Advances in Politics and Economics
ISSN 2576-1382 (Print) ISSN 2576-1390 (Online)
Vol. 7, No. 1, 2024
www.scholink.org/ojs/index.php/ape

Original Paper

An Empirical Study of the Uptake of Electronic Government Services by the Limpopo Department of Home Affairs

Sonayena Kenneth Nokele[1]

[1] Department of Public Management, Tshwane University of Technology, Polokwane, South Africa

Received: October 29, 2023 Accepted: February 22, 2024 Online Published: February 22, 2024

doi:10.22158/ape.v7n1p32 URL: http://dx.doi.org/10.22158/ape.v7n1p32

Abstract

Technology adoption models play an important role in understanding the different factors affecting the adoption and use of new technology. The development of well-informed e-Government strategies is the first stepping stone in the right direction for the successful implementation and successful use of e-Government. This paper investigated from the officials; perspective factors that affect the uptake of e-government services provided by the Limpopo departments of Home Affairs. Using a qualitative research approach whereby three different Department of Home Affairs' service Centres namely Polokwane, Waterberg, and Sekhukhune in Limpopo province were used as case studies, the study conducted semi-structured interviews with nine (9) officials comprised of management, ICT department, and street-level officials to identify and understand better the factors affecting uptake of e-government in the DHA. The study found that lake of skills and access to e-government programmes were at the top of the list of challenges faced at the Centres. Therefore, the study recommended amendments to the ICT policy of the department so that it accommodates different languages spoken in societies particularly the eleven official languages currently spoken in South Africa. This article further recommends several solutions that can enhance the uptake of e-government in the DHA.

Keywords

e-government, theoretical framework, e-services, department of home affairs, e-administration

1. Introduction and Context of the Study

The use of Information and Communication Technology (ICT) is seen in both private and public sectors and has been advocated by many scholars such as Maserumule (2004), Mukonza (2015); Nokele and Mukonza (2021) as one that possesses significant benefits for the enhancement and improvement of efficiency and cost-effectiveness in the delivery of services. The development of ICT has mainly been driven by the private sector but has lately been adopted in most contemporary

governments such as South Africa, this is because it increases constant contact or communication between government and citizens (Mpinganjira, 2013). The ICTs also have enormous potential for initiating revolutionary changes in respect of enhancing both work productivity and creativity (Mbatha, 2012). It is for this reason that government departments such as Department of Home Affairs in South Africa have also adopted the use of ICTs to render services. Such is regarded by Heeks (2008) as e-government and is regarded as the use of internet-based applications that aims to allow the Department of Home Affairs to interact with its external stakeholders or recipients of services (citizens and non-citizens) in South Africa. E-government is promoted through various policies and legislations such as The Promotion of Access to Information Act (PAIA), Act No. 2 of 2000, and others.

The 1994 general elections in South Africa heralded an open and free society within which the government had to pass the necessary laws to ensure their aspiration to create an open and transparent society. By introducing the electronic government approach, the government enabled ordinary citizens of the country to share in the principle of an open and free society, as enshrined in the Constitution of 1996. The government developed an e-Government policy aimed at the citizens of the country as well as the corporate sector. With "transformation" as the buzzword on all fronts of society, this meant the changing of the old Information Technology (IT) to the new Information and Communication Technology (ICT) (Trusler, 2003). Department of Home Affairs (DHA) is one of the departments in South Africa that the government had to demonstrate efforts to adopt e-government to deliver services.

The Department of Home Affairs offers a multitude of services to the citizens of South Africa, as well as foreigners who wish to visit, work, or stay in South Africa. The Department's core functions are classified under civic and immigration services. Civic services include Maintaining the National Population Register (NPR); Managing the birth, marriage, and death records; Determining and granting citizenship; Issuing travel documents and passports; Issuing Identity Documents (ID). Immigration services cover the following: Administering admissions into the country; deciding the residency status of foreigners and issuing permits thereof; Custodianship of refugee affairs; Inspectorate and Policy directives (DHA, 2014, pp. 55-24).

Furthermore, the Electronic Document Management System (EDMS) was introduced to manage the huge volume of papers. It would digitalize all paperwork and transform the DHA into a completely paperless and electronic environment. It was of particular significance to the entire systems modernization program and would improve communications and overall performance. Infrastructure upgrades were also envisaged to look after the needs of DHA offices in rural areas. The infrastructure upgrade includes IT modernisation and improvement of the construction and design of DHA building's power supply and data lines. There would also be upgrades to the contact Centre/ customer services in recognition of the need to improve so that users could access information requested by clients from the system directly without having to refer customers to their offices (DHA, 2012). This contact Centre upgrade could only be achieved when all the systems were integrated.

Despite the above, Mpinganjira (2013) found a low level of understanding from officials as a critical

challenge in the use ICTs in most government departments in South Africa. Department of Home Affairs is one of the departments that introduced e-government as early as 2001. As the custodian, protector, and verifier of the identity and status of citizens, as well as controlling, regulating, and facilitating immigration and management of persons through ports of entry, a modernization programmer is being rolled out to ensure that the DHA utilizes technology appropriately through digitized automated processes and effective management of information (DHA, 2014, p. 36).

Therefore, based on the above, this paper assumes that the DHA is not an exception to the challenge cited above this paper identifies and analyse challenges affecting the uptake of e-government in the selected centres of DHA in Limpopo Province. The intention is to proffer workable solutions including theoretical frameworks, so the department draws effective ways to enhance the e-government system.

2. Theoretical Approach

2.1 Incorporating E-Government into the DHA:

The core concept that forms the foundation of the user acceptance model of the research adapted that the official's predisposition to use e-government applications the DHA will have an impact on the actual usage of the e-government services, and this would have an impact on the intentions to utilize the technology. Drawing well-informed e-Government strategies is the first step in the right direction for successful e-Government implementation.

Though they have limitations, the Technology Acceptance Model (TAM), Theory of Reasoned Action (TRA), and Diffusion of Innovation Theory (DIT) have been used in assessing the adoption of e-government projects and they will be used in this study to assess the Department of Home Affairs online services. The following sub-sections discuss three different technology adoption models that have been identified or utilised in different studies worldwide.

2.1.1 Technology Acceptance Model (TAM)

Introduced by Davis (1989), the TAM adapts the social psychology theory or reasoned action which aims to model user acceptance of information technologies. The major constructs considered by the TAM are the "Perceived ease of Use" (PEOU) and the "Perceived Usefulness" (PU). PU is the extent to which a person considers and believes that the use of an information system will enhance task performance, while PEOU is the degree to which a person believes a system will be free of effort to a large or lesser extent (Venkatesh, Moris, & Davis, 2003, p. 438).

According to the model, behavioural intention to adopt information and communication technologies can better be understood by analysing two crucial factors namely perceived usefulness and perceived ease of use. Perceived usefulness relates to benefits that one can expect to derive from the use of information and communication technologies. The model proposes that users of technology, including prospective users, consider the benefits of using modern technology in comparison to their current ways of performing given tasks for which the new technology has been developed.

The TAM model outlines the importance of perceived usefulness and perceived ease of use mainly

because of the role they play in influencing people's attitudes toward added information and communication technologies. Attitude is thus a central construct in the model linking perceived usefulness as well as perceived ease of use with behavioural intentions as well as actual behaviour. Davis et al. (1989, p. 989) postulate that the word "attitudes" refers to "the general and relatively enduring evaluations people have on different kind of objects including products and ideas". This model will enable the researcher to determine the relationship between perceived ease, perceived usefulness, and official attitude toward the use of e-government services. The TAM has a direct relationship with the acceptance or non-acceptance of e-government and therefore use in evaluating e-government implantations by DHA officials and intended users.

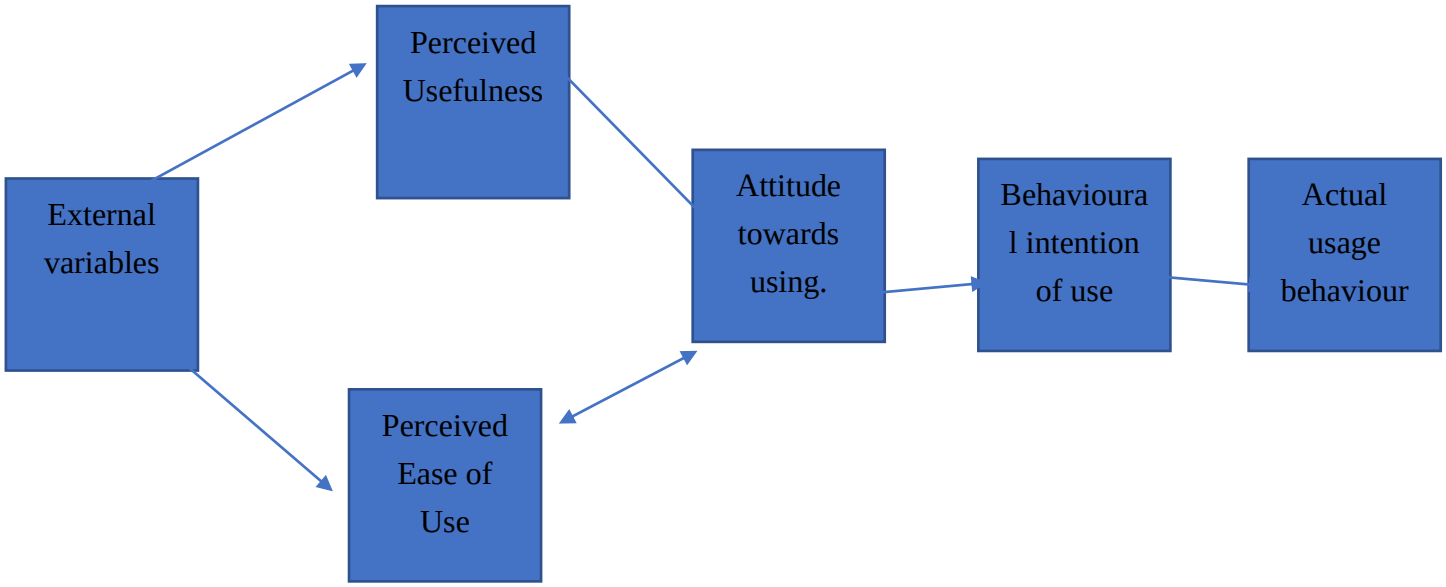

Figure 1. Technology Acceptance Model (TAM)

Source: ChangLi, Hung, and Hwang (2005, p. 393)

Figure 1 shows Perceived usefulness and perceived ease of use mainly because of the role they play in persuading individuals' attitudes toward added information and communication technologies. Attitude is thus a central construct in the model linking perceived usefulness as well as actual behavioural intentions. Al-Shafi and Weerakkody (211, p. 30) found no significant relationship between perceived ease of use and attitude towards the adoption of e-services.

2.1.2 Theory of Reasoned Action (TRA)

Developed by Martin Fishbein and Icek Ajzen in 1975, the Theory of Reasoned Action (TRA) is aimed at organising and integrating research concentrating on the attitude of individuals into a systematic theoretical orientation. The emphasis of TRA is to probe the attitudes, beliefs, intentions, behaviour, and subjective norms thereby unearthing the different distinctions and relations amongst these variables. Combined, these concepts culminate into a model that predicts the overall behavioural intention and the actual behaviour towards an innovation or technology that has been just introduced. For this study,

TRA will assist the researcher to determine whether the attitude of officials is positive or negatively neutral towards the utilisation of e-government in an attempt to improve work performance. Contrariwise, a negative attitude is likely to emanate from a belief that technology has no impact on, or retards, their ability to do their job. According to Southey (2011, p. 45), literature is replete with research in which the theory of reasoned action and the theory of planned behaviour have been used to empirically evaluate the decision-making behaviour of individuals.

Figure 2 displays that the actual individual's behaviour (such as the acceptance or refusal of technology) is dependent on one's intention to perform the behaviour. Further, this intention is concurrently influenced both by the individual's attitude and subjective norm. The subjective norm points to the fact that the way a person behaves is to a lesser or' greater extent influenced or susceptible to what other people expect of one's behavioural pattern (Fishbein & Ajzen, 1975).

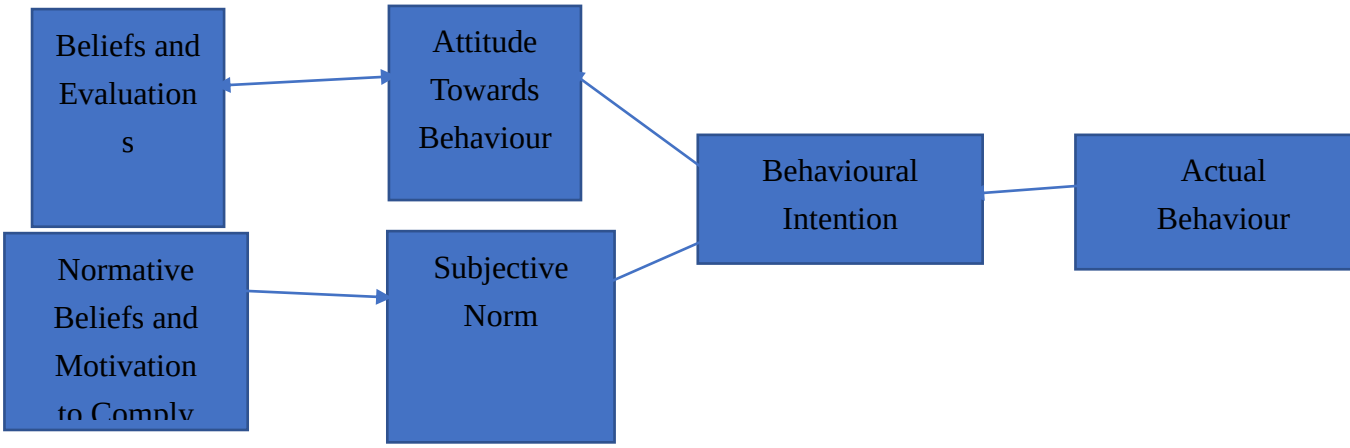

Figure 2. Theory of Reasoned Action (TRA)

Source: Adapted from Fishbein and Ajzen (1975).

Figure 2 above shows how behaviour is a culmination of behavioural intention to act in a particular manner. It must be noted that, according to Ajzen and Fishbein (1975), behavioural intention is a consequence of two factors: a personal or attitudinal factor and a social or normative factor. In turn, the attitude towards certain behaviour is seen as a function of beliefs of perceived consequences of performing the behaviour as well as the person's evaluation of these consequences (Vallerand, Cuerrier, & Mongeau, 1992, p. 98).

In essence, the TAM and TRA are foundational models on technology adoption models which influence the emergence of other models. One of the prominent models based on the understanding of the TAM and TRA is the diffusion of information theory (DIT) developed by Rogers in 1962. The following section discourses the DIT and its major applications.

2.1.3 The Diffusion of information Theory (DIT)

The Innovation Diffusion Theory (IDT) originates from Rogers (1962) and aims to explain how innovations diffuse or get adopted by the broader society and at what rate innovative ideas and technology are spread through the social system over time. Rogers (1983) contends a generic adoption model which consists of five distinct categories of adopters, namely:

(i) The adopters.

(ii) Innovators.

(iii) Early adopters.

(iv) Early majority

(v) Laggards.

It is important to note that individuals do not accept and adopt innovations at the same time some may be fast to adopt, while others take time to be persuaded to accept new initiatives depending on their views on the innovations. E-government services are still in the early adoption stage in the Department of Home Affairs. As per the diffusion of innovations classification, both officials and the intended users who have already started to use e-government services can be classified as early adopters. Despite the IDT is one of the first major adoption models and having enjoyed wider usage as a reference point in many studies, it has still attracted critical views on its effectiveness (Lytinen & Damsgaard, 2001, p. 2). Rogers (1962) argue that the adoption of innovation by potential adopters is influenced by the following factors:

•Relative advantage – the degree to which the innovation is perceived as being better than the idea, programme or practice it is replacing.

•Compatibility – how compatible /consistent the innovation is with the values, norms, and needs of the expected adopters.

•Complexity –how difficult the innovation is to understand and implement. Noncomplex innovations are more widely accepted than complex ones.

•Tri ability – how possible the innovation is to be tested before full commitment to its adoption.

•Observability- what is the extent to which the innovation can provide tangible results?

Considering the above, Rogers believes that any organisation/ agency that is aimed at starting any innovation needs to follow the above-mentioned steps/processes if the innovations are to be successful.

2.2 The Digital Divide in South Africa: Quo Vadis

According to Martindale (2002), South Africa has one of the greatest divides between rich and poor in the world and this is most evident in the area of technology. The IT world unwittingly has raced on, leaving many behind (Martindale, 2002). Socio-economic circumstances, imbalanced education policies under the apartheid regime, as well as language barriers, are some of the factors recognised in this exclusion. Martindale (2002) reiterates that the gap between those empowered by technology and those who have been excluded must not widen and that the only thing that needs to be broadened is the thinking of those who believe technology is for the privileged few.

Msimang (2004, pp. 40-43) asserts that the biggest challenge for the government is to bridge the gap between the two economies in South Africa with the government and the corporate sector contributing considerably to making the government and government services accessible to all the citizens. This would reduce the growing gap between those sectors of society that have and those that do not have. The author further itemised that the massive differences in the living conditions of South Africans continue to be an alarming reminder of the extent of the problems of inequitable allocation of resources that still prevail.

Gudmundsdóttir (2005), cited in Jantjies (2010, p. 42), more emphasis should be placed on the skills and opportunities required to utilise technology because giving people access to the internet does not necessarily guarantee the ability to use or make use of the technology to bridge the digital divide. Gudmundsdóttir (2005) opposes the belief held by certain apprentices that the digital divide is decreasing due to the greater access to computers and the internet, as well as cheaper software and hardware. Influencing factors such as language and other social, cultural, and historical factors must first be addressed to a greater extent.

Both officials and intended users at all levels need to be aware of how e-services can empower them to help themselves and enhance service delivery in mainstream of government departments. To conquer the digital divide, government, the private sector, and civil society must work together. No one section of society can be singled out for attention lest others fall further behind as a result of this (World Economic Forum, 2002, p. 6).

The Department of Home Affairs at a national level, has adopted the electronic government approach to give effect to the government's objective of effective and efficient service delivery to the citizens of South Africa and people who visit South Africa. In this regard, the Limpopo DHA has played a leading role in the implementation and development of e-Government. The subsequent section presents an overview of the Department of Home Affairs and its adoption of e-government.

2.3 ICT Adoption and E-Government Implementation at the Department of Home Affairs

The Home Affairs Department has adopted the use of ICTs to enhance government services to the citizens. It is critical to highlight a brief background of the structure of the department and how it has adopted e-government in an attempt to improve the delivery of services to understand the implementation of ICTs at the regional levels, in particular the three selected regions in this study.

The Department of Home Affairs (herein referred to as DHA), a national service delivery department in democratic South Africa, has adopted the use of ICTs to better serve the citizens to meet their needs. Implementation of the ICTs via electronic government is done to achieve a higher service level of delivery (DHA, 2004). The application of e-government allows citizens to interact with the government seven days a week and 24 hours a day through different means of communication, it enables such as Internet email. For example, using the ICTs, tools such as computers, and the internet, provide the department with another alternate method to manage the document in electronic format. This format is faster to be sorted, found, and communicated than the traditional paper-based document. And also, the

department can provide effective application processes to improve productivity and enquiry such as its customers would get the application form or related information from the website of DHA anytime and anywhere.

Firstly, the DHA is the custodian, protector, and verifier of the identity and status of citizens and other persons in South Africa. This makes it possible for people to realize their rights and access benefits and opportunities in both the public and private domains. The department plays a key enabler in deepening democracy and social justice (DHA, 2002, p. 3).

Secondly, the DHA controls regulates, and facilitates immigration and the movement of persons through ports of entry. It also provides civics and immigration services at foreign missions; and determines the status of asylum seekers and refugees by international obligations. The department thus makes a significant contribution to ensuring national security, enabling economic development, and promoting good international relations (DHA, 2002, p. 8).

The Vision of the Department is to create a safe, secure South Africa where all of its people are proud of, and value, their identity and citizenship. Its Mission is captured as "the efficient determination and safeguarding of the identity and status of citizens and the regulation of migration to ensure security, promote development and fulfill our international obligation" (DHA, 2002, p. 7). The DHA offers a multitude of services to the citizens of South Africa, as well as foreigners, who wish to visit, work, or stay in South Africa. Table 1 below illustrates the Department's core functions.

Table 1. Department of Home Affairs Core Functions

Civic services	Immigration services
	•Administering admissions into the country
•Maintaining the National Population Register (NPR)	•Determining the residency status of foreigners and issuing permits thereof
•Managing the birth, marriage, and death records	•Custodianship of refugee affairs
•Determining and granting citizenship	•Inspectorate
•Issuing travel documents and passports	•Policy directives
•Issuing identity documents (ID	

Source: DHA, 2021.

The adoption of e-government remains an excellent way to help DHA to deliver effective services from the government to citizens. ICTs in the Department tend to improve the efficiency, quality, and cost of services, ensure that government services are delivered to all levels of society at the most convenient time and locations, create transparency of services, and provide feedback channels for both officials and intended users, (Barnard & Patel, 2003).

In addition, the Department of Home Affairs has pure goals and objectives for e-government and should comply with Batho Pele (People First), service delivery principles, and regulations to put people first and provide effective services. E-government's values are based on enabling easy access to government services by citizens, enhancing work productivity, and lowering cost efficient service delivery:

- Easy access to public services: The must be laid back for citizens to access government services through e-government implementation. E-services make it easier for citizens and non-citizens to access public services.
- Enhance work productivity: E-government must make it easier for government officials to interact with citizens through electronic channels to increase efficiency and effectiveness in public services, for example enquiring with citizens 24/7 through emails, fax, Twitter, Facebook, etc.
- Lower cost for service delivery: E-government services must lead to cost efficiencies. For example, e-government must decrease costs in the DHA.

3. Methodological Orientation

In the execution of the research study, particularly in compiling the paper, the researcher has to select particular approaches (Brynard & Henekom, 2006, p. 36). This study was carried out at the Department of Home Affairs, and the research design used was a qualitative case-study design that sought to gain a deeper understanding of acceptance of e-Government services by the Limpopo Department of Home Affairs officials in the selected service centres. Qualitative case studies can be used successfully in the description of groups (small) communities and organisations (Welman, Kruger, & Mitchell, 2005; De Vos, Strydom, Fouché, & Delport, 2011). The three chosen centres were Capricorn, Waterberg, and Sekhukhune. The Capricorn centre was chosen as representative of a semi-urban area, and because it predominantly services clients that may bring forth the cosmopolitan dynamic of the inner city, since most of them reside around the capital city, Polokwane. The other two (Sekhukhune and Waterberg) centres are rural-based centres, and they were included in the study to help understand the state of e-government and the crises faced in rural centres of DHA.

Sample methods utilised in this paper are purposeful sampling. A qualitative approach was opted for because the researcher was a key instrument (Creswell, 2009, p. 175); and in playing an important role in examining official documents and interviewing participants using semi-structured interviews. A total of nine officials (three from each centre) who were comprised of both management centre and frontline officials were selected by the researcher. All these participants were subjected to semi-structured face-to- face interviews, which allowed the researcher to ask both primary and probing questions, but most importantly, the collected data was analysed and triangulated against findings from the reviewed literature to balance the validity of the empirical findings. Therefore, the research methodology used is deemed appropriate to determine the uptake of e-government services by the Limpopo DHA.

4. Results

Given the nature of the application of e-government in the DHA at the centres where there is resistance towards technology, it is recommendable that the department undertakes an awareness campaign regarding online applications and communications with the department. The awareness campaign must particularly focus on the people who are deeply entrenched by socio-economic and cultural factors such as education. It is through awareness that in such areas the critical targets of e-government could be met. According to Heeks (2001), these are:

- Improved government processes (e-administration)
- Connecting citizens (e-citizen and e-services)
- Building external interactions (e-society)

The department should consult communities and users whenever new ICT programmes are introduced. This will maximise knowledge and awareness as well as increased participation in the ICT programmes. One of the disturbing trends is the assumption that communities will participate in the programmes without full knowledge of the utilisation of the applications no matter the simplicity.

4.1 Improved Access

Access to online services is one important factor in measuring whether e-government regarding government to citizens (G2C) is maximised. It is recommended that the department must introduce a free internet connection through Wi-Fi to ensure maximised access to online amenities. Most rural dwellers in which many of the DHA centres are based still do not have access to technology due to the affordability of data. Online applications or access to the department's website is not for free. This leaves recipients with no option other than visiting the centres.

4.2 Capacitation of Employees on the Use of ICTs

One of the disturbing challenges that were noted during interviews with street-level officials in the centres was a lack of knowledge, skills, and training on the ICT projects. the study recommends that the department must put in place cost-effective measures in a way of increasing the capacity and skills of the employees in the centres.

4.3 ICT infrastructure Investment

It is recommended that the DHA put more resources into the development of ICT infrastructure in the form of investment. It is a known fact that communities in South Africa are still drowned in inequalities, particularly on the digital divide in Limpopo province. A maximised investment in ICT will ensure that there is sufficient access to the technological impetus necessary for e-government in the department. This will also facilitate economic development in the society.

4.4 Improve Language Policy

South Africa has eleven (11) official languages that are currently spoken in societies. It was found that the department's website uses English only as a medium of communication with internal and external communities. This has become a barrier to participation in ICTs among community members. It is recommended that the department amend the policy to cater different languages of its recipients.

Interviews with help desk officials in the centers shows that one of the barriers to the use of ICT programmes was language issue which could not be resolved by operations or ICT officials because it requires policy change. This would be important for maximised community participation in the use of ICTs and e-government projects.

5. Discussion

This paper sought to investigate the uptake of e-government services in the Limpopo Department of Home Affairs at the selected service centres. To this end, it can be argued that the adoption and implementation of e-government in the Department of Home Affairs has been met with good intentions, particularly for the preparation of citizens for the world of technology and knowledge of the technological developments in the 21st century and ultimately the fourth industrial revolution. In the process, the government of South Africa through service delivery agents like the DHA intends to improve access and increased communication, transparency, and accountability through e-government. The DHA must consider vast infrastructure investment and education in the implementation of ICT programmes as critical facilitators of e-government. Averting challenges faced in the process would mean that the department must heed outcomes from empirical research studies such as this one for positive options and recommendations to improve and predict prospects and hindrances.

References

Chang, I-C, Li, Y-C., Hung, W-F., & Hwang, H-G. (2005). An empirical study on the impact of quality antecedents on taxpayers' acceptance of Internet tax-filing systems. *Government Information Quarterly*, *22*, 389-410. https://doi.org/10.1016/j.giq.2005.05.002

Davis, F. D. (1989). Perceived usefulness, Ease of use, and User Acceptance of Information Technology. *MIS Quarterly*, *13*(3), 319-339. https://doi.org/10.2307/249008

De Vos, D. A. (2001). *Research Design in Social Research*. London: Sage.

DHA (Department of Home Affairs). (2004). Home. Retrieved from http://www.dha.gov.za/home

DHA (Department of Home Affairs). (2021). Home. Retrieved from http://www.dha.gov.za/home

DPSA (Department of Public Service and Administration). (2006). *Policy on free and open-source software use for the South African government*. Retrieved from http://www.dpsa.gov.za/documents/egov/FOSS_OC_Implementation%20Strategy

Farelo, M., & Morris, C. (2006). The Status of e-Government in South Africa. *Journal of Service Delivery Review (SDR)*, *6*(1), 76-81.

Farlex. (2012). *The free dictionary*. Retrieved from http://www.thefreedictionary.com

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behaviour: An introduction to theory and research*. Reading, USA: Addison-Wesley.

Gudmundsdóttir, G. B. (2005). *Approaching the digital divide in South Africa*. Paper presented at the NETREED. Conference at Beitostolen, Norway, 5 - 7 December 2005.

Heeks, R. (2008). *Evaluation*. The impact of eGovernment failure [Online]. Available:

Khalo, T., & Hu, S. (2010). An analysis of e-government in the Department of Home Affairs of South Africa. *Journal of US-China Public Administration, 7*(9), 39-52.

Leggris, P, Ingham, J., & Collerate, P. (2003). Why do people use information technology? Critical review of the technology acceptance model. *Information and management, 40*(3), 191-204. https://doi.org/10.1016/S0378-7206(01)00143-4

Maserumule, M. H. (2004). E- Government, e-Governance, and e-Democracy: a conceptual perspective. *Service Delivery Review*, 3(2), 76-78.

Mpinganjira, M. (2012). Diffusion of e-government: A citizen's perspective. *Journal of Public Administration, 47*(2), 500-517.

Mukonza, R. M. (2015). *An empirical analysis of e-government in governmental relations and service delivery: A case study of selected Local Government Authorities in Zimbabwe*. D-Tech, et Phil. Thesis. Pretoria: Tshwane University of technology.

Mukonza, R. M., Maserumule, M. H., & Moeti, K. B. (2015). *The adoption of information technology by the residents of the city council in Zimbabwe: perspectives and challenges, I*(1), 185-196.

Nokele, S. K. (2020). *Factors affecting adoption of e-government by Department of Home Affairs in Limpopo Province* (Unpublished master's Dissertation). Pretoria: Tshwane University of Technology.

Nokele, S. K. (2022). Context and Realities of Policy implement in South Africa: Quo Vadis. *American journal of multidisciplinary Research and innovation, 1*(6), 76-81. https://doi.org/10.54536/ajmri.v1i6.898

Nokele, S. K., & Mukonza, R. M. (2021). The Adoption of E-Government in the Department of Home Affairs – Unpacking the Underlying Factors Affecting Adoption of E-Government within the Selected Service Centres in Limpopo Province, South Africa. *African Journal of Governance and Development, 9*(1).

Nokele, S. K., & Shopola, M. A. (2021). Procurement Dynamics and Threats in South African local government. *European journal of Economics, Law and social Sciences*, 221-231.

Rogers, E. (1962). *Diffusion of innovations*. New York, USA: The Free Press.

RSA (Republic of South Africa). (2000). *The Promotion of Access to Information Act*.

RSA (Republic of South Africa). (2000). *The Promotion of Access to Information Act (PAIA), Act 2 of 2000*. Pretoria: Government Printer [Laws].

Welman, C., Kruger, F., & Mitchell, B. (2005). *Research methodology*. Cape Town: Oxford University Press Southern Africa Pty Ltd.

Wescott, C. G. (2010). *Uneven Progress in Meeting E-Government Challenges in Asia-Pacific*. https://doi.org/10.2139/ssrn.1570134

World Bank. (2003). *World Development Indicators*. Retrieved from http://www.worldbank.org/data/wdi2003/

World Economic Forum (WEF). (2002). *Southern African Development Community -World Economic Forum consultation report on e-Readiness - Better, faster, cheaper: Developing and leveraging world class ICT networks for social and economic advancement [Online]*. Retrieved from http://www.weforum.org