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DIFFUSION OF E-GOVERNMENT SERVICES IN AUSTRALIA: CITIZENS' PERSPECTIVES

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Abstract

The aim of this paper is to illustrate the diffusion of e-government in urban Australia. The theory of innovation diffusion is used to guide the research accomplished via a survey method. Research findings included in this paper highlight the use of E-Gov service at three levels of administration by urban citizens in Australia and the usefulness of bundled services offering a one stop shop for citizens. Findings discussed in this paper also highlight that factors such as cost and time saving, convenience and online tracking facility significantly impact the adoption of E-Gov services by citizens. It also suggests that the level and frequency of E-Gov service use and access is dependent on the regularity of its need by citizens. Access to technology, socio-economic status and level of education also influence E-Gov adoption by citizens.

Keywords: E-government, e-government services, e-government diffusion, theory of innovation diffusion

1 INTRODUCTION

Australia is one of those countries where the government has taken an active role in the establishment of an advanced infrastructure for the delivery of public services, resulting in the rise of citizens contacting the government via the Internet from 19% in 2004 to 25% in 2005 (AGIMO 2006). Electronic Government (E-Gov) is the use of web-based information systems by governments to enhance the delivery of public services to citizens and businesses (Silcock, 2001). It transforms relationships with citizens, businesses and other arms of government with the use of information and communications technologies (ICT) (West, 2000). E-Gov initiatives around the world have been established since the year 2000 to improve service delivery and government processes, as well as interactions with government stakeholders. In spite of the increased expenditure and policies on E-Gov development around the world, few studies have been undertaken to explore the adoption and diffusion of these services from the citizens' perspective. Most of these initiatives are based on public sector improvements aimed at bringing about the optimal delivery of public services and information to citizens, and more transparent and effective interactions with businesses, resulting in reduced corruption, and enhanced effectiveness and efficiency of government transactions with citizens and businesses (Ke and Wei, 2006, Muir and Oppenheim, 2002). The paucity in E-Gov diffusion issues in public reports and academic literature from the citizens' point of view is obvious. Therefore this paper is on research that aims to understand the diffusion of E-Gov and citizens' perceptions of its use and benefits. It reports an initial set of findings on the diffusion of E-Gov amongst citizens in urban Australia.

Larger municipalities were more proactive in adopting and overseeing the development of E-Gov than their smaller counterparts (Moon, 2002), and early adopters of new E-Gov technology tend to be citizens of municipalities which are typically larger, affluent, and politically influential, and have access to greater technological, financial, and administrative resources Weare et al (1999). The pervasiveness of computers and Internet within a municipality is also attributed to the socioeconomic backgrounds of its citizens (Neu et al., 1999; Reidel et al., 1998). This fact is supported by Rogers (2003) who reiterated that some of the major factors affecting the diffusion of an innovation are socioeconomic, political, and linguistic in nature. Metropolitan areas in developed countries are often equipped with advanced telecommunications networks and IT infrastructure, in addition to the growing presence of a budding number of ISPs. Thus, urban citizens are more likely to adopt government information utilities as they tend to be well-educated, are familiar with new technology, and exposed to mass media as well can be acquainted with trend-setters. In this regard, the legal, economic, political, and social circumstances favour the acceptance of innovative technology in urban areas. Socio-economic circumstances determine income levels, which are related to the citizens' ability to afford new technologies.

In Australia, citizens in metropolitan areas are more likely to use E-Gov services than their counterparts in the regional and rural areas (AGIMO 2006). This paper discusses diffusion of E-Gov with urban citizens in Australia where ICT infrastructure is better developed (AGIMO, 2006) than rural areas in this vast country. Our aim is to explore E-Gov diffusion trends by identifying the services most widely adopted by citizens, factors that influence citizens to adopt E-Gov services, and citizen intention to use these services in the future. The paper includes a review of literature on E-Gov innovation and diffusion to provide the background to the study, a research model based on Roger's theory of innovation diffusion, research methodology and an initial set of findings on citizens' perspectives of E-Gov services.

2 THEORETICAL BACKGROUND FOR DIFFUSION OF E-GOVERNMENT

The process of diffusion is defined as the acceptance of an idea or practice, over time, by individuals, groups or other adopting units, linked to specific channels of communication, to a social structure, and

to a given system of values, or culture. Rogers described “diffusion” as the process by which an innovation (new - idea, object or practice) is communicated through certain channels over time amongst the members of a social system. Diffusion of innovation consists of four elements, namely: the innovation, communication channels, time, and the social system (Rogers 2003). An innovation is an idea, practice, or a phenomenon perceived to be novel by an individual or a community. Therefore, E-Gov services can be considered to be an innovation as they are perceived to be novel by citizen, and are delivered via the Internet (communication channel) to citizens, a community of potential adopters. The process of diffusion of the innovation consists of five stages, namely knowledge, persuasion, decision, implementation and confirmation (Rogers). The characteristics and elements of these stages have been widely applied in the study of adoption of information systems (Gupta and Jana, 2003, Hwang and Chao, 2001, Johnston and Vitale, 1988, Mitra and Gupta, 2006, Sahu and Gupta, 2007).

2.1 Innovation-Diffusion Stages

The innovation-diffusion process takes the citizen (or a community of citizens) through five stages, beginning with the acquisition of background knowledge about an innovation, to the establishment of attitudes towards the innovation, accepting or rejecting the decision, implementation of the innovation, and confirmation of that decision (Rogers 2003). The stages of knowledge, persuasion and decision, as they apply to E-Gov diffusion are discussed in the following paragraphs.

2.2 Knowledge

In this stage, a potential adopter learns about the existence of an innovation and gains some understanding of its way of functioning. In addition, Rogers stated that individual characteristics of the decision maker(s) such as personality characteristics, and socio-economic factors play an important role in this stage. Gupta and Jana (2003) reiterated that communication networks, administrative culture, and a greater appreciation of information systems can influence the diffusion of an innovation. Government institutions can thus influence the diffusion of e-government through the assurance of efficient delivery of public services, existence of proper policy framework, provision of security and privacy, establishment of clear agenda. Based on the above literature, it is clear that personal and social factors such as socio-economic factors, knowledge of technology and the social environment influence diffusion of innovation.

2.3 Persuasion Factors

At this stage, the citizen assumes a favourable/unfavourable attitude towards E-Gov services. The attributes of the innovation that can persuade a citizen to participate in the phenomenon include: relative advantage, compatibility, trialability, observability, and complexity. If the innovation is seen to be able to fulfill their perceived needs for economic gain, social prestige, convenience or a satisfaction, citizens are more likely to adopt it. Relative advantage was found to be an important factor in the adoption of the Internet and the World Wide Web (Tan and Teo, 2000). In the context of E-Gov, relative advantages may include quality of public services, flexibility afforded to the citizens/individuals, efficiency gains, greater satisfaction and community empowerment, and the ease of use and convenience (Gupta and Jana, 2003). *Compatibility* refers to the extent to which an innovation is perceived to be consistent with existent values and norms, past experiences and needs of potential adopters. Urban citizens, particularly white-collar workers and students, are more likely to adopt E-Gov services owing to their familiarity with the Internet for various official, personal, and recreational uses (Tan and Teo, 2000). *Complexity* is perceived difficulty associated with the ability to understand and use an innovation. *Trialability* is the extent to which an innovation can be experimented with prior to making a commitment to its eventual adoption (Rogers 2003). Trialability can reduce the uncertainty of an innovation to the adopters. The presence of online demos and trial Internet procedures can influence the adoption of e-services (Sarkar and Cybulski (2004). Hence, E-Gov services that are perceived to afford a greater relative advantage, compatibility and trialability, and are less complex, will be adopted at a higher rate.

2.4 Decision to adopt

In this stage individuals perform activities that lead to the eventual adoption or rejection of an innovation. Once citizens decide to adopt, they may continue to use E-Gov services or discontinue. Government institutions have adopted the Internet as a medium for providing services for efficiency of operations and uninterrupted service delivery to citizens on a 24/7 basis. Thus, if citizens realise the benefits of E-Gov services they will continue using the service. On the other hand, they can delay the adoption of E-Gov services till they are able to clearly establish the expected benefits from using the services, a situation in which interpersonal communication and well-directed government promotional campaigns can play a significant role (Gupta and Jana, 2003; Sahu and Gupta, (2007). Similarly, there are a number of reasons for rejecting an innovation, related to barriers to citizens' use of E-Gov services. These include the existence of a digital divide affecting certain groups of citizens, complexity and difficulty in using E-Gov services (Ho, 2002); poor website design and online help facilities (Moon, 2002). Poor online response from government agencies, lack of security and trust, and limited availability of services including content publication in other languages also discourage citizens from adopting E-Gov (AGIMO 2006; DG Information Society and Media 2006).

The above literature indicates that the perceived benefits of E-Gov services can persuade citizens to adopt the innovation, and problems or unfavourable experience encountered from and during actual use will lead to citizens rejecting the use of such services. It is also clear that knowledge of E-Gov services, relative advantage and reduced complexity will lead to continued use of E-Gov services by citizens in the future. Based on the literature review on E-Gov presented above, and the theory of innovation diffusion, the following research model is proposed for E-Gov diffusion.

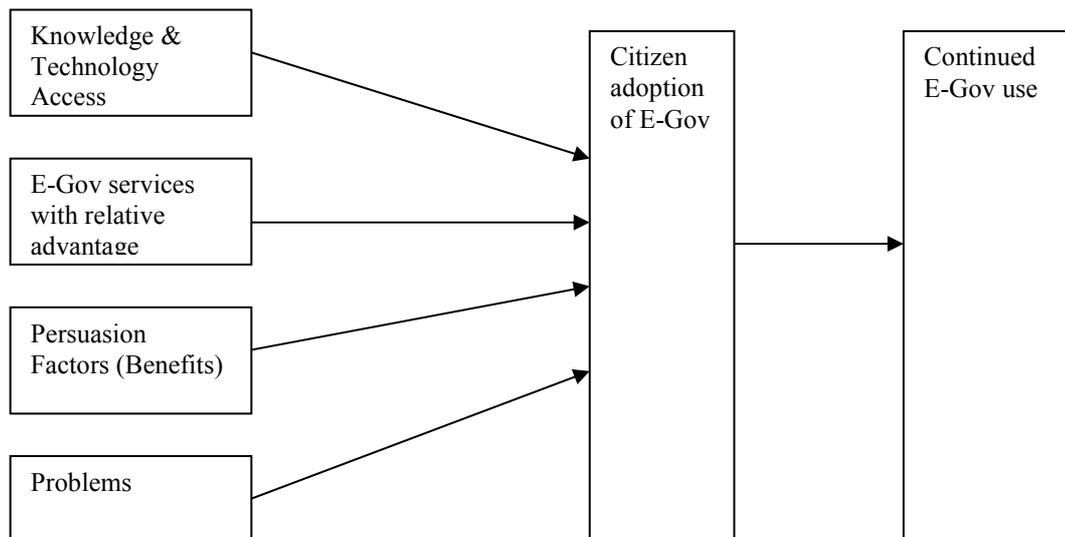


Figure 1 Research Model for E-Government Diffusion

3 RESEARCH METHODOLOGY

E-Government is still a new and growing service in Australia at all three levels of administration, the Federal, State and Local, therefore an exploratory approach rather than an in-depth study was employed to complete this research. A quantitative research approach using a survey method was used to elicit data from citizens in urban Australia. Australia has a population of 21 million people, 90% of who live in urban areas (AGIMO, 2006). A survey method was used for this phase of research to be

able to elicit a lot of data in a short period of time (Alreck and Settle, 1995) and previous research investigating technology and e-business (Singh and Byrne, 2005) confirmed this method to be appropriate for this type of investigation.

Questions included were formed from a review of literature on e-government guided by Roger's (2003) theory of innovation diffusion. E-Gov services included in the questionnaire were obtained from Australian E-Gov web sites for Federal, State, and Local (Melbourne City councils). It is noted that some E-Gov services are linked, and can be accessed from State and local government sites as well. For the purpose of this survey services in relation to one particular issue such as citizenship and family issues were combined, and only the services relevant to citizens were included. Hardcopy surveys were distributed to a random sample of employees in a random sample of familiar organisations via contacts in these organisations. Respondents remained anonymous and completed surveys at their convenience and privacy. Completed surveys were collected by the contact person in sealed envelopes. Responses were then collected from contacts at each organisation within a month after the distribution of the surveys. This method of data collection was pursued to be able to solicit a decent response rate in a short period of time.

Questions establishing citizen details, use of e-government services at the Federal, State and Local levels, and factors influencing knowledge, persuasion and decision to use e-government identified from literature were included in the survey. Other than citizen details all questions were presented on Likert scales of zero (not used) to seven (very useful). To determine the number of times a service was accessed a scale of 0 to 10 was also included for each service. The questionnaire was pilot tested with a small cohort of people (citizens) comprised of academics and administrative staff at the university to ensure questions were correct and understandable. Six hundred questionnaires were distributed, and 246 completed responses were analysed to identify an initial set of findings on e-government diffusion in the urban community. Data presented in this paper is a preliminary analysis of responses establishing knowledge level of E-Gov users, where they access the service, the services most widely used, persuasion factors and problems with E-Gov services in Australia from the citizens' perspective. Data was analysed using frequency distributions, standard deviations, cross tabulations and exact p values using SPSS version 16. Crosstabulation analysis was performed between persuasion factors and highly used E-Gov services to determine the level of impact these factors have on the adoption of the service. Chi-square test was used to explore the relationship between persuasion factors and actual use of the service. *Exact p test* was used to determine how significant the impact of the factor was on the E-Gov service.

4 RESEARCH FINDINGS

From a total of 600 surveys 246 (41%) usable responses were received within four weeks of distribution. Of these responses 192 (32%) were from citizens who used E-Gov services.

4.1 Demographic Data

The demographic data presented in Table 1 reveals that the age of E-Gov users are mostly in the range of 20 to 70 with the least number of responses (9%) from the age group 61 to 70. However, since this data was collected from organisations, the range presented in Table 1, is the working age of the Australian workforce leading to the conclusion that a high percentage of working people in Australia use e-government services. It also shows that most of the respondents are well qualified and that their income level is in the middle band, 41 – 80,000 dollars per annum. Many of the respondents (57.6%) have been using the Internet for a long time, for almost ten years. It is interesting to note that although the respondents were urban citizens most of them accessed E-Gov services either from work or home. Only 21% used Internet cafes and 20% depended on other Internet access points which are more prevalent in urban Australia. Data in Table 1 clearly indicates that citizens in urban Australia have the

knowledge to use technology on which E-Gov services are delivered (the Internet), have access to the Internet at work, home and other metropolitan locations and are of a good socio-economic status.

Variable	Category	Frequency	Percentage
Age of E-Gov Users	20 – 30	49	25.5
	31 - 40	39	20.3
	41 - 50	54	28.1
	51 - 60	54	28.1
	61 – 70	9	21.4
Education Level	School	7	3.6
	Diploma/Certificate	15	7.8
	Degree	51	26.6
	Postgraduate	60	31.3
	Doctorate	59	30.7
Annual Income level	Below 20,000	12	6.3
	20 – 40,000	23	12.2
	41 – 60,000	43	22.8
	61 – 80,000	56	29.2
	81 – 100,000	23	12.2
	Above 100,000	32	16.7
Internet Experience (yrs)	None	2	1.0
	1 - 5	16	8.4
	6 - 10	63	32.8
	Above 10	110	57.6
Internet Access	Home	232	94.3
	Work	225	91.5
	Cafe	53	21.5
	Public place	49	19.9
	Friend's place	38	15.4
	Other	33	13.4

Table 1 Demographic Profile of Respondents

4.2 Three Levels of E-Gov Services

E-Gov services in Australia are delivered at three levels, the Federal, State and Local government services. However a number of these services have links through lower levels of administration to higher levels, enabling a citizen get to the required service from one entry. Also, akin to Lane and Lee's (2001) description of E-Gov service delivery, some E-Gov services in Australia are informational and some transactional. These are discussed when relevant to the findings. To establish the services with relative advantage to the citizens, the extent and frequency of the service used is presented in Table 2. Although the survey collected information on several services, only those services used by more than 20% of total respondents are discussed in this paper. The others are deemed less important for the citizens at this stage. Column four of Table 2 indicates how often a service is used. This was established by dividing the total number of times a service was accessed by the number of respondents who used the service. For Federal Government services E-Tax is the most

widely used (54.7%) service followed by Postcode Search (44.3%), Travel and Australian passport (38%), Medicare (35.4%), Job Search (22.9%) and Super Seeker (22.4%). However, in terms of repeated access, Postcode Search is the most highly accessed service (a mean value of 6.0), followed by Job Search (5.5). This indicates that the type of service and its need influence its access. For example, E-Tax is a widely used E-Gov service with a high relative advantage, with an access rate of only 4.1. E-tax allows citizens to lodge their tax claims annually, whereas postcode is informational and is required for addresses, housing and many other applications repeatedly used by citizens. Thus a service, such as postcode search, is useful to citizens and widely used, though for informational purposes only. Other Federal E-Gov services popular with citizens are Travel and Australian passport application and renewal, which is again a periodic requirement, that is, once in ten years in most cases for passports, and access to travel information by those travelling overseas, thus access rate is low (2.1). Medicare is an Australian government agency and plays an integral role in the Australian health sector. This service is also widely used (35.4%) and accessed (3.4). Although respondents to this survey were employees in a number of organisations it is apparent from this research that they tend to utilise Job Search a lot (22.9%) and access it repeatedly (5.5) perhaps for better opportunities. SuperSeeker is a tool that helps find lost super (payments). This service is also useful (22.4%) with an access rate of 2.6.

At the State level, E-Gov services widely used include Driver's Certification (47.9%), Jobs (40.6%), Australian Business Number Application (37.5%) and Medicare (32.8%) which allows citizens to search information, change details and register for a number of health related issues via this site for a Federal level service. Payments for road tolls (29.2%), tax file number search (27.1%) which is linked to Federal Gov E-Tax, payment of fines (26.6%), changing details for electoral roll (25%), registering for 'do not call' register (22.9%) and registering and accessing birth certificates (22.4%) were also used by citizens. However, once again the most widely accessed site was Jobs (6.1), a site that lists all government job vacancies. From these findings it is clear that E-Gov services at the State level also offer citizens relative advantages and are widely used by citizens.

Local government services are provided by city and shire councils, some of which are linked or gateway to the next level of administration, the State level E-Gov services. These services can be classified as information, registration, applications or payments. From this research local government services widely used and accessed are information for recreation (32.3%) and community (31.8%), local laws (30.7%), roads (26.6%) and waste management information (23.4%), application for planning permits (21.9%) and payment of rates (21.4%). The most widely accessed sites are information on recreation (4.9) and payment of rates (4.9). Rates payment is a compulsory fee for services rendered to residents in each shire and payment is allowed in instalments. Thus local government services both informational or transaction based, are also used.

Level of Government	E-Gov Service	Percentage (Respondents)	Access (Times/Respondent)
Federal	E-Tax	54.7	4.1
	Postcode search	44.3	6.0
	Travel & Australian Passport	38	2.1
	Medicare	35.4	3.4
	Job Search	22.9	5.5
	Super Seeker	22.4	2.6
State	Drivers' Certification	47.9	3.9
	Jobs	40.6	6.1
	ABN	37.5	3.5
	Medicare	32.8	3.6
	Road Toll (Centrelink)	29.2	4.5
	Tax file number	27.1	3.8
	Public transport fines	26.6	2.9
	Electoral roll	25	2.6

	Senior citizen cards	24	4.7
	Do not call register	22.9	1.6
	Birth certificate	22.4	3.1
Local	Recreation services	32.3	4.9
	Community services	31.8	4.1
	Local laws	30.7	3.3
	Roads management	26.6	3.3
	Waste management	23.4	2.9
	Planning permits	21.9	3.5
	Rates	21.4	4.9

Table 2 E-Gov Service Use

4.3 Benefits of E-Government

Benefits of E-Government were determined by asking citizens to indicate the factors that persuaded them to use E-Gov services on a scale of 0 to 7. The data in Table 3 are from respondents who use E-Gov services. Means and standard deviations were calculated to establish the importance of the factor and to show the similarity in opinions. From Table 3 it is obvious that important benefits of E-Gov are convenience (mean = 6.24 on a 7 point scale and SD = 1.22), time saving (6.09 and SD = 1.31), reduced paperwork (5.56 and SD = 1.77), cost saving (4.98 and SD = 21.1), easy navigation (3.82 and SD = 1.73), online tracking of services requested (3.79 and SD = 2.318) and trialability (2.55 and SD = 2.27). Benefits of E-Gov services with a high mean value and low standard deviations identified in this research are similar to the benefits of other 'e' applications such as e-business (Singh, 2002 and Turban, 2008) and e-learning (Turban, 2008). This research reveals that if citizens realise benefits from E-Gov services they will be persuaded to use them.

Benefit	n (out of 192)	Mean	Standard Deviation
Convenience (24/7)	186	6.24	1.221
Time saving	184	6.09	1.319
Reduced paperwork	178	5.56	1.779
Cost saving	178	4.98	2.194
Easy navigation	176	3.82	1.731
Online tracking	172	3.79	2.318
Trialability	170	2.55	2.272
Friends/relatives use	168	2.26	2.161
In other languages	167	1.23	2.100

Table 3 Reasons for Using E-Gov Services

4.4 Problems

Problems were identified from literature and presented on a 7 point Likert scale to establish the factors that would discourage citizens from using E-Gov. Response from E-Gov users were analysed using means and standard deviations presented in Table 4. From the results listed in Table 4 it is apparent that the mean values for the problems is low indicating that the impact is insignificant.

Problems with E-Gov	n (out of 192)	Mean	Standard Deviation
Service not available	165	2.53	2.315
Website not well designed	163	2.42	2.084
Inadequate online support	165	2.22	2.119
Too complex and difficult	166	1.92	1.924
Inadequate security info	163	1.83	2.085
Unable to print receipt	166	1.61	2.073
Lack of knowledge, skill, experience	165	0.75	1.459

Not available in other languages	159	0.51	1.252
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Table 4 Barriers to the use of E-Gov services

4.5 Impact of Persuasion Factors on E-Gov Service Adoption

To determine the impact of persuasion factors (benefits) on actual use of the E-Gov service, crosstabulation analysis with chi-square tests and exact p values were carried out. The impact of time saving on E-Tax ($\chi^2 = 23.25$, exact p = 0.002) was found to be significant at p < 0.05. Similarly the other factor that had a significant impact on E-Tax was cost saving ($\chi^2 = 11.92$, exact p = 0.023) at p < 0.05. It is thus clear from this research that E-Tax is a widely used E-Gov service due to time and cost saving advantages gained from it by the citizens. Similarly, for Postcode search, time saving ($\chi^2 = 20.07$, exact p = 0.004) and convenience ($\chi^2 = 13.35$, exact p = 0.023) were found to have a significant impact, leading to the conclusion that citizens use postcode online because it is convenient and saves time. For Job Search, online tracking ($\chi^2 = 13.53$, exact p = 0.010) was found to have a significant impact with p < 0.05. This indicates that the ability to track applications and responses online for better opportunities, Job Search is a widely used E-Gov service. For Driver Certification, time saving was the factor with greatest impact ($\chi^2 = 14.93$, exact p = 0.014) at p < 0.05. This research indicates that persuasion factors that have a significant impact on E-Gov service use are time and cost saving, convenience and online tracking.

4.6 Future Use of E-Government

Future use of E-Government was established from a 96% response rate indicating that they will continue using E-Gov services in the future. The mean value 6.14 with a standard deviation of 1.18 indicates that all citizens who responded have a similar opinion about future use of E-Gov services.

5 DISCUSSION

The study reveals that E-Gov services in Australia are delivered at three levels of government (Federal, State, and Local) and used by citizens at all levels. Some of these services are informational, some interactive (registration), and some include transaction capability. This research also highlights the fact that access rate for E-Gov services, which are informational, are higher than transactional services. Furthermore, the extent of an E-Gov service use is dependent on its need, for example the Post Code search and Job search are accessed a lot more than Passport application and E-Tax. Many services are bundled and can be accessed from any level of administration offering citizens convenience and a one stop shop facility. This research also establishes that persuasion factors with the greatest impact on E-Gov use are convenience, time and cost saving, and online tracking. These are also benefits of e-business and e-learning, leading to the conclusion that E-Gov in some ways is similar to other 'e' (electronic) applications.

Other findings indicate that working Australian citizens whose income levels are in the medium to upper income bracket have Internet connections at home and use E-Gov services from home as well as at work. Thus knowledge, socio-economic status and Internet access are important factors for diffusion of E-Gov services. E-Gov services that offer citizens a relative advantage (convenience, time saving, reduced paperwork, cost saving, easy navigation, online tracking and trialability) will be used more widely. Moreover, factors that discourage citizens from using E-Gov (service availability, navigation, online support, complex and security) did not have a major impact, indicating that Australian E-Gov services have been well designed and optimally developed. However, problems presented in Table 4 above can be capitalised upon by the providers of E-Gov services to further improve delivery and citizen experience.

5.1 Limitations and Future Directions

Research findings discussed above are based on responses from well-educated and working people, however, E-Gov is for all and therefore it is absolutely important to explore the diffusion of E-Gov services with other citizens in rural areas, seniors, unemployed and youth. This research did not identify any major problems with E-Gov service use, however, it is also important to explore the problems with other groups of citizens who may be less affluent. Factors that persuaded the adoption of E-Gov services for urban citizens are convenience, time and cost saving, and online tracking ability, however, it is important to explore persuasion factors for rural and other groups of citizens.

5.2 Theoretical Contribution and Implications

Findings of research presented above indicate that knowledge of internet use, access to technology and a citizen's socio-economic status are initial important factors in the diffusion of E-Gov, commensurate with and opinions that citizens who are educated, are familiar with new technology, and are exposed to infrastructure, are more likely to adopt the service. This research also highlights that E-Gov is an innovation, delivered via the Internet to citizens as described by Ebbers and van Dijk (2007). E-Gov services at all three levels of administration are informational, interactive or transactional similar to Lane and Lee's (2001) description of E-Gov services. Benefits of E-Gov services identified in this research are convenience, time and cost savings and online tracking ability, which are also benefits of other innovations such as e-business (Turban, 2008).

New findings on E-Gov diffusion this research identified are that bundled services that can be accessed from any level of administration offers the service a relative advantage and increase its access and adoption rate. The other important finding of this research is that E-Gov service use is dependent on the regularity of its need by citizens, therefore, although all services are made available online, some E-Gov services will always have low access rates. Benefits of E-Gov services being similar to the benefits of E-Business indicates that if citizens use E-Business they will tend to adopt E-Gov more easily. It also shows that continued use of E-Gov services is dependent on positive experience with E-Gov services for early adopters.

6 CONCLUSION

This research was an exploratory study in Australia on the diffusion of E-Gov services from the citizens' perspective. It identified E-Gov services at the three levels of administration that citizens used and accessed. This research also identified that time, convenience, cost and online tracking are important factors that persuade citizens to adopt E-Gov. Although Australia's demography is quite different with a large land mass and population concentration in urban cities, findings of this research highlight issues for the diffusion of E-Gov services. It highlights the importance of access to infrastructure and knowledge of technology for E-Gov diffusion which will be a useful consideration for the diffusion of E-Gov services in rural and remote areas.

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