CLEAR PROGRESS IN E-GOVERNMENT QUALITY ACTIVITIES AND DETERMINING THE AREAS OF APPLICATION OF E-GOVERNMENT FOR THE BENEFIT OF DEVELOPING COUNTRIES DURING A COVID PANDEMIC

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ABSTRACT

The importance of implementing e-government is taken for granted, and this became clear when the pandemic occurred. The aim of this research is to better understand the e−government concept by confirming what it could offer to societies and individuals, also verify which are the challenges for electronic governance implementation in developing countries. Furthermore, this paper tries to explain the effect of COVID-19 on e-government adoption and its use. The study was conducted using qualitative data analysis technique, i.e., SWOT (Strengths, Weaknesses) and PEST (Political, Economic, Sociocultural & Technological). These methods have been used to explore the state of e-government and different areas that demanded efficiency. It supports studies indicating that e-government does improves efficacy of national governance processes, makes government services more accessible to public and sensitive in its way for transparency. Nevertheless, e- government application has several challenges such as insufficient infrastructure and resources that only be done by working together with the community who still almost lack of technology literacy. This problem is even more acute in underdeveloped countries, where disadvantaged or rural populations cannot afford to take advantage of new technologies. The changes in e-government were severe during the COVID-19 pandemic, where these services sped implementation. But it has also exposed the limitations of current e-government systems, providing further justification for continuing efforts to improve them. Overall, this research highlights the significance and emergence of e-government in contemporary society, as well as advantages derived from implementing it being paired with posited problems. The report also underscores the effect of COVID-19 on e-government and calls for further investment in digital services to support their development.

Keywords: E-government- COVID-19- Developing countries- Digital services

INTRODUCTION

Governments all around the globe have realised that to enhance and improve their offerings, especially in regions where basic services are scarce as compared to urban areas same page with technological advances is imperative because this would mean a digital bridge of service delivery which ensures pace. The resulting higher confidence between citizens and governments is also encountering a trigger effect wherein speedier, more error-free and transparent services through e-governance catalyzed this increased trust. This has

driven productivity within government workers and kept the spending of Government down Denbu & Kim (2020).

In developing countries, the effective implementation of e- government has seriously transformed Government services in these regions as being witnessed by Rwanda.(World Bank) made it easier to do business and more efficient governmental services. The Government of the country has introduced e-services such as online payment tax, company registration and land registration showing 50% decrease in accessing these services Keshavarz & Afshari (2011).

The e-services deliverables to millions of Indian citizens, specifically those in remote parts, have worked magic for Modi's Digital India campaign. The drive has now seen birth and death certificate registration, applications for online passport and land records become automated. Consequently, the digital literacy quotient in India has witnessed an incredible 27% increase.

The transparency and accountability in Government services has also increased with the growth of e-Government adoption. The implementation of an e-procurement system has greatly minimized corruption in public procurement processes within Pakistan. Thanks to the new E- Procurement system Tanzania reduced by 50 per cent time which was taken for tendering.

To sum up, e- government has made government services more efficient in developing countries with E-government. It has resulted in enhancing citizen participation, transparency and accountability as well as decrease the financial cost incurred by governments. The implementation of e-government has likewise allowed the state to deliver services to residents in outlying areas and thus, more evenly distribute access basic infrastructure. With emerging economies increasingly adopting complicated technology solutions, the dynamism of private and public partnership in boosting economic growth yet evokes a series of concern on e-government potential role to build responsibilities for next generation development.

Problem statement

Given the digital and informational developments of recent years, e-government has become an important area of research. Many studies have explored the benefits of e-government, including its flexibility and speed in providing services ،The objective of this research is to investigate the implementation of e-government, especially in developing nations, and its underlying concept. With a focus on the impact of the COVID-19 pandemic. The research problem includes identifying obstacles and difficulties that hinder the implementation of e-government, whether these obstacles are legal, social, organizational, or financial in nature. Additionally, the study will explore the scope of e-government implementation, whether in a comprehensive or partial manner, taking into account cultural and infrastructure-related factors.

Finally, the study seeks to demonstrate the effectiveness of e-government in responding to the challenges of the COVID-19 pandemic compared to traditional government approaches.

Scope of work

This study is meant to supply pragmatic findings and solutions in addressing these research problems that are related the impacts, benefits and challenges of e-government implementation could offer for developing countries especially. In this research, we

analyze the impact of COVID-19 and look at how it has changed through time in e-government study in developing countries. The study strives to identify the challenges and obstacles affecting e-government operation such as: technical, legal, social or societal, organizational and economic constraints. The degree of e-government implementation, full or partial — which will culturally and infrastructure-dependent be considered as well.

In addition, the research is an attempt to find out whether e-government can be more effective in response to a world crises than traditional government. The study aims to highlight real drawing points as well obstacles that developing countries can face in the era of crisis, further implementing E-Government. The results of this study may interest policymakers and stakeholders in other developing countries who are looking to strengthen their e-government programs for better public service delivery.

Research Question:
1- What are the problems and challenges that obstruct e-government usage within developing countries; Consequently, how they could be changed into opportunities along with solutions?
2- Discussion The research questions were:1- What is the condition in developing countries of e-government implementations, and what cultural or infrastructure-related barriers affect its adoption?
3. Which kind of e-government is more efficient in facing the challenges engendered by COVID-19 pandemic as opposed to traditional government practices in developing countries?

Hypotheses:
1- Developing countries: e-government suffers from Legal, Social and Organizational challenges as well which inhibit the effective penetration of this innovative method. But these obstacles can be addressed with the right policies and solutions.
2- Ignore of Top 5 Myths Of E-Government Read this before creating a blog)`1- The scope of e-government implementation in developing countries is cultural and infrastructural. Advanced infrastructure and increased level of digital literacy to be found in a country is considered one among the factors contribute higher for adopting e- government solutions comprehensively.
3- Prevention of the COVID 19 Disease: It is believed that e-government being more effective than traditional approaches to government responds the challenges raised by developing countries against that kind of fast, fair and transparent in service delivery.

The Study Objective:
This Study Aims to achieve the following objectives;
1. This paper aims at classifying the barriers and examining factors obstructing in e-government implementation with specific reference to developing countries, also provides some suitable solution that helps for deployment of pervious mentioned system.
2. The aim of research is to evaluate the level at which e-gov implementations in developing countries have been made and recognize cultural and infrastructure features that influence its adoption.
3. To assess if the efficiency of e-government in addressing the challenges related to COVID- 19 is fast enough by comparing with traditional government methods used for developing countries.

4. To give policymakers and other stakeholders working on e-government in developing countries guidance, insight & practical recommendations How can we improve delivery of public services ultimately using digital channels?
5. This study will contribute towards the existing literature which is very limited regarding e-government & its adoption in developing countries especially during times of crisis.

The Goals of the Study:
this study purports the following research objectives:
1. To raise awareness and inform the understanding about e-government and its value for developing countries.
2. Determine to the major critical issues and barriers which would slow down e-government implementation in developing nations, with a secondary objective of suggesting people alternatives for overcoming those obstacles.
3. Insights into the extent and breadth of e-government implementation in developing countries, which includes cultural factors that influence it as well at infrastructure prerequisites.
4. This paper aims to add to the body of knowledge about efficiency and effectiveness (or otherwise) of e-government in addressing COVID-19 challenges compared with traditional government processes especially towards fighting against the pandemic within third-world countries.
5. To offer practical guidance to policymakers and other stakeholders in developing countries at all levels of government on how e-government can improve service delivery for the public.

The Methodology:
Our study methodology is descriptive-based on the E-Government initiative in Higher Education and Scientific Affairs Ministry Case Study. This method was chosen according to the issue, questions and hypotheses of this research as it would have an improved scientific description relevant towards subject. This prints yield in numeric form to make it easy for the reader to interpret and get scientific results.

Previous studies:
1. Alshehri M & Drew S (2020). Liban M Abdulkarim (2012) Main Factors Influencing E-Government Adoption in Developing Countries: A Logistic Regression Analysis Journal of Global Information Technology Management, 23(1), pp.
Objectives: This research intends to find the determinants that influence e-government services adpotion in developing countries.
The study method: Study asked the citizens of some developing countries through a survey that what are these factors which motivate them to utilization e-government services and conducted this study. Statistical analysis was performed using logistic regression.
Main findings: The study revealed that age, education level, income and trust in government are influencing factors on e-government adoption. They emphasized the importance of digital literacy development, and dealing with concerns related to data privacy and security as determinants for e-governance adoption.
2. Kim, D. J., & Lee, H. (2019). Cross-sectional study on the impact of e-government adoption in developed countries: citizens' satisfaction with public services Public Management Review, 21 (10), pp.1448-1467.

Objectives: The purpose of this study is to examine how e-government affects citizen satisfaction with government services in developed countries.

The study method: The study surveys several developed countries to investigate the link between e-government adoption and citizen satisfaction in using government services. In the results, data was examined using Structural equation modeling process as oriented approach.

Main findings: The result of study indicates that e-government adoption is having positive significant impact on citizen satisfaction from performance of government services. Measurements for citizen satisfaction were quality of e-government services, and citizen involvement in e-government.

3. Mbarika, V., Nti,, K and Nwankwo, S. (2018) E-Government Initiatives in Developing Countries: A Qualitative Investigation of Main Drivers and Barriers Journal of Global Information Technology Management 21(4): 221–246.

Objective: The main pathway of this study is to investigate the determinants that lead an electronic government in developing country to be a success.

The study method: Based on the interviews with government officials and e-government stakeholders of a few developing countries, they adopted a qualitative research approach. The data collected was analyzed using thematic analysis.

Main findings: The study identified political will, stakeholder engagement, adequate financial resourcing and effective communication strategies to be significant in the success of e-government initiatives within developing world. They identified bridging the digital divide and raising awareness of e-literacy as two key points that could potentially make or break uptake on nany such mass-level E-Government initiatives.

4. Akpan, I. J., & Adetunji t O.R (2019). E-Government and Transparency in Low Income States: Using Case Studies International Journal of Public Administration, 42(3), pp.271-284

Objectives: This research investigates what role e-government is going to play in improving transparency and accountability within government operations, systems and services laid down by developing countries.

The study method: This study used the case study method to explore how various e-government undertakings have been implemented by developing countries, concentrating on their role for purpose of transparency and accountability from governments. Methods Data collected include document analysis and interviews with government officials.

Main findings: This study found out that e-government enhanced government transparency and accountability by improving the process of providing information, availability as well the effectiveness in governmental operationalization. However it was recognized that insufficient resources and limited digital literacy among the general public were barriers to e-government fully delivering on its potential to drive increased openness and accountability.

Based on the title "Clear progress in e-government quality activities and determining the areas of application of e-government for the benefit of developing countries during a COVID pandemic," here are three possible sections for the study:

1. Introduction:
● Brief explanation of the concept of e-government and its potential benefits for developing countries
● Overview of the impact of the COVID-19 pandemic on e-government initiatives and the need for increased focus on e-government quality activities

● Research questions and objectives of the study
2. Clear progress in e-government quality activities:
● Review of literature on e-government quality activities and their importance in promoting e- government adoption and success
● Analysis of case studies and best practices of e-government quality activities in developing countries
● Identification of key success factors and challenges in implementing e-government quality activities in the context of the COVID-19 pandemic
3. Determining the areas of application of e-government for the benefit of developing countries during a COVID pandemic:
● Overview of the potential areas of application of e-government for developing countries during the COVID-19 pandemic, such as healthcare, education, and social welfare
● Analysis of case studies and best practices of e-government applications in these areas in developing countries
● Discussion of the potential benefits and challenges of implementing e-government applications in these areas, and recommendations for promoting their success in the context of the COVID-19 pandemic.

The First pillar
E-Government, Concepts Challenges in Developing countries E-government is an approach the uses information and communication technologies to provide public services and information to citizens businesses as well government agencies which can improve effectiveness of administrative efficiency increases transparency accountability citizen participation enhancing economic growth. However, in developing countries the challenges of e-government implementation are due to lack of resources and infrastructure necessary capacity (e.g., low level literacy digital), political barriers culture. This study explores the concepts, benefits and challenges of e-government in developing countries as well as suggests measures to make these more effective.
Definition of E-government: Utilizing digital technologies to deliver government services and information to citizens, businesses, and other government agencies These encompass the use of various information and communication technologies (ICTs) such as internet, mobile devices & digital platforms to leverage govt. operations and improve quality public service (Wyld, 2004).
E-government is a term that generally refers to the use of electronic communications technology (such as web sites, e-mail) and information systems in government services provision. By doing this the government can eliminate or minimize bureaucracy, and facilitate public access to governmental information as well as improving independent capability of individuals (Fang, 2002).
E-government objective The core of e-government is improved operational efficiency of the government, transparency and accountability functions as well as more public service in leading to increased citizen participation. E-government has the potential to reduce corruption, enhance service delivery and responsiveness of government agencies towards citizens. Not only that, it can also help to grow the economy through innovation and new areas of business. Yet, a successful implementation of e-government demands huge investments in ICT infrastructure as well as digital skills and literacies building among both levers within the government machineries and with its public. E-government also faces significant challenges associated with data privacy and security, the digital divide, as

well as cultural or political barriers. However, e-government is still an important means of strengthening good governance and enhancing public services as well as trailblazing economic growth in the digital era (Curtin et al. (2003).

It opens up a whole new realm of possibilities for the developing countries- more efficiency and transparency in public administration; better service delivery, enhancement citizen participation. The importance of e-government has been further highlighted by the COVID-19 pandemic and also underlines that there is a need to enhance quality activities in many areas regarding e-governance. Many have proven to be effective during the pandemic and beyond like E-governance initiatives in African, Asian & Latin American Countries Middle Eastern Counties as well. Five examples of such initiatives include (OECD, 2010).

The E-government Domains:

E-government can be categorized into three application domains: e-Administration, e-Citizens and e-Services, and e-Society. The various domains of e-government, including technology, processes, departments, functions, and external stakeholders, work together to achieve the primary objective of delivering efficient and effective public services. However, the implementation of e-government initiatives requires managing the complexities and heterogeneities that arise from these domains, which involve several internal and external factors. Therefore, a comprehensive and integrated approach is crucial for the success of e- government initiatives Peristeras et al. (2008).
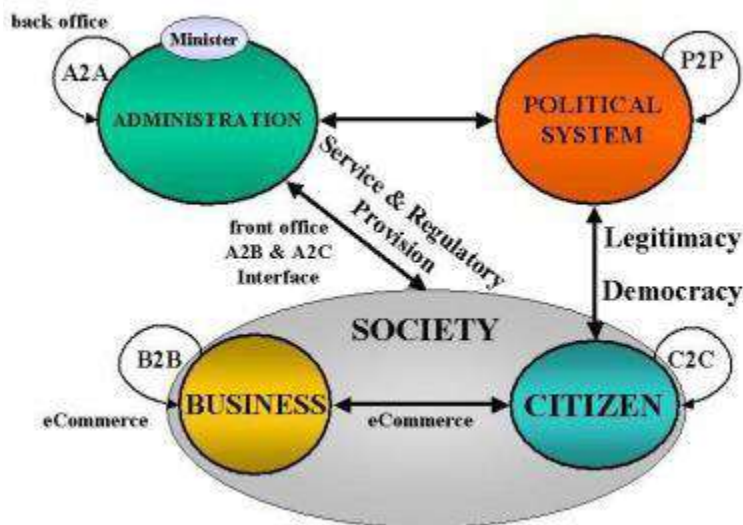
Source : - Peristeras, V., Tsekos, T., & Tarabanis, K. (2008). E-Government or E-Governance? Building a Domain Model for the Governance System.,p4

1. Kenya - Huduma Kenya:

Launched in 2013, Huduma Kenya is a digital government service center that provides citizens of the country with services ranging from registration for land and business to issuance of passports. The initiative has improved service delivery, reduced bureaucracy and the move resulted in more efficiency as well ease of doing tasks at a low cost. In addition to other benefits, Huduma Kenya has promoted transparency and accountability in Government services hence reducing corruption (World Bank, 2019).

2. India - Digital India:

To transform the Indian society into a digitally empowered economy, The Digital India initiative by Government of India is one important step. It includes various e-government services, such as — a digital identity (e-ID), an e-commerce project aimed at facilitating secure online transactions for all citizens and residents in the Sultanate. Exciting entrepreneurship in stimulate of public service delivery, financial inclusion and innovation mainly focusing on rural areas is the magic mantra for digital India Samuel et al. (2020).

3. Brazil – Info via Amazonia:

Amazonia via Info is an e-government project in the Brazilian Amazon area that provides efficient and stable internet connection services to distant localities. The project has also enhanced accessibility to essential citizen services like health, education and public safety. It has also fostered economic growth, enhanced mobility and connectivity of remote areas with markets. Info via Amazonia also helped save an environmental conservation project that is deforestation and forest fires can be detected in real time.

4. Single Region: Single Window in Egypt:

National Single Window for Foreign Trade is an e-governance online service portal developed to enable trade across borders by providing a single-window access point-trade facilitation and clearance requirements of all government services. This initiative has drastically reduced paper work and bureaucracy, saving millions in time and costs for businesses. In addition, the Foreign Trade National Single Window has promoted efficiency and transparency in trade operations reducing opportunities for corruption Misr Technology Services. (n.d.).

5. Jordan – one portal:

e-government initiative needs to be taken up by these countries, as the benefits it can offer are immense (Rose Merciful Negbiaru et al., 2014) However doing so is not an easy task and difficult based on various factors namely in terms of infrastructurel development levels; political background; cultural bases. The examples that follow illustrate some of the issues encountered in implementing e-government initiatives, and give specific regional cases:

1. Limited ICT infrastructure:

One of the major challenges facing the implementation of e-government initiatives in developing countries is the limited ICT infrastructure. For example:
● In Africa: Only 28% of the population has access to the internet in Ethiopia (Duarte, 2021).
● In the Middle East: Only 8.24 million of the population has access to the internet in Yemen (digital 2022: Yemen).
● In Latin America: Only 47.47% of the population has access to the internet in Bolivia.[1]
● In Asia: Only 22.9% of the population in 2020 has access to the internet in Afghanistan (Digital 2022: Afghanistan).

2. Low levels of digital literacy:

Another challenge facing e-government initiatives in developing countries is low levels of digital literacy among citizens and government officials. As an example:

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[1] Percentage of population using the internet in Bolivia from 2000 to 2019: https://www.statista.com/statistics/209110/number-of-internet-users-per-100-inhabitants-in-bolivia-since- 2000/

- In Africa: The low (although growing) levels of familiarisation with digital technology among Nigerian citizens were often cited as a barrier to access for e-government services Ibikunle et al. (2012).
- Iraq: A lot of Iraqi citizens are not comfortable with digital technologies so most have trouble reaching e-government services Mohammed et al. (2016).
- Latin America: a) digital illiteracy is such that many of the 1.8 million citizens are unable to benefit from e-government services in Guatemala.
- Asia: The lack of digital literacy among the population is high in Cambodia making it difficult for them to access e-government services.

3. Political and cultural barriers:

However, political and cultural barriers can be more problematic in the case of e-government initiatives in developing countries. For example:

- In Africa, political instability and corruption in Zimbabwe will block the progress of e- government initiatives while a technophobic culture may slow down its adoption.
- Middle East: Political instability or the ongoing conflict in Syria can affect e-government initiatives among other things, while culture's thoughts on technology might not make it easy building up infrastructural capabilities.
- Latin America: political instability in Venezuela and corruption can hinder the development of e- government programs while cultural attitudes towards technology could change adoption rates.
- In Asia, political instability and corruption in Afghanistan have been preventing the country from advancing its e-government initiatives (UNDESA, 2012), as cultural attitudes toward technology can influence adoption rates Khanet al. (2018)

4. Data privacy and security:

A growing challenge being faced by many developing countries interested in e-government initiatives is the issue of data privacy and security. For example:

- In Africa: Citizen data security on E- government platforms in Nigeria has raised scares eroding trust and confidence of the public towards these initiatives.
- Middle East and North Africa: Viewed skeptically, E-government platforms in Egypt are seen as unreliable for the security of citizen data.
- Latin America: Brazil's citizen data on e-government platforms may be at risk, which can impact public confidence in these projects.
- In Asia: Questions remain over the safety of citizen data on Pakistan's e-government platforms and how this affects public trust in such initiatives.

5. Digital divide:

In practice, entry barriers can be seen also in developing countries e-government initiative because of digital divide (mcdonald 2010), where not all community can access to the source of digital technology as it is shown on For example:

- Africa: Rural people in Kenya own no technology, making them unlikely to benefit from e-governance services if they were even able to access those programmes (World Bank, 2019)
- The Middle East: Some rural villages in Yemen might still be off the grid and are unable to access e-government services that urban residents take for granted.
- In Bolivia, there is no internet access or equipment to use e-government services for the rural population in Latin America.

- Asia: Rural population in Bangladesh is still have not access to such e- government services….. because of no internet and digital devices.

6. Inadequate funding:

One of the biggest hurdles in implementation of e-government initiatives in developing countries is their budget. For example:

- Africa: Poor e-government initiatives due to lack of funds for ICT infrastructure and digital skills development in Uganda (**Uganda's Digital Transformation Journey).**
- In the Middle East: Limited resources available for investment in ICT infrastructure and digital skills development hinder a proper implementation of e-government initiatives, mainly low-quality ones in Lebanon.
- In Latin America: Would likely lack the resource to invest in ICT infrastructure and digital skills development, ultimately producing low-quality e-government initiative with specific case of Nicaragua.[2]
- Asia: Lack of funding in Nepal discourages development in ICT infrastructure and digital skills, hindering e-Government initiative with poor quality Rana et al. (2019).

7. Undeveloped legal and regulatory frameworks;

The development of e-government initiatives cannot be complete without legal and regulatory frameworks, which are lacking in developing countries. For example:

- In Africa: Unlike Morocco, no specific law in the field of electronic commerce or even in regards to e-government exists, which induces a kind of vagueness that prejudicing somewhat development (Ouaras, Lalaoui 2021).
- Middle East: Syria has not enacted any cyber laws to govern ecommerce, or e-government which may generate confusion and hinder social practices for these measures.
- In Latin America: no special laws for e-commerce or E-Government exist in Haiti that would compose a legal gap and make the setup of such initiatives difficult.
- Asia: Myanmar has no statutes or legal framework to govern e-commerce, and as a result this potentially hinders the development of such new initiatives as well.

8. Resistance to change:

Tradition in developing countries can prove to be an obstacle for successful deployment of e-government efforts as they prefer using the conventional methods for communication and delivering services. For example:

- E-governance may be confronted by resistance due to reliance on traditional setup like in Ethiopia, Africa.
- In a place like Iran, in the Middle East I believe there may be some resistance from people who might prefer traditional modes of communication and service delivery than with e-government initiatives.
- While e-government initiatives may be resisted in Peru, Latin America — as traditional channels for communication and service delivery continue to rule.

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[2] Enhancing connectivity to develop skills in Latin America:
https://www.oecd-ilibrary.org/sites/ee810001-en/index.html?itemId=/content/component/ee810001-en

- E-government initiatives in Asia, India - some may have stories on poor take up of e- government due to a preference for old-fashioned methods of communication and service delivery Samuel et al. (2020).

9. Limited capacity within government:

Insufficient governmental capacity can also impede the development of e-government initiatives in developing countries, resulting in suboptimal outcomes. For instance:

- In Ghana, Africa, limited digital skills among government officials can negatively affect the effectiveness of e-government initiatives Abusamhadana et al. (2021).
- The success of e-government initiatives in Jordan, a country in the Middle East, may be impeded by the insufficient digital skills of government officials.
- In Honduras, Latin America, the deficiency of digital skills among government officials can affect the effectiveness of e-government initiatives.
- In Bangladesh, Asia, inadequate digital skills among government officials can impact the success of e-government initiatives Lack of user trust: A lack of user confidence can impede the adoption of e-government initiatives in developing countries, particularly due to concerns surrounding data privacy and security. For instance:
- Data privacy and security concerns may result in a lack of trust e-government platforms in South Africa.
- In Saudi Arabia, Middle East e-government platforms may be perceived as less secure and more exposed to leaks of vital information.
- To illustrate that point let me tell you about some user personas from my experience in Mexico, and hence in Latin America]: Many people do not trust e-government platforms to store sensitive personal information due to lack of data privacy or security.
- In Indonesia Asia, may not trust e-government platforms with private data due to concerns about privacy and security (Rahayu, 2022).

As a result, introducing e-government efforts in developing countries could encompass several challenges such as insufficient ICT infrastructure (Dada, 2010;Botha et al., 2002), low levels of digital literacy among citizens and civil servants respectively (Yonazi et al. Tackling these problems will demand a whole-of-economy response, including investment in ICT infrastructure and digital skills training; strong governance to ensure that the private sector adheres to consumer protection standards; a framework for data protection and cyber security suited to developing economies.

The second Pillar : E-government Use: an Cost Benefits Analysis

Digital transformation in government, specifically of e-Government Initiatives have been beneficial through the pandemic period and with covid19, it was showed how important is for governments to be able to provide services electronically that has led not only better service deliveries but also more transparency, greater financial support access as applicable. Due to its high cost, integrating ICT as baseline infrastructure and coordinating e-government platforms have exhibited more benefits than costs in solving the problems posed by Covid-19 pandemic.

E-Government Models Impact Assessment in Developing Countries to Combat Public Health Crises: Cost-Benefit Analysis during Pandemic :

1. India

This could be costly due as India has to set-up high quality ICT infrastructure and build e-government platforms. An example being the PM SVANidhi portal that is supposed to provide loans for street vendors were given only INR 2,000 crore (Approximately USD $274 million) by central government. Nonetheless, the e-government initiatives resulted in improved service delivery and increased transparency of government operations. Consider the PM SVANidhi portal which has sanctioned over 41 lakh (4.1 million) loans to street vendors, as of May'21 — money surely going into helping small business with ease through financial institutions during a crisis like this one (United Nations, 2022).

2. Bangladesh

This may cost a good amount in Bangladesh for the establishment of ICT infrastructure and development of e-gov platforms. For example, BDT 100 crore (around USD 11.8 million) was earmarked by the government in order to set up the Virtual Court System.

Despite the costs, e-government have been very effective in delivering better services and increasing government operations transparency. For instance, the practise of Virtual Court System helped in resolving more than 20 lakh cases virtually during the pandemic which ended up cutting down on pendency of traditional court system (E-Governance and Bangladesh).

3. Brazil

The implementation of ICT infrastructure and deployment of e-government platforms in Brazil are very expensive tasks. To cite a specific example, the government budgeted BRL 2 billion (USD 370 million) to create benefit flows of aid in response to claims.

Yet experience also shows that e-government initiatives can have human development benefits such as improving the quality of public service delivery and increasing transparency in governmental operations. During the pandemic, e-governance had created effects on providing timely and efficient services to billions of citizens with millions having received crucial financial assistance through Emergency Aid Payment System.

4. Ghana

The setting up of ICT infrastructures and establishment of forward thinking e-government platforms that work is expensive in Ghana. An example is the COVID-19 Tracker App that cost government GHS 3.1 million (around $530,000) to build But, e-government initiatives have paid off in increased service delivery and greater transparency despite the costs. For instance, the COVID-19 Tracker App has enabled citizens to access critical information related to the spread of pandemic in real-time which helped reduce misinformation and create awareness about both virus and its impact.

5. Mexico

In Mexico, there can be high costs associated with the establishment of ICT infrastructure and development of e-government platforms. For example, MXN 1250 million (approximately USD 60 million) were destined by government for the arrangement of COVID-19 Vaccination Platform.

Despite the costs, there are demonstrated benefits in e-government initiatives with direct implications for improved service delivery and transparency in government actions. This has helped in streamlining the COVID-19 Vaccination Platform that allowed 22+ million registrations as on May, and ensuring a faster distribution of vaccines (Growth Trends & Forecasts (2023- 2028).

6. Nigeria

This may be expensive in Nigeria especially when attempts are made to replicate others set up of ICT infrastructure or e-government platforms. In one example, the COVID-19 Intervention Fund was established and 52 billion naira (approximately 135 million USD) was allocated by the government.

On the one hand, cost to e-government initiatives but, on other with these high costs (as mentioned in table 1), service delivery and transparency of government may improve. This initiative has since given over 300,000 small and medium-sized business access to financial aid throughout the pandemic, revenue that would go a long way in saving SMEs from suffering colossal losses during this economic crumble.

7. Philippines

Setting up ICT infrastructure and developing e-government platforms can be costly in the Philippines. The GOVERNMENT, for instance, set aside PHP 1.5 billion (USD31 MILLION) to create the Social Amelioration Program

However, the costs notwithstanding and e-government initiatives can deliver huge benefits in transforming service delivery and setting new benchmarks of transparency within government. The Social Amelioration Program, aid that government extended to over 18 million households during the pandemic is a case in point on how e-government can be crucial with respect to providing timely and efficient services especially when it comes deserving citizens.

8. South Africa

Building ICT infrastructure and e-government platforms in South Africa are expenses. For example: The government set aside ZAR 500 million (USD ±35million) to create the COVID-19 TERS Benefit.

However, despite these limitations e-government initiatives can contribute significantly in improving service delivery as well as transparency in government operations. More than 4 million workers have been financially supported to deal with the Covid-19 pandemic effects through payment of such benefits from the COVID-19 TERS Benefit.

9. Turkey

Building ICT infrastructure and e-government platforms in Turkey can be costly; This has translated to, for example, the input ofTRY1.3 billion (USD150 million) in government funds into establishing a Social Support and Solidarity Fund. While costly, e-government initiatives can have a positive impact on efficiency and transparency of government services. During the crisis, a lot of pensionists have more than 5 million placement may be respected under Social Support and Solidarity Fund (FOS) for income donations until May Day and without e- government platform this service would not reach those in need during that period.

10. Uganda

Uganda has got to pay a fortune for ICT infrastructure and e-government platforms that why we can all rest easy. For example: the UGX 54 billion (around USD15 million) committed to establish a COVID-19 Relief Fund by Government. Pros: E-Governance projects can help the government to provide better services and more transparency. Nearly 1.5 million homes received financial support during the COVID-19 Relief Function.[3]

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[3] How Uganda Government has embraced E-Government during the COVID-19 Pandemic Crisis.
https://www.researchgate.net/publication/362386858_How_Uganda_Government_has_embraced_E- Government_during_the_COVID-19_Pandemic_Crisis

The Third Pillar
Actors Affecting E-Government Implementation Developing Countries E-Opportunities
Political Factors:
The success of e-government initiatives is heavily dependent on political factors. It is required to have political support to rebuild government trust functioning of e-government services. Its successful implementation requires good leadership and an belief in the value of e-gov bushido. The varying levels of support amongst leaders could lead to uneven implementations throughout different agencies that may jeopardize the success of these e-government initiatives. Much of it boils down to a failure, especially among low and medium-level politicians the biggest barrier being in e-democracy for example — resistance because they wonder where disempowerment may happen. The transformation to e-government needs comprehensive policies, legal frameworks and secure e-transaction applications. However, success in the implementation of e- government projects requires a lucid strategy together with support from political environment and leadership Alassaf et al. (2020)

Social Factors:
The adoption of e-government services heavily relies on citizens' awareness and understanding of these services. Lack of knowledge or awareness can pose a significant challenge to their adoption. The quality of e-government services, including information quality and service reliability, influences citizens' decisions to use them. Incentives such as discounts for completing transactions online can enhance citizens' attitude towards e-government usage. In a virtual environment, trust plays a vital role in the adoption and satisfaction of e-government services. Factors such as perceived risks, benefits, quality of services and systems, information, and compatibility with citizens' values and beliefs are crucial indicators of e-government satisfaction and adoption. The willingness of citizens to adopt and use these services is a significant predictor of the success of e-government implementation Al-Sobhi & Mukhtar (2009).

Technological factors:
For successful implementation of e-government, there must be an integrated gateway that allows all beneficiaries access to different organizations' services. This requires standardized IT systems, system integration, and compatible hardware/software to avoid malfunctions caused by incompatible systems. Availability of adequate IT/ICT infrastructure is also crucial. Websites should be easy to use, accessible, and provide easy access to information to increase productivity and effectiveness. Good design is important to make the system usable, interactive, Designers of e-government services must prioritize adaptability to technological advancements and special needs of various target groups, while also ensuring security and privacy. Service quality is a crucial factor, and technology quality can be assessed based on factors such as delivery speed, ease of use, reliability, user satisfaction, control, prior experience, necessity for interaction with service employees, and service quality Al-Sobhi & Mukhtar (2009)

Organizational factors:
Institutional theory suggests that stakeholders are more likely to accept organizational change if they perceive it as useful. However, in the context of e-government

implementation, public institution employees may resist change due to concerns about job security and loss of control. Therefore, targeted campaigns and adequate training are necessary to raise awareness and improve IT literacy. Financial resources and infrastructure availability are crucial determinants of success, but the high costs of infrastructure can be a barrier. Long-term governmental finance and private sector collaboration require careful consideration. It is also important to factor in the costs of operating, maintaining, upgrading, and developing ICT systems, as failure to do so can lead to system failure after successful installation Cunningham & Kempling (2009).

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