights into understanding factors impacting the decision to use e-government services from a cross and multi nationalities perspectives.

Keywords—Different nationalities, e-government, e-government services, technology acceptance model.

I. INTRODUCTION

ELECTRONIC Government (e-government) is considered as the application of ICTs to improve the access to and delivery of government information and services to citizens, businesses and the general public [1]. According to Silcock [1], e-government has the potential to create a new mode of public service to empower public sector institutions to deliver a modernized, integrated and seamless service for both business and citizens. It can also be the catalyst to building a strong partnership between government and its agencies and citizens [1]. E-government is seen as the use of appropriate ICTs for the purpose of transforming government/public sector agencies in order to make them more accessible, effective and accountable to the citizens [2]. The benefits of e-government include providing greater access to government information, promote civic engagement, make government more accountable for making government operations transparent and also provides development opportunities for rural and the underserved in societies [2].

The adoption of e-government in the public administration of state institutions is considered as an innovative way of providing government information and services to citizens (G2C), businesses (G2B) and governments (G2G) [3]. The

government to citizens (G2C) seeks to enhance the two-way communication between the government and citizens. The government to business (G2B) attempts to promote a better channel of communication and interaction between the government and the business community. Government to Government form of e-government is to improve the communication and information sharing between and among government agencies such as from a central government agency to a local government agency. The adoption and use of e-government services are challenged on many fronts such as the digital divide, usability, risk, and trust [4]-[8]. Addressing these challenges has the potential to increase the tendency of citizens to adopt and use e-government services. The increase in the adoption/diffusion rate of e-government services can contribute to the success of e-government projects.

The objective of this research paper is to examine the determining factors influencing the decision to use e-government services from the perspective of different nationalities in China.

This paper is organized as follows: Literature review, proposed model, research hypotheses, future work, and conclusion.

II. LITERATURE REVIEW

A. Technology Acceptance Model (TAM)

The TAM will be used as the theoretical foundation for this study. TAM is the widely applied technology adoption theory to understanding the adoption and use of information technology-related applications, and was developed by [9]. According to Davis [9], perceived usefulness and perceived ease of use are the most important determiner of the behavioral intention to use. Perceived usefulness is conserved as the belief that a particular technology has the potential to enhance or improve the job performance of the user [9]. Perceived ease of use of is the belief that the use of a specific type of technology would be free from any difficulties [9]. The TAM is depicted in Fig. 1.

B. TAM and E-Government Adoption Studies

The TAM is the commonly used technology theories in the e-government adoption literature [10]-[14]. Table I presents some of the recent e-government studies that applied TAM as its theoretical basis with it accompanying result findings.

III. PROPOSED MODEL

The proposed model for this study is shown in Fig. 2. Perceived usefulness, perceived ease of use, social influence, computer self-efficacy, trust in government; trust in the

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internet and transparent and accountable government are presumed to have a direct significant impact on the intention to use e-government services. Social influence has a direct impact on the perceived usefulness of e-government services

while computer self-efficacy has a direct impact on perceived ease of use. Transparent and Accountable Government has a direct impact on the trust in government and in trust in the internet.

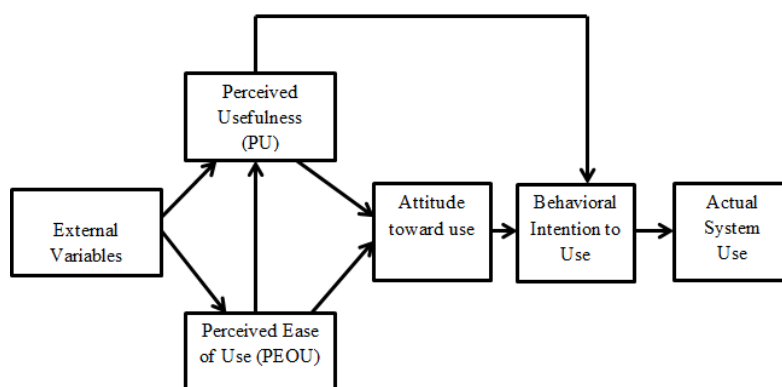


Fig. 1 TAM [9]

TABLE I
SUMMARY OF RECENT STUDIES ON TAM AND E-GOVERNMENT

Source	Findings
[12]	The results determined that perceived usefulness and perceived ease of use were significant predictors of the intention to use e-government services in the USA and the UK. It also revealed that trust is positively related to internet trust and government trust.
[15]	TAM was modified to involve five sets of determinants such as psychological factors of technology adoption, civic mindedness, information channels, trust in government and socio-demographic and personal characteristics. All these factors were found to have an impact on the use of e-government.
[16]	Established that trust in government, trust in Technology, information quality, internet familiarity and privacy and security were a significant predictor of the intention to adopt and use e-government services in Jordan.
[17]	This study sought to provide a framework to understand public satisfaction and intention towards e-government services. The findings showed that public intention to use e-government services is significantly determined by public satisfaction and perceived usefulness towards e-government. Information system quality impacted directly by public intention. Perceived usefulness also influenced by information system quality.
[18]	Applied TAM to determine that perceived trust and facilitating conditions were significant predictors of intention to use but perceived trust was the strongest predictor of behavioral intention to use.

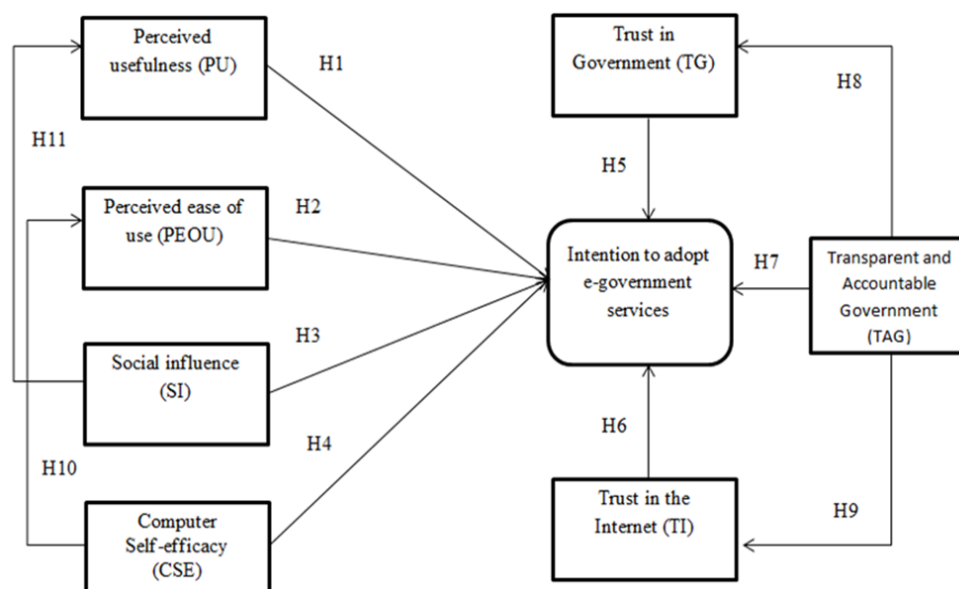


Fig. 2 Proposed Research Model

IV. PROPOSED HYPOTHESES

Based on the research model shown in Fig. 1, the following research hypotheses will be investigated.

H1. (Hypothesis One): Perceived usefulness of e-government services has a direct impact on the intention to adopt and use e-government services.

- H2. (Hypothesis Two):** Perceived ease of use of e-government services has a positive significant impact on the intention to use e-government services.
- H3. (Hypothesis Three):** Social Influence has a significant impact on the intention to adopt and use e-government services
- H4. (Hypothesis Four):** Computer self-efficacy has significant direct impact on the intention to adopt and use e-government services.
- H5. (Hypothesis Five):** Trust in Government has a direct impact on the intention to adopt and use e-government services.
- H6. (Hypothesis Six):** Trust in the Internet has a significant direct influence on the intention to use e-government services.
- H7. (Hypothesis Seven):** Perceived Transparent and Accountable Government has a direct impact on the intention to use e-government services.
- H8. (Hypothesis Eight):** Perceived Transparent and Accountable Government has a direct impact on trust in the government.
- H9. (Hypothesis Nine):** Perceived Transparent and Accountable Government has a direct impact on trust in the Internet.
- H10. (Hypothesis Ten):** Computer self-efficacy has a significant direct impact on the perceived ease of use of e-government services.
- H11. (Hypothesis Eleven):** Social influence has a significant direct impact on the perceived usefulness of e-government services.

V. FUTURE RESEARCH

This research is a study in process and therefore future work would be undertaken to complete it. The next stage would involve the design and development of a research questionnaire instrument. The research questionnaires would be developed through a thorough literature review. The designed research instrument would then be pre-tested and piloted to the targeted population. The valuable feedback emanating from the pretesting and piloting would be instrumental in improving the content of the questionnaire instrument prior to the major survey administration. The pretesting and piloting of research instrument could be due to varying reasons and are considered an important step in the research design process. The piloting stage can enable the researcher to develop and test the adequacy and validity of a research instrument, determine if the research sample and technique are sound and examine the data analysis techniques in order to identify potential problems [19]. The piloting stage can also be used as a tool to obtain valuable feedback from potential respondents to identify and remove ambiguities and difficult questions which are hard to comprehend [19]. The data capture and analysis would be conducted using SPSS version 20. The final stage would involve the writing of the analysis and the publication of the fully completed research paper. The summary of the future work to be carried out is shown in Fig. 3.

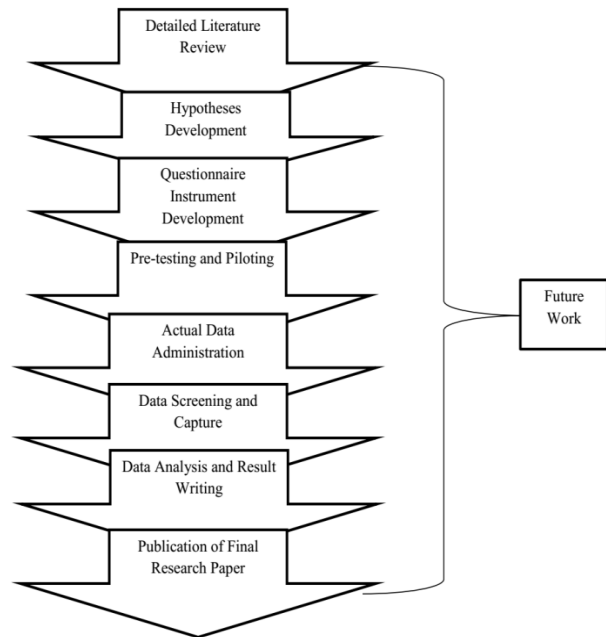


Fig. 3 Summary of Future Work

VI. CONCLUSION

The completion of this research paper would be instrumental in providing an understanding with regard to the factors determining the intention to use e-government services from citizens of different nationalities perspectives. The adoption of e-government services is hampered due to the inability of the people to patronize e-government services (demand side of e-government). Efforts to increase the demand side of e-government are necessary for the success of e-government projects. So studies seeking to examine factors determining the use of e-government services (demand side) must be encouraged. The research findings from this study would provide valuable information to assist the provision of e-government services to meet the service standards of these targeted foreign nationals in China.

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