Preface

THE VALUE OF INTERMEDIARIES IN E-GOVERNMENT SERVICE DELIVERY

Introduction

The widespread use of e-government has encouraged public administrations around the world to shift their attention from being focused on delivering public sector services online towards providing more citizen-centric services that meet citizens’ needs and satisfaction (Mosse and Whitley, 2008; Wang et al., 2005). In the motivation of e-government establishment worldwide, Bakry (2004) and Al-Shafi and Weerakkody (2010) stated that e-government can be understood from the citizens’ satisfaction point of view. The purpose of establishing e-government is so that government can grasp citizens’ expectations and meet their demands, through the provision of good quality services by a control system such as e-government (Gupta and Jana, 2003; Snellen, 2002). This will not only encourage citizens to utilise e-government to interact with public agencies, but will also help governments to be more accountable (Wong and Welch, 2004; West, 2004; Chadwick and May, 2003; Snellen, 2002). In recent years most government organisations around the world have utilised ICT to respond to increasing demand for better services. Thus, information technology is commonplace in every country for managing the large amount of citizens’ information and data that is needed to expand a country’s economic development (Bakry, 2004). Various studies have suggested different purposes for establishing e-government systems (Holliday and Yep, 2005; Tolbert and Mossberger, 2003; Fang, 2002). These studies highlight the need for e-government systems to leverage the efficiency and effectiveness of government agencies, in order to deliver a superior quality of government services and information to society in the information age. As such, the public are able to expand their accessibility to government services and information, via new ICTs. Some researchers highlight the main purpose of e-government systems is the improvement of transparency to public and its potential to enhance social democracy (Welch et al., 2005; Wong and Welch, 2004; West, 2004; Chadwick and May, 2003; Snellen, 2002).

Most government reforms are focused on increasing citizens’ participation in public services and empowerment to organise internal affairs in accordance with ethical principles for both government and citizens (Basu, 2004; Chadwick and May, 2003). E-government, in this case, helps in increase the responsiveness to citizens’ needs and requirements (Chen et al., 2006; Moon, 2003). It also enhances the communications between the government and citizens through improved active involvement of citizens (Chen et al., 2006). Thus, e-government has the potential to build a good relationship between government bodies, citizens and business by making the interactions easier, smoother and more efficient (Lee et al., 2005). Globally, various organisations are taking steps to provide one-stop services to citizens and
businesses, and many of them have succeeded in this duty. Many governments worldwide have aimed to utilize the power of internet and associated ICTs to leverage effectiveness and efficiencies in delivering public services for citizens and other stakeholders. The key idea of e-government is how to use the Internet and associated different technologies and applications as tools to enhance the relationship between governments on one hand and the public (citizens and business) on the other. However, it is important to point out that; e-government goes beyond merely enhancing communication and interaction internally in government and externally with citizens. As such, e-government serves different actors other than government and citizens. Therefore, it is important to clarify the different types of e-government in order to develop a better understanding of e-government characteristics.

E-Government Adoption Challenges

Whilst e-government presents several benefits to private and public organisations, it also results in a number of challenges to different internal and external stakeholders of the organisations. Research has identified many barriers to the adoption of e-government services, such as trust (Carter and Belanger, 2005; Ebrahim and Irani, 2005; Dawes et al., 2004; Ndou, 2004), computer literacy (Pilling and Boeltzig, 2007; Pan et al., 2006), authentication (Akman et al., 2005), risks (Phippen, 2007; Ebrahim and Irani, 2005), usability (Criado and Ramilo, 2003; Chouderie et al., 2004), and accessibility and availability (Jaeger and Thompson, 2003). Of the aforementioned challenges and barriers, computer literacy and accessibility are largely caused as a result of the digital divide, which means the gap that appears between citizens that use technology, have access to Internet, and have literacy skills, and those citizens who do not have access to the technology (Belanger and Carter, 2006; Selwyn, 2004; Fountian, 2003). Digital divide often represents the gap between the economically well-to-do and the less well-to-do in developed and developing nations (Lam and Lee, 2005; Selwyn, 2004). According to Belanger and Carter (2006), it is classified into the ability to access the Internet and citizens’ skills needed to use appropriate technologies. Furthermore, barriers to accessing the Internet were classified as age, level of education, and income (Belanger and Carter 2006; Selwyn, 2004). The skills needed by citizens were classified into two types: those needed by citizens in order to obtain e-government services and those required for information literacy (Belanger and Carter, 2006; Jaeger, 2003). Although an increasing number of citizens are utilizing e-government services, digital divide can be considered as one significant barrier that impedes many citizens from adopting e-government services (Belanger and Carter, 2006).

While the literature has proved that the aforementioned factors are critical attributes for e-government adoption success, the absence of necessary ICT infrastructure often prevents these attributes being satisfied. Moreover, the literature suggests that offering multiple methods to access government services to different stakeholders, such as computers, the Internet, wireless devices, TV networks, and mobile service centres, is seen as good practice in e-government service delivery (Sarikas and Weerakkody, 2007). If the ICT infrastructure is inadequate in a country, these channels of service delivery are unattainable, consequently resulting in a digital divide.

Within implementation, usability, availability, and accessibility of e-government services for stakeholders through the Internet and e-government websites are considered as significant barriers which impede the adoption of e-government (Al-Shafi and Weerakkody, 2010; Carter and Weerakkody, 2008; Carter and Belanger, 2005; Kuk, 2002). To distinguish between these three terms, the reader should be aware of the different meanings of these terminologies. Usability can be defined as the kind of procedures and processes that have been implemented in other platforms and applications and that are widely used by a
group of users (Wang et al., 2005; Lee, 1999). By way of illustration, Kuk (2002) shows how the usability and navigability of a website is a key factor that determines e-government implementation readiness. His study shows that usability is engaged not only with the take-up of electronic service delivery but also to make the government website easier to use and read, which in turn affects the service quality. As shown by the literature, improved government services could be achieved by improving the quality, range, and maximal accessibility of services (Gouscos et al., 2002).

Accessibility is one of the major factors that can enhance interactions, either online or offline (Deakins and Dillon, 2002). It refers to the way in which users obtain different government services and have access to various information from different channels, data communications devices, and platforms via distant locations (Beynon-Davies, 2007; Ebrahim and Irani, 2005; Moon, 2002). However, accessibility differs from the term usability in a number of important ways; accessibility focuses more towards the interaction with each system, whereas usability describes the procedure of using the system or the services. It has been argued that accessibility and usability are the terms used for improving the effectiveness and efficiency of systems and implemented technologies (Shackel, 2009). While the aforementioned discussion suggests that although both accessibility and usability can be a rating standard of e-government implementation success, availability of e-government services is also important.

Availability refers to the number of services that are available to users online. It gives an indication of the range of the available services around the clock; 24 hours a day, 7 days a week (Layne and Lee, 2001). Criado et al. (2003) illustrate that a combination of different factors, including accessibility, usability and availability, can enhance any implementation of e-government initiatives. Generally, retardation of e-government implementation is most commonly caused by a lack of standardisation of e-government websites and a shortage of IT developer experiences (Lam, 2005). According to Criado et al., (2003), e-government initiatives have been obstructed by a lack of standard technology use and skills needed to implement various technologies of e-government. Thus, e-government services should be accessible to stakeholders from distant locations and available around the clock, using secure gateways.

Additionally, trust is considerably an important element in everyday life activities and particularly in uncertainty situation and, in any sort of communication without physical contact. Trust is an important factor in the e-government system, and plays a key role in adoption. Therefore, building trust is a central in furthering communications between two parties (e.g. government and citizens); this approach is a key success factor for developing e-government. There are many studies that have highlighted the importance of trust in the adoption and acceptance of new technologies, and have assessed trust as an important factor that predicts user intention of e-services (Pavlou and Fygenson, 2006; Carter and Belanger, 2005; Gefen et al., 2005; Gilbert et al, 2004). Once the interaction between parties takes place in a non-physical mode from a remote distance through a medium like the Internet, trust becomes an essential central issue to be defined and measured. Trust plays a major role in creating the initial relationship between citizens and e-government, where citizens are not fully aware of their e-service provider (Carter and Weerakkody, 2008). Rotter (1967) explains trust as an expectancy that the promise of an individual or group can be relied upon. Broadly, the literature shows that trust is classified into two parts: (1) trust in the body (entity) that provides services (government bodies); and (2) trust in the tools that will be used to deliver services to users (e.g. Internet).
E-Government Service Delivery

The success of e-government systems cannot be obtained without adoption by targeted users (citizens) (Carter and Weerakkody, 2008). Unfortunately, low adoption by citizens is a widespread problem in many counties. To further explain, predict, solve and increase citizens’ acceptance and adoption of e-government, it is necessary to better understand the challenges and obstacles citizens face. In a general approach, digital divide and trust in using technologies are considered the main barriers in e-government adoption. To minimize these barriers, researchers have suggested that, governments should involve multi channel services delivery for citizens in order to simplify their access to different government services. By doing so, this will help to meet the main objectives of establishing e-government systems, in enhancing efficiency and effectiveness and at the same time reducing costs (Sarikas and Weerakkody, 2007; Ebrahim and Irani, 2005; Cabinet Office, 2005). A channel in this context can be seen as a tool for citizens or businesses to engage with government departments (i.e. in inbound communication - adoption), and for government departments to communicate with their stakeholders (i.e. citizens and business in outbound communication - diffusion). These channels can range from traditional channels such as intermediaries, call and contact centres, telephone, to online channels similar to voice response, Internet, Digital TV, e-mails, SMS messages and kiosks (Al-Sobhi et al., 2010; Sarikas and Weerakkody, 2007; Ebrahim and Irani, 2005). The above traditional channels can possibly achieve significant improvements in communications between government and citizens by centralised intermediary channels in wider geographic areas.

Government services can then be delivered through a wide range of channels according to citizens’ segmentation (Cabinet Office, 2005). Therefore, citizens’ selection between channels in terms of suitability and usefulness depend upon certain needs and requirements as well as citizens’ capability and skills (Al-Sobhi et al., 2010; Cabinet Office, 2005). The growth of the multi channel service delivery strategy approach allows government to meet challenges by reengineering the front-end of service delivery (Beynon-Davies, 2005). European legalisation in particular summarises the definition of e-government as, the use of information and communication technologies (ICT) in public administrations combined with organisational changes and new skills. The objective is to improve public services, democratic processes and public policies. In this context, governments can provide a variety of ways to interact with stakeholders through different channels thereby fulfilling e-government objectives. This offers citizens the opportunity to engage with their public services at anytime anywhere and anyhow (Germanakos et al., 2005). Strategically, many researchers in e-government systems suggested alternative frameworks for targeting citizens (Sarikas and Weerakkody, 2007; Ebrahim and Irani, 2005). The literature has also identified that different features of these channels are expected to vary according to the challenges of implementing e-government systems and the context (Germanakos et al., 2005).

The Role of Intermediaries in Facilitating E-Government Adoption

According to the literature, the concept of the intermediary is classified in different forms, from Internet applications such as PayPal, Amazon, and eBay, to physical organisations such as state agents, travel agents, and the post office (Janssen and Kilevink, 2009; Bailey and Bakos, 1997). Hence, at this stage, it is necessary to clarify exactly what is meant by an intermediary. An intermediary is a mediator that transfers and passes services onto others (Janssen and Kilevink, 2009). In the literature, the term tends to be used to refer to third party structures that operate in an electronic environment and helps in the
dissemination of information to societies, facilitating the exchanges within electronic services (Janssen and Kilevink, 2009; Howells, 2008; Sarker et al., 1998). An intermediary is commonly used to help in service transformation, yet is a concept that is difficult to define specifically. However, this study adopted the definition offered by Janssen and Kilevink (2009), who defined an intermediary as “any public or private organisation facilitating the coordination between public services providers and their users” (Janssen and Kilevink, 2009, p. 38).

These relationships between the service provider, service requester, and the intermediary are changeable over time as a result of the environmental and social conditions (Ehrlich and Cash, 1999). Chircu and Kauffman (1999) identify a variety of strategies that possibly appear in the relationship between players in e-commerce that change from intermediation to disintermediation and reintermediation (IDR strategies cycle). Disintermediation means the removal of the physical intermediary from the service delivery channels (Chircu and Kauffman, 1999). The term reintermediation refers to the emergence of new intermediaries in electronic services environment by re-establishing themselves in the centre of the e-services transaction process (Chircu and Kauffman, 1999; Bailey and Bakos, 1997).

Furthermore, from many researchers’ perspective, the major threat for the physical intermediary is the new technologies that are implemented by service providers to communicate with their customers on-line (Bailey and Bakos, 1997; Chircu and Kauffman, 1999). This is due to the fact that such new technology (e.g., Internet applications) made it easier for service providers to communicate with service requesters directly with less transaction costs. This argument was made by numerous researchers in the e-business realm and the term disintermediation was coined (Malone et al. 1987). With the emergence of Internet applications and the growth of e-business during the 1990s, there was increasing concern that the roles of intermediaries were being eliminated or subject to disintermediation (Gellman, 1996; Malone et al., 1987). In this regard, disintermediation cost theory has been criticised by a number of researchers (Chircu and Kauffman, 1999; Bailey and Bakos, 1997). Instead of disintermediation, intermediaries can return, especially if they are “facilitated with information technology” (Bailey and Bakos, 1997). Therefore, the intermediary can add value for the service provider and requester in many aspects. In e-commerce development literature, an intermediary is a key factor in working side-by-side in delivering e-services, and it is not necessary to eliminate it from the service delivery channels. While the Internet and associated ICTs may reduce the roles of traditional intermediaries, they may also result in increasing their roles in cases where factors such as trust may influence their position (Datta and Chatterjee 2008; Bailey and Bakos, 1997); second, intermediaries may facilitate communication between organisations (service providers) and their customers (Janssen and Kilevink, 2009; Bailey and Bakos, 1997) and third, work as a partner for helping a service requester access services provided electronically (Al-Sobhi et al, 2010). An intermediary is an important element in the e-services domain and it may play a key role in helping the stakeholders to engage with new e-government services. For example, they can help in improving e-government adoption (e.g., trust) and decrease the challenges that occur because of the digital divide (skills needed for people to use e-government services and their ability to access the Internet). As the literature suggests the impact of intermediaries in delivering electronic services is considerable. Therefore, this chapter attempts to illustrate the role of intermediaries in minimising e-government adoption related challenges.

The e-governmental network settings can be categorised into three main types of players as outlined in Figure 1. This includes, service providers (government departments), service requesters (citizens and other stakeholders), and intermediaries. Service providers can be any organisation involved in providing and delivering electronic government services. Service requesters, in this case, are citizens and other
stakeholders who request public services, and an intermediary is defined as a private organisation, fully or partly information technology-based, that aims to bring together a government department and its citizens.

As illustrated in Figure 1, intermediaries (often referred to as e-offices) can help citizens adopt e-services through a third party channel where citizens can register and use e-government services with the assistance of an administrator, i.e. intermediary/e-office workers. These workers access the central e-government portal and complete the online transactions (i.e. print required information from relevant government agencies or make payments to a government department) on behalf of citizens. The identification of citizens in e-intermediaries can be controlled with the appropriate credential authentication processes (such as passwords and a national identification number). By doing so, the e-officers can track citizens’ transactions, applications for a service and/or requests by using such details. The intermediaries’ concept has evolved in a number of countries to encourage the adoption of e-government services, to facilitate citizen participation, and to simplify citizens’ engagement with government (Al-Sobhi et al., 2010). In fact, in some developing countries, citizens’ authentication is one of the main reasons behind the build intermediaries. Figure 2 summarises the way e-offices can function in parallel to the other multi-methods that are offered for accessing public services in a multi-channel service approach.

The traditional offices, as illustrated in Figure 2, work as intermediaries to deliver public services but maintaining the use of manual methods. In addition, these traditional offices can work on behalf of citizens as a front-end of government agencies. E-government strategy has evolved through many objectives where one of the main goals is to deliver e-services to citizens. Therefore, it is imperative to involve traditional existing offices, which have been operating for a long time between government and citizens, as intermediaries. These traditional offices have enjoyed the trust of citizens and provided frequent face-to-face contact to them. In reality, many traditional offices promise to facilitate public services to citizens and other stakeholders. Therefore, government authorised private sector partners can continue to help in providing services through physical intermediaries’ offices to citizens. By doing so, they will help in achieving greater access to public services throughout without the need to visit government departments. In addition, while the role of these traditional offices is to facilitate government services, it also aggregates public services in one office. Moreover, the intermediary workers / officers can act on citizens’ behalf by physically visiting relevant government departments in order to complete the services required...
(manual integration). It is essential to state that these traditional service providers have been established for many years, and have the experience to carry out the required services through their extensive network within various governmental departments resulting in more efficient and faster services delivery.

**Summary**

While there are considerable benefits in implementing e-government systems, overcoming the barriers for diffusion and adoption of the provided services remain a challenge for many governments. Prior research confirms that adoption rate among citizens for e-government services determine its success or failure (Al-Shafi and Weerakkody, 2010; Heeks, 2005; Pinto and Mantel, 1990). In this regard, studies have indicated that there is an increased emphasis on exploring the significant factors affecting individual (citizens) adoption of e-government (Al-Shafi and Weerakkody, 2010; Alawadhi and Morris, 2008; Carter and Weerakkody 2008; Carter and Belanger, 2005). In particular, interest has grown in developing efficient citizen-centric e-government systems in order to fully utilise their potential.

Governments worldwide have introduced various initiatives towards enhancing the effectiveness and efficiency of government services. Among these is the introduction of intermediary organisations within their e-government strategies (Al-Sobhi et al., 2010; Janssen and Klievink, 2009; Johnston and Gudergan, 2007; Teicher et al, 2006; Bovaird, 2004; Wettenhall, 2003). Nevertheless, although the concept of intermediary organisations adoption was introduced in other different contexts, such as e-commerce, to date there has been little research to explore the adoption of intermediary organisations in the e-government realm (Al-Sobhi et al., 2010; Janssen and Klievink, 2009). While e-government services offer a number of benefits that fulfil its potential through engaging all relevant stakeholders, others who lack technology skills and have low levels of education are often left out and excluded from these benefits. Consequently, this has created a significant gap and inequality in accessing e-government services (Margetts and Dunleavy, 2002). In this respect, many countries worldwide have established

*Figure 2. The concept of intermediaries in e-government*
strategies to minimize the digital divide and increase citizens’ engagement with new e-government services that are implemented in their countries (Al-Sobhi et al., 2010; Cabinet Office, 2005). This chapter has examined the role of intermediaries in e-government adoption to develop a better understanding of the issues surrounding the roles of intermediaries in the context of e-government. In addition, it has highlighted that intermediaries can successfully facilitate e-government diffusion through providing an alternative access to public services for all segments society.

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