

From traditional channels of service delivery to e-government: Lessons for Zimbabwe

Alouis Chilunjika; chilunjika@gmail.com; University of Johannesburg, School of Public Management, Governance and Public Policy, Johannesburg, South Africa.

Abstract: Information and communication technology (ICT) is perceived as a powerful tool for improving the quality and efficiency of government services. The Zimbabwean government has also recognized the importance of the digital revolution for service delivery and has already taken significant steps towards capitalising on the potential benefits that technology brings. However, progress for Zimbabwe has been slow. This study being qualitative in its approach explores the conceptualisation of e-government and the service delivery models by drawing experiences and best practices from other countries. The study relied on the extensive review of purposively selected written documents which are then analysed using thematic and content analysis techniques. Evidence from the selected countries reveals that government commitment towards e-government initiatives is a prerequisite for sustainable service delivery. The study highlighted that Zimbabwe can draw lessons in areas of political will and good leadership, resource commitment, data privacy and security, interoperability, accessibility among others.

Keywords: E-government, ICT, service delivery, traditional channels, Zimbabwe.

✉ chilunjika@gmail.com.

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INTRODUCTION

Information and communication technology (ICT) is perceived as a powerful tool for improving the quality and efficiency of government services. E-government is believed to reduce citizens' queuing, improve services and is a tool for wealth creation (Zakareyo, Zair and Al Sarmad, 2004). The government of Zimbabwe has also recognized the importance of the digital revolution for service delivery and has already taken significant steps towards capitalizing on the potential benefits that technology brings.

However, the execution of ICT based projects in government is being done gradually, hence government ministries and departments are at various phases of implementing and adopting ICT. Zimbabwe needs to draw lessons from its forerunners who have made significant strides in electronic service delivery in order to come up with a sustainable e-government programme.

The major objective of this study is to share successful experiences from other countries and articulate the pre-conditions and the enabling Information and Communication Technology (ICT) environment which can enhance Zimbabwe's efforts towards sustained electronic service delivery to achieve its goal of becoming an upper middle class economy by 2030.

LITERATURE REVIEW

Definition of e-government

A survey of the literature reveals that e-government is one of those ideas that has varied meanings for different groups and individuals. According to Jaeger (2003), e-government is defined by the activity's objective (that is, the transfer of government information and services among governments, their customers, and suppliers), rather than the specific technology used, service/information providers, or clear-cut activities of the related actors.

According to Chilunjika and Chilunjika (2024) citing Uwizeyimana

(2015) e-government is defined as a method of increasing information flow to citizens and improving citizen access to government initiatives and services. Most researchers however, define e-government with respect to ICT. For example, the United Nations (UN) (2002) describes it as "using the Internet and the World Wide Web to deliver government information and services to citizens". This definition may be considered limited in scope given Jaeger's (2003) observation that e-government may also include using other information and communication technologies (ICTs) in addition to the Internet and World Wide Web, such as "database, networking, discussion support, multi-media, automatic tracking and tracing, and personal identification technologies."

According to Curtin, Sommer, and Vis-Sommer (2003), e-government refers to the use of ICT in any form by governments and their representatives to improve public information and service delivery, citizen engagement, public involvement, and the governing process itself. E-government can also be defined as the application of information and communication technology to allow businesses and citizens to communicate and transact with the government through a variety of electronic media, including smart cards, fax machines, touchpad phones, e-mail, and the Internet (Sharma, 2015).

This view is more comprehensive than Gibbons' and the UN's as demonstrated below in the analysis based on Hu, Pan, Lu and Wang's (2009) findings in their study of scholarly work on the meaning of e-government. Hu *et al.*, (2009) identified six elements which make up the widely shared definition of e-government by scholars:

1. the major initiative of managing and delivering information and public service (equivalent to Curtin et al., (2003)'s use of ICT);
2. adopted by all levels of government (including agencies, sectors) (equivalent to Curtin et

- al., (2003)'s governments and their agents);
3. on behalf of citizens, business (equivalent to Curtin et al., (2003)'s citizen/public);
 4. involving using multiple internet avenues, websites, system integration, and interoperability (equivalent to Curtin et al., (2003)'s use of and all forms of ICT);
 5. to improve services (information, communication, policy making), equality, and security (equivalent to Curtin et al., (2003)'s concept of improving operations, the delivery of public information and services, citizen engagement and public participation, and the very process of governance)
 6. as a new key (equivalent to Curtin et al.,'s (2003) main, important) strategy or approach.

The use of ICT by governments and their agencies to improve operations, public information and service delivery, citizen engagement, and public participation is referred to as e-government for the purposes of this study.

E-government delivery models

The six categories that Hiller and Belanger (2001) identified for e-government are: Government to Business as a Citizen (G2BC), Government to Business in the Market Place (G2BMKT), Government to Employees (G2E), Government to Government (G2G), and Government Delivering Services to Individuals (G2IS) (Carter and Belanger, 2005).

According to Carter and Belanger (2005), G2IS refers to the services and communication that take place between the government and the people, whereas G2IP deals with the interaction that the government has with the people as part of the democratic process, like online voting. Analogously, G2BMKT concentrates on business-to-business interactions, like procurement, whereas

G2BC deals with organisations paying taxes or filing reports.

Government to people (G2C), government to business (G2B), government to employees (G2E), and government to government (G2G) are the four forms of e-government delivery (Munyoka, 2017).

Data or information systems shared electronically between government agencies and other entities is known as the "G2G" form of e-government. As stated by Mawela, Ochara, and Twinomurinzi (2017) and Munyoka (2017), the main goal of G2G is to facilitate e-government activities by enhancing communication and facilitating the flow of data. G2G e-government operates at two levels: local or national government and international, regional, and local government agencies, as well as other foreign government agencies.

Moving forward, the online non-commercial exchange of information between the commercial business sectors and the federal and local government constitutes the G2B form of e-government. G2B transactions, as defined by Mimbi and Lehong (2017), comprise the interchange of a range of services between the public and private sectors of society, such as the distribution of memos, policies, rules, and laws. The business services provided include paying taxes, registering businesses, getting permits, and obtaining up-to-date licences. The government can purchase goods and services through online government supplier exchanges and e-procurement through G2B e-government services.

In a similar vein, the G2C is the conduit for information between the public and private sectors. It determines how the people and the government will interact (Mimbi and Lehong, 2017; Munyoka, 2017). In order to encourage citizen feedback regarding accountability, democracy, and public services, G2C enables government entities to listen and engage with citizens

on a continuous basis. G2C offers a wide variety of interactions through service delivery.

Mawela et al. (2017) state that G2C encompasses the public's access to information, the provision of basic services to citizens (like obtaining birth, death, or marriage certificates, filing income taxes, and renewing licences), and citizen support for these basic services (like libraries, health care, education, and healthcare). Through a variety of channels, G2C also makes it easier for residents to obtain information and services from the government.

Lastly, the G2E model as noted by Munyoka (2017) focuses on the interactions between government employees in order to improve internal business process efficiency and coordinate internal operations. The term "G2E" relates to budgeting, accounting, and human resource management as well as tactical and strategic methods for promoting the execution of government objectives and initiatives.

The purpose of the government-to-employee solution is to empower staff members to speed up administrative procedures, improve governmental solutions, and assist people in the quickest and most appropriate manner feasible. Civil servants will be able to efficiently communicate with other departments, rely on the most up-to-date information, make the most use of the resources available to them, and hire the best assistance.

For the purposes of this study, the e-government delivery models that will be employed are government-to-consumer (G2C), government-to-business (G2B), government-to-government (G2G), and government-to-employees.

The history of ICT initiatives in Zimbabwe

In general, Zimbabwe has been using ICTs since 1972, when the Central Computing Services (CCS) was established to provide ICT services to the public sector (Chilunjika, 2023;

Chilunjika and Chilunjika, 2021; Government of Zimbabwe, 2018; Chilunjika, 2016). Another notable endeavour occurred in 2005, when the government implemented the Integrated Results-Based Management (IRBM) system, which includes e-government.

This development was followed by the establishment of the Ministry of Information and Communication Technology, Postal and Courier Services (under the Inclusive Government), which is responsible for encouraging the use of ICTs to promote national efficiency, effectiveness, and performance. An All Stakeholder Consultative Workshop was held in August 2010, to discuss e-government ideas. They created a blueprint called Zimconnect: E-Government Framework and Implementation Strategy (2011-2015). This blueprint outlined the e-government implementation roadmap, strategies, key performance indicators (KPIs), and the direction and focus of projects from 2011 to 2015.

An E-government Policy and Technical Advisory Committee to the Office of the President and Cabinet has been established to supervise e-government implementation (Government of Zimbabwe, 2018). This committee is responsible for managing top-level national internet domains, e-government legal, regulatory, and administrative frameworks, cyber security challenges, and other related matters. The administration continues to make efforts towards e-government. The Second Republic, led by President Emmerson Dambudzo Mnangagwa, developed the Vision 2030 blueprint in 2018, with one of its focuses being information, communication, and infrastructure development (Chilunjika, Chilunjika and Uwizeyimana, 2023; Chilunjika, 2023).

E-government experiences from selected countries

This section discusses the different e-government systems, processes, practices and initiatives in

Singapore, Canada, the United Kingdom (UK), Mauritius and South Africa.

E-government initiatives in Singapore

Singapore was chosen as an example for this study because it was one of the first countries in the world to establish an integrated and cohesive approach to digitalizing its government (Weiling and Kwok, 2004). In 2023 the country was ranked among the top seven countries leading in e-government (Economic Forum for Sustainable Development, 2024). Singapore has also been cited as one of the e-government leaders in Asia (Economic Forum for Sustainable Development, 2024).

The country is at the interactive stage in service provision. Singapore's official internet presence is a best practice, especially given the enormous number of transactions residents may conduct online. As of January 2024, the country had 5.84 million internet users (Petrosyan, 2024). Singapore's high internet penetration has created numerous opportunities for both the government and individuals to develop and use e-government.

The country's multi-faceted online presence stems from commitment and continuing progress across all areas of the economy. To begin with, the government has established multiple national information and communication strategies since 1980 in order to facilitate the creation and execution of e-government initiatives. According to Ha (2013) establishing robust e-government systems requires suitable supporting plans and strategies, which serve as foundations upon which robust e-government systems are built. The presence of these plans at the national level has supported the integration and adoption of ICTs in other facets of society resulting in the ubiquitous use of e-government services.

What matters most is that every plan has been developed gradually from the successes of the one before it, which is a lesson that every nation hoping to

successfully adopt e-government should take to heart.

The government has made large financial investments in e-government development throughout the years to guarantee that the programme objectives of its e-government programmes are realised. For instance, a study by Weiling and Kwok (2004) brought to light that between 2000 and 2003 the government of Singapore invested about 930 million USD towards its e-government projects. This shows strong political will from the government to transform its e-government vision into reality over the years.

Moreover, the presence of strong leadership with a vision has resulted in successful e-government implementation in Singapore. According to Weiling and Kwok (2004), the Singaporean government's well-articulated vision has changed people's perspectives and made it possible for government organisations to comprehend the nation's transition to digital administration. Effective leadership has also made it possible for public organisations to comprehend the advancement of digital government and to recognise the advantages of e-government.

Due to the previously mentioned considerations, Singapore has created and maintained top-notch, educational, and current websites that are intended to make information easily available. The nation's many excellent portals demonstrate its creative e-government strategy (GovTech Singapore, 2018; Ha, 2013). Singapore provides several interesting portals such as <http://.cutredtape.gov.sg> for improving government efficiency by cutting waste.

Another instance is the TradeNet portal for Customs (http://www.tradenet.gov.sg), an electronic documentation system that provides near-instantaneous permit application approval (Singapore Customs, 2016). Furthermore, Singapore offers a very extensive business portal

(<http://www.Business.gov.sg>) that connects companies with the state. Some of the world's best public sector sites are located in Singapore as well. The Ministry of Finance (<http://www.mof.gov.sg>) is arguably the best of them (GovTech Singapore, 2017).

The website has been credited for its usability, interactivity, transparency, and accessibility, which are among the top aspects of evaluating government websites (Sriramesh and Rivera-Sanchez, 2006). Visitors can access comprehensive information on policies, news and publications, budgets, and a reliable feedback channel from the website.

The interoperability of Singapore's system is possibly the most notable aspect of its whole online presence, considering the abundance of remarkable offers. Easy access to every facet of its e-government presence is offered by the national website, <http://www.govv.sg>. An equally noteworthy feature is the idea that all Singapore government websites have an integrated backlink to the national site. This reinforces the idea that integrated portals and one-stop shops are the way forward for e-government and establishes Singapore as a best practice (Singapore Government, 2017).

One of the best-organized websites currently in use is the national government website, which offers a wide range of engaging citizen-centric e-government services features and an efficient starting point for users to find virtually anything, from an online government mall to an online donations portal (Chan, Lau, and Pan, 2008). The two most prominent portals are e-Citizen and e-Consultation.

One of Singapore's success stories is the E-citizen portal (<http://www.gov.sg>). According to GovTech Singapore (2017), it is an online gateway designed to give Singaporeans a centralised, unified way to access government services. Users can do a variety of online transactions with

government agencies using the portal, including searching and accessing a wide range of information from such institutions. Most notably, it allows for personalisation via the My.Citizen initiative (<http://my.ecitizen.gov.sg>), which lets the user sign up to get SMS and email alerts for events like notices from the parliament, reminders for library books, and notifications when their passport expires.

Moreover, eCitizen and the homepage of the national site serve as a gateway to the eNETS payment site (<https://www.nets.com.sg/nets/for-you/enets>), where one can make payments to any government department (Chan et al., 2008). SingPass, a standard password that the public uses to access government e-services, was also introduced by the Singaporean government in 2003. To take use of citizen-centric government services, foreign nationals and citizens working in Singapore just need to know their one special ID and password—SingPass (Woo, 2018). A wide range of online payment options are also offered by Singapore's citizen site. Taxes, fees, penalties and licence payments are among the many payment options that can be done via phone, credit card, direct debit, internet banking and even direct debit.

The REACH portal has been designated by the Singaporean government as the primary online platform for e-engagement on public policies and problems with regard to citizen participation in e-government. According to GovTech Singapore (2017), Singapore was in the top 10 for e-participation in 2016. Ministries and organisations utilise REACH to publicise and solicit feedback on events like yearly budgets and May Day and National Day rallies, in an effort to promote online engagement with residents. Information on budget-related matters and specifics about the consultation process are available on a separate micro-site.

On the discussion thread on the microsite, the public offers their opinions and suggestions. According to Woo (2018), the government is able to assess public sentiment quite effectively thanks to online discussion forums. Many Internet-related projects with government approval have been developed to accommodate the diversity of cultures. The UN (2004) states that Internet portals that encourage the use of native languages in cyberspace have been developed by the Chinese, Tamil, and Malay communities.

According to Singapore Government (2018), a considerable number of citizens make use of the multilingual features by posting and starting translations. Singapore is also one of the few countries that is highly ranked in multi-channel service delivery due to the fact that they provide e-government services via a variety of platforms, including WI-FI, public kiosks, and mobile apps.

It can be concluded that Singapore is highly committed to e-government and has made remarkable progress. This is evidenced by the integrated portals that are user friendly, the variety of services offered which includes e-consultation and feedback to citizens. Moreover, the multi-service delivery channels cater for a wide spectrum of citizens and the e-government services are all inclusive through the multi-lingual features.

Citizen-centric e-government in Canada

Similar to Singapore, Canada was chosen for this research because its e-government has advanced to the interactive level. Like e-government in other nations, Canadian e-government has a notable history of fostering citizen-centric policies and attitudes (Paquet, 2014). Five main goals are at the core of e-government in Canada: lowering costs, enhancing government and service retrieval, increasing information and service accessibility, providing services

in a way that users want, and ensuring security.

As of right now, Canada's robust online presence has persisted thanks to uniformity across platforms and sites in terms of the amount of services and information offered as well as design and standardised navigation. All of its online presence, including the majority of ministries, related subsections, and portals, reflects these qualities, as does the organization's main website (<http://canada.go.ca>). Since all Canadian websites appear to offer mirror English and French versions, it is also implemented in two languages. Furthermore, government websites have an integrated backlinking scheme to the gateway portal, which is a modest but admirable approach to e-government (Vikram and Chobiotaru, 2022).

Additionally, there is a time for public consultation on the national website. One of the best practices in the field of network presence is the Consulting with Canadians single-window at <http://www.consultingcanadians.qc.ca>. It offers a comprehensive list of formal consultations from specific government departments and agencies. To make the participative process easier, previous consultations have also been stored and search engines and a calendar of consultations have been added as navigable features. This study also showed that Canada is among the nations that post results of citizen surveys, such as e-Opinion, on their websites (Andrey, Mohammed, Nisa and Selasi, 2021). Promoting accountability and openness in the public sphere requires this.

Regarding advancements in service delivery, initiatives for online service delivery in Canada are exemplified by ServiceOntario (Paquet, 2014). Within the Ministry of Government and Consumer Services is an initiative called ServiceOntario. ServiceOntario provides transactional and informational services via four channels: phone, in-person, internet, and

kiosk. Service guarantees (e.g., a two-day service guarantee for an electronic master business licence) and accelerated services are tools used to promote the usage of the internet channel.

The opportunity for users to fully modify the homepage of the national site in accordance with personal preferences is one of the most inventive aspects.

The new Service Canada Agency was announced by the federal government in 2005. Ever since, the main focus has been on service integration, in which online service delivery via the internet or other media supported by telecommunications is just one of many service channels that deliver dependable and effective services across a range of technologies, geographic locations, and consumer groups. According to Vikram and Chobotaru (2022), Canada offers e-government services such as e-procurement, e-health, e-education, e-customs, and one-stop services.

Canada is clearly making progress in providing e-government services. To create e-government systems that will satisfy the demands of its industry and citizens, the nation has made significant investments in research. Additionally, efforts are being made to guarantee compatibility through portal integration. What sets Canada apart is the government's dedication to enacting legislation protecting the privacy and security of internet user information. Canada excels at e-participation, which is essential for good governance, among other e-government services. Multilingual service delivery channels are a noteworthy characteristic. This is due to the fact that local residents value obtaining public services in their own tongue, which promotes consumer happiness.

E-government in the United Kingdom (UK)

Similar to Canada, the United Kingdom was selected because to its high ranking among e-government nations offering transactional services (Accenture, 2014). In 2016, the United

Kingdom emerged as the global leader in e-government, according to the e-Government Development Index (EGDI) (eGovernment Factsheets, 2014). One of the nations that allows online payments for any kind of public service is this one. eGovernment Factsheets (2019) states that 39.58 million people in the UK were internet users in 2015.

Information and services from local and federal governments are combined on the Gov.uk website, the countrywide gateway that offers "public service in one place." The main website is jam-packed with information and features a combined listing of services and directory for both the federal government and municipal governments, along with resources and services. The website offers the citizen user good value and offers a wealth of information and services encompassing many governmental levels. With ease of access, visitors can explore the national site's options by topic or audience or go straight to the "Do it online" part (Centre for Economic and Business Research, 2022).

There are citizen spaces on the national website with direct access to consultation documents, policy discussion forums, and ongoing consultations. The UK's consultations portal (<http://www.consultations.gov.uk>) is the venue for e-consultations. Every department website has a formal consultation option that can be accessed straight from the home page and promotes involvement. The Government Interoperability Framework is another notable UK initiative (e-GIF). The project's focal point is GovTalk (<http://www.govtalk.gov.uk>), whose goal is to facilitate collaboration between public and private stakeholders in order to establish and reach consensus on e-government standards and policies through a consultation process (Choudrie & Weerakkody, 2007).

The United Kingdom is among the nations that make available the

results of citizen comments for service improvement (eGovernment Factsheets, 2014). Additionally, the UK posts results of citizen opinions, such as e-Opinions, on its websites. In order to guarantee social inclusion, the UK has also integrated the FixMyStreet citizen reporting programme, which allows the public to report and monitor concerns unrelated to emergencies using web and mobile platforms. When it came to e-participation in 2016, the UK came in first (eGovernment Factsheets, 2019).

The following are among the e-government services offered in the UK:

- Income taxes: declaration and assessment notice;
- Labour offices' job search services;
- Social Security benefits
- Driver's licence and passport;
- Vehicle registration (new, used, or imported);
- Building permit application;
- Police report (e.g., in the event of theft);
- Public libraries (catalogues and search tools available);
- Birth and marriage certificates: request and delivery;
- University or postsecondary education enrollment;
- Notification of impending move (a change of location).
- Services pertaining to health (advised via interactive means of service availability across various hospitals; hospital appointments). (2014 E-government Factsheets)

A variety of public access technologies, such as the Internet, digital television, call centres, libraries, mobile applications, public kiosks, and WI-FI, are used by UK citizens to access e-government services. The information above reveals that the UK is not to be outdone in a number of areas in terms of e-government services. Public services are in one place, an indication of integrated portals. There is e-engagement with citizens and outcomes on feedback with citizens are provided. E-government services are provided

through a variety of channels and citizens' connectivity is ensured. A wide spectrum of e-government services are available.

E-government in Mauritius

Mauritius was selected since it is one of the developing countries that provide benefits of e-information and services to citizens. In general, Mauritius has advanced significantly in all e-government domains, encompassing both transactional and networked presence phases, and is deservedly regarded as among the best in Africa. (Sanmukhiya, 2019).

The integrated portal of Mauritius, www.gov.mu, has a "Citizen" portal that is mostly arranged around important services. It also has an A-Z themed index and groups information by audience, including persons, domains, ministries, and parastatals. Some elements that help citizens find content fast are a government directory, a "Quick Links" box, and a "Related Subject Areas" box. The directory may be shown in alphabetical order by department or ministry name or in a hierarchy (UN, 2022).

The Taxpayer Department in Mauritius provides a plethora of e-services, one of which is the electronic filing of taxes upon online registration. There are many public services portals that provide useful informational websites. For job seekers, the Labour Ministry offers a "Live Vacancies" Job Bank (Central Informatics Bureau, 2018).

In addition, the government site provides a place for online conversation, blogs, media libraries, and chat rooms for residents to participate virtually. As per Sanmukhiya (2019) and Sanmukhiya and Roopachand (2016), Mauritius was ranked among the top 50 performers in e-participation in 2016. The government encourages public input through a website for pre-budget consultation. The user has access to related information such government finances, draft budgets, and laws (Central Informatics Bureau, 2018).

In conclusion, Mauritius has established itself as one of the leading e-government actors in Africa despite being a developing nation prone to several difficulties. Mauritius is commended for e-participation, e-service diversity, and portal integration.

E-government in South Africa

Like Mauritius, South Africa was chosen because to its significantly superior usage of ICT for government purposes compared to other sub-Saharan African nations. For example, in 2011 South Africa was the recipient of the "Technology in Government in Africa" Award from the United Nations Economic Commission for Africa (UN, 2012). In line with the Batho Pele (People First) philosophy, the South African e-Government policy aims to put the average citizen at the centre (Government Gazette, 2017: online). Additionally, it aims to make information on e-government services easier to obtain.

South Africa has successfully launched its national government gateway, South Africa Government Online, which can be accessed at www.gov.za and provides access to e-government services and information (Cloete, 2012). The overarching goal of the South African Government Online, www.gov.za, is to offer access to government services wherever and whenever possible, within the framework of a well-thought-out and implemented e-government plan. Departmental information and services are combined on the national website.

The National Accessibility Portal (NAP), another e-government project in South Africa, is a one-stop centre for information services and communications that will assist people with disabilities, carers, the medical community, and others providing services in this area. In addition to specific, specially equipped service centres and access points found in schools, clinics, hospitals, and multipurpose community centres, NAP

services are available from anywhere in the nation, including from home. Wherever possible, these locations link up with the structures of the current public and private sectors as well as Disabled People's Organisations (State Information Technology Agency- SITA, 2019).

In South Africa, further e-government services encompass initiatives within the several branches of government aimed at reaching the interactive and transitional phases. Landowners who submit building designs to the Johannesburg municipality, for example, can track the approval process online and communicate with the relevant unit to resolve any issues that may arise (Gumede, Uwizeyimana and Chilunjika, 2023; Blom and Uwizeyimana, 2020). The South African Revenue Service (SARS) has successfully adopted electronic tax return filing, making it the most successful example of a transactional e-government service (Cloete, 2012).

ICT, such as satellite-enabled wide area network (WAN) fax machines and telephones, facilitates voter registration, the polling process, and the relaying and verification of ballots around the nation during parliamentary and presidential elections in South Africa (Cloete, 2012).

An additional e-government service is an SMS-based literacy project. The government provides financing and assistance for "Dr. Math," a mobile tutoring service that serves as a "go-to" resource for South African primary and secondary pupils. It may be accessed through the free Mxit application. With the help of more than 100 tutors, over 12,000 students have used Dr. Math. Continuous communication between students, coaches, and teachers who live far away is made possible via SMS technology (Uwizeyimana, 2015).

Many e-government initiatives are being implemented in various phases in South Africa. Among them are the

National Automated Archival Information Retrieval System (NAAIRS) to make it easier for the public to access archived records, the e-Justice programme to enhance the legal system, the e-Han's programme to rationalise and integrate personal identification data across government departments by using unique identifiers, and the e-Natis online vehicles and transport management system.

According to the National Development Plan (2017), multichannel technologies are used by South Africa's e-government to provide inclusive services. Other multi-channels such as SMS are employed in addition to mobile and the Internet. With SMS service, citizens are informed about the status of applying for identification books and documents. Social networking can help with issues with service delivery. Using the reporting platform *Lungisa*, which translates to "fix it" in isiXhosa, residents of Cape Town, South Africa, for example, can report issues related to the delivery of water, power, and other public services. SMS, USSD, Mxit, Web, and Facebook will be used to report the issue to the relevant authorities and remedy it (Uwizeyimana, 2015).

Multipurpose community centres, or MPCCs, were established in remote or underprivileged areas in accordance with the tenets of Batho Pele (People First) (Government Gazette, 2017). A centre housing no less than six government agencies is known as an MPCC. Government services are now more accessible to South Africans thanks to the establishment of MPCCs. These have evolved into one-stop shops that offer a range of government services and goods under one roof. They also streamline the application process, which might otherwise be time-consuming and confusing, for passports, identity certificates, retirement funds, and other social handouts.

It is evident that despite being a developing nation similar to Mauritius, South Africa has made progress in

providing a range of e-government services including citizens' e-participation. E-voting is testimony to citizen participation in decision making.

METHODS

Guided by the interpretivist research paradigm, the study was conducted in a qualitative manner. The study, which was desktop-based, was dependent on a thorough literature review. Written materials like books, newspaper articles, journal articles, and book chapters that were specifically chosen were used in the study. Researchgate, Web of Science, Google Scholar, and other websites were used for the worldwide search. Additional screening resulted in the retention and usage of those publications that particularly addressed the topic matter in this investigation. Using content and thematic analysis approaches, the data gathered from the chosen documents were analysed.

RESULT AND DISCUSSION

Since Zimbabwe aims to be an upper middle class economy by 2030, there is need to learn from countries way up the ladder in terms of e-government development. Hence the selection of countries was made from both developed and developing countries that have made considerable progress in online service provision. The selected countries were either at the transactional or interactive stage of e-government.

The experiences focussed on the content of national websites in line with service provision, usability of websites, type of online services offered, the media used to access the services, as well as citizen participation in governance. Web portal characteristics, for instance, integration of services, language use, and user guidance that promote citizens' use of e-government were also considered.

Lessons for Zimbabwe

Based on the examination of the e-government initiatives of the chosen nations, it is apparent that the Zimbabwean government must consider

a number of crucial factors to ensure the success of e-government. These elements include resource commitment, interoperability, accessibility, data privacy and security, strong political will, and competent leadership. Below is a brief discussion of these aspects.

Strong political will

Strong political will and capable leadership are essential for the successful deployment of e-government, as demonstrated by the case studies that were covered. For example, strategic development and implementation of e-government policies are ensured by effective leadership (Chilunjika, Uwizeyimana and Chilunjika, 2023; Masiyakurima, Chilunjika and Muzvidziwa-Chilunjika, 2020; Chilunjika 2016). Furthermore, Zhou and Chilunjika (2013) stated that a strong political will guarantees the long-term commitment of the funds and knowledge required to carry out capital-intensive projects like e-government.

Therefore, an e-government readiness evaluation must be conducted to determine government readiness prior to e-government adoption in Zimbabwe. This evaluates how much support there is for the adoption and application of government (i.e., money and necessary policies are in place).

Increased funding

Zimbabwe's national budget, particularly regarding ICT investments remains low. Consequently, public sector organizations lack adequate and advanced IT infrastructure needed in the delivery of digital services. To address this, the government should prioritise funding e-government projects as they are key to modernising administration and increasing efficiency and transparency in the public domain. Moreover, the government should engage development partners to help invest in ICTs as a measure to foster long term national development transformation.

Data privacy and security

Along with the many benefits of e-government come heightened risks including cyberattacks, phishing, unauthorized access to data and theft of online data. As cyber threats emerge, so must its countermeasures. In line with this, there is a need for the government of Zimbabwe to put in place robust regulatory frameworks to address ethical issues such as the security of data and consent to use. Additionally, the government should invest in setting up advanced cybersecurity technologies such as firewalls, malware protection software and internet gateways (Poshai, Chilunjika and Intauno, 2023).

These enable effective tracking and reporting of cybersecurity cases before they affect institutions and citizens. It is also necessary to strengthen the country's cybersecurity enforcement by providing supporting resources for them to trace and prosecute cybercriminals.

Interoperability

One of the primary goals of every e-government initiative is generally acknowledged to be achieving interoperability (Haurovi and Chilunjika, 2024). According to Chilunjika and Chilunjika (2024) interoperability, as used in the context of e-government, refers to the ability of governmental entities and systems to interchange data seamlessly. The majority of e-government systems in Zimbabwe, however, function in silos, which means that ministries and departments have different e-government environments. As observed in industrialised nations like Canada and Denmark, the government must thus address this in order to allow individuals and companies to access online services through single gateway websites.

Accessibility

According to Chilunjika and Chilunjika (2024), the term "e-government accessibility" describes how easily a wide range of people may access e-government services, guaranteeing

that every potential user has equal access to digital material and website functionality. Nonetheless, this investigation revealed that not everyone in Zimbabwe has access to e-government services. For example, none of Zimbabwe's government ministries use Ndebele or Shona for web material or communication. English is the language used on all webpages.

Even though the majority of Zimbabweans speak Ndebele and Shona as their primary languages, this still occurs. Developing countries, according to Haida (2019), "like to showcase their English-speaking abilities." This conduct disregards the reality that the majority of people are still uncomfortable speaking English, particularly in Africa where it is mostly spoken by educated elites (Haida, 2019).

Thus, problems with language and communication need to be addressed. Zimbabwe's e-government implementers should make sure that all of the languages spoken by their intended clientele are available, since other nations—like South Africa, Canada, Botswana, etc.—have embraced multilingual e-government strategies. Zimbabwe's e-government services should also be able to serve a varied user base with a range of skills, abilities, genders, ages, and ethnic backgrounds. Finally, the government should support initiatives aimed at closing the digital divide and guaranteeing equitable and sustainable growth in the digital age.

Increased Investment in ICT Infrastructure

The Zimbabwean government ought to invest more money in acquiring and setting up IT infrastructure across the nation. It is challenging to fully implement e-government across the country due to issues including poor teledensity and low fixed-line telecommunications penetration. By operating as a barrier to government agencies and line ministries providing e-services, failure to make such investments impedes the delivery of

high-quality and easily available e-government services (Haurovi and Chilunjika, 2024).

The second reason that a lack of infrastructure reduces demand for e-government services is that it makes it difficult for Zimbabweans, especially those living in rural areas, to access e-government services; finally, poor and unstable infrastructure deteriorates e-government system performance, making it difficult for users to access high-quality e-government services (Blom and Uwizeyimana, 2020).

Skills Enhancement and Capacity Building

After the infrastructure is in place, both service providers and clients need to improve their ICT capabilities. It follows that the general public's low skill level prevents e-government from being adopted and operationalized, as well as the growth of a digital economy and its preparedness for e-governance.

The lack of qualified personnel to promote and lead ICT skills enculturation at the local level (primary and secondary schools) is a major problem in Zimbabwe. Generally speaking, one of the main obstacles to Zimbabwe's adoption of e-government and Internet usage is low digital literacy (Chilunjika and Chilunjika, 2024; Chilunjika *et al.*, 2023).

CONCLUSION

It is clear from the examination of the global e-government initiatives of the chosen nations that attempts are being made to give their people access to an electronic form of governance. Information, online banking, e-consultation, and e-decision making are just a few of the services that citizens can receive through information and communication technologies. The breadth, effectiveness, and sophistication of e-government programmes differ between and among the various nations.

While in most of the reviewed developed countries such as Singapore

and United Kingdom, e-government services have enabled the general public to perform a multiplicity of functions over the web, the same cannot be said of the developing countries. The use of integrated portals that are user friendly, provision of a variety of e-services, citizen e-engagement, multi-service delivery channels and multilingual features, are the outstanding aspects of the selected countries.

It is recommended that for Zimbabwe to achieve sustained e-government development and realise its service delivery goals by 2030, there is a need to take a leaf from those ahead of it. In addition, there are other several prerequisites for a sound e-government system which include issues of strong political will and good leadership, resource commitment, data privacy and security, interoperability, and accessibility which should be taken into account.

REFERENCES

- Accenture (2014) Accenture 10-country Study finds Singapore, Norway and UAE lead in Digital Government. Online available at: <http://newsroom.accenture.com/news/accenture-10> (Accessed: 4 March 2024).
- Accenture (2014) Digital Government. Online available at: <https://www.accenture.com/acnr> (Accessed: 23 March 2024).
- Andrey, S., Mohammed J. M., Nisa, M., & Selasi Dorkenoo. (2021). *Mapping Toronto's Digital Divide*. Toronto: Ryerson Leadership Lab and Brookfield Institute for Innovation and Entrepreneurship.
- Blom, P. and Uwizeyimana, D.E. (2020). Assessing the effectiveness of e-government and e-governance in South Africa during the National Lockdown in 2020. *Research in World Economy*, 11(5), 208.
- Carter, L. and Belanger, F. (2005). "The utilization of e-government services: trust, innovation and acceptance factors". Available at: <http://csel.eng.ohio-state.edu/productions/intel/research/trust/utilization%20of%20e-government%20services.pdf> (Accessed: 22 May 2024).
- Central Informatics Bureau. (2018). *Digital Government Strategy 2018-2022*. Port Louis: Government Publishers.
- Centre for Economic and Business Research, (2022). *The Economic Impact of digital Inclusion in the UK*. London: Good Things Foundation Report.
- Chan, C.M.L., Y. Lau, & S.L. Pan. (2008). "E-government implementation: A macro analysis of Singapore's e-government initiatives." *Government Information Quarterly*, 25 (2): 239-55.
- Chilunjika, S.R.T., and Chilunjika, A. (2024). Digital Health Technologies for Anti-Corruption, Transparency and Accountability: Opportunities and Challenges for Zimbabwe. *International Journal of Educational Review, Law and Social Sciences (IJERLAS)*, 4(3), 860-871.
- Chilunjika, A., Uwizeyimana, D.E. & Chilunjika, S.R.T. (2023). The Nexus between Leadership and the Performance of the National Social Security Authority (NSSA) in Zimbabwe. *International Journal of Research in Business and Social Science (IJRBS)*, 12(2), 320-329.
- Chilunjika, S.R.T., Chilunjika, A., & Uwizeyimana, D. (2023). Municipal International Cooperations (MICs) in Zimbabwe's Local Authorities: An Exploratory Study of the Harare Metropolitan City. *International Journal of Business Ecosystem and Strategy*. 5(3), 60-69.

- Chilunjika, A. (2023). Public Private Partnerships, Road Tolling and Highway Infrastructure Investment in Zimbabwe. *International Journal of Research in Business and Social Science (IJRBS)*, 12(3), 575-584.
- Chilunjika, A., Intauno, K., Uwizeyimana, D.E. & Chilunjika, S.R.T. (2022). Patronage Politics and the Tendering Process at Zimbabwe's State Procurement Board. *African Journal of Governance and Development*, 11(1.1), 79-103.
- Chilunjika, A. and Chilunjika, S.R.T. (2021). 'Twinning arrangements and service delivery in Zimbabwe's local authorities: The case of Bulawayo City Council (Zimbabwe) and eThekweni Municipality (South Africa)', *Journal of Local Government Research and Innovation* 2(0), a37.
- Chilunjika, A. (2016). Assessing The Operationalisation of the Results Based Management Approach in The Ministry of Transport, Communication and Infrastructural Development in Zimbabwe. *Public Policy and Administration Research*, 6(6), 1-12.
- Choudrie, J. and Weerakkody, V. (2007). *Horizontal Process Integration in e-government: The perspective of a UK local authority*. London: DBLP.
- Cloete, F. (2012). eGovernment lessons from South Africa 2001-2011: Institutions, state of progress and measurement. *African Journal Information and Communication*, 12(1), 1-15.
- Curtin, G.G., Sommer, M.H. & Vis-Sommer, K. (2003). The World of eGovernment. *Journal of Political Marketing*, 2(3-4), 1-16.
- eGovernment Factsheets. (2014). eGovernment in the United Kingdom. Online available at: <https://joinup.ec.europa.eu/sites/default/files/98/c> (Accessed: 7 March 2024).
- eGovernment Factsheets. (2019). Digital Government Factsheet 2019-United Kingdom. Online available at: <https://joinup.ec.europa.eu/sites/default/files/98/c> (Accessed: 7 March 2024).
- Government Gazette (2017). The National eGovernment Strategy and Roadmap. No 41241. Staatskoerant.
- Government of Singapore. (2017). "OneMap" Website. <https://www.onemap.sg/home/> (Accessed: February 20, 2024).
- GovTech Singapore. (2017). *eGov Masterplans*. <http://www.tech.gov.sg/About-Us/Corporate-Publications/eGov-Masterplan>. (Accessed: May 6, 2024).
- GovTech Singapore. (2018). *eCitizen Portal + Ideas!* <http://www.tech.gov.sg/Programmes-Partnerships/Programmes-Partnerships/Initiatives/eCitizen>. (Accessed May 26, 2017).
- Government of Zimbabwe. (2018), Towards an upper-middle income economy by 2030, 19 April 2018, Washington DC.
- Gumede, N., Uwizeyimana, D.E. and Chilunjika, A. (2023). Local Economic Development and the Agencification of South African Local Authorities: The Case of Thaba Chweu Local Municipality, Mpumalanga. *Journal of Nation Building and Policy Studies*. 7(2), 83-102.

- Ha, H. (2013) "E-government in Singapore: critical success factors" in E-government success around the world: cases empirical studies, and practical recommendations, Gil-Garcia (ed). Available at: <http://oasis.unisa.ac.za/search> (Accessed: 16 April 2024).
- Haida, S. (2019). The role of English in Developing Countries. *English Today*, 35(3), 42-48.
- Haurovi, M., and Chilunjika, A. (2024). Fourth Industrial Revolution and Social Innovation Dynamics in South Africa: A Review. *Insights into Regional Development*, 6(2), 103-116.
- Hiller, J. and Bélanger, F. (2001). *Privacy strategies for electronic government, E-government series*. Arlington, VA: Pricewaterhouse Coopers Endowment for the business of Government.
- Hu, G., Pan, W., Lu, M. & Wang, J. (2009). "The widely shared definition of e-Government: An exploratory study". Available at: www.emeraldinsight.com/Journal.shtm?articleid=1827230 (Accessed: 20 May 2024).
- Jaeger, P.T. (2003). The endless wire: E-government as Global Phenomenon. *Government Information Quarterly*, 20(4), 323-331.
- Mawela, T., Ochara, N.M., & Twinomurinzi, H. (2017). E-Government Implementation: A Reflection on South African Municipalities. *South African Computer Journal*, 29(1), 147-171.
- Masiyakurima, P., Chilunjika, A. and Muzvidziwa-Chilunjika, S.R.T. (2020). Challenges faced in the Implementation of the Zimbabwe Agenda for Socio-Economic Transformation (ZIMASSET) Economic Policy from 2013 to 2018. *International Journal of Humanities, Management and Social Sciences*. 3(2), 89-103.
- Mimbi, L. and Lehong, S. (2017). *E-government development in Southern African development community (SADC) countries: A comparative perspective*. African Conference on Information Systems & Technology (ACIST). Cape Town, South Africa, 10 - 11 July 2017.
- Munyoka, W. (2017). The effect of UTAUT2 moderator factors on citizens' intention to adopt e-government: the case of two SADC countries. *Problems and Perspectives in Management*, 15(1), 115-123.
- National Development Plan 2030. (2012). *Our future make it work*. Pretoria: Sherio Publishers.
- Palvia, S.C. and Sharma, S. (2007). *E-Governance: Definitions/Domain Framework and Status around the world*.
- Paquet, R. (2024). "Technology Trends You Can't Afford to Ignore." Gartner, Inc. http://www.gartner.com/it/content/1503500/1503515/january_19_tech_trends_you_cant_afford_to_ignore_rpaquet.pdf (Accessed: 10 February 2024).
- Petrosyan, A. (2024). E-government-Statistics and Facts. Available at: <https://www.statistica.com>. (Accessed: 15 June 2024).
- Poshai, L., Chilunjika, A. & Intauno, K. (2023). Examining the Institutional and Legislative Frameworks for Enforcing Cyber security in Zimbabwe, *International Cyber-security Law Review*.

- Sanmukhiya, C. (2019). E-Governance Dimensions in the Republic of Mauritius. *Humanities and Social Sciences Reviews*, 7(5), 264-279.
- Sanmukhiya, C., and Roopchand, B. (2016). E-government Non-adoption in the Republic of Mauritius. 5th International Conference on Studies in Humanities and Social Sciences (SHSS-2016). 1, pp. 63-70. Singapore: Emirates Research Publishing Limited.
- Sharma S.K. (2015) "Adoption of e-government services. The role of service quality dimensions and demographic variables". Available at: <http://0-dx.doi.org.oasis.unisa.ac.za/10.1108/TG-10-2014-0046>. (Accessed: 28 May 2024).
- Singapore Customs. (2016). "Collaborating with industry partners to build the National Trade Platform." inSync (Singapore Customs Newsletter) 43 (November/December): 4-5. <https://www.customs.gov.sg/~media/cus/files/insync/issue43/article5.html>.
- Singapore Government. (2017). eCitizen Ideas! Website. Accessed April 19, 2018. <https://ideas.ecitizen.gov.sg/>
- Smart Nation and Digital Government Office (SNDGO). (2017). *Smart Nation Group*. Available at: <https://www.smartnation.gov.sg>. (Accessed 2 June 2024).
- South African Information Technology Agency (SITA). (2019). *Digital Transformation 2020-2024 Strategic Plan*. Pretoria: SITA Press.
- Sriramesh, K. and Rivera-Sánchez, M. (2006). "E-government in a corporatist, communitarian society: the case of Singapore." *New Media & Society*, 8 (5): 707-30.
- United Nations. (2022). E-Government Survey 2022: The Future of Digital Government. New York: UN Press.
- United Nations. (2012). E-Government Survey. Available at: <http://unpan3.un.org> (Accessed: 19 March 2024).
- United Nations. (2004). E-Government Survey. Available at: <http://unpan3.un.org> (Accessed: 21 March 2024).
- United Nations. (2002). E-Government Survey Available at: <http://unpan3.un.org> (Accessed: 14 March 2024).
- Uwizeyimana, D.E. (2015). Mobile phones as means for extending e-governance in rural areas of sub Saharan Africa. *African Journal of Public Affairs*, 8(4), 23-35.
- Vikkram S. and Chobotaru, J. (2022). Digital divide: Barriers to accessing online government services in Canada. *Administrative Sciences*. 12 (3), 1-12.
- Weiling, K. and Kwok, K.W. (2004). Successful E-government in Singapore. *Communications of ACM*, 47(6), 95-99.
- Woo, J.J. (2018). Technology and Governance in Singapore's Smart Nation Initiative. Ash Centre for Democratic Governance and Innovation.
- Yıldız, M. (2007). "Decision-Making in E-government Projects: The Case of Turkey", Goktug Morcol (Ed.), *Handbook of Decision-Making*, Marcel Dekker Publications, pp. 395-416.

Zakareyo, E. Zahir, I. and Al Sarmad, S. (2004) *Factors influencing adoption of e-government in the public sector*. Paper read at the European and Mediterranean Conference on Information Systems, 25-27 July, Tunis, Tunisia.

Zimbabwe's Ministry of Information Technology Strategic Plan. Available at: <http://www.techzim.co.zw/wp-content/uploads/20> (Accessed: 12 February 2024).

Zimconnect: E-Government Framework and Implementation Strategy (2011-2015). Available at: <http://www.cto.int/> (Accessed: 24 March 2024).

Zhou, G and Chilunjika, A. (2013). A Peep into the Sources of Policy Implementation Inertia in Africa: The Case of the Matebeleland Zambezi Water Project in Zimbabwe, *Asian Journal of Empirical Research*, 3(4), 447-463.