OVERCOMING THE HURDLES OF INTRA-ORGANIZATIONAL INFORMATION SHARING IN E-GOVERNMENT IMPLEMENTATION IN GHANA

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ABSTRACT

This paper presents a qualitative study on intra-organizational information sharing challenges in the implementation of e-government project. This study identifies the important organizational resources and structures for intra-organizational information sharing during electronic-government implementation. Specifically, the study focused on a semi-autonomous public organization in Ghana. A case study was used for the research and in-depth interviews were conducted to collect data for the study. The results offer empirical evidence that organizational resources and structures are important in determining the success or failure of innovative technologies in public sector organizations in developing countries. A better comprehension of the impact of key factors in information sharing during e-government implementation in developing countries will lead public sector managers to more informed decision making pertinent to the design and implementation of e-government projects to enhance customer experience and also support the development of their organizations.

Keywords: e-government, ICT, public organizations, intra-organizational information sharing, collaboration.

INTRODUCTION

Many governments across the world are under enormous pressure to improve service delivery to their citizens. These pressures have subsequently led to the introduction of information communication technology (ICT) into the operations of many public institutions. This phenomenon of using ICT to inform and provide services to citizens is referred to as electronic-government (e-government). Various researchers have defined and conceptualize e-government differently in the literature [1, 20]. “E-government refers to the use of technology to enhance the access to and delivery of government services to citizens, business partners and employees” [22, pp. 88]. Also e-government refers to “the use of online channels for enhancing the access and delivery of any facet of government services and operations to the benefit of
citizens, businesses, and other stakeholders” [20, pp. 268]. E-government has enormous benefits if implemented efficiently. E-government can help improve intra and inter-governmental information sharing; check corruption and reduce public institution’s operational cost [4, 21, 23]. With the enormous benefits associated with e-government, an element that poses both organizational and technical challenges to its implementation is the integration of diverse sources of information from diverse units [13]. Therefore, the concept of intra-organizational information sharing is very critical to the success of e-government projects [1, 13, 27].

Various studies have explored different themes on e-government including e-government implementation challenges [8, 10]; facilitating conditions for a successful e-government project [7]; opportunities and challenges of e-government [2]; inter-organizational information sharing in public organizations; information culture and its impact on e-government [23] and citizen trust development for e-government implementation [6]. The technical issues surrounding the development of e-government initiatives have received significant amount of research [1]. However, with the plethora of information sharing challenges and its context specific nature, it is therefore important to comprehend the intra-institutional collaborative challenges and how it affects digital government initiatives [13, 23]. The purpose of this research is to explore the intra-organizational information sharing challenges in the implementation of e-government in the Driver and Vehicle Licensing Authority (DVLA).

Against this background the following question guides the research paper: what are the challenges characterizing intra-organizational information sharing in public sector agencies in the context of Ghana in the implementing of e-government initiatives? The study provides empirical evidence on intra-organizational information sharing challenges in public sector organizations in implementing e-government projects in Ghana. This paper is structured as follows. The first section entails the introduction and the purpose of the paper. Literature on previous information sharing studies on e-government and the Information Communication Technology (ICT) environment of Ghana were presented in the second section. The next section presents the research method followed by the research findings and discussions and finally the conclusion.

**LITERATURE REVIEW**

Electronic government has been touted as a major break-through in improving the operational efficiency of government institutions [2, 27]. Ghana is experiencing rapid population growth and there is the need to improve governance and service delivery to citizens. To facilitate governance in Ghana, the process of adopting and applying e-government has been initiated under the ICT for Accelerated Development Policy [9]. This led to the introduction of various IT systems in the country. For instance, the Ghana Community Network (GCNet). The GCNet was introduced to eliminate bureaucratic inefficiencies and curb corruption in the public services of Ghana. However, it was opposed by some public sector employees because it has brought transparency into the operations of these organizations thus, reducing possibilities for employees to generate “additional income” from corrupt activities [21].

With its enormous benefits, a major challenge to e-government projects in developing countries is the issue of internet connectivity even though some progress has been made [13]. According to Gyamfi [10], due to the lack of supporting communication infrastructure, organizational collaborations in implementing e-government initiatives in Sub-Saharan Africa has been very difficult leading to a wide digital-divide between developed and developing countries. To help address the challenge of digital divide, various initiatives have been taken by governments in these developing countries with support from their international development. For instance, with the aim of facilitating ICT development and integration into school curricula and teacher training in Ghana, Microsoft Corporation’s Partners in Learning Program has donated ICT equipment for training to Ghana (Ghana News Agency, 2004, cited in Gyamfi [10]). Even though these collaborations are laudable, a major challenge has been the lack of coherent mechanism in place to ensure that these ICT resources are all the same with the same types of application software and hardware [10]. This leads to difficulties in integrating various application software during e-government implementation subsequently making these donated ICT equipment obsolete. Hence, it is important that prior to donating ICT equipment to government organizations the development partner consults the organization to address these issues first.

For public organizations to implement and accrue the numerous benefits associated with e-government, Luna-Reyes et al. [13] posit that organizations must remember that e-government initiatives rely greatly on information and how such information is shared within the implementing organization. Previous literature has revealed that intra-organizational information sharing has the potential to enhance the effectiveness and efficiency of public services, increase the quality of organizational decision making and expedite services to clients [1, 19, 23]. For instance, the average clearing time at the Kumasi...
International Airport (KIA) in Ghana have been greatly reduced from 24 hours to 10 minutes since the introduction of an electronic documentation system which facilitates information sharing [2]. Svard [23] also asserts that besides the advantages it brings to organizations, it serves as an instrument for citizens to understand the decision-making processes of government institutions. Therefore, the way government institutions manage and use information is very vital for the success of those institutions. The benefits associated with intra-organizational information sharing has led to a shift on the part of public sector institutions in many developed countries to move from the emphasis on information protection to information sharing [26]. However, the reverse is the case in many developing countries where information protection is still the norm.

According to Yang and Maxwell [26] there is a complex relationship existing amongst the factors that affect organizational information sharing. These factors include organizational structure, procedures for sharing information, level of trust between workers and departments [13, 26]. Trust building is a basic requirement in any collaborative digital government project since it is a key enabler and to a large extent determined by the organizational environment [13]. Long before the introduction and development of e-government as a concept and a discipline of study, the concept of trust has been studied extensively in other disciplines, however interpretations differ per disciplines [6]. This notwithstanding, the effects of trust on intra-organizational information sharing during the implementation of e-government projects can be minimized when expectations are made clear and benefits are shown early in the process [13]. For instance, according to Svard [23] in his comparative study of three municipalities in Belgium and Sweden, his findings revealed that, the environment within an organization determines the correlation between their trust levels of workers and their willingness to share departmental information. This creates a situation that blocks the channels for sharing information which subsequently affect the operational efficiency of the organization [18].

**Information Communication Technology (ICT) Environment of Ghana**

Ghana is located in West Africa and boarded at the west by Ivory Coast, at the east by Togo, Burkina Faso at the North and the Atlantic Ocean at the south. Ghana gained independence from British colonial rule in March, 1957 and was the first African country south of the Sahara to gain independence. Due to the role ICT plays in the development of every country’s economy, the government of Ghana is taking various initiatives to develop ICT in the country. The country’s medium-term development plan captured in the Ghana Poverty Reduction Strategy Paper (GPRS I & II) aims to improve ICT development. Ghana’s ICT development is anchored within the country’s Information and Communication Technology for Accelerated Development (ICT4AD) policy framework. Within the broader ICT4AD policy framework, the government of Ghana has also adopted a National Telecommunication Policy, Trade policy and Private Sector Development Strategy (PSDS), all with the sole aim of supporting the ICT development agenda. Government of Ghana has established a project called the eGhana project with the aim of implementing the ICT accelerated policy. The eGhana project aims to address a wide range of issues from infrastructure, institutions, human resource, legal and regulatory frameworks to funding and public-private-partnerships (PPP). Ghana’s ICT4AD policy was passed into law by parliament in 2004. To support this agenda various laws have been passed and they include:

- National Communication Authority Act, 2008, Act 769
- Electronic Transactions Act, 2008, Act 772
- National Information Technology Agency Act, 2008, Act 771
- Electronic Communications Act, 2008, Act 775

In the development of the ICT4AD policy, various socio-economic development framework documents were taken into account and these include: the vision 2020 Socio-Economic Development framework; the Ghana Poverty Reduction Strategy and Co-ordinated Programme for Economic and Social Development of Ghana. Under the Ministry of Communication, the Ghana Information, Communication and Technology Directorate has been established as the national implementation and coordination body of ICT projects which are linked to the ICT4AD policy. The ICT4AD policy has fourteen priority areas and its overall objective is to facilitate an ICT led socio-economic development process with the potential to transform Ghana into a middle-income, information rich, knowledge based and technology driven economy and society. To achieve its aim the following specific objectives were set.

- To create the necessary enabling environment to facilitate the deployment, utilization and exploitation of ICTs within the economy and society.
- To support the development of viable knowledge-based ICT industry to facilitate the production, manufacturing.
development, delivering and distribution of ICT products and services.

- To support the development of a competitive high value added service sector to serve as an engine for accelerated development and economic growth with the potential to develop into a regional business-service and ICT hub.
- To facilitate the development, expansion and rehabilitation and the continuous modernization of the national information and communication infrastructure.
- To guide the development and implementation of electronic government and governance, as well as electronic commerce and business strategies and action plans.

Apart from these initiatives, the Government of China through the China EXIM Bank is helping the Government of Ghana through a concessionary loan facility to aid the extension of the current fibre-optic network across the country. Subsequently, the eastern corridor fibre-optic backbone infrastructure has been commissioned. The project covers 800 kilometers and will connect 120 communities from Ho to Bawku. The project aims at bridging the digital divide between the urban and rural communities in Ghana. The fibre-optic connections will help support the country’s e-government project by connecting all Metropolitan, Municipal and District Assemblies to the internet. Other ICT developments include the establishment of the Kofi Annan ICT Center and the expansion of broadband services beyond Accra and Tema to other regions and metropolis in Ghana. In sub-Saharan Africa, Ghana became the first country in 1995 to have “full internet connectivity” [17].

RESEARCH METHODOLOGY

The qualitative method was used for the research. The approach provided a contextual understanding of the e-government phenomenon [5]. The case study approach was employed for the study and it provided a purposive and general comprehension of a modern phenomenon like e-government. It further provided multiple avenues for data collection which included interviews, observations, secondary data and inferences about the phenomenon [28]. The case study becomes very appropriate when the focus of the study is on the processes of transformation such as the challenges to information sharing during information systems implementation [12]. The Driver and Vehicle Licensing Authority (DVLA) was used as the case study for the research. The DVLA was selected not based on random sampling but because it was a public organization and also provides an opportunity to explore the implementation of e-government in Ghana. Moreover, the DVLA also made it possible to have convenient access to data which is a major challenge for most studies in Ghana especially when dealing with the public service.

Based on the assessment through the seeking of views of clients of the DVLA to ascertain the impact of the new online project since its inception in 2008. According to the assessment, it shows that majority of the clients were satisfied with the new process due to the convenience it brings to client. Accordingly, the researcher believe that an exploration of the intra-organizational information sharing processes at the DVLA can help in explaining the challenges to information sharing within government institutions in enacting digital government projects. Both primary and secondary data sources were used for the study. The primary data consisted of data from study participants which were done using key informant semi-structured interviews. The study participants were given the freedom to express their sentiments and experiences about the e-government phenomenon without any restrictions. Existing literature consisting of published and unpublished reports on e-government as well as books, peer reviewed journals and the internet were used as data sources for secondary data. The staff of DVLA was the target population for the study. The study used purposive sampling technique in selecting participants for the interview. In selecting key interview respondents, the purposive sampling technique is an appropriate type of non-probability sampling technique [25]. The use of this sampling method helped select respondents with the requisite knowledge and experience about the phenomenon been researched [5, 15]. The fieldwork for the study was conducted between December, 2014 and February, 2015. Fourteen (14) respondents were interviewed for the study. They included data entry officers (4), coordinators in charge of driver license examinations (2), management information systems department (3), web-portal manager (1), Administration and finance (2), client service (1) and license verification unit (1). The diverse views from the various departments enabled the researcher to triangulate the research data about the key activities and challenges to information sharing in the organization.

Triangulation of qualitative research data improves the validity of research findings [3]. The interview questions focused on the various mechanisms to facilitate intra-organizational information sharing and its challenges. The duration of each interview was averagely about 60minutes and they were tape recorded and also
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documented. Qualitative analysis refers to “three concurrent flows of activity: data reduction, data display and conclusion drawing and verification” [14, pp. 10]. The study employed this approach in analyzing the entire data collected from the field. The recorded interviews and the notes were all transcribed and documented and later sorted to meet the objectives of the research.

RESULTS

Channels and Timeliness of Information

One major hurdle to most public policy implementation in Ghana has been weak collaboration and coordination of institutional processes. The DVLA has twenty seven stations nationwide as well as other relevant bodies it works with, in the execution of its mandate. The study revealed that, the channels of communication and information sharing were ineffective. Official letters, electronic mail and circulars serve as the main formal channels of sharing and distributing information. Respondents said the information were usually instructions on work schedules, operations and meetings. These are usually from management and colleagues. However, interviewees cited instances of delays in delivery of instructions and meeting schedules especially when it is from management. These were all due to using the wrong medium to share the information without credence to its urgency. Some information require urgent action to expedite service delivery and also required the use of the internet instead of the manual paper processes. Another challenge to the timeliness of information sharing is the issue of authorization from management. A respondent lamented that:

“There have been instances where we would be waiting for authorization to carry out an assignment. Due to delays in approval from management, projects end up delaying and affecting our services. And when the authorization is given the medium through which the information is shared also makes the issue worse. Instead of using an electronic medium some of them end up using the manual paper process to share the information causing further delays”.

Due to these challenges, there is dissatisfaction among staff regarding timing and speed of information dissemination. Junior staff complained and blamed management for the late approvals and authorization for feedback while management also blamed other government institutions for the delays in feedback too.

Information sharing, Communication and Feedback

The findings revealed that there was ineffective information sharing amongst the various departments as well as delays in feedback. This was due to the use of wrong medium for information sharing without prior consideration for the urgency that needs to be attached to the information. Due to the delays in feedback and ineffective information sharing, functions are sometimes duplicated among staff. Some of the reasons cited for the duplication of functions included non-usage of systems for collaboration due to the low levels of know-how on the part of some staff as well as the breakdown of some of the equipment to aid information sharing and workflow. A respondent cited that:

“In some departments the mechanisms to facilitate information sharing and workflow are never used by some staff all because some complained that they are not very conversant with how to use them and this leads to the duplication of functions and roles. This also leads to delays in workflow and synergy in information”.

When respondents were asked about the reliability of the information when shared, the study found out that there were instance where the information been shared was inaccurate. The poor accuracy of information shared creates challenges for data entry into the main system of the Authority. This usually creates data conflicts especially with the vehicle chasis numbers since the system is configured in a manner that it cannot store two similar chasis numbers. One participant lamented:

“When the chasis numbers sent to you are inaccurate, it creates conflicts with other chasis numbers and this makes the entry of the new data impossible”.

Another participant also had this to say about the information inaccuracy:

“Updating the website of the DVLA requires data accuracy because whatever we put on the website goes into the public domain. We have had instances where the information we put on the websites was not accurate and had to correct it later. This really created some problems for the Authority”.

For an effective collaboration in e-government implementation, the level of trust between workers plays an important role in their willingness to share information with other departments. This point leads the study to explore the issue of trust and data protection in the DVLA.
Trust and Protection

The findings regarding workforce trust in sharing information revealed that, nine (9) out of the fourteen (14) respondents were skeptical about sharing information with other members of staff even if the staff is a management member. Some alluded to the fact that, before they share information with other members of staff they will require an authorization, because they do not trust some of their colleagues. A respondent had this to say about the issue of trust and information sharing:

“I still prefer the manual process since with that the information is more secured from computer and internet hackers. I deal a lot with the personal details of our clients and if in sharing with my colleagues and the information gets into the hands of the wrong people it can create a mess for the agency and myself. With this new system how secured are the information especially from this internet fraudsters, since I don’t trust how some of my colleagues will handle the information I share with them I’m very skeptical about this electronic information sharing process”.

To this end, the Authority had acquired a computer software to protect the information that clients give to it. However, until people build trust and feel more secured giving out their details and transacting business through the internet, the quest for public sector organizations to bring service delivery to the door step of citizens will never be realized.

Bureaucratic Structures

Respondents were asked to indicate how the bureaucratic structures in the organization was affecting information sharing since the introduction of the e-government initiative. The findings revealed that, due to the several levels of approvals before information is released and shared it tends to affect how the information is shared. In some instances in the absence of the authorizing officer who is the director in charge of management information systems and his deputy the whole process stalls. This bureaucratic challenges is really affecting service delivery. More importantly, the nature and operations of the DVLA is such that there is so much intra-departmental dependency. In other words, when a department gets a challenge it tends to affect other departments. A participant lamented that:

“Before any change can be effected on the website, authorization must come from the top. However, due to the number of approvals from different offices it takes time to effect the changes. There were instances where charges for services were reviewed by the Authority but due to delays in informing us the technicians to make those changes on the website, it led to the creation of a price gap between what was charged at the Authority and what was on the website”.

Management approval is a necessary requirement to establishing the legitimacy of institutional existence and functions. It is obvious that even with its ability to streamline the operations of government, bureaucracy is an impediment to information sharing during e-government implementation at the DVLA.

Training and Development

Training is very crucial in the implementation of e-government initiatives. Respondents were asked if the organization organized any training on e-government for the workforce as well as how to use the information sharing channels in the organization. The study found that the Authority has been engaging in some training for its workforce using both internal and external training modules. It has internal training facilities that it uses for its internal training programmes. However, the Authority also contracts other institutions to conduct ICT training programmes for its staff to help enhance their ICT skills. However, when asked about the frequency of the training and development programmes for staff, the study found that, it was not regular and routine. This was due to inadequate funding for training and development. Even though funds were provided for the e-government project implementation, the funds were not enough to cater for the regular and routine training needs of staff who administer the project. According to an official:

“Funding for staff training has been a major challenge for us, even though we know the critical role of training for our staff in this project and our quest to improve information sharing by moving from the usual manual channels to using electronic means. However, funding has not been forthcoming so we can’t organize regular and routine training for our staff”.

The challenge of inadequate training accounts for the inability of some workers to use the electronic channels to share information and still opt for the manual paper processes. This had created a gap between the people implementing the programme and the skills required to effectively implement and manage the programme due to poor information sharing.
Change Management

Prior to the introduction of any change in an organization, the workforce must be informed about the impending change. When respondents were asked about their knowledge of the introduction of the new electronic channels of information sharing in the implementation of the new automation system, most of the respondents alluded to the fact that they were duly informed through seminars and meetings. However, some of the respondents were of the opinion that, the organization must still do more to prepare staff to understand and accept the change. One respondent lamented that:

“Yes the Authority took some measures to inform us but they were inadequate and some of us still don’t really understand the concept and even how to use some of the ICT gadgets. Issues of training have not been frequent to make us conversant with the new technology”

The introduction of change requires a deliberate and a conscious effort to educate and make the workforce appreciate the idea. However, from the findings, information concerning changes within the organization was not communicated well and the workforce never really understood the change. As a result of the communication gap with respect to the introduction of change, some of the workforce are apathetic.

DISCUSSION

The study aimed at exploring the challenges to intra-organizational information sharing during e-government implementation. People have become extremely cautious about the legal and ethical ramifications about the kind of information they share with their colleagues at the workplace. This is due to the frequent scandals and fraudulent activities perpetrated by people when crucial and valuable organizational information are shared with them. Trust building is a basic requirement in any collaborative digital government project since they are key enablers [13]. Public sector institutions must do more to build the trust of citizens and their workforce to embrace the use of information technology. Information sharing is what makes e-government initiatives successful. With its benefits and the fact that organizational sustenance depends on how information is managed and shared [23], public sector institutions in developed countries over the years have moved from the emphasis on information protection to information sharing [26]. However, in Ghana many public sector workers are very skeptical and stingy in sharing and releasing information to their colleagues. This is due to the low levels of trust between workers and the use of the information shared to perpetrate criminal activities. Public sector managers must therefore invest more in information technology training of their staff to eliminate the skeptical feelings some have towards the use of information technology medium in sharing information. Organizational workforce must also be enlightened about the potential benefits of information sharing before and during e-government implementation. The findings of the study on protection and trust in sharing information during e-government enactment are in line with those of Schuppen [21] and Iddris [11]. Their studies confirm the fact that one major challenge to e-government implementation in most developing countries has been the issue of trust and information protection.

Training is critical to the long term survival and existence of every organization. It is crucial for any project implementation since it enhances the abilities, knowledge and skills of organizational workforce. Organizational IT capability is a major facilitator of organization information sharing and collaboration. However, until organizational members utilize and familiarize themselves in operating IT applications, e-government implementation will never achieve its full potential [26]. Lack of training for organizational staff in e-government implementation programmes and the low usage of mechanisms for information sharing will render the equipment and processes for e-government implementation obsolete due to the inability of the workforce to use them. Introducing the state of the art information technology systems to facilitate information sharing will not be enough until the workforce is trained on how to use these equipment. ICT is dynamic and keeps evolving leading to an increase in its complexities and subsequently, its management. There is therefore the need to have routine and frequent staff training. Only through these training programmes that staff acquire new abilities to be able to handle and manage these complexities associated with ICT. Inadequate training is the cause of poor comprehension with the use of the channels of information sharing to facilitate e-government project success. Allen et al. [1] postulate that, inadequate comprehension of an e-government project as well as poor intra-organizational information sharing from the start of projects accounts for the poor state of collaboration amongst organizational departments. The findings of the research show that, training and development for staff of DVLA in ICT is irregular due to the inadequacy of funding. However, without proper training and development for the people who are to implement and manage the e-government initiative, its implementation will be ineffective. The point of inadequacy of routine and regular training and development corresponds with the work of [2].
People tend to resist change when they are not very conversant with the change. Resistance to change is one of the greatest barriers to the implementation of e-government projects across the world. Until organizational employees comprehend and support new organizational developments, the success of such developments will always be in limbo. It is imperative that workers are engaged and involved from the initial stages of e-government project implementation to enhance their understanding and support for such projects. This will also help workers appreciate the need to collaborate and share information. Moreover, early involvement of staff will help manage their concerns about the change. It is also important to implement e-government projects in a gradual incremental basis but not in a radical manner since that can increase its chances of failure.

The success of intra-organizational information sharing cannot only be hinged on how the information is shared, IT capabilities of the organization as well as how quick the information is delivered but, on the timeliness of the response of the information upon delivery. According to Sabatier and Mazmanian [16] one principal obstacle to programme implementation is the difficulty in obtaining collaboration and coordination amongst the various departments and units in an agency involved in a project implementation. The study findings confirmed that e-government projects can succeed in developing countries like Ghana if the influence of the various stakeholders are considered and coordinated by management. Due to the inability of some staff to utilize the systems in place to facilitate information sharing and give feedback on information, the functions of other departments tend to suffer, leading to inefficiencies in operations. This observation corresponds with the findings of Sakyi [18] that when basic channels of communication are not used effectively, gaps are created that hamper the collaboration and coordination of the functions of various units during project implementation.

The bureaucratic structures are major impediments to the efficient flow of information in many public organizations in Ghana. Hence, reviewing the bureaucratic structures will make them more responsive to the contemporary issues been handled by government organizations like information sharing during e-government projects. Information is the backbone of any e-government initiative. Bureaucratic tendencies in government institutions lead to poor co-ordination and information sharing amongst departments and units [20]. Bureaucracy should be seen as a means to an end but not an end in itself. Bureaucracy was developed to facilitate the operations of organizations and so if it impedes the smooth flow of information, then there is the need to review it. However, many organizations in Ghana see bureaucracy as an end in itself and refuse to make changes to it even if it is not helping the organizations to achieve its mandate. It is time for public organizations in Ghana to understand the need to review their bureaucratic structures since the needs of citizens and the environment in which these public organizations operate is dynamic.

CONCLUSIONS

Public sector organizations are operating in an era of information technology revolution coupled with the insatiable needs and demands of citizens for improved goods and service delivery. Governments have no option but to inculcate information technology in their operations to meet the needs of their citizens. Information technology has the ability to improve and shape public organizations and also bring citizens closer to government by making information more readily available. Within the context of this research the following conclusions were made. The bureaucratic structures in the Authority is a major challenge to information flow. This bureaucratic structures were causing delays in the flow and distribution of information. These delays cause information to reach their destinations a little late, thus affecting service delivery. Unreliable data was also identified as a hindrance to information sharing and workflow. Information is the backbone of any e-government initiative. When the information being shared is inaccurate it affects the entire operations of the organization. The poor accuracy of data creates challenges for data entry into the main system of the Authority. This usually creates data conflicts especially with the vehicle chasis numbers since the system is configured in a manner that it cannot store two similar chasis numbers. The channels and procedures developed to facilitate information sharing were not used effectively due to the breakdown of some equipment as well as the inability of some of the officials to utilize them. These phenomena has led to the creation of information sharing gaps amongst workers. The situation has led to poor services delivery as some officials become under-informed and unable to fully function in their capacities.

The study therefore recommends that any attempt to implement e-government projects, organizations must involve their employees from the initial stages and also conduct information technology training for their workforce to enhance their skills, competencies and their understanding about the need to utilize information sharing channels to enhance e-government projects success.
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## APPENDIX A: PROFILE OF RESPONDENTS

<table>
<thead>
<tr>
<th>Departments</th>
<th>Respondent</th>
<th>Position</th>
<th>Gender</th>
<th>Duration of Service</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIS</td>
<td>Deputy Director of MIS</td>
<td>Management</td>
<td>Male</td>
<td>5 Years</td>
<td>BSc. Information Technology, MSc. Computer Science</td>
</tr>
<tr>
<td>Administration</td>
<td>Deputy Director of Administration</td>
<td>Management</td>
<td>Male</td>
<td>2 Years</td>
<td>MA. Development Management</td>
</tr>
<tr>
<td>Finance</td>
<td>Director of Finance</td>
<td>Management</td>
<td>Male</td>
<td>10 Years</td>
<td>Chartered Accountant, MBA Finance</td>
</tr>
<tr>
<td>Customer Service</td>
<td>Head of Client Service</td>
<td>Management</td>
<td>Female</td>
<td>7 Years</td>
<td>BA. Management Studies</td>
</tr>
<tr>
<td>MIS</td>
<td>Systems Administration Manager</td>
<td>Management</td>
<td>Male</td>
<td>7 Years</td>
<td>MSc. Computer Science</td>
</tr>
<tr>
<td>MIS</td>
<td>Project Manager</td>
<td>Management</td>
<td>Male</td>
<td>9 Years</td>
<td>BSc. Computer Science MBA Project Management</td>
</tr>
<tr>
<td>Operations</td>
<td>Online Examinations Coordinator</td>
<td>Non-Management</td>
<td>Male</td>
<td>8 Years</td>
<td>BSc. Engineering</td>
</tr>
<tr>
<td>Operations</td>
<td>Online Examinations Coordinator</td>
<td>Non-Management</td>
<td>Female</td>
<td>6 Years</td>
<td>BSc. Computer Science</td>
</tr>
<tr>
<td>MIS</td>
<td>Web Portal Manager</td>
<td>Non-management</td>
<td>Male</td>
<td>5 Years</td>
<td>BSc. Computer Engineering MSc. Computer Science</td>
</tr>
<tr>
<td>Operations</td>
<td>License Verification Officer</td>
<td>Non-management</td>
<td>Female</td>
<td>4 Years</td>
<td>BA. Information Studies</td>
</tr>
<tr>
<td>MIS</td>
<td>Data Entry officer</td>
<td>Non-management</td>
<td>Female</td>
<td>2 Year</td>
<td>BA. Communications</td>
</tr>
<tr>
<td>MIS</td>
<td>Data Entry officer</td>
<td>Non-management</td>
<td>Female</td>
<td>4 Years</td>
<td>BSc. Hospitality Management</td>
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<tr>
<td>MIS</td>
<td>Data Entry officer</td>
<td>Non-management</td>
<td>Female</td>
<td>10 Months</td>
<td>BA. International Business</td>
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<tr>
<td>MIS</td>
<td>Data Entry officer</td>
<td>Non-management</td>
<td>Male</td>
<td>3 Years</td>
<td>BA. Information Studies</td>
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