Investigating Factors of E-government Adoption in Cambodia

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Abstract

In developing country like Cambodia, e-government adoption is still a challenge. Cambodia is considered in the early stage in the adoption in which great effort should be committed in order to improve government performance in delivering service to Cambodian citizen. The working efficiency and effectiveness may be formed through the realization of e-government adoption. This paper is aimed at investigating proposed antecedents such as trust, perceived usefulness and user's experience and its effects on e-government adoption. The result indicated that trust, perceived usefulness, and trust are significantly associated to the adoption. The mediating role of trust was also estimated among variables in which partial mediation effect was confirmed.

Keywords: E-government, Trust, Perceived Usefulness, User's Experience

1. Introduction

Information communication technology has been long seen as a way improving government working's efficiency including better enhancing service delivery from government to government, government to business and also government to citizen. E-government adoption allows society to interact and to see how government is working for them. Since e-government has been broadly studied, three main areas such as evolution, development and adoption and implementation have been classified(Srivastava, 2011).

Likewise, government communication has been largely invisible in policy discourse in which government officials can effectively communicate through varieties of way, and even the attempted-silent official can send a loud message(Galbi, 2001). In this regards, re-engineering government provides a transformational platform introducing e-government transparency, promoting a so-called collaboration with the public.

Though, e-government adoption is widely studied in developed countries, only few studies have been conducted in ASEAN context, particularly in Cambodia. Policy implementation, and user's trust over e-service should be introduced effectively since Cambodia is still considered in the early stage of e-government implementation(Sang, Lee, & Lee, 2009).

To achieve e-government adoption, critical factors affecting citizen's willing to adapt e-government have been identified through various proposed models done by previous researchers such as Technology Acceptance Model (TAM), Diffusion of Innovation (DOI)(Rehman, Esichaikul, & Kamal, 2012). In this regards, participation from citizen using internet (or netizen) is strongly suggested in developing countries where communication technology acts as one of the core barriers to achieve e-government adoption which is ultimately aimed at enhancing government's transparency and government-citizen communication. And thus, this paper examined factors that are likely to contribute e-government adoption in Cambodia.

2. Literature Review
2.1 Perceived Usefulness

Perceived usefulness is found to be the major predictor that influences the adoption of e-government. Netizens[1] may find e-government services important once it is useful and transparent enough to the public. Thus, having a user friendly, easy access, flexible, useful, valuable, beneficial and clear interaction e-government system are considered to promote netizen's satisfaction (Hussein, Mohamed, Ahlan, & Mahmud, 2011). This factor tends to be the primary criteria that netizens may refer to in order to evaluate the performance of e-service delivered by government. Improving these anticipated issues helps improve netizens' confidence to adopt e-government.

H1: Perceived usefulness is significantly associated with adoption intention.
2.2 User's Experience

Trust was found to be related to user's experience which was influenced by general attitude in relation with technology(Blank & Dutton, 2012). Citizens using internet (or netizen) may find positive experience with government websites and quality of information provided by government as a motive that is likely to move them to the next level of e-government adoption. Such issues might also be explained once the higher level of trust is perceived. In addition, Alshehri, Drew, and AlGhamdi (2013) found that internet user's experience has positive significant influence on behavioral intention to adopt e-government services and hence build trust(Alshehri et al.,

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[1] Term "netizen" in this paper refers to people who is literally be able to use internet

2013). Thus it is hypothesized:

H2: User's experience is significantly associated with adoption intention.

2.3 Trust in E-government

The concept of trust has been broadly studied by researchers and academicians and is considered worth studied. In the perfect world, trust might not be necessary, but in the real world trust helps reduce perceived risks and possibility of loss(Leventhal, Pitta, Franzak, & Fowler, 2006). Though e-government is said to have potential to improve transparency, responsiveness and accountability, but these adoptions will only be achieved if citizens trust e-government services(Bélanger & Carter, 2009). Since citizens' willing to adopt is important, they may not use government service due to the lack of trust. It's also noted that improving trust is enhancing the relationship between citizens and e-government system and acts as the aide in the design and develop e-government system(Lee & Levy, 2014). Netizen's privacy may be guaranteed by government due to the fact that uncertainties and risks are barriers to building trust.

In addition, trust is built through positive experience. It helps reduce perceived risk and uncertainty with government website and positively indicate perceived usefulness. This positive effect is more likely to enhance trust in e-government adoption intention. The higher level of trust may increase the higher possibility of intention to adopt and vice versa. Thus, it's hypothesized:

H3: Trust mediates the relationship between perceived usefulness and adoption intention.
H4: Trust mediates the relationship between user's experience and adoption intention.

3. Methodology

The study is aimed at investigating the construct in predicting e-government adoption behavior. Convenient sampling method was selected for this study. Internet literate respondents who experienced government websites were selected for the study. Research questionnaire was distributed to respondents via e-mail, Facebook, LinkedIn, Skype and some other social media sites. Respondents were asked on 5-Likert Scale to give score on the statement according to their opinion (1=strongly disagree, 5=strongly agree). Finally, 214 questionnaires were sent back for the analysis.

4. Result

4.1 Correlation Matrix of Adoption Intention

Pearson' s correlation was used to examine linear relationship among variables in which Pearson's Correlation coefficient was used to measure the strength of relationship of two variables within the range -1 and +1 with p=0.05 and confidential interval of 95%.

All variables have positive significant relationship. Perceived usefulness has a mean of 3.26 with standard deviation of 0.72 and has a positive significant correlation with Adoption Intention (r=.598, p<0.05). User's experience has a mean of 3.23 with standard deviation value of 0.76 and present highest positive significant correlation with Adoption Intention(r=.764, p<0.05). Lastly, Trust also has a positive significant correlation with Adoption Intention (r=.710, p<0.05) with a mean of 3.00 and standard deviation value of 0.78.

Table 1: Inter-Correlations among Variables

	Mean	Std.Dev	Perceived Usefulness	Experience	Trust	Adoption Intention
Perceived Usefulness	3.26	.72	1			
Experience	3.23	.76	.828**	1		
Trust	3.1	.72	.557**	605**	1	
Adoption Intention	3.00	.78	.598**	.764**	.710**	1

*Note: **. correlation is significant at the 0.01 level (two-tailed), n=214*

4.2 Summary of estimates

As indicated in Table 2, the multivariate regression analysis was conducted. Perceived usefulness showed a significant impact on Adoption Intention (β=.642, p<0.05); thus H1 is accepted, while User's experience also presented significant impact on Adoption Intention (β=.786, p<0.05). Thus H2 is also accepted.

Table 2: Model 1

			Estimates	S.E	C.R	p-Value	Result
Perceived Usefulness	→	Adoption Intention	.642	.108	5.963	.000	Significant
User's Experience	→	Adoption Intention	.786	.083	9.465	.000	Significant

In this study, possible mediation effect of trust on relationship between perceived usefulness, user's experience and adoption intention was estimated. As indicated in Table 3, the relationship between perceived usefulness and adoption intention presents partial mediation effect, decreasing from β=.642 to β=.515, p<.05, confirming H3. The relationship between user's experience and adoption intention show a partial mediation effect, decreasing from β=.786 to β=.542, p<.05, confirming H4.

Table 3: Model 2

			Estimates	S.E	C.R	p-Value	Result
Perceived Usefulness	→	Adoption Intention	.315	.107	2.994	.003	Significant
Perceived Usefulness	→	Trust	.556	.104	5.367	.000	Significant
Trust	→	Adoption Intention	.589	.107	5.505	.000	Significant
User's Experience	→	Adoption Intention	.542	.091	5.933	.000	Significant
User's Experience	→	Trust	.578	.095	6.084	.000	Significant
Trust	→	Adoption Intention	.422	.096	4.410	.000	Significant

5. Finding and discussion

Finding indicated that perceived usefulness and experience significantly contribute e-government adoption intention, while trust plays an important role mediating the effects of both relationships with adoption intention.

H1 is confirmed. The increase in usefulness level may increase adoption possibility. Government agency may generate updated information, and put efforts in delivering performance efficiency which may encourage netizen to use e-government service. This could also imply that low-level involvement of netizen could occur once they don't perceive that using such service is important. In addition, this hypothesis is found consistent with previous research work(Carter & Bélanger, 2005).

H2 is confirmed and consistent with Affisco and Soliman (2006). This indicated that the positive aggregating experience may influence intention to use e-government service. The early adopters of e-government may happen from their first experience in interacting with government websites. Past experience of netizen with e-government increase usage familiarity and reduce risks and uncertainty they probably meet.

H3&4 is confirmed. Trust is increased once the expectation of netizen is met. This indicates that netizen would seek for e-government service if they perceive it trusted and secured because concerns of security may happen during administrative transaction or providing sensitive information online (Sang, Lee, & Lee, 2010).

Recommendation and research limitation

It is noted that the roles of e-government possibly enhances working effectiveness and efficiency in delivering services to citizens. Unnecessary administrative cost and affairs may be eliminated since citizens could access to e-government systems on their own. This is likely to imply that corruptions which happen at the official desks are reduced at certain levels contributing to poverty deduction intentions made by government which ultimately improve transparency and accountability. However to get citizens adopted with e-government services still requires great efforts from both stakeholders and beneficiaries. From government side, the quality of information, perceived ease of use with applications functions, trust building and high commitment are what to be regularly suggested. From citizen's side, the willing to adapt and routinize practice with the available e-government services might be required. Citizens are suggested to extend their intention toward e-service attempt.

This paper is primarily aimed at investigating user's attitude and behavior of Cambodian people with small sample sizes which cannot be generalized. Further investigation on each variable with complicated model is suggested so that more detailed explanation may be acquired. Since convenient sample method was employed, scientific random sampling is strongly recommended for future study.

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