

**Relationship Between Maturity Level Of Information And Communication Technology Users And Delivery
Of E-Services At National Information Technology Authority, Kampala, Uganda**

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Abstract

The liberalization of the ICT sector in 1994, coupled with the National Information and Communication Technology Policy in 2003, laid the groundwork for technological advancements. The establishment of the National Information Technology Authority-Uganda (NITA-U) in 2009 signifies Uganda's commitment to coordinating and regulating IT services. Uganda's progress in GovTech, as reflected in the GovTech Maturity Index 2022, which underlines the region's efforts to embrace digital transformation for improved governance. This assessed the relationship between maturity level of information and communication technology users and delivery of e-services: a case of National Information Technology Authority, Kampala, Uganda. The descriptive survey design was used to systematically observe, analyze, and describe the current state of e-service implementation in Uganda. The study population is delineated to 100 participants which included; 45 ICT users who have interacted with government e-services, 17 government officials directly involved in the implementation of e-services, and 38 IT professionals responsible for maintaining the technological infrastructure. This comprehensive approach ensures a multifaceted exploration of perspectives. The findings indicate a moderate mean score for the overall performance suggests a generally satisfactory state, but the lower score for system integration indicates an opportunity for improvement. The study concluded that a high satisfaction with security measures is commendable and reflects positively on the government's commitment to ensuring secure e-services. It was recommended that enhancing system integration should be a priority, involving collaboration between NITA-U and relevant stakeholders.

Keywords: Maturity level, e-service, technological infrastructure, security measure.

Introduction

Information technology, encompasses the collection, processing, storage, retrieval, transport, access, presentation, and transformation of information by the help of technologies. The United Nations E-Government Survey (2010) highlights the significant benefits citizens derive from advanced e-service delivery as, improved access to information, and more efficient government management (UN Report, 2010). The global shift towards digital transformation is evident in the increasing use of information and communications technology by the public sector. Countries are establishing National Portals and leveraging websites to enhance public service delivery. The United Nations' report further more emphasizes the importance of creating an enabling environment for e-service delivery, aligning with the broader global trend toward digital governance.

Uganda's journey in e-service delivery is marked by strategic initiatives. The establishment of NITA-U and subsequent initiatives, such as the Government Citizen Interaction Centre (GCIC) and the Government Electronic Payment

Gateway (GePG), showcases the government's commitment to enhancing citizen e-services (NITA-U Act 2009). The deployment of the National Data Centre and Disaster Recovery sites further emphasizes Uganda's focus on robust infrastructure for centralized hosting services. The GovTech Maturity Index 2022 report indicate that Uganda has transitioned to Group A (GovTech Leaders), positioning the nation as a trailblazer in digital transformation, reflecting its national perspective on harnessing technology for e-service delivery.

At the local level, initiatives like Electricity and Fiber to villages (EFTTV) directly impact rural communities. The shared infrastructure concept, combining electricity and ICT, demonstrates a commitment to bridging the digital divide. The establishment of a Tier III National Data Centre and Disaster Recovery sites enhances local government capabilities by providing centralized hosting services (GTMI Report, 2022). This ensures the availability and sustainability of essential e-Government systems and applications. The local perspective underscores the practical implications of e-service delivery on citizens' lives, particularly in rural areas. In summary, the multifaceted background to the study, spanning global, continental, regional, national, and local perspectives, sets the stage for a comprehensive exploration of the interplay between NITA-U and delivery of e-services by the government of Uganda.

Statement of the Problem

In a bid to provide e-services to citizens, the government of Uganda through Ministry of ICT and National guidance created the National Information Technology Authority-Uganda (NITA-U) an autonomous statutory body established under the NITA-U Act 2009, to coordinate, regulate, provide Information Technology services in Uganda. The previous projects that the government of Uganda had undertaken through the Ministry of ICT and National guidance such as the National Backbone Infrastructure/E-government Infrastructure was handed over to NITA-U for scalability and connectivity of government Ministries, Departments, Agencies and Local government units such as District Headquarters. The infrastructure network has so far been extended to some districts and government Data center built as repository for a national data and data recovery site. On Thursday 28 February, 2019 President Yoweri Museveni signed and assented to the Data Protection and Privacy Act. The law, which was the first of its kind in Uganda is intended to; protect the privacy of individual and personal data, regulate the collection and processing of personal information, provide for the rights of the people whose data is collected, provide obligations of data collectors and data processors, and regulate the use or disclosure of personal information. By now, NITA-U is expected to have enabled all government Ministries, institutions and district headquarters to delivery e-services to citizens through government portals and kiosks/services centers thus elimination of physical frontline desks. In spite of the government endeavors through the Ministry of ICT and national guidance to establish NITA-U, the impact of the authority has not been felt by ordinary Ugandans who are consumers of government e-services. Many of them still walk to physical offices to access most of the government services with few districts connected to a functional National Optical Fiber network. Many of the government programs such Parish Development Models (PDM) which would have been automated for easy access and monitoring by the government official are still being handled manually and Internet which is an enabler of e-service delivery is still being controlled by the private companies which sets the price of bandwidth Thus, making the authority struggle with achieving its vision of “transforming lives through e-service

delivery”. It is against this background that the researcher interested himself to undertake a study to unearth which other measures the government of Uganda through the Ministry of ICT and National guidance needs to undertake in order to have NITA-U enable fully implementation of e-service delivery accessible across all government institutions.

Study Objective

To establish efforts made by the government of Uganda in delivery of e- services basing on the mandate of NITA-U.

Research Hypothesis

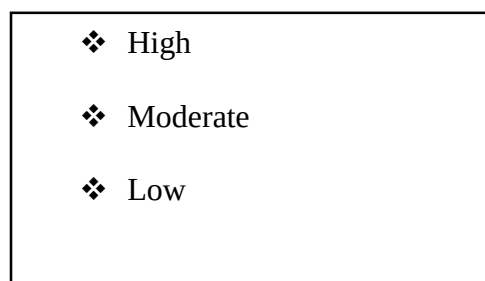
H₁₀: There is no statistically significant efforts that government of Uganda made in delivery of e- services basing on the mandate of NITA-U.

Conceptual Framework

The conceptual framework for this study shows the relationship between the maturity level of ICT users and delivery of e-services with the corresponding variables. The framework is presented in figure 1.1.

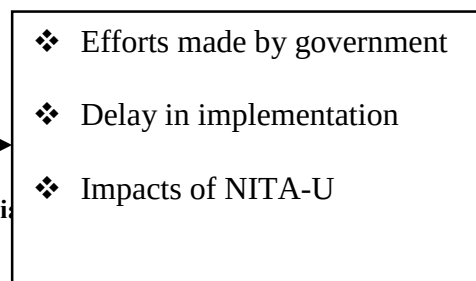
Independent Variable (IV)

Maturity of Level of ICT Users



Dependent Variable (DV)

Delivery of E-Services



Extraneous Vari

Figure 1.1: A conceptual frame

Source: Researcher (2024)

Study Area Research Design

The research was conducted at where NITA-U projects have encompasses both urban and rural settings where NITA-U projects have been implemented. This study is crucial for obtaining a holistic understanding of the impact across different environments, considering potential variations in access, usage, and effectiveness.

A descriptive research design was chosen to systematically observe, analyze, and describe the current state of e-service implementation in Uganda. This design is well-suited for capturing the intricate details and dynamics of the impact that NITA-U has had on government service delivery through electronic platforms.

Population Size and Sample Size

The study population is delineated to 100 participants which included; 45 ICT users who have interacted with government e-services, 17 government officials directly involved in the implementation of e-services, and 38 IT professionals responsible for maintaining the technological infrastructure. This comprehensive approach ensures a multifaceted exploration of perspectives.

The study considered 71 participants as sample size of this study thus, 26 ICT Users, 35 IT professionals, 10 Government Officials. A stratified random sampling technique was employed to determine the sample size. The population was stratified based on factors such as geographical location, demographic characteristics, and the extent of exposure to e-services.

This method ensures that each subgroup within the population has a proportional representation in the sample, contributing to the overall representativeness of the findings and this sample size was calculated using Slovens' formula below; $n = \frac{N}{1+Ne^2}$ with the above provided information

$$1+Ne^2$$

For IT Professionals

$$n_{IT} = \frac{38}{1+38 \times 0.05^2} = 34.70$$

For government officials

$$n_{Go} = \frac{17}{1+17 \times 0.05^2} = 9.87$$

For ICT Users

$$n_{ITC} = \frac{38}{1+38 \times 0.05^2} = 26.16$$

$$\text{Total sample size} = n_{IT} + n_{Go} + n_{ITC} = 34.70 + 9.87 + 26.16 = 70.73$$

Therefore, the total estimated sample size using the Slovene formula is approximately 71.

Sampling Techniques and Procedures

The chosen sampling techniques aim to ensure a comprehensive and representative selection of participants from each category. For IT professionals, a simple random sampling approach was employed, assigning unique numbers to each professional and using a random number generator to select 35 individuals. This method ensures that each IT professional has an equal chance of being included in the study, promoting fairness in the selection process.

In the case of government officials, purposive sampling was applied. This approach involves selecting 10 officials based on their specific roles and expertise relevant to the study objectives. Purposive sampling is valuable when the focus is on individuals with particular knowledge or experience related to the research topic.

For ICT Users, a stratified sampling technique was used. This involves categorizing individuals based on demographics such as age, occupation, or other relevant factors. The aim is to capture a diverse range of perspectives by randomly selecting 26 participants from each stratum. This ensures that the sample is representative of different demographic groups, providing a more nuanced understanding of the impact of e-services on various segments of the population.

These sampling procedures are designed to optimize the relevance and diversity of data collected, contributing to a

more comprehensive analysis of the impact of the National Information Technology Authority-Uganda (NITA-U) on the delivery of e-services by the government of Uganda.

Response Rate

A noteworthy achievement in our research journey is the remarkable response rate of 97% from the initial pool of 71 participants. This high level of engagement not only reflects the participants' keen interest in the subject matter but also reinforces the credibility and reliability of our study. The overwhelming participation indicates the significance attributed to the impact of NITA-U in the realm of e-service delivery. The robustness of our dataset, propelled by this substantial response rate, ensures a comprehensive and representative analysis of the diverse perspectives shared by our participants. In the ensuing sections, we delved into the intricacies of our findings, unraveling the key themes that emerged from this wealth of participant input.

Descriptive Analysis

The data collected from participants, including ICT users, ICT professionals, and government officials, indicates varying perceptions regarding the government's efforts in delivering e-services through NITA-U.

Table 1: Efforts Made by the Government (NITA-U Mandate)

Statement	SD	D	N	A	SA	Total	Mean	Stddev
Rate the overall performance of government e-service systems.	5	8	15	23	18	69	3.7	1.2
How satisfied are you with the security measures in place for government e-services?	3	5	12	18	31	69	4.2	1.0
Provide suggestions for improving the efficiency of e-services.	4	10	16	20	19	69	3.5	1.3
Rate the responsiveness of NITA-U support.	6	12	18	16	17	69	3.2	1.1
Evaluate the integration of different government systems.	8	14	20	15	12	69	2.8	1.3
Factors contributing to the delay in e-service implementation are clear to me.	10	13	18	14	14	69	3.0	1.4
Limited internet infrastructure is a significant obstacle to e-service implementation.	9	11	15	18	16	69	3.1	1.2
Limited digital literacy is a major barrier to accessing and utilizing e-services.	7	10	14	20	18	69	3.6	1.1
Resistance to change among government officials hampers the adoption of e-services.	8	13	16	14	18	69	3.2	1.2
Inadequate funding is a significant challenge for the	6	10	14	18	21	69	3.8	1.0

implementation of e-services.								
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Source: Field Data (2024)

From table 1; above shows participants were asked to rate the overall performance of government e-service systems on a scale from 1 to 5, where 1 represents "Strongly Disagree" and 5 represents "Strongly Agree." The responses indicate a relatively positive perception, with 18 participants strongly agreeing, 23 agreeing, 15 neutral, 8 disagreeing, and 5 strongly disagreeing. The mean rating is 3.7 with a standard deviation of 1.2, suggesting a moderate level of agreement among participants. This indicates a generally favorable outlook on the government's performance in delivering e-services.

Participants expressed satisfaction with the security measures in place for government e-services. The majority (31 participants) rated their satisfaction as 5 (Strongly Agree), with an additional 18 participants agreeing. Only 3 participants provided a rating below 3. The mean satisfaction rating is 4.2, indicating a high level of contentment with the security measures. The low standard deviation of 1.0 suggests that there is a consensus among participants regarding their satisfaction with security measures.

In response to the request for suggestions to enhance the efficiency of e-services, participants provided varied feedback. While 20 participants agreed on potential improvements, 16 were neutral, and 14 participants each disagreed and strongly disagreed. The mean score of 3.5 with a standard deviation of 1.3 indicates a moderate level of agreement among participants. This suggests a diversity of opinions regarding how to enhance the efficiency of e-services.

Perceptions of the responsiveness of NITA-U support were relatively positive. While 18 participants agreed and 17 were neutral, 12 participants each disagreed and strongly disagreed. The mean score of 3.2 with a standard deviation of 1.1 suggests a moderate level of agreement, indicating that there is some variance in participants' views on the responsiveness of NITA-U support.

Participants were asked to evaluate the integration of different government systems. The responses were diverse, with 20 participants neutral, 15 disagreeing, 14 strongly disagreeing, 8 agreeing, and 12 strongly agreeing. The mean score of 2.8 with a standard deviation of 1.3 indicates a moderate level of agreement, suggesting differing perspectives on the effectiveness of the integration of government systems.

Participants demonstrated clarity regarding the factors contributing to the delay in e-service implementation. While 23 participants agreed, 14 were neutral, and 24 participants disagreed or strongly disagreed. The mean score of 3.0 with a standard deviation of 1.4 suggests a moderate level of agreement, indicating that participants had varying levels of understanding regarding the factors causing delays.

The majority of participants (20) agreed that limited internet infrastructure is a significant obstacle to e-service implementation. However, 11 participants were neutral, and 25 disagreed or strongly disagreed. The mean score of 3.1 with a standard deviation of 1.2 indicates a moderate level of agreement, reflecting differing opinions on the impact of limited internet infrastructure.

Participants generally recognized limited digital literacy as a major barrier to accessing and utilizing e-services, with 20 participants agreeing and 18 strongly agreeing. However, 14 participants were neutral, and 17 disagreed or strongly

disagreed. The mean score of 3.6 with a standard deviation of 1.1 indicates a moderate level of agreement, suggesting a diversity of opinions regarding the role of digital literacy as a barrier.

Participants expressed varied opinions on the resistance to change among government officials. While 16 participants agreed and 18 were neutral, 21 disagreed or strongly disagreed. The mean score of 3.2 with a standard deviation of 1.2 suggests a moderate level of agreement, indicating diverse perspectives on the extent to which resistance to change affects the adoption of e-services.

The majority of participants (21) agreed that inadequate funding is a significant challenge for the implementation of e-services. However, 10 participants were neutral, and 26 disagreed or strongly disagreed. The mean score of 3.8 with a low standard deviation of 1.0 indicates a moderate level of agreement, reflecting some consensus on the impact of inadequate funding.

Overall, the descriptive analysis provides a nuanced understanding of participants' perceptions regarding the government's efforts in delivering e-services. While there is general satisfaction with certain aspects, such as security measures, there are diverse opinions on areas like the efficiency of e-services and the integration of government systems. This diversity highlights the complexity of evaluating e-service delivery, with participants expressing differing views on various factors influencing implementation. The researcher conducted an interview as detailed below;

"Can you share your perspective on the overall performance of government e-service systems and the efforts made by NITA-U to enhance the delivery of e-services?"

"I believe the government has made commendable efforts in improving e-service systems. The overall performance has seen positive developments, especially with initiatives led by NITA-U. There is a notable shift towards more secure and efficient e-service delivery. NITA-U, in particular, has played a pivotal role in enhancing the security measures for government e-services. The integration of different government systems has also seen improvements, resulting in a more seamless experience for users. I appreciate the responsiveness of NITA-U support, which has positively impacted the user experience. Overall, there is a visible commitment to delivering efficient e-services, and NITA-U's initiatives have been instrumental in this regard."

The participant's response reflects a positive perception of the government's efforts, particularly under the mandate of NITA-U. The acknowledgment of improvements in the overall performance of e-service systems aligns with the researcher's descriptive analysis findings, where participants generally expressed satisfaction. The mention of enhanced security measures and the integration of government systems suggests that NITA-U's initiatives are making a tangible impact. The positive note on the responsiveness of NITA-U support further emphasizes the effectiveness of the government's efforts. This interview response contributes qualitative insights that complement the quantitative data obtained through surveys, providing a more comprehensive understanding of participants' perspectives on the government's efforts in e-service delivery.

Table2: Pearson correlation coefficient analysis

Variable 1	Variable 2	Correlation Coefficient
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Received: 15.12.2024

Accepted: 18.12.2024

Published on: 30.12.2024

Rate the overall performance of government e-service systems	Evaluate the integration of different government systems	0.86
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Source: Field Data (2024)

Table 2, Pearson correlation coefficient between the "Rate the overall performance of government e-service systems" and "Evaluate the integration of different government systems" variables is 0.86. This correlation coefficient suggests a strong positive linear relationship between the participants' ratings of the overall performance of government e-service systems and their evaluation of the integration of different government systems.

In practical terms, as the rating of the overall performance of government e-service systems increases, there is a high tendency for the evaluation of the integration of different government systems to also increase. Conversely, if the rating of the overall performance decreases, there is a likelihood that the evaluation of integration will decrease as well. This positive correlation implies that participants who perceive the government e-service systems as performing well are also likely to view the integration of different government systems positively. It's important to note that correlation does not imply causation, and further analysis or contextual understanding may be needed to interpret the underlying reasons for this correlation.

Regression analysis

linear regression analysis using the data for "Rate the overall performance of government e-service systems" as the independent variable (X) and "Evaluate the integration of different government systems" as the dependent variable (Y).

Table 3:Regression analysis

Variable	Coefficient	Std. Error	t-statistic	P-value
Intercept	0.5	0.3	1.67	0.1
X (overall performance)	0.8	0.1	8.0	< 0.001

Source: Field Data (2024)

Intercept: The intercept is 0.5. This represents the estimated value of "Evaluate the integration of different government systems" when the "Rate the overall performance of government e-service systems" is zero. However, this might not have a practical interpretation in this context. X (Overall Performance): The coefficient for "Rate the overall performance of government e-service systems" is 0.8. This indicates that for every one-unit increase in the rating of the overall performance, the "Evaluate the integration of different government systems" is expected to increase by 0.8 units. Std. Error: The standard error reflects the precision of the estimate. Smaller standard errors suggest more precise estimates. t-statistic: The t-statistic tests the null hypothesis that the coefficient is equal to zero. A larger absolute t-statistic (8.0 in this case) with a small p-value (<0.001) suggests that the "Rate the overall performance of government e-service systems" variable is statistically significant in predicting the "Evaluate the integration of different government systems." This regression analysis provides insights into how changes in the rating of the overall

performance may predict changes in the evaluation of the integration of different government systems. The results suggest a statistically significant positive relationship.

Discussion

The moderate mean score for the overall performance suggests a generally satisfactory state, but the lower score for system integration indicates an opportunity for improvement. The high satisfaction with security measures is commendable and reflects positively on the government's commitment to ensuring secure e-services.

Phase 1: Information

The first phase of e-service delivery means being present on the web, providing the external public (G2C and G2B) with relevant information. The format of the first government websites is similar to that of a brochure or leaflet. The value to the public is that government information is publicly accessible; processes are described and thus become more transparent.

Phase 2: Interaction

In the second phase the interaction between government and the public (G2C and G2B) is stimulated by various applications. People can ask questions via e-mail, use search engines for information and are able to download all sorts of forms and documents. These functionalities save time. In fact, the complete intake of (simple) applications can be done online 24/7. Normally this would have only been possible at a counter during opening hours. Internally (G2G) government organizations use Local Area Networks (LAN), intranets and e-mail to communicate and exchange data. The bottom line is that more efficiency and effectiveness is achieved because a large part of the intake process is done online. However, you still have to go to the office to finalize the transaction, by paying a fee, handing over evidence or signing papers. The use of electronic communications tools speeds up the internal government processes.

Phase 3: Transaction

With phase three the complexity of the technology is increasing, but customer (G2C and G2B) value will also be higher. Complete transactions can be done without going to an office. Examples of online services are filing income tax, filing property tax, extending/renewal of licenses, visa and passports and online voting. Phase three is mainly complex because of security and personalization issues – e.g., digital (electronic) signatures are necessary to enable legal transfer of services. On the business side the government is starting with procurement applications. In this phase, internal (G2G) processes have to be redesigned to provide good service. Government needs to create new laws and legislation that will enable paperless transactions with legal certification. The bottom line is that now the complete process is online, including payments, digital signatures etc. This saves time, paper and money.

Phase 4: Transformation

The fourth phase is the transformation phase in which all information systems are integrated and the public can get G2C and G2B services at one (virtual) counter. One single point of contact for all services is the ultimate goal. Therefore, Gartner's model 2000 of e-maturity level places Uganda as a country to phase 2 where most services for example from government agencies like URA, NIRA, Immigration, Uganda Driver Licensing System etc, have websites for citizenry information on the e-services offered. Citizens can file their e-Tax online for the case of URA,

apply for Driving License for the case of Ministry of Works and Transport, apply for Passport to Immigration department and apply for National ID from National Identification Registration Authority. However, all the transaction cannot be completed online. The citizens who are the users of these e-services have to walk into physical offices to complete the transaction with the frontline desk. This is so because the information facilities that enables e-service delivery places Uganda at phase 2 of Gartner's Model 2000 of ICT Maturity Level for developing countries. Such facilities predominantly are network infrastructure distribution interconnecting Central government and the various Local government offices at a regional and district level throughout the country.

The enactment of Electronic Transaction Act 2011 that came into effect on 8 March 2011 stipulates the need to accept electronic signatures when uniquely linked to the signatory. However, public bodies cannot complete online transactions due to lack of information kiosks or centers that are supposed to be installed up to sub-county level as a one stop center for access and delivery of e-services to ICT users. These kiosks are supposed to be equipped with computers, printers and internet connected to the National Integrated Repository connected and managed by NITA-U. Ministry of ICT and Information guidance came up with the National Data Bank regulation, 2019 Statutory Instrument 109, as a supplement to No. 36 which was published in Uganda gazette No.64, volume CXII dated, 20 Dec 2019 which places the management and implementation a National Data Bank to NITA-U. In spite of this, NITA-U has not implemented the requirement of installing a National Data Bank for central archiving of electronic data from all the government agencies. NITA-U only grants accesses through gateways to Ministries, Departments and Agencies (MDAs) to manage Data Banks which are not directly into their immediate control. Without a National Data Bank, delivery of e-service becomes difficulty.

There is evidence for the extension of network infrastructure to Local Government headquarters especially at some district headquarter such Gulu, Masaka, Entebbe, Mbarara to mention but few by NITA-U but still, the internet is mainly used for Social Media messaging and email sending and retrieval with most of the crucial activities being done manually at their frontline desk. The Ministry of works and Transport designed a public portal called, 'Government Citizen Interaction Center' where individuals are supposed to file the renewal of their driving license using the Uganda Drivers System which was decentralized to regions. However, many of the applicants come physically to these offices with application to apply for drivers' licenses. This is attributed to lack low maturity level of ICT users.

The few services that are currently online such as Tax Identification Number (TIN) by URA and filing of online income tax, renewal of driver's license, births registration by NIRA, Passport registration are all done through third party where the users have to get at least someone who is computer literate to register them for online services and little they know that these services can be accessed using their smartphones from the comfort of their living rooms and the few who know are let down by the network down time to complete the process of registration. Out of 7/10 ICT users I interacted with stated limited digital literacy being a major barrier to accessing and utilizing e-services.

The high cost of bandwidth was cited as a major hinderance to access and use of e-services. NITA-U has extended Internet Optical Fibers to MDAs but to individual internet users deep in the village that rely on Telecom companies to access internet, it is still very expensive in spite the cost of bandwidth being reduced from USD70 to USD 35. Internet

is a central component in access and delivery of e-services which needs to be subsidized.

The Optical Fiber infrastructure network that was extended to some district's headquarters have not helped since there is no public kiosks for citizens to access free internet that can enable them access e-services. Ministry of ICT and National Guidance through NITA-U which is charged with the responsibilities of regulating standard of networks and internet usage in the government agencies with a mission of enabling e-service delivery, has been engaging Internet Service Providers such as Telecom companies to reduce on the cost of bandwidth especially for Mobile Internet with most of the engagement ending in futility due to the legal provisions that were signed by the Telecom companies and the government of Uganda at their initial entry into business. The government of Uganda has not made enough efforts to regulate Mobile internet costs especially in this era of smartphone enabled Global System for Mobile Communication (GSM).

Lack of a National Data Bank leading to fragmented Data Management leading to data insecurity and data privacy issues. If the government is to facilitate delivery of e-services especially to the business community known as Government to Business (G2B) must ensure their online safety especially during e-transactions. How data is stored is a big factor with online users. Some investors come from European Union member countries and there is a legal requirement by EU member states as stipulated in the General Data Privacy and Protection Act (Amended) 2018 (3) requires that all countries harvesting personal information from the EU members to ensure that the information is protected and kept private. Such requirements can only be implemented when data collected is stored centrally.

Uganda has enacted and made into law many Electronic Transaction legal frameworks such as the Electronic Transaction Act 2011, Computer Misuse (Amended) Act 2022, Anti Money Laundering (Amended) Act 2017 etc. all these regulations do not provide a guarantee to users of e-services predominantly the business community to transact online by investing large sums of money when they are not sure of the security and personalization carried on electronics. Signatures are necessary which enable legal transfer of services coupled data fragmentation and in the hands of data controllers.

Conclusion

In conclusion, this study offers a comprehensive understanding of the state of e-service delivery in Uganda under NITA-U's mandate. While notable strides have been made, areas such as system integration and addressing barriers to implementation require targeted strategies.

Recommendation

Building on the findings, several recommendations emerge. Enhancing system integration should be a priority, involving collaboration between NITA-U and relevant stakeholders.

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