

# University Academics' Behavioural Intention to Use E-Government Services in Sri Lanka

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## Abstract

Implementation and adoption of Electronic Government services are in early stage in most of the developing economies. Users of such services include individual citizens, businesses, government agencies and other governments. The rewarding benefits of such implementation effort depends both on governments' end as well as users' end. This study amended and used Unified Theory of Acceptance and Use of Technology (UTAUT) model to identify the factors influencing university academics' adoption of electronic government services in Sri Lanka. University teachers from South Eastern University of Sri Lanka were the participants of the study. The real data disclosed that Effort Expectancy and Social Influence factors have significant effect whereas Performance Expectancy factor did not have effect on university academics' intention to adopt Electronic Government services in Sri Lanka.

**Keywords:** University Academic, Behavioural Intention, Electronic Government, Sri Lanka, UTAUT.

## Introduction

Information Technology (IT) has plugged in itself with almost all activities of business operations today, having benefits, opportunities and challenges for managers and policy makers in private sectors. After the invention of the Internet by the Department of Defence in the US as a communication network, the Internet has now become part and parcel of business activities worldwide. As a result, the number of internet users in Sri Lanka is more than 3,222,200 (Internet World Stats, 2013).

Electronic government (e-Government) has established as an effective mechanism for increasing government's productivity and efficiency and a key enabler of services including citizens, businesses and other government agencies. However, from an adoption perspective, these services are yet to be accepted by university academics. In terms of prior research into understanding factors influencing university academics' intention to use e-government services in Sri Lanka, existing literatures focus on implementation and public value of e-Government in the country and no research studies were found that take a holistic viewpoint of adoption.

Governments around the world have been increasing investments in electronic services during the recent decades and have included the potential of online resources to improve the services to citizens to make their lives easier. The success of such initiatives by the governments largely depends on the higher adoption of such services by the citizens. The delivery of government information and services by using the ICT is commonly referred to as Electronic Government (e-Government) (Akman *et al.*, 2005; Karunasena *et al.*, 2011).

E-Government enables citizens to access information efficiently and also has improved the transparency and communication of government information. The diffusion of this innovation is normally attained with much cost for the implementing side; the government but researchers have found that most countries suffer with low satisfaction in the adoption of e-government services. Research works studying the university academics' adoption of e-Government are less for developing countries and this research is aimed to fill this gap in Sri Lankan context with specially referring to South Eastern University of Sri Lanka. The UTAUT model is adopted in this study to explore the factors that determine the behavioural intention to use e-Government services in Sri Lanka. The results of this study will be helpful for policy makers to understand university academics' intention to use e-Government services.

## 2.0 Review of Literature

### 2.1 E-Government

According to Halchin (2004), there is not any widely shared definition of e-Government yet and Wimmer (2002) argues that "Everybody talks about e-Government but all have different interpretations". Several definitions have been given by several researchers time to time. Vassilakis *et al.* (2007) defines e-government as an ever increasing and pervasive use of information and communication technologies in the context of the Information Society, which more and more affects the public sector; the importance of this development is increasingly acknowledged in many countries around the world and experiments are being conducted at all levels of government to improve the functioning of public services concerned and to extend their interaction with the outside world. Jaeger and Thompson (2003) mentioned e-government as the provision of government

information through the internet to citizens and among government agencies.

Rapid developmental changes in the Internet and its services have allowed the governments to provide their services to citizens and others in new ways and how these governments handle their operations inside. By its implementation, the e-Government has revolutionary developments and seen improvements in governments' functional abilities. E-Government can be examined in terms of citizens, businesses, government employees and other sectors of governments (Chadwick and May, 2003; Jaeger, 2003) and by provoking interactions between government and these parties, e-Government makes the interactions more effective, efficient, convenient, friendly and transparent (Al-Khouri and Bal, 2007; Chadwick and May, 2003).

Different categories of e-Government can be noted in the literature: e-Government is categorized as Government to Citizen (G2C), Government to Business (G2B), Government to Government (G2G) (Lee *et al.*, 2011; Carter & Belanger, 2005) and Government to Employee (G2E) (General Accounting Office, 2003). Each category has specific characteristics within the e-Government settings. For example G2C category provides basic e-Services to the citizen such as license renewals and offers a single-point-of-access anywhere and anytime to the citizens to see release of government services, benefits and loans (GAO, 2003). GAO (2003) noted the government's ability to expand electronic tax products as one example of G2B initiatives. G2G category establishes common procedures for governmental agencies for example collection, processing, analysing, verifying and sharing of birth, marriage and death records and G2E is a subset of G2C services in which specialized services for government employees are provided exclusively. In the G2E initiative government employees are given a common platform for online training and development of human capital (GAO, 2003). Although interactional dimensions, as aforementioned, of e-Government have emerged, the whole purpose has been the enablement of transformation of governments (Reynolds and Regio-Micro, 2001). Figure1 portrays the dimensions of e-Government and how each sector is interacting.

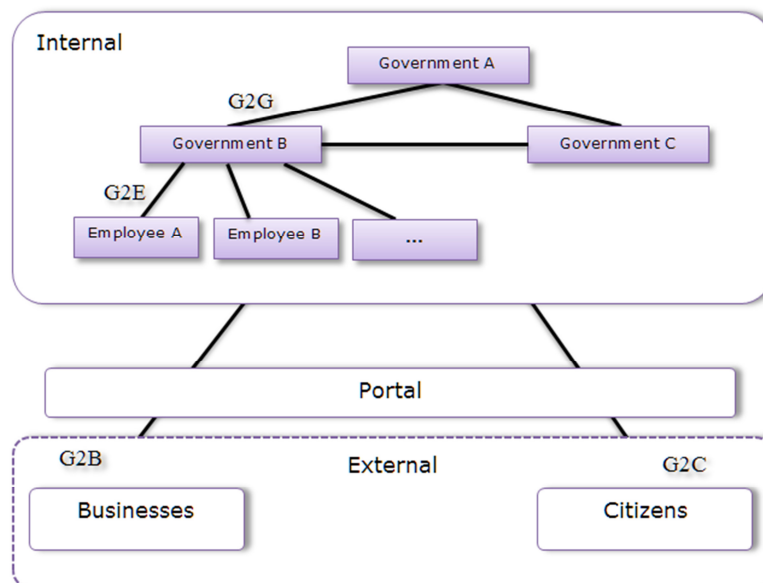


Figure1: Dimensions of e-Government Interaction (Adapted from: Siau and Long, 2005)

## 2.2 Government-to-Government (G2G)

The networked nature of government is G2G which characterizes intergovernmental linkages, interagency and partnerships. The G2G provides services at the domestic (local) as well as the international levels. These services are transactions taking place between local, central and national governments, department-level, bureaus and governmental agencies (Klamo *et al.*, 2006) and enable the efficient sharing of information between government divisions (Jaeger, 2003). In addition they can be used as a tool of international relations and diplomacy (Chavan and Rathod, 2009). For other dimensions such as G2C, G2B and G2E, where governments interact with citizens, businesses and government employees, to be successful, governments are expected to enhance and update their own internal systems and procedures (Seifert, 2008; Atkinson and Ulevich, 2000). Since the G2G facilitates increased efficiency and communication among government divisions it embodies as a backbone of e-Governmental initiatives (Bonham *et al.*, 2001). G2G consists of exchange of data and conducting electronic transactions between governmental agencies; involving of both inter-agency as well as intra-agency transactions taking place at local, central and national levels. Based on the aforementioned literature, it can be asserted that G2G dimension of e-Government has the following objectives:

- Enable all levels of government to work together easily in order to provide better services to the citizens

and businesses.

- Create joined and collaborative government by reducing the scattered nature of departments and agencies working alone.
- Transform the reactive nature of community service to proactive.

### 2.3 Government-to-Business (G2B)

In this dimension of e-Government, businesses involve in transactions with the government. In G2B, government and businesses exchange various information such as dissemination of policies, rules & regulations, memos, etc. (Chavan and Rathod, 2009) and services such as providing latest business information, downloading applications forms, license renewals, business registration, payment of tax, and so on (Ibid). Because of the potential of cost minimizing nature by its improved procurement practices and increased competition as well as high enthusiasm of business sector, G2B has received significant attention (Seifert, 2008; Bonham *et al.*, 2001). According to Jaeger (2003), in G2B, procurement of goods and services for the government as well as sales of government goods are included; resulting in both parties enjoying benefits. When businesses and government interact, there are opportunities for businesses to be more aware about the opportunities to work with the government, save costs, and bring about more efficient transactions. The government also enjoys benefits such as cost reduction and increased efficiency in procuring and finding new ways to sell extra items available.

Based on the aforementioned literature, it can be asserted that G2B dimension of e-Government has the following objectives:

- Facilitate business development by providing access to information at one place and reduce the businesses burden.
- Remove the extra work of providing same data or information to various government agencies.
- Restructure the reporting needs by creating more efficient ways for businesses to interact with governments.

### 2.4 Government to Citizen (G2C)

This is the form of e-Government, primarily perceived by observers as e-Government (Seifert, 2008; Carter and Belanger, 2005), which is designed to facilitate citizens' interaction with the government (Bonham *et al.*, 2001). G2C format provides access to public information available online via websites and allows citizens to carry out various tasks, especially ones that include many agencies, by visiting one portal without contacting many agencies individually. By eliminating time and geographical barriers to connect with government, the G2C format increases citizens' participation in government thereby lets citizens get attached with government who may not ordinarily do so (Seifert and Petersen, 2002) and citizens get "*more information about government laws, regulations, policies, and services*" (Muir and Oppenheim, 2002). In this format of e-Government, transactions such as renewal of licenses and certifications, application for benefits, etc. are made to be less time consuming and easier to do and in G2C format of e-Government citizens enjoy more benefits than participants in other formats e-Government.

Citizens' participation in democratic process is reinforced in the G2C as they interact with government and get access to information, documents and administrative proceedings (Reffat, 2003).

According to UN E-Government Survey (2008), citizens have extensive motivation to interact with their governments digitally and this has given rise to a revolutionary trend in how governments interact with their citizens. E-Government evolves to become more citizen-oriented rather than government-oriented because public like more control over the services that meet their needs (Ketterl *et al.*, 2008) and in order to cope up with this development, governments have to adopt continuous strategies that keep citizens involved in all other e-Government entities. Most countries around the world go beyond merely having basic web presence; they provide country portals for stakeholders to get connected with various government agencies and ministries to access public information and services online (United Nations (2010).

Based on the aforementioned literature, it can be asserted that G2C dimension of e-Government has the following objectives:

- To provide access online to public information to citizens at one place.
- Enable citizens to find what they need from governmental agencies quickly and easily.
- Establish citizen-centric services rather than government-agency-centric.
- Deliver public services to citizens directly by eliminating intermediaries.
- Building and retaining citizens' trust on the government.

### 2.5 Government to Employee (G2E)

This is another dimension of e-Government which encompasses G2C services and other services like human resource training and development that are specific to government employees (Chavan and Rathod, 2009). G2E

empowers employees so that they assist citizens fast and more appropriately thereby speeding up administrative processes and optimizing governmental solutions. Government employees can efficiently connect with other departments, get reliable and latest news, use available resources optimally and get most appropriate support. Governments can have proactive employees, efficient communication and retain workforce. In addition, since this format of e-Government delivers a common platform for all information and communications, cross departmental understanding of the services is promoted. The following can be identified as the objectives of G2E dimension of e-Government:

- Enable government employees to collaborate anywhere anytime.
- Make cross government agency initiatives more effective.
- Improve team collaboration and information sharing among government agencies.

### 2.6 E-Government in Sri Lanka

The government of Sri Lanka launched its government portal, [www.srilanka.lk](http://www.srilanka.lk), in the year 2002 and this was the initial step by the government in the implementation of e-Government services in Sri Lanka. Using this portal, people in the country are enabled to obtain more than 20 e-Services such as e-Revenue License Issuance, Water bill payment, etc. (Lanka Gate, 2013) and updated information from the government agencies. Sri Lankan government started the e-Srilanka project in 2002 (Karunasena *et al.*, 2011) and has been continuing to bring in all services of government agencies under one portal. The e-Srilanka project carries many significant benefits such as quality public services, reduction of communication and information costs, bridging the digital divide, and getting the citizens actively participating in government (Karunasena *et al.*, 2011; Akman *et al.*, 2005; Jaeger and Thompson, 2003). The Government Organizations Visitors Survey of ICTA identifies Administrative simplification, Increasing User Satisfaction and Support for Growth as the benefits for adopters of e-Government services in Sri Lanka.

United Nations' E-Government Survey 2012 claims that Asian countries continue expanding e-Government services by making investments to expand infrastructure, including support for broadband and mobile access. In the year 2012, three Asian countries, namely Republic of Korea, Singapore, and Japan, were among the top 20 world e-Government leaders. Regionally compared, Asia as a whole has a higher level of e-Government than the rest of the world. In 2012, Sri Lanka was in 115<sup>th</sup> place in World e-Government Development Ranking, however it had been in 111<sup>th</sup> place in the year 2010 (UN, 2012), though Sri Lanka performs better than some other big countries in the region.

In the existing literature, the number of researches which studies university academics' intention to use e-Government services is minimal. After a good review of published researches on such studies, it is found that there aren't any researches that study the academic staffs' intention to use e-Government in Sri Lankan context available.

### 2.7 Technology Adoption

User acceptance is necessary for any Information Technology initiative and implementation. According to The initial decision taken by an individual to interact with the technology is acceptance and adoption comes when the user has accepted the technology after he or she directly experiences with the technology (Venkatesh and Morris, 2003). There have been many researches trying to study the adoption of e-Government in developed countries (Titah and Barki, 2006) but researches on the same for developing countries are minimal (AlShihi, 2005).

A lot of studies on the adoption of e-Government are mainly based on technology acceptance theories and models such as Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Theory of Planned Behaviour (TPB), Diffusion of Innovation (DOI) and UTAUT, etc. The UTAUT provides valuable comprehensions and suggestions for understanding an individual's intension of using e-Government services (AlAwadhi and Morris, 2008; Dadayan and Ferro, 2005; Huang *et al.*, 2002)

A study using university students to delineate the factors that influences adoption of the e-Government services by citizens was conducted in the United States (US) using DOI model and the construct that they thought to be most relevant were relative advantage, ease of use, compatibility, and image. The researchers of the study found that higher the relative advantage, compatibility, and image; the more the citizens' intension to adopt e-Government services (AlAwadhi and Morris, 2008). Another study in US was carried out by Carter and Belanger (2004) on adoption of e-Government services. In the pilot study of their research they surveyed undergraduates in the US using an integrated model incorporating constructs from DOI model, TAM model and Web Trust model. It was discovered that Compatibility and Perceived Usefulness were significant in increasing citizens' intension to adopt e-Government. For the main study of this research they surveyed a group of citizens aged from 14 to 83, and found that Compatibility, Ease of Use, Trustworthiness were significantly influencing the citizens' intension to adopt e-Government. In this research, when the findings of the pilot study are compared with those of the main study, the factors influencing the citizens' adoption of e-Government have differences; citizens' demographic attributes also impacted the factors influencing citizens' adoption (AlAwadhi and Morris,

2008). Taiwan's Online Tax Filing and Payment System is one of the e-Government services in that country. Chang *et al.* (2006) did a study on citizens' acceptance of this system based on TPB by proposing a comprehensive model to elicit citizens' salient attitude towards e-Government services. They found that Ease of Use, Perceived Usefulness, Perceived Risk, Trust, Compatibility, External Influence, Interpersonal Influence, Self Efficacy and Facilitating Conditions (AlAwadhi and Morris, 2008) were the factors influencing the adoption of the system.

Dimitrova and Chen (2006) did a survey in the US by combining TAM and DOI models to study the effects of socio-psychological factors that influence people's adoption of e-Government in the US. They found that Perceived Usefulness, Prior Interest in the government, and Perceived Uncertainty were the factors influencing the adoption of e-Government there in the US (Colesca and Dobrica, 2008). In a study done by Phang *et al.* (2005) in China on the senior citizens' adoption of e-Government, basing TAM, they found that perceived ease of use and Internet safety as the influencing factors for senior citizens' perception of the usefulness of the e-Government, image and compatibility being less influencing. Akman *et al.* (2005) did a survey in Turkey to study the impact of gender, education, and citizens' attribute, on the use of e-Government. For the study they surveyed different groups from public and private sectors and found that gender and education had a significant influence on the citizens' adoption of e-Government in Turkey. They found that e-Government services are used more by males than females and the higher the education level, the more interaction the participants had with e-Government services.

From the above review of literature, many factors such as perceived usefulness ease of use, compatibility, trustworthiness, Internet safety, image, educational level, etc. have been found to be influencing the adoption of e-Government in developed as well as a few developing countries; but little is known that these factors are applicable in the case of Sri Lanka, and university academics in particular.

This study aims to address this gap by finding out the factors that influence the academics' intention to use e-Government in Sri Lanka by doing a first-hand data collection and analysis using university academics as subjects.

### 3.0 Research Model and Hypotheses

Variables from UTAUT model is used in this study since the UTAUT was formulated by synthesizing eight technology acceptance models, which had their origins in psychology, sociology, and communications. Many researchers have adopted, modified, and validated many theoretical models to understand and predict acceptance of technology and its usage (Venkatesh *et al.*, 2003). Each model tries to predict and explain user behavior using a number of independent variables. The models include the TRA, TPB, the TAM, and the DOI. It was argued by Venkatesh *et al.* (2003) that researchers chose a certain model which they favored and used it by ignoring the contributive factors from other alternative models.

Hence Venkatesh *et al.* (2003) reviewed the existing eight user acceptance models (TRA, TAM, the TPB, the combined TAM-TPB, the Motivational Model (MM), DOI, the Model of PC Utilization and the Social Cognitive Theory (SCT)) and integrated elements found in those models and the result of this review is the UTAUT (Venkatesh *et al.*, 2003). The UTAUT provides better understanding of acceptance of technology by users. Some of the above theoretical models are considered to be the most robust and significant to describe IT and Information Systems adoption.

The study of citizens' adoption of e-Government was motivated to use this UTAUT model because of the comprehensiveness, validity, and reliability of it and the model encouraged the researcher to adopt and validate it in Sri Lankan context.

This research proposed a model by using variables from the UTAUT model originally proposed by Venkatesh *et al.* (2003) in order to fit it to the adoption of e-Government in Sri Lankan context. According to the model, it is hypothesized that Performance Expectancy, Effort Expectancy and Social Influence are significantly influencing the Behavioral Intension of the university academics. They are elaborated below.

- **Performance Expectancy (PE):** "the degree to which an individual believes that using the system will help him or her to attain gains in job performance" (Venkatesh *et al.*, 2003).
- **Effort Expectancy (EE):** "the degree of ease associated with the use of the system" (Venkatesh *et al.*, 2003).
- **Social Influence (SI):** "the degree to which an individual perceives important that others believe he or she should use the new system" (Venkatesh *et al.*, 2003).
- **Behavioral Intention (BI):** "the person's subjective probability that he or she will perform the behavior in question" (Venkatesh *et al.*, 2003).

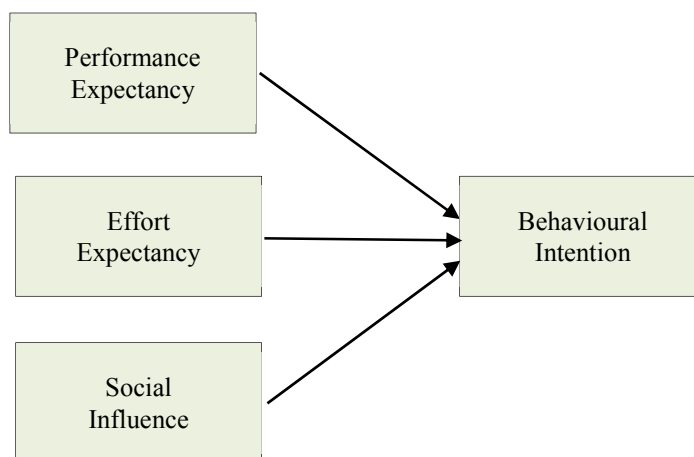


Figure 2: Research Model

From the above amended UTAUT model, the following hypotheses have been developed:

- H1:** There is a positively significant relationship between Performance Expectancy and Behavioral Intention to use e-Government services.
- H2:** There is a positively significant relationship between Effort Expectancy and Behavioral Intention to use e-Government services.
- H3:** There is a positively significant relationship between Social Influence and Behavioral Intention to use e-Government services.

#### 4.0 Methodology

The research employed a quantitative study based on questionnaire survey. Quantitative method enables the researcher to test the relationships between the variables identified in the model and thereby let him provide evidence to support or disprove the hypotheses (Carter and Belanger, 2005). The population of this study included all 174 academic and academic supportive staff from South Eastern University of Sri Lanka with or without experience in using e-Government services of Sri Lanka.

Questionnaire which had been primarily prepared in Tamil language was translated into English language and e-mailed, and also personally administered by the researchers to more than 120 recipients during October/November of 2014 and a total of 103 complete questionnaires were received back, the response rate of more than 85%. Since the e-Government project of Sri Lankan government is not very well-known a small introduction was given in the questionnaire itself. Respondents were instructed to answer by using Likert scale type questions. Constructs and statements were adopted from previous researches.

#### 5.0 Data Analysis and Results

##### 5.1 Reliability of the Model

Reliability of the scale constructs was tested using Cronbach's alpha and their values are given in Table 1, with all constructs earning values greater than .7.

Table 1: Reliability of the model constructs

UTAUT Scales	Cronbach's Alpha coefficient	No. of Items
Performance Expectancy	.807	8
Effort Expectancy	.903	7
Social Influence	.761	3
Behavioural Intension	.836	2

Based on the modified UTAUT model, a regression analysis was done with the inclusion of independent variables and dependent variable. In order to analyse relationships among variables and measure the strength of the linear relationship between the variables regression analysis was carried out using SPSS software.

##### 5.2 Results

A regression analysis process was undertaken based on the research model which included independent variables and dependant variable. In the analysis, the main predictors (PE, EE and SI) were used to predict the BI with regard to their use of e-Government services. The results of the analysis is given in Table 2 and Table 3.

Table 2: ANOVA

Model	Sum of Squares	df	Sig.
1 Regression	67.414	3	.000 <sup>b</sup>
Residual	20.184	98	
Total	87.598	101	

a. Dependent Variable: BI

b. Predictors: (Constant), SI, PE, EE

The Table 2 shows an ANOVA significance of .001 or one chance in 1000 of Type-I error (incorrect rejection of null hypothesis), implying that the data between PE, EE, SI and BI are strongly correlated and there is a good model.

Table 3: Coefficients

Model	Standardized Coefficients		Sig.
	B	Beta	
(Constant)	.089		.058
1 PE	-.862	-.886	.093
EE	.158	.180	.000
SI	1.188	1.480	.000

a. Dependent Variable: BI

According to Table 3, The Constant and PE show significance above 0.05; meaning they are insignificant. The EE and SI constructs show a significance of .001; meaning that a unit of increase in EE and SI have significant contribution on the university academics' determination of BI to adopt e-Government services.

The practical test of the model identified factors determining the intention and use of e-Government. According to the results, the hypotheses H1 is not supported and H2 and H3 are supported. The statistically significant influence of EE and SI suggest that respondents are apt to use e-Government services when they are easy to use enabling them to have more time for other activities and if other co-workers use the Services then they will also use. The results highlight the need to provide user friendly applications in the e-Government portal also the government should find ways to promote people to use these services so that peers use these services. The government should pay attention on making the web-applications easy to use and self-documenting. For this the Information and Communication Technology Agency (ICTA) can get feedback from registered users about the experience they had with the e-Government system's applications and collect constructive suggestions to come out with improved features.

### Conclusions and Recommendations

The overall objective of this study was to delineate the factors influencing university teaching staff's intention to use e-Government services. For this, the study used three variables from well-known UTAUT model and found that Effort Expectancy and Social Influence constructs were significant in the Intention of e-Government services usage; however Performance Expectancy was insignificant in determining academic staffs' intention to use such services. Like other technology adoption studies, this research is also inherent with limitations. The subjects of the study were limited to university academic as well as academic supportive staffs, having limited generalizability; however the study provided many insights into the motivations underlying the intentions to use e-Government services in developing countries. The research model will be useful for more researches trying to find out e-Government adoption factors in varying contexts in future.

### References

- Akman, I., Yazici, A., Mishra, A. and Arifoglu, A. (2005). E-Government: A global view and an empirical evaluation of some attributes of citizens, *Government Information Quarterly*. (22). pp. 239-257.
- AlAwadhi, S., and Morris, A. (2008). The Use of the UTAUT Model in the Adoption of E-government Services in Kuwait, *Proceedings of the 41st Hawaii International Conference on System Sciences*.
- AlShihi, H. (2005). E-Government Development and Adoption Dilemma: Oman Case Study, *Proceedings of 6th International We-B (Working for e-Business) Conference*, Victoria University, Melbourne.
- Carter, L and Belanger .F, 2005, The Utilization of E-Government Services: Citizen Trust, Innovation and Acceptance Factors, *Information System Journal*, vol. 15, no.1, pp. 5-25.
- Colesca, S. E. and Dobrica, L. (2008). Adoption and Use of E-Government Services: The Case of Romania, *Vol. 6 No. 3*.

- Dadayan, L. and Ferro, E. (2005). When Technology Meets The Mind: A Comparative Study Of The Technology Acceptance Model, EGOV, pp.137-144.
- Dimitrova, D.V. and Chen Y.C., (2006). Profiling The Adopters Of E-Government Information And Services: The Influence Of Psychological Characteristics, Civic Mindedness, And Information Channels, Social Science Computer Review, Vol.24, Iss.2, pp.172-188.
- Huang, W., J.D, Ambra and Bhalla, V. (2002). An Empirical Investigation of The Adoption of E-Government in Australian Citizens: Some Unexpected Research Findings, Journal of Computer Information Systems, pp.15-22.
- Hung, S. Y., C. M. Chang, and T. J. Yu. (2006). Determinants of User Acceptance of The E-Government Services: The Case of Online Tax Filing and Payment System, Government Information Quarterly. (23). pp.97-122.
- Jaeger, P.T. and Thompson, K.M. (2003). E-government around the world: lessons, challenges, and future directions, Government Information Quarterly, Vol. 20 No. 4, pp. 389-94.
- Karunasena, K., Deng, H. and Singh, M. (2011). Measuring The Public Value of E-Government: A Case Study From Sri Lanka, Transforming Government: People, Process and Policy, Vol. 5 No. 1, pp. 81-99.
- Lanka Gate. (2013). [http://www.srilanka.lk/en\\_US/web/guest/home?param=en\\_US](http://www.srilanka.lk/en_US/web/guest/home?param=en_US), (Accessed on 10, January, 2013)
- Phang, C.W. and Sutanto, L.J. (2005). Senior Citizens Adoption of E-Government: In Quest of The Antecedents of Perceived Usefulness, Proceedings of the 38th Hawaii International Conference on System Sciences.
- Titah, R., and Barki, H. (2006). E-Government Adoption and Acceptance: A Literature Review, International Journal of Electronic Government Research, Vol.2 Iss:3, pp.23-57.
- Vassilakis, C., Lepouras, G., & Halatsis, C. (2007). A knowledge-based approach for developing multi-channel e-government services. *Electronic Commerce Research and Applications*, 6(1), 113-124.
- Venkatesh, V., M. Morris, G. Davis and F. Davis. (2003). User Acceptance of Information Technology: Toward A Unified View, MIS Quarterly. Vol.27 Iss:3, pp.425-478.



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