Factors influencing citizen to E-government Services Adoption

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ABSTRACT
Electronic government provides a variety of services to citizens on-line, which include carrying out a range of transactions. These transactions include people’s personal information in electronic form. Some people remain suspicious of information technology (IT), either because they are unfamiliar with it or have concerns about how departments might use their information. Others are simply indifferent or unaware that a range of services are becoming available on-line. Some groups within society may be concerned that they will no longer be able to access services in traditional ways and therefore, need assurance that they will not be disadvantaged or excluded. In this process, the citizen will have to decide whether to adopt new electronic government services by considering its risks and benefits. The study objectives are to identify and analyze the factors that affect the adoption of e-government services. This research proposes a conceptual model of citizen adoption of e-government that integrates constructs from pervious studies and models to form key factors that influence adoption of e-government services among Malaysian citizens. Structural equation modeling will used to analyze the data, examine and validate a theoretical e-government services adoption model.

Keyword: e-government, e-services, and e-government services adoption

1. Introduction
E-government is the use of information and communication technologies in public administration and it is way for public administration to be more open, transparent and providing personalized and inclusive services to each citizen (Biasiotti&Nannucci, 2005). Government around the world are developing and establishing e-government initiatives aiming to serve their citizen with an easy access improved level of services and creating added value services, that allow citizen to access and make transactions when ever and where ever they are using government websites. Accessing information about public services online carrying out range of electronic transactions are still relatively new, some people remain suspicious of IT, either because they are unfamiliar with it or they are concern about how the departments might use their information that will be provide electronically. The success in delivering electronic services depends upon the capability and self-confidence of citizen in performing e-transactions, as well their trust and confidence in the protection of their personal data within an open and accountable government (Wimmer, 2003). The success and acceptance of e-government initiatives depends on citizen willing to utilize the services provided (Ulrica lofted, 2005). There has been growing need for research on factors influencing adoption of e-government services. This research explores these factors among citizen in Malaysia and develops a conceptual framework

2. Literature Review
There is a lack of literature on e-government services adoption, because this research field is still relatively new compared to other research fields, as e-government services delivering of public services to society using the Internet, and communication technologies, so the studies and theories on e-services adoption, internet adoption and e-government adoption are relevant to understand the factors influencing adoption of e-government services. In this section we will extract the factors of adoption first we will start by e-government adoption.

2.1 E-government adoption
Many studies have been established towards finding an e-government adoption although the models differ in the numbers but most of them have similar characteristics. Kumar, Mukerji, and Butt (2007) proposes a conceptual model of e-government adoption, that belief a higher level of satisfaction leads to higher level of adoption, and user characteristics need to be understood along with the factors that generate user satisfaction before developing an e-government adoption strategy. User characteristics, web design, perceived risk,
perceived control, perceived ease of use, perceived usefulness, and quality of services directly influence e-government adoption (Kumar, Mukerji, and Butt, 2007). The model proposed by Carter and Belanger (2004) integrates Davi’s (1989) technology acceptance model and Rogers (1995) diffusion of innovation theory, indicates that compatibility, perceived usefulness and relative advantages are significant factors of e-government adoption.

Phang, Li, Stanto and Kankanhalli (2005) investigates senior citizen adoption of e-government and they offers theoretical implications, it shows that the technology acceptance model (TAM) is robust even when applied to a new context and it uncovers the factors that influence senior citizen to adopts e-government are Internet safety and perceived ease of use, they suggest the culture may supercede certain factors in influencing the perceived usefulness of users towards technology. Study done by Carter and Belanger (2004) state that the perceived relative advantage, perceived image and perceived compatibility are significant factors of e-government adoption.

2.2 E-services adoption
Electronic services use web services providing support to the customers and to make business online, but many customers still hesitates to conduct financial transaction online, because they mistrust the system. The role of trust is an important factor influencing the success of electronic services (Rotchanakitumruai, 2003). Study on what drives e-services adoption by Rotchanakitumruai (2003) in the case of Internet securities in Thailand, state that the trust and self-control benefits have positive impact on adoption of Internet securities trading. Information accessibility is also useful in predicting adoption but it has negative impact on adoption, perceived ease of use and information quality has no impact on adoption. Sandhu and Cobitt (2002) investigates factors affect the end user experience and perception, motivation, support, control, and usage frequency in online and offline and it is affection on web based e-services developing and implementation, their findings support technology acceptance model (TAM), construct that perceived usefulness, perceived ease of use, user experience in control and self services are positive factors of adoption. Technology acceptance model (TAM) is used in information technology and information system research to understand the user behavior towards the system and his acceptance of the system, the Internet delivered electronic services context presents additional variance that requires supplement measures to be added to TAM. Featherman and Fuller (2002) research extended TAM to include a perceived usage risk main effect and they tested weather perceived risk moderated several of TAM’s relationships, they indicated that higher level of perceived risk deflated ease of use’s effects on subject norm’s effect on perceived usefulness and adoption intention.

As the global emerge of public sector information communication initiatives, many countries around the world have establishing promising e-government with the aim of enhancing accessibility of government services and information, there has been growing research on e-government services adoption by citizen.

In 2006 research on e-government services adoption by Horst, Kuttschreuter, and Gutting showed that the perceived usefulness of e-services in general is the main determination of the intention to use e-government services. Risk perception, personal experience, perceived behavior control, and subject norm were found to significantly predicting the perceived usefulness of e-service in general and the trust in e-government was the main determination.

Hung, Chang and Yu (2006) identified that the factors that the public acceptance of e-government services in Taiwan are perceived usefulness, ease of use perceived risk, trust, compatibility, external influence, self efficiency, and facility condition. In 2005 study by Carter and Belanger integrates construct from technology acceptance model, Diffusion of innovation theory, and web trust model to form a citizen e-government initiatives adoption model that indicate that perceived ease of use, compatibility and trustworthiness are significant factors of adoption. Patrick and Lei (2007) set research in Macau to assess and test factors that related to e-government acceptance and the result found the trust and compatibility explained more than sixty percent of the variance for intention to use e-government services. To understanding factors influencing citizen adoption of e-government services research by Mofleh and Wanous (2008) identified compatibility with e-government, trust in Internet, and trust in Government as significant factors that increase demand on e-government services.

3. Conceptual Framework
In order to understanding the factors that drives citizen to adopt e-government services, this research focuses on previous studies on Internet adoption, e-services adoption, and e-government adoption and extract the factors that influencing citizen to adopt e-government services in Malaysia based on these studies and models, some factors has been identified as related to citizen adoption of e-government services, these factors are perceived control, perceived risk, perceived advantage, experience, perceived usefulness, trust, privacy, ease of use, external influence, and inter personal influence are related to citizen adoption of e-government services, and questioner was designed to examine and validate the final model.

4. Research Methodology
4.1 Data collection
While the questionnaire is a formal approach to measuring characteristics, attitudes, motivations, opinions as well as past, current and possible future behaviors. The information produced from a questionnaire can be used to describe, compare or predict these facts (Marion Joppe, 2006).

In this research data were collected using a questionnaire based on previous researches and theories on adoption of E-government, E-services and E-government Services. The respondents were mainly from Klang Valley, which is probably one of the most developed region in Malaysia, the questionnaire were distributed among the researchers’ colleagues and friends. Altogether, five hundred questionnaires were distributed in July 2008, people were asked to complete the questionnaire on the spot, the respondent approached in shopping malls, coffee shops, trains, and offices. All data collected from survey were keyed into the SPSS software for analysis.

4.2 Measures
The items used to verify this study were adopted from the relevant literature, changes were made to the items to reflect the context for Malaysia e-government services, all the factors employed a four point scale for measurements (strongly disagree, disagree, agree, and strongly agree) and all questions were by two languages English and bahasa Malaysia, the questionnaire was verified by lecturers, researchers and professors. Based on their advices some of questionnaire items were restructured.

5. Conclusion
This research proposes a conceptual framework of citizen adoption of e-government services and identified the factors that affect the citizen adoption of e-government services, which is based on pervious studies and models to form key factors that influence adoption of e-government services among Malaysian citizens. However the final model needs to be examined and validated, in the next phase of this research structural equation modeling will be used to analyze the data, examine and validate citizen e-government services adoption model.

6. References
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