E-GOVERNMENT IN THE FEDERAL ROAD SAFETY COMMISSION IN SOUTHWEST NIGERIA

BY

'Leke Abraham OLUWALOGBON (159998)

B.Sc. (Hons) (Redeemer's University), M.Sc. (Ibadan)

A Thesis in the Department of Political Science,
Submitted to the Faculty of the Social Sciences
in partial fulfilment of the requirements for the Degree of

DOCTOR OF PHILOSOPHY

of the

UNIVERSITY OF IBADAN

JULY, 2023

CERTIFICATION

I certify that this work was carried out by 'Leke Abraham Oluwalogbon in the Department of Political Science, University of Ibadan.

…… ……

Supervisor **Date**

O.O. Akanji
B.A., (Ife), M.Sc., PhD (Ibadan)
Associate Professor, Department of Political Science,
University of Ibadan, Nigeria

DEDICATION

To the glory of God, the Almighty. To my father, Pastor David Oluwatomilayo Oluwalogbon and the loving memory of my mother, Pastor (Mrs) Florence Yetunde Oluwalogbon.

ACKNOWLEDGEMENTS

It is practically impossible to draw a list of people that have contributed in one way or the other to the successful completion of this thesis. This is just an attempt to show gratitude to a few people whose contributions significantly impacted the journey to the award of this prestigious degree. First and most importantly, my gratitude goes to God, the life-giver and my strength through the journey of this programme. He first planted the dream in me and thereafter supplied the strength to pursue it. I drop this 'trophy' at your feet as I stand in awe.

My family, both nuclear and extended, deserve much appreciation. To the pillar of support, God purposefully planted in my life, my wife, Mrs Omobolanle Oluwalogbon, I am immensely grateful for believing in me and your sacrifices throughout this journey. To Oluwafifehanmi, Oluwaferanmi and Iyanuoluwa, for your prayers, "God, let daddy finish his PhD" and for enduring my absence at home to make this work a reality. To my mother, whose dream for me was to become a Professor, though she is not physically present to witness this completion, the seeds of her prayers have finally blossomed. My father, Pastor David Oluwatomilayo Oluwalogbon, was deeply involved throughout the programme, and his prayers and other forms of support are too numerous to mention. To my siblings and their families, Dosunmus, Nwagus, Adesanmis and Tolu Oluwalogbon. I thank you all.

Worthy of note are also Chief (Sir) Amos Oladosu Ogundele and Lady Moriyike Ogundele, the entire Ogundele family, and Many thanks for the prayers and support all along. I am also indebted to Aunty Remi Olowola, who financed my field trip to Abuja, and for her several encouragements. The FRSC officers and men, for the speedy approval of my request for research assistance. Many thanks to Idowu Oloruntoba, my intermediary with the Corps Headquarters.

My appreciation also goes to those who helped shape my academic career. Most prominent are my teachers at Redeemer's University, who later became senior colleagues, Prof. F.O Ogunbadejo, Prof. J.S Omotola, Prof J.Y Fashagba and Dr D. T Agbalajobi. I thank you for your immense contributions, also, to my colleagues in the Department of Political Science, Redeemer’s University, both past and present, Dr

Stephen Obasa, Dr Adebayo Adedeji, Dr Ambrose Egwim, Dr Ayodeji Alabi and Dr Busayo Ajayi. I also appreciate Prof Matthew Olu Okotoni for his encouragement. The contributions of Prof. Mike Adeyeye during his short stint with the department remain indelible. My gratitude also goes to Dr Omololu Fagbadebo, though physically far away, yet always there to guide me. Dr. Onoja Matthew Akpa, many thanks for the encouragement and support, particularly with the quantitative aspect of the thesis. Gratitude also goes to Dr. Grace Iriobe for her timely advice and intervention each time they are sought.

Similarly, I want to thank the faculty members of the Department of Political Science, University of Ibadan. Dr Daniel Godwin, Dr Tunde Oyekanmi, Dr Idachaba, Dr Steven Lafenwa, Dr Idowu Johnson, Dr Jeremiah Arowosegbe, Dr David Eweremadu, Prof. Bukola Adesina, Prof. Dhikru Yagboyaju, Prof. Victor Isumonah, Prof. Remi Aiyede and Prof. Irene Pogoson, the Head of Department. Prof. Muyiwa Omobowale, who served as my Internal-External Examiner, also deserves many thanks for his critiques of the work, which improved it. To my supervisor, Dr O.O Akanji, who first and foremost qualifies to be called 'my teacher'. He is the only one who taught me throughout my university life, first at the Redeemer's University and later at the University of Ibadan. I am most grateful for his guidance and understanding and for constantly propelling me to better performance. I sincerely thank him for the confidence reposed in me and for bringing out the best in me.

Leke Abraham Oluwalogbon
July 2023

ABSTRACT

E-Government, the integration of Information and Communication Technology (ICT) into public sector operations, has been adopted in many countries, as a response to inefficiency and poor service delivery in public organisations. Its introduction by Nigeria's Federal Road Safety Commission (FRSC) in 2007 was expected to improve efficiency, but the extent of success, the inhibiting factors and/or the success-facilitating strategies are yet to be clearly established. Previous studies that have examined e-Government adoption in Nigeria's public sector have focused mainly on government ministries, with little attention paid to agencies such as the FRSC. This study, therefore, examined the implementation of e-Government in the Southwest operations of the FRSC, with a view to ascertaining the determining factors, strategies and extent of success of its adoption.

The study was anchored to the Innovation Theory, while survey design was adopted. Primary data were collected through key informant interviews and in-depth interviews, as well as a questionnaire administered electronically. Key informant interviews were conducted with 18 officials of the FRSC in Lagos (3), Oyo (5), Osun (4) and the agency's National Headquarters, Abuja (6). In-depth interviews were conducted with 12 end-users in Lagos (4), Oyo (5) and Osun (3). The electronic questionnaire was administered to 265 respondents who had used the electronic services of the FRSC in Lagos (118), Oyo (87) and Osun (60) states. The minimum sample size was determined using power analysis. Secondary data on e-Government implementation were obtained from the FRSC Annual Reports (2010,2013, 2014, 2015, 2017 and 2018). Descriptive statistics and Chi-square were used in analysing the quantitative data, while the Interpretive Phenomenological Analysis was used for the qualitative data.

The participants' age was 37.9±3.03, while 70.9% were male. The need to mitigate road traffic accidents, engender efficient service delivery, improve communications with end-users, and enhance financial transparency and accountability were the determinants of the adoption of e-Government in the FRSC. The strategies employed in the implementation of e-Government in the FRSC included the deployment of electronic services such as the agency's website, the National Vehicle Identification Scheme, the Driver's Licence Electronic Application platform, the Electronic Payment Platform, and the Emergency Call Centre. There was no significant association between e-Government adoption and service delivery in the agency (χ^2=8.25, p>0.05). The majority (69.8%) of the participants rated the success of e-Government adoption in FRSC's service delivery as medium, 12.8 % rated the performance as low, 12.8% rated as high, while 4.6% of the participants did not report. Delay in service delivery, fraudulent practices, technical and infrastructural deficits, low user awareness and poor quality of service characterised operations at the FRSC, and affected the level of success.

The adoption of e-Government in the Federal Road Safety Commission in Southwest Nigeria has not translated into efficiency in service delivery. The agency should ensure increased funding and adequate provision of electronic infrastructure, public enlightenment and digital literacy for the citizenry, to make the implementation of e-Government by the agency successful.

Keywords: Public sector reform, e-Government, Federal Road Safety Commission

Word count: 485

TABLE OF CONTENTS

CHAPTER THREE: RESEARCH METHODOLOGY

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATION

A&HR	Administration and Human Resource
ASYCUDA	Automated System for Customs Data
C2C	Citizen-to-Citizen
CM	Corp Marshal
COMACE	Corp Marshal and Chief Executive
CTOS	Chief Technology Officers
DLC	Drivers' Licence Centre
EMP	E-Government Master Plan
EPP	Electronic Payment Portal
F&A	Finance and Accounts
FOI	Freedom of Information
FRSC	Federal Road Safety Commission
G2B	Government-To-Business
G2C	Government-To-Citizen
G2E	Government-To-Employee
G2G	Government-To-Government
GBB	Galaxy Backbone
GIFMIS	Government Integrated Financial Management Information System
ICDL	International Computer Driving Licence Programme
ICT	Information and Communications Technologies
ISP	Internet Service Provider
IT	Information Technology
ITC	Information Technology Centre
ITS	Intelligent Transportation System
MVA	Motor Vehicle Administration
NDL	New Driver's Licence
NIGCOMSAT	Nigeria Communication Satellite
NIRA	Nigerian Internet Domain Names
NIS	Nigeria Immigration Service

NISA	National Information Society Agency
NITA	Nigeria Technology Awards
NITDA	National Information Technology Development Agency
NITP	National Information Technology Policy
NPM	New Public Management
NPIT	National Policy For Information Technology
NRSC	National Road Safety Commission
NULS	National Uniform Licensing Scheme
NVIS	National Vehicle Identification Scheme
OGD	Open Government Data
PRS	Policy Research Statistics
ROSOWA	Road Safety Officers Wives Association
RRR	Remita Retrieval Reference
RSC	Road Safety Club
RSHQ	Road Safety Headquarters
RSS	Really Simple Syndication
RTC	Road Traffic Casualties
RTCIS	Road Traffic Crash Information System
RTCS	Road Traffic Crashes
RTSSS	Road Transport Safety Standardization System
SDER	Special Duties and External Relations
SMT	Strategy Monitoring Tool
SPDC	Shell Petroleum Development Company of Nigeria
TAM	Technology Acceptance Model
TRG	Training
TSA	Treasury Single Account
TSD	Technical Service Department
UTAUT	United Theory of Acceptance and Use Of Technology
VE	Vehicle Examination
VIO	Vehicle Inspection Office

VMS	Variable Message Signs
VMS	Vehicle Management Suite
V-SAT	Very Small Aperture Terminals

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Globalisation, facilitated by information and communications technologies (ICT) with several accruable benefits, is one of the significant features of the 21st century (Dalhman, 2007). The benefits of ICT adoption have compelled many countries to improve their competitiveness, strengthen their governments' internal workings, and offer efficient services to their citizens. Therefore, many see the adoption of ICT by governments as desirable, as it is a new trend in dispensing services to the citizenry and improving the efficiency of government business. Electronic government (eGovernment), as it is widely known, is the integration of ICT into government operations to facilitate communication with the populace (InfoDev, 2004). It also delivers services to citizens outside the confines of public offices using electronic means (Adeyemo, 2010, Fisher, 2014, Hu et al., 2009, Srivastava, 2011). eGovernment is one of the sub-domains of eGovernance[1], others being electronic democracy and electronic business (Okot-Uma, 2000). While the former uses electronic means for public service delivery, the latter covers governments' and citizens' activities (Jayashree and Marthandan, 2010).

One of the critical sectors in which ICT has been deployed is road safety management (Ezell, 2010, Gifford, 2010). The urbanisation of cities in developing countries has led to an increase in the population of urban dwellers and its attendant consequences. This, in turn, has had snowballing effects on the transport infrastructure, particularly on road transport. This snowball effect has resulted in the exacerbation of road traffic congestion that produces high negative environmental, social, and economic impacts,

[1] While eGovernment is a subset of eGovernance and only applies to the public sector, especially inside government circles, eGovernance has a wider scope and includes both the public and private sectors. See Grönlund and Horan (2004) and Bernhard (2013).

as well as an increase in road traffic mortality (Bliss and Breen, 2011). The integration of ICT with the transport sector is intended to mitigate these impacts with improved traffic efficiency and safety, as reported in the initial introduction of ICT into the transport sector (Gössling, 2017). Therefore, this study examines the adoption and implementation of eGovernment within the Federal Road Safety Commission (FRSC). The FRSC is a vital agency in Nigeria tasked with managing traffic, preventing road accidents, and ensuring a safe motoring environment (FRSC, 2015). Specifically, this research explores how eGovernment is being integrated into the FRSC's operations and processes. With the increasing reliance on technology and digital solutions, understanding the implementation of eGovernment initiatives in such important organizations is crucial for improving efficiency and effectiveness in delivering services to the public.

The introduction of ICT into road safety management and the larger transport sectors has delivered benefits in several countries, according to evidence from the United Kingdom, Japan, and South Africa. These benefits include improving drivers' safety and other road users and enhancing the operational effectiveness of the country's transport sector (Baptista, Azevedo & Farias, 2012). In Africa, the integration of ICT into road transportation infrastructure has been elusive for most countries due to financial constraints and the challenge of the digital divide (Booysen, 2013). The eGovernment regime in Nigeria officially commenced in 2001 and has since implemented several projects, including the Government Service Portal (GSP), considered one of its flagship projects. The portal provides a single-window technology that enables citizens to access government services offered by various MDAs.

The initial phase of the GSP project's deployment comprised digitising key MDAs' services. (Vanguard Newspaper, 2014). The second phase of implementation of the project included the Nigeria Customs Service, National Agency for Food and Drug Administration and Control, Standard Organization of Nigeria, Central Bank of Nigeria, National Bureau of Statistics, Federal Inland Revenue Service, National Environmental Standards Regulation Enforcement Agency, Federal Road Safety Commission, Raw Materials Research Development Council, Nigeria Agricultural

Quarantine Services and Nigeria Finance Intelligence Unit. The Federal Government also implemented the Integrated Personnel and Payroll Information System (IPPIS) and the Government Integrated Financial Management Information System (GIFMIS). The IPPIS has helped expose fraudulent practices amounting to about two hundred billion Naira (Premium Times, 2015), while the GIFMIS has drastically reduced the physical movement of cash to make payments, thereby reducing corruption (Etemiku, 2015).

However, public policies like eGovernment are perceived among developing countries as ineffective in accomplishing their set goals (Sambo,1999). Gilley (2009), cited in Ake (2015), observed that public policies, in the form of various public reform attempts, had not yielded the much-anticipated changes, especially in developing countries. This view is often hinged on the policy cycle's defective formulation and implementation stages. More often than not, policies are made without the requisite structures needed to help accomplish the goals they were crafted to meet (Hudson et al., 2019). Also, adopting policies from developed countries to proffer solutions to developing ones has become a recipe for the failure of such policies (Onyekwena & Ekeruche, 2019). The implementation stage portends grave dangers for policies, particularly among developing states. An interwoven network of economic, administrative, and political impediments further reduces the chances of success of policies. These impediments include the inadequacy of skilled human resources needed to facilitate the programs and projects associated with such policies and the adversarial relations between the political elite and the technocrats (Sambo,1999).

The introduction of eGovernment in Nigeria, as a public sector reform initiative, exists within the public policy framework and has also been besieged with several challenges, making its implementation problematic. Ifinedo (2006) classifies the challenges as institutional, human capital and infrastructural. While the institutional challenges include organisational, cultural and attitudinal problems, the challenges relating to human capital are listed as poor IT skills and technical ability, low literacy levels and poverty. On the other hand, infrastructural problems are manifest as poor internet access and low bandwidth, high cost of ICT services, lack of investment in ICT and inadequate power generation.

Several other challenges to successfully implementing eGovernment initiatives in Sub-Saharan Africa (SSA), including Nigeria, have also been identified as infrastructural, financial, political, organisational, socio-economic and human (Nkohkwo & Islam, 2013). Gartner (2007) in Al-Mamari, Corbitt and Gekara (2013) also observes that 60% of eGovernment projects are classified as complete failures or partial successes. Heeks (2003) argues that 85% of all eGovernment projects in developing countries fail. 35% of these fail due to non-implementation and, in some cases, poor implementation. In comparison, 50% were partial failures because of their inability to meet the expected goals or the upsurge of unintended outcomes, leaving only 15% of such projects to the possibility of success in meeting the expected results.

The Federal Road Safety Commission (FRSC), Nigeria's lead agency in road safety and traffic management, has over the years demonstrated its willingness to leverage ICT and delivery of its services and efficiently run its administrative processes (Omiko, 2011). The FRSC boasts of some twenty-five (25) electronic applications. These include applications deployed within the agency for greater administrative efficiency, such as the FRSC Dashboard used to monitor the activities of Departments and Corps offices, the Duty Room Information Management System (DRIMS) used to capture duty room activities to promote efficiency, effectiveness and productivity. On the other hand, electronic applications are also deployed to enhance service delivery to the citizens, including the agency's official website and other social media platforms. Others are the National Vehicle Identification Scheme (NVIS), which simplifies the registration process, the Nigeria Driver's Licence website, which provides a database of drivers, an e-payment platform, which automates the collection of fines. The Road Traffic Crash Information System (RTCIS), which digitalised the data collection of road crashes, and the Information Verification Portal, which verifies driver's Licence and plate number details, among others (FRSC, 2015).

Several scholars, including Ifinedo (2004, 2006), Adeyemo (2010), Fatile (2012), Akingbade (2012), and Asogwa (2013), have examined, in varying degrees, the implementation, challenges and prospects of eGovernment taking Nigeria's public service as a unit of analysis. However, there remains a dearth of studies on

eGovernment on a sectoral basis to examine its implementation on the activities of specific government agencies. Also, the few studies on eGovernment on a sectoral basis (Ewuim et al., 2016; Ayoade, 2017, Obe, Adebambo & Richard, 2018) have inadvertently focused on official perspectives to the neglect of the views of the end-users in evaluating the implementation of eGovernment in Nigeria. Therefore, this study examines the implementation of eGovernment in the FRSC in the Southwest of Nigeria, considering the end-users' unofficial perspectives.

1.2 Statement of the Research Problem

This study interrogates the application of eGovernment in Nigeria with specific reference to the Federal Road Safety Commission. This is because studies have shown that eGovernment can effectively and efficiently drive public sector operations by bridging the gap between the government, its agencies and the citizens (Pathak et al., 2008, Lio, Liu and Ou, 2011; Mistry and Jalal, 2012a; Mistry, 2012b, Ravi, 2013, Akomaye, 2015). It can also facilitate cost-effective public service delivery, enhance transparency and accountability, and check corrupt practices within public organisations. Nigeria effectively joined the league of eGovernment-driven states by enacting the National Policy for Information Technology (NPIT) in 2001. Subsequently, the National Information Technology Development Agency (NITDA) was established in 2007 to implement the objectives of NPIT (Odili-Idiagbor, 2013; Ifinedo, 2006), which includes the provision of access to public institutions for all categories of citizens, enhancing transparency and accountability in government business, removing all forms of barrier usually encountered by citizens in accessing public services, as well as restructure the interactions among stakeholders within the governance circle to facilitate better governance (NPIT, 2001).

However, there have been no significant changes across government businesses as expected. Asogwa (2013) reports that e-services are not impacting as much as expected on service delivery in Nigeria's public institutions. This is seen in the loss of working hours as citizens, in some instances, are still required to be physically present in government offices to access services that could have been obtained virtually. A natural consequence is a delay in service delivery, as government agencies would have to attend

to everyone within a limited time. This also increases the propensity of public servants to solicit bribes to fast-track service delivery.

The need to interrogate the implementation of projects under Nigeria's National Policy for Information Technology (NPIT) to determine their actual contributions to national ICT development has also become more urgent than ever (Adeyeye & Iweha, 2005). The extant literature on eGovernment studies in Nigeria has inadvertently focused on the public service as the unit of analysis (Ifinedo, 2004, 2006; Adeyemo, 2010; Fatile, 2012; Asogwa, 2013), while little attention has been devoted to specific sectors and agencies of government. Although several studies exist on the FRSC, none has addressed the core of this study, that is, to examine the implementation of egovernment in the agency from the end-users' perspective. For instance, Aule, Jubril, Garba and Adewuyi (2022) in their study identified RTCs black spots that are outside the close reach of FRSC rescue points/health facilities within the study area and determined measures for effective emergency response in the Federal Capital Territory by using GIS-based location models. Similarly, Oreko, Nwobi-Okoye, Okiy and Igboanugo (2017) modelled the effects of intervention measures adopted by the Nigerian government in curbing Road Traffic Accidents (RTA), the study analysed the Road Traffic Accident (RTA) data through intervention modelling using the Box-Jenkins methodology. Gana and Emmanuel (2014) discussed the role of the FRSC in implementing Road Traffic Laws to uncover the challenges faced and proffer possible solutions. Abdul-Wahab (2016) examined the effectiveness of public education of the FRSC on commercial drivers in Jigawa state, Nigeria.

In previous studies focusing on Information and Communication Technology (ICT) within the context of the Federal Road Safety Commission (FRSC) in Nigeria, researchers have explored various aspects related to ICT implementation and its impact on the commission's functions. Oladeji, Akeredolu, Komolafe, and Oyetunji (2017) conducted a study that specifically examined the security settings of the wireless local area network (WLAN) used by the FRSC. They proposed modifications to enhance the wireless network's security measures, ensuring better protection of sensitive data.

Jonathan and Hasimiyu (2013) investigated the influence of IT on the performance of road safety processes within the FRSC. They assessed how IT deployment within the commission aided its processes and overall performance. The study involved surveying FRSC officials to gather their perspectives on the subject. Additionally, Obe, Adebambo, and Richard (2018) analyzed the utilization of ICT in the overall operations of the FRSC. They conducted quantitative research using a cross-sectional design and involved FRSC officials as the study participants. In addition to focusing on the impact of ICT on productivity in selected service industry sectors, the study also examined how ICT was being effectively utilized within the FRSC.

These studies collectively contribute valuable insights into the implementation and impact of ICT within the FRSC, shedding light on various aspects such as network security, process improvement, and productivity enhancement. Understanding these findings helps us better understand how ICT can be leveraged to enhance the functioning and effectiveness of public organizations like the FRSC. Therefore, using the FRSC as a case study, this study investigated the implementation of eGovernment in Nigeria's public service. Specifically, it examined the implementation of egovernment in the agency from the end-users perspective.

The FRSC plays a vital role in ensuring the safety of lives and property in the nation's road transportation system. However, over the years, there has been an increase in the incidences of road crashes, which can be attributed to other environmental, human, and mechanical factors. These crashes have resulted in countless cases of injuries and deaths. Therefore, this study investigated the extent to which the implementation of eGovernment in the FRSC has enabled the agency to achieve its objectives and that of the National Policy for Information Technology (NPIT).

1.3 Research Questions

This research seeks to provide answers to the following questions:

i. When and why did the FRSC embrace the adoption eGovernment ?
ii. What procedures and strategies were adopted in the implementation of eGovernment in the FRSC in the Southwest of Nigeria?

iii. Has the introduction of eGovernment enhanced the service delivery of the FRSC in the Southwest of Nigeria?
iv. What factors hinder or enhance the implementation of eGovernment in the FRSC in the Southwest of Nigeria?
v. What is the prospect of eGovernment in Nigeria's MDA?

1.4 Objectives of the Study

The study's general objective is to investigate the implementation of eGovernment in the FRSC in Southwest Nigeria. The specific objectives are to:

i. Examine the origin and rationale of eGovernment in FRSC.
ii. Examine the procedures and strategies adopted in implementing eGovernment in the FRSC in the Southwest of Nigeria.
iii. Examine the effects of eGovernment on service delivery of the FRSC in Southwest Nigeria,
iv. Investigate the factors hindering or enhancing the implementation of eGovernment in the FRSC in the Southwest of Nigeria,
v. Explain the prospect of eGovernment in Nigeria's public service.

1.5 Justification of the Study

This study makes significant contributions to knowledge in the field of eGovernment. Though similar studies have been done in other climes (Andersen, 2007, Garcia-Murillo and Ortega, 2010), this study stands out as one of the few empirical studies that examine the relationship between eGovernment and the Nigerian public service, focusing on the implementation of eGovernment in a specific agency of government, the Federal Road Safety Commission. Hence this work remains helpful, particularly to the emerging field of eGovernment in Nigeria.

From the policy perspective, the study helps better comprehend the workings of eGovernment in Nigeria's public sector and, therefore, uncovers the ideal and the actual outcomes of adopting technology into government processes. Notably, it helps government see ways of accelerating the digitalising of services and procedures,

thereby saving time and, most importantly, scarce economic resources. The formulation of the right policy will no doubt drastically increase efficiency in the public service in Nigeria. This will place Nigeria in better stead among the comity of states as it relates to efficient public service institutions. Since the commencement of the fourth republic in 1999, various governments at the federal level in Nigeria have sought to reform the public service with little success. This research opens up a new avenue to rethink public service reform, as evidence across the globe shows the efficacy of eGovernment in promoting public service efficiency (Pathak et al. 2008, Lio, Liu and Ou, 2011, Mistry and Jalal, 2012a, Mistry, 2012b, Ravi, 2013). Furthermore, efficient public service in Nigeria will undoubtedly impact government-citizen relations and improve the welfare of the citizenry.

While this study draws from the body of existing literature on the implementation of eGovernment in the public sector globally, its main focus is the Nigerian case. Specifically, this work focused on the FRSC in the Southwest of Nigeria[2]. The choice of undertaking a study on eGovernment is based on the fact that the public service, whose responsibility it is to formulate and implement policies, has been unable to deliver the needed services to the citizens, particularly in developing countries, due to the rising citizens' aspirations for improved services and the challenges of complex global economies (Olowu, 1999, Karwal, 2007, UNCT-CCA, 2012, and Omotoso, 2014). The inability of several governments, including Nigeria's, to deliver essential services to their citizens has led to several reform efforts, including the New Public Management (NPM) and eGovernment, among several others (Welch, 2004, Noordhoek and Saner, 2004, Oakley, 2002 in Pina, Torres, and Royo, 2009). Therefore, this study considered eGovernment as apt to examine the extent its implementation has helped improve public service delivery.

[2] The Federal Road Safety Commission is an agency of the Federal Government of Nigeria with headquarters in Abuja, as such, it was appropriate to include the headquarters in this study.

On the other hand, the FRSC was selected for this study based on its reputation for the efficient utilisation of ICT in its operations and which has earned it several awards, including the E-Governance Award for the Best Government Agency in 2014 by the National Information Technology Development Agency (NITDA) (FRSC, 2014). At the Nigeria Technology Awards (NITA) in 2015, the FRSC was awarded the best use of technology in government and the Technology Project of the Year in the government category (Premium Times, 2015). Also, the agency was awarded the best in digital innovation in the federal government category in 2017 by NiRA (Omotosho,2017).

1.6 Scope of the Study

The scope of the study is the Southwest of Nigeria. The choice of the Southwest region is based on the fact that, first and foremost, the culture of road traffic management in Nigeria began in Oyo State, Southwest Nigeria, with the introduction of the Oyo State Road Traffic Commission. It was based on the success of this initiative within the six years of its existence, most significantly, inculcating discipline among road users, that the FRSC was later established with its National Headquarters in Ibadan, Oyo State (FRSC Compendium, 2006). Furthermore, using data from the National Drivers' Licence production, the figures which are for the third and fourth quarters of 2022 show the Southwest had the highest figure: Ekiti – 4,099, Lagos – 137,814, Ogun – 41,352, Ondo – 9, 623, Osun – 8,726, and Oyo – 28,443 with a total of 230,057, of the national figure of 530,510 making 43.36% (FRSC Statistical Digest, 2022).

Furthermore, the choice of the Southwest for this study was also premised on the 2022 report on internet penetration in Nigeria, that is, the percentage of the population that has access to the internet. The report shows that the Southwest has the highest figure with 28.8%, followed by the North Central with 18.8%, North West-18.5%, South South-14.4%, North East-9.7% and South East-9.6% (National Bureau of Statistics,2022). Since the internet is a significant driver of ICT and eGovernment is anchored on ICT, internet penetration becomes necessary for selecting the study area. However, for this study, three (3) states are selected. The three states are Lagos, Osun and Oyo States. Lagos was chosen for its cosmopolitan nature and strategic position as the Zonal Command, coordinating the agency’s activities in Lagos and Ogun states.

Osun state was selected as a Zonal Command of the FRSC, coordinating its operations in Osun, Oyo and Ondo states, while Oyo state was selected for its pioneering role in institutionalising road traffic management in Nigeria. The Commission's Headquarters in Abuja was, however, included. On the other hand, the study covers the period between 2010 and 2020. The year 2010 signalled the commencement of the implementation of eGovernment in the FRSC. Therefore, the study covers ten years.

1.7 Limitations of the Study

Several limitations were encountered in the conduct of this study. These limitations included difficulty accessing important key informants, some hesitant to share pertinent and reliable information. Additionally, crucial documents required for the study were not accessible to the researcher, as some of the data were marked confidential considering national security implications.

To tackle the limitation of accessing important key informants, the researcher established a rapport with the informants and assured them of the confidentiality of the study. The researcher also identified alternative sources of information that provided similar insights as the key informants. The researcher also approached institutional authorities to aid in securing access to the necessary informants. On the other hand, to tackle the limitation of inaccessible crucial documents and data, the researcher utilised alternative sources of information, such as publicly available literature, government reports, or other secondary sources. Additionally, the researcher modified the scope of the study to accommodate the limitations encountered.

1.8 Organisation of the Study

The study is organised into six chapters. The first is the introduction which provides a general background to the study, the core problems, objectives, justifications, and limitations. The second focuses on the study's literature review and theoretical framework, emphasising an in-depth review of relevant literature. Chapter three provides information on how the study was executed. As such, it outlines the research methodology of the study. Chapter four is devoted to data presentation and analysis. Chapter Five further discusses the findings of the study. Lastly, chapter six, titled

'Summary and Conclusions', recapitulates the study's central problem and the research findings and then makes actionable recommendations.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.0 Chapter Overview

This chapter undertakes a critical review of the concept of eGovernment and its implementation across countries. It also reviews the many benefits and challenges associated with its implementation and shows its nexus with public service delivery. On the other hand, the chapter examines the theory adopted for this study, the theory of innovation as espoused by Downs Jr. and Mohr (1979).

2.1 Conceptual Clarification

EGovernment initiatives now form a significant part of government activities in almost all countries worldwide (Grant and Chau, 2005). An understanding of what the concept means is evasive, as eGovernment definitions vary according to the perspectives of scholars; such views range from technological, business, process, citizen, government or functional (Al-Shafi, 2009, Yildiz, 2007 in Bernhard, 2013). This multi-dimensional nature of the concept explains the non-availability of a universally acceptable definition. While some definitions are narrow in their perspective, exploring only the use of technology to improve the efficiency of government processes, others view it from a wider perspective of redefining government processes. Despite the several definitions that permeate the literature, there seems to be a consensus on the core theme of the eGovernment construct.

A few explanations will suffice. The World Bank, for instance, describes eGovernment as the use of ICT to bring about some forms of change in government processes, emphasising the need to make public services citizens-centred (InfoDev, 2004). A closely related definition views the construct as the government's use of ICT, first for

information dissemination and then for service delivery to its citizens (Global eGovernment Readiness Report, 2004). It is also the extensive use of Information Technology to enhance all facets of government operations, including internal and external stakeholder interactions (Pankaj, 2010). It is also described as using technology to evolve a SMART governance system (Karwal, 2007).

A close look at these definitions reveals the centrality of the citizenry in the deployment of eGovernment by governments across board, re-emphasising the need for government services and programmes to be people-centric. Cordella (2007) in Mohammed, Abubakar, Bashir (2010) opined that eGovernment should not be limited to Internet-based government only, as there are many non-Internet technology platforms like telephone and SMS text messaging that are being used for this purpose. Television and radio-based delivery of government services are also captured under this model. However, some confusion remains about taking eGovernment and eGovernance, a closely related concept, as synonyms. As such, eGovernment is often wrongly interchangeably used with eGovernance in most of the literature by both scholars and practitioners (Rossel and Finger, 2007, As-Saber and Hossein, 2008 in Bernhard, 2013), as they provide a "one definition fits all" definition for eGovernment as well as eGovernance. While eGovernment concentrates on distributing electronic resources to the public sector, eGovernance is a broader concept encompassing both the public and private sectors.

eGovernment is the use of electronic means for service delivery by the government to the public, it includes electronic democracy and electronic voting. It also allows for citizens' direct participation in political activities online. On the other hand, e-governance covers the actions of governments and the citizens as it does political organisations like political parties (Jayashree and Marthandan, 2010). As Grönlund and Horan (2004) clarify, eGovernment is confined within government organisations. eGovernance, on the other hand, has the whole society as its sphere, including government and non-governmental organisations' activities. Bernhard (2013) further differentiates the two concepts based on their organisational type, key actors and the main view of the individuals involved. Under the eGovernment setting, organisations

are hierarchical, while they are considered networked under eGovernance. The key actors under the eGovernment setting are formal policymakers, while actors under eGovernance are policy entrepreneurs. The recipients of eGovernment services are regarded as citizens and customers, as the case may be; however, those of eGovernance are strictly considered as customers.

Okot-Uma (2000) elaborates on the debate stating that eGovernance has three domains, of which eGovernment is one, the others being, Electronic Democracy and Electronic Business. E-democracy describes the web of activities that exist between the government and the citizenry. As citizens worldwide demand good governance systems, e-democracy becomes a ready tool to actualise this. It provides the avenue for achieving openness in government, thereby providing such information and knowledge as required by the citizens. This becomes possible only when the primary access to the needed technology is within reach of the citizenry, who should also be willing and able to adapt to the technology. This, in turn, will create a conducive environment for interactions between the citizenry and the government; it also provides access to information to the citizens.

On the other hand, electronic business refers to a broader definition of electronic commerce, not limited to buying and selling, but also includes client - relations, business partnerships, among several others. The overall aim of eGovernment can, therefore, be summarised into three core activities, namely: (1) to provide efficient public services, (2) to engender effective constituent relationship management, and (3) to support the socio-economic development of citizens, businesses, and civil society across levels. (Grant and Chau, 2005).

2.2 Conceptual Review

Three eGovernment domains exist electronic administration, electronic services, and electronic partnership (Okot-Uma, 2000. Kariuki and Kiragu, 2011). Electronic administration uses ICT tools within public organisations to facilitate efficiency and quicken decision-making. It aims to deliver administrative services at a lower cost. This includes communication networks such as the intranet within public organisations to

improve communications among civil servants. Electronic administration has the potential to efficiently utilise resources such as time and the cost of processing information. It can also be used to reform the already existing administrative structure. Electronic administration also engenders new relationships within the bureaucracy. The technical systems have inbuilt capabilities to enforce relationships with others and provide access to information they provide to the public (Okot-Uma, 2000).

E-services describe the relationship between the public institutions and the citizens, particularly the electronic application for public services The aim is to afford citizens access to public services at a minimal cost and from a public portal. Electronic partnership, the interactions between and among governmental organisations in service provision, is listed as the third domain of eGovernment. E-partnership is the least developed of the three areas (Kariuki and Kiragu, 2011). However, countries are at different stages of eGovernment development. This is due to the global digital divide, which has made countries implement eGovernment at their own pace. While most developed countries are at advanced stages of development, the developing ones are at the formative stage (Ifinedo, 2006). Some models describe the stages of eGovernment evolution (Benchmarking eGovernment, 2002, Matthias and Gaëlle, 2003, Kaaya, 2004, Layne and Lee, 2001). According to the United Nations' global survey on eGovernment, there is a five-stage model. (UN eGovernment survey, 2004, 2005, and 2008). This model begins with the emerging presence stage, known as the formative stage. It is the initial stage, where a state expresses its interest in implementing eGovernment.

There is a limited web presence at this stage through a few isolated government websites, providing static information. The enhanced presence stage increases government websites and more dynamic information, leading to an increased web presence for a country. At this stage, the websites have become interactive, though one-sided, with information flowing from the government to the citizen. At the third stage, the interactive presence stage, the level of interaction is better enhanced. The interactive presence stage further increases a country's presence on the internet, providing information on government institutions and services. At the transactional presence

stage, the fourth stage, the interactions between the government and its citizens are now mutual between citizens and the government. The networked presence stage represents the most advanced stage in eGovernment efforts. It brings together the G2G, G2C and C2G interactions. The government encourages participatory, deliberative decision making and is willing and able to involve the society in a two-way open dialogue (UN global eGovernment readiness Report, 2004).

Another model proposed by Layne and Lee (2001) in their study on technical, organisational and managerial feasibilities posited four stages of development for eGovernment. The model begins with the cataloguing stage, which focuses on listing government information on the web. It involves the initial efforts of sub-national governments focused on establishing the essential element of the eGovernment, which is an online presence for the government. This is the formative stage, and many governments' efforts at implementing eGovernment belong to this stage, as it is usually limited to electronic presentations of government information, which may be limited and outdated. By further pressures from the citizens, however, governments begin to improve on this stage by moving from mere cataloguing to establishing a more organised system whereby previously unorganised digitalised documents are organised into localised portals, thereby providing access to citizens to detailed public information and downloadable forms, where necessary (Andersen & Henriksen, 2006).

The second stage is the transaction stage. Here, eGovernment initiatives focus on networking the internal government systems to electronic interfaces, allowing citizens to transact with the government electronically. At this stage, citizens can perform such tasks as Licence renewal and electronic payment for services. This further leads to integrating states' systems with these web interfaces. Further demands by citizens and societal complexities compel governments to integrate, thereby realising the potential of deploying eGovernment within the integration of processes. Vertical integration is the third stage, and it refers to the networking of the tiers of governments for the various services they offer. The first level of vertical integration is with similar functions cutting across different levels of government. The primary expectation at this stage is for counterpart systems at all levels of government to connect or, at least, communicate

with each other. The last stage of this eGovernment development model is horizontal integration, which integrates across different functions and services. This is attaining the full potential of information technology. Here, databases across different functional areas will interact with one another, transmitting information, such that a piece of information from one agency can be accessed by all other levels of government (Layne & Lee, 2001).

2.3 EGovernment Delivery Model

eGovernment activities can be viewed as the interaction between and among different sectors of governments, businesses, citizens and government employees. All of these interactions apply to this study. eGovernment aims to provoke an interaction with these sectors and other governments, in so doing, it makes the interaction more convenient, friendly, transparent, inexpensive and effective. However, as aforementioned, eGovernment has emerged in different interactional dimensions, such as government-to-government (G2G), government-to-business (G2B), government-to-citizen (G2C) and government-to-employee (G2E), and all these dimensions have enabled the transformation of eGovernment as a whole.

According to Adeyemo (2010), four activities occur within each of these interaction domains. These are: pushing information over the Internet (such as regulatory services, and general information), reciprocal communications between the agency and stakeholders such as citizens (In this model, users can engage in dialogue with agencies and post problems, comments, or requests to the agency), conducting transactions (for example Lodging tax returns, applying for services and grants), governance (Such as electronic voting and campaigning).

The Government-to-Government (G2G) model focuses on analysing the patterns of interaction among public organisations and agencies that affords inter-governmental cooperation and efficient delivery of public services through electronic means (Akomaye, 2015). It is characterised by the networked nature of government, covering interagency, intergovernmental linkage and partnership. G2G services operate at two levels: the local or domestic level and at the international level. At the domestic level,

G2G services connect national and sub-national governments. It also connects other Ministries, Departments and Agencies (MDAs) of government. This produces innovations in the state's governance processes, which also depends on the existing governance structure and the state's territorial space (Bakry, 2004). On the other hand, at the international level, G2G services are transactions between and among national governments and can be used as an instrument of international relations and diplomacy. Moon (2002) in Akomaye (2015) summarises the cardinal objectives of the G2G model, which includes: the creation of formal interactions among government agencies, delivering networked public services, enhancing efficiency in government transaction through e-commerce across levels and ensuring inter-governmental digital transmission of information.

This dimension is the most fundamental of all eGovernment dimensions and the backbone of all eGovernment initiatives because it is on this foundation that services to other stakeholders such as businesses, citizens and employees can be efficiently provided. G2G interactions also enable information sharing between and among MDAs. This is intended to make government activities more efficient.

On the other hand, the model's government-to-business (G2B) dimension concerns a two-way interaction involving the government and businesses (Palvia & Sharma, 2007). It is a virtual transactional engagement across the tiers of government and the commercial sector. It is imperative to state that the growth of any economy largely rests on the commercial sector, predominantly run by enterprises. Therefore, reducing the burden of doing business is the central aim of this dimension, by providing one-stop access to information in order to facilitate business development, eliminate the need to report the same data multiple times to multiple agencies, streamline the reporting requirements by opening up more avenues for interactions between businesses and government, and engender a national economy that is flexible and competitive within the global market (Al-Shafi, 2009). Services provided include obtaining current business information, downloading application forms, renewing Licences, registering businesses, obtaining permits, and paying taxes.

The Government-to-Citizen (G2C) dimension is designed to facilitate a citizen-government interface, which is the primary goal of eGovernment. It seeks to simplify routine transactions of citizens, such as renewing Licences and certifications, paying taxes and applying for benefits, and enhancing access to public information through the use of dissemination tools, such as websites and service kiosks. It also aims to provide one-stop-shop sites where citizens can carry out various tasks, especially those involving multiple agencies, without requiring them to initiate contacts with each agency. This model can facilitate citizen-to-citizen interaction and increase citizen participation in government by creating more opportunities that overcome possible time and geographic barriers, thereby connecting citizens who may not ordinarily come into contact with one another. This is also considered a better platform for citizens to engage their governments on issues of interest, as it enhances the degree and quality of public participation in government and keeps citizens updated about government laws, regulations, policies, and services.

As Reffat (2003) and Reynolds and Regio-Micro (2001) observe, citizens are not interested in which layer of the bureaucracy or which public official is responsible for a specific government programme or public service. What is pertinent is for the service to be delivered most efficiently. To achieve this, governments must ensure that information and services are available from a single-integrated source; citizens can then access it through portals and one-stop shops, thus hiding the internal complexity of government. Citizens can also better articulate their expectations and needs from the government, which reinforces their participation in local community life and the democratic process. The Government to Citizen (G2C) model avails citizens access to ICT services while strengthening their relationship (Miller and Walling, 2013). However, this dimension has an unequal status, as not all citizens have the requisite digital skills and access to internet services, a situation described as the digital divide. (Sunday, 2014).

The Government-to-Employee (G2E) services are specialised services that cater only for government employees to drive the internal administrative processes. G2C services are also provided because the essence of the public service is to provide essential

services to the citizens. The G2E solution empowers employees to assist citizens in the fastest and most appropriate way, speed up administrative processes, and optimise governmental solutions. Civil servants will link efficiently with other departments, rely on the latest news, optimally draw on the available resources, and use appropriate support. The G2E interaction empowers the workforce and efficiently delivers on its mandate towards the citizens and the government. It can also open up inter and intra-departmental communication lines among workers and engender workforce retention (Akomaye, 2015).

2.4 eGovernment Adoption: Transition, Benefits, Challenges and Motivations

Implementing a transition from the traditional bureaucratic structure, which is typified as hierarchical and uni-directional, to the eGovernment regime, which is seen as non-hierarchical, bi-directional, and providing round-the-clock services, is usually challenging. As Coicaud (2016) correctly stated, the pre-eGovernment era was essentially challenging not just in developing countries but even in the developed ones since necessary information on public services as well as how they could be accessed was not readily available, public services were also often hindered by bureaucratic practices. The non-hierarchical nature of eGovernment services allows citizens to seek information at their convenience, and not necessarily when the government office is open (Abasilim & Edet, 2015). The bi-directional interaction that eGovernment provides has been deemed a way of improving service delivery and responsiveness to citizens, generating greater public trust in governments and making governance function better than it currently does (Markoff, 2000; Raney 2000). Thus, the transition from the pre-eGovernment regime to an era of electronically providing services to the citizens can be captured from information asymmetry to information diffusion, from physical interaction to virtual meetings and from bureaucratic bottlenecks to accelerated service delivery.

Scholars and public sector practitioners have also highlighted many advantages the public sector derives by implementing eGovernment strategies. These benefits include improved government accountability to citizens, increased access to public information, and reduced government costs (Gilbert et al., 2004; AlFawwaz, 2011). The main

benefits associated with implementing eGovernment include improving interactions with business and industry, citizen empowerment through access to information, promoting collaborations among levels of government, and modernising public services. It also reduces corruption, fosters transparency, and accelerates economic growth (Dada, 2006; Barthwal, 2003).

Other benefits include delivering electronic and integrated public services through a single access point to public services around the clock (Reffat, 2003). It bridges the digital divide and provides opportunities for citizens to access the same type of information and services from the government (InfoDev, 2002). It provides value-added services to citizens and, as such, helps in building customer relationships (Davison, 2005). It fosters economic development and helps local businesses to thrive beyond their localities. It reduces the propensity for corruption in governments and provides a more participative form of government by encouraging online debating, voting and exchange of information (InfoDev, 2002, Davison, 2005, Reynolds and Regio, 2001, Bonham, 2001). However, most of these benefits are yet to be fully realised (Lio et al, 2011).

According to Kamar and Ongo'ndo (2007), the most anticipated benefits of eGovernment include improved efficiency and access to public services, an increase in transparency and accountability of government functions, improved democracy lower costs of administrative services. By electronically connecting the citizens with the appropriate public service agent, these advantages can be accomplished. With the rapid dissemination of public information to a wider audience and the reduced need for direct interaction between citizens and government service providers due to eGovernment, the delivery of public services is improved, which also helps to reduce bureaucratic corruption. Also, eliminating the bureaucracy experienced in government offices provides equal access to government information for all categories of citizens; the interconnectivity between and among different government agencies ultimately results in the reduction of transactional costs, time, space and human resources as related services are merged.

The implementation of eGovernment is also besieged with challenges, particularly in Sub-Saharan countries. Ifinedo (2006) categorises these challenges into institutional, human capital and infrastructural problems. The institutional problems include organisational, cultural and attitudinal problems, while the human capital problems are manifested in. poor IT skills and technical ability, low literacy levels and poverty. Lastly, the infrastructural problems are itemised as inadequate internet access and low bandwidth, high cost of ICT services, lack of investment in ICT and inadequate power generation (Ifinedo, 2006). Similarly, Nkohkwo and Islam (2013) outlines the challenges as infrastructural, financial, political, organisational, socio-economic and human.

Leadership and change management were the dominant themes under the organisational challenges. Effective leadership in the transition process is essential to implement eGovernment in most Sub-Saharan African countries successfully. The study also discovered that it is difficult to sustain the goals and ideals of all stakeholders in an eGovernment initiative due to a lack of organisational skills and good communication. This presents a challenge for SSA nations whose governments are thought to be corrupt and may wish to use ICT for their purposes. This is especially important given that governments in underdeveloped nations may perceive this as a challenge to their authority and viability, which would make them hesitant to support the genuine goals of eGovernment.

However, these challenges are not limited to the sub-Saharan region only, in a study conducted in Europe, Vassilakis, Lepouras, Fraser, Haston, and Georgiadis (2005) also identified certain barriers to the development of electronic services. The study categorises these barriers into: *Legislative barriers*, related to the existence of appropriate laws, regulations, and directives that allow or facilitate the deployment of electronic services. *Administrative barriers* are connected to the lack of appropriate business models, justification of costs, availability and allocation of skilled personnel, and the need for structural reforms. *Technological barriers*, associated with the availability of suitable tools, standards, and infrastructure to develop, deploy, and use electronic services. *User-culture barriers*, which are set by the user groups' culture or

profile. User groups can be viewed from different angles and with different granularities: users internal to Public Authorities (PA), external users, local community users, international users, etc. *Social barriers*, that is, impediments related to stakeholders' social status, such as fear of job loss or status degradation, established power structures, and contact networks, may also view these developments as a threat.

As Shareef (2009) and Carter and Belanger (2004) argue, the willingness of the citizenry to adopt the use of ICT remains the primary determinant in the adoption process of eGovernment. A review of the literature, however, shows other factors from the citizens' perspective. According to Gilbert, Balestrini, and Littleboy (2004), the significant factors were the perceived benefits, including its ability to save time and money and the perceived barriers, which include trust, financial security, and information quality. Citizens' intentions to use eGovernment services were influenced by several factors, including perceived usefulness and the benefits it offers. (Carter and Belanger, 2004). In a different study, Belanger and Carter (2008) conducted a poll of a diverse group of individuals at a local gathering to determine what variables most strongly influenced their decision to use eGovernment services. According to the results, perceived suitability, trustworthiness, and ease of use are important indicators of individuals' propensity to utilise an eGovernment service. Phang and Sutanto (2005) found that respondents' perceptions of perceived usability and online safety were influenced by their perceptions in a study of elderly Chinese residents' adoption of eGovernment.

Al Awadhi and Morris (2008) used Kuwait, where eGovernment services are predominantly in their infancy stage, to study the acceptance of such services among citizens of underdeveloped countries. The study suggested a modified version of the unified theory of technology acceptance and use (UTAUT). The performance expectancy, effort expectancy, peer influence, facilitating conditions, gender, academic course, and internet experience were the model's indicators. The findings indicated that the adoption of eGovernment services among the students who participated in this study's respondents depended on performance expectancy, effort expectancy, peer influence, and facilitating factors. Rehman, Esichaikul, and Kamal (2012) found that

awareness and information quality strongly influence citizens' intention to adopt eGovernment services to obtain information from the government websites. Their study looked at the critical factors that influence citizens' intention to adopt eGovernment services. A key factor was also considered to be perceived usability. In both instances of requesting information from or making a purchase on a government website, it was discovered that the variable of awareness of the services that are offered through eGovernment is significant.

Mouakket (2010) in a study of the United Arab Emirates (UAE), one of the leading countries offering eGovernment services in the Arab world, proposed a modified technology acceptance model (TAM), incorporating exogenous factors such as: quality of internet connection, computer self-efficacy, security issues and website features. The modified TAM model was subjected to a survey sample of 502 which was distributed among citizens in Dubai. The results strongly support the extended TAM model in predicting citizens' attitude towards eGovernment. The study further demonstrated the significant effect of exogenous factors on citizens' attitude through perceived ease of use and perceived usefulness. Akman (2005) using gender and the level of education in the adoption of eGovernment services across a large spectrum of eGovernment users in Turkey, reveal that the level of education was directly associated with the adoption of eGovernment services. Furthermore, the study showed that females are less frequent users of eGovernment services, when compared to their male counterparts. Dimitrova and Chen (2006) in administering online questionnaire in the United States of America identified socio-psychological characteristics that influence the adoption process. These include: perceived usefulness, perceived uncertainty and civic-mindedness. The study also ascertains the role of interpersonal communication as well as mass media channels in the eGovernment adoption process. Hung, Chang, and Yu (2006) explore the online tax filing and payment system (OTFPS), a commonly used eGovernment service in Taiwan. The study shows that factors such as ease of use, trust, interpersonal influence, self-efficacy, and facilitating conditions were influential for adopting OTFPS.

From the perspective of government, the factors that influence the adoption of eGovernment services are largely the same namely, to enhance the effectiveness and efficiency of government operations by improving public service quality and quality of information shared between and among different agencies as well as the need to conform to international best practices (Al-Mamari, Corbitt, Gekara, 2013). However, there are country-specific factors that drive governments to adopting eGovernment service. In a study of Oman, Al- Mamari, Corbitt, Gekara (2013) showed that the compelling need to effectively respond to a specific economic crisis of anticipated depletion of oil reserves and the institutional dynamics inflicted and the global discourse on eGovernment and knowledge-based economy were the factors that necessitated eGovernment adoption.

2.5 eGovernment and Public Service Delivery

The role of the public service in both the developed and developing world in providing public goods to a broad spectrum of citizens is not in doubt. However, evidence from the literature has shown that public services, especially in developing countries, have not lived up to expectations and have continued to fail in providing essential services to citizens over the years. This has been attributed to many challenges ranging from incompetence, bureaucratic delays, weak administration, poor accountability, low standards for professionals, and a lack of control (Olowu, 1999, Salisu 2001). According to the United Nations EGovernment Survey (2016), weak government institutions are incapable of engendering development and will ultimately endanger democratic principles. Similarly, according to the United Nations Development Programme (2013) report, public service delivery has acquired new dimensions, largely because more governments have become globalised and the wide internet usage thereby making more citizens active, therefore, there is the need for governments to respond swiftly not only to changes in the global environment but also to the demands of an active citizenry.

eGovernment, therefore, emerged as an alternative way for governments to respond to the citizens' needs. This became necessary as a result of the deficiencies in earlier reforms aimed at repositioning the public service. The New Public Management

(NPM), one of these reforms, originated in the 1990s to reinvent the public sector and bridge the gap between governments and their citizens, but all it achieved was increase the distance (Welch, 2004, Noordhoek and Saner, 2004, Oakley, 2002 in Pina, Torres, L and Royo, S. 2009.).

Central to effective service delivery is an accountable and transparent public service (Olowu, 2011). One of the main strategies used by governments to encourage openness and combat corruption is transparency, which is defined as being crucial. It has also evolved into a universal standard for evaluating a state's commitment to democracy. (Cullier and Piotrowski, 2009, Mulgan, 2007, Quinn, 2003, Reylea, 2009, Shuler, 2010 in Bertot, Jaeger and Grimes, 2012). Thus, a lack of transparency may reduce the danger of and increase the appeal of corruption, limit the use of public incentives to encourage public officials to act honourably and in the public interest, and provide privileged groups with an unfair edge in the information age. (Anderson, 2009, Cullier and Piotrowski, 2009, Dawes, 2010, Kolstad and Wiig, 2009, Kolstad, 2009, Stiglitz, 2002a, b in Bertot, Jaeger and Grimes, 2012).

According to Clift (2003), eGovernment aims to increase public trust in and accountability from the government. Also, it makes it easier for citizens to receive information more quickly, which is intended to boost government transparency. Thus, eGovernment is seen as a good way to increase public confidence in governments through increasing citizen empowerment and public accountability. E-government has the potential to significantly improve public service delivery by providing citizens with easier access to government services and increasing transparency and efficiency in government operations. E-government initiatives can transform public service delivery by simplifying and streamlining government processes, reducing bureaucracy, and eliminating barriers to accessing government services (Demchak, 2000).

To improve government transparency and lower corruption, a growing number of states have adopted information and communication technology (ICT). These initiatives have significantly reduced the cost of gathering, disseminating, and accessing government information. They have also strengthened the ability of many other states to use eGovernment to increase access to information and advance goals related to

accountability, transparency, and anti-corruption. (Anderson, 2009, Cullier and Piotrowski, 2009, Fuchs, 2006).

According to the United Nations eGovernment Survey Report (2016), Open Government Data (OGD) can enhance the transparency and accountability of institutions. The concept of OGD can help public sector institutions improve the quality of their decision-making processes and public services. Open Government Data (OGD) refers to the data that governments make available to the public in a machine-readable format, to promote transparency, accountability, and citizen participation. This data can come from a wide range of sources, including government agencies, public institutions, and other public sector organizations. The goal of OGD is to provide citizens with access to government data that can be used to better understand public policies and decision-making processes, as well as to support innovation and economic growth. This data can be used by businesses, researchers, journalists, and citizens to develop new products and services, to identify patterns and trends in government activities, and to hold public officials accountable. Examples of open government data include demographic and economic statistics, transportation data, environmental data, health and safety data, and government spending data. Many governments around the world have established open data portals where citizens can access this information, and some have even created APIs (application programming interfaces) to enable developers to build applications that use the data.

Several reasons have been advanced for the need to provide open access to publicly held information. First, by sharing data, it helps in aggregating policies. This is said to be the bedrock for implementing a one-stop shop, whereby citizens do not need to submit a document to multiple departments or agencies of government, the interconnectivity among MDAs facilitates data sharing. Also Open Government Data enhances the effectiveness of public institutions in delivering essential social services to the citizens as well as empowers them with the information they need to hold their governments accountable. It can also enhance cross- sectoral collaboration and partnerships for the purpose of planning in the design and delivery of services, therefore increasing value to the public. E-government can also improve public service delivery

by increasing transparency and accountability in government operations. For example, the use of digital platforms for financial management, such as the Treasury Single Account (TSA), can help to reduce revenue leakages and ensure that government resources are used efficiently.

There is ample evidence from numerous Latin American states, as well as from Korea, where the use of eGovernment minimized petty corruption and improved service delivery. (Pathak, Singh, Belwal, Naz, and Smith, 2008:67). In addition, Mistry and Jalal (2012a) looked at how corruption and eGovernment interact in both developed and developing nations. This study specifically looked at whether developed or developing countries will experience a greater influence from eGovernment on corruption. Their findings demonstrate that corruption declines as the usage of eGovernment initiatives rises. Also, across the seven-year study period, underdeveloped countries experienced a greater influence from eGovernment on corruption than developed ones. Mistry (2012b) demonstrates in a different study how eGovernment, with its ability to foster openness and accountability, aids in reducing the determinants of corruption, which he characterised as rent seeking, discretionary administrative power, and weak institutions. Employing India as the case study, the outcome once more demonstrates a favourable correlation between eGovernment and a decrease in corruption. In a seven-year, 70-country analysis, Lio, Liu, and Ou (2011) demonstrate that the impacts of internet adoption on corruption reduction are statistically significant but not very significant. Although the internet has demonstrated the ability to lessen corruption, this potential has not yet been completely realized. In nations with coalition governments, which are known for having a high level of tolerance for corruption, the study by Ravi (2013) demonstrates that eGovernment has proven to be beneficial in significantly lowering corruption.

In developed countries, eGovernment can help to reduce corruption by promoting transparency and accountability in government operations. For example, electronic procurement systems can help to ensure that government contracts are awarded fairly and without favoritism, while online transparency portals can provide citizens with access to information about government spending and decision-making processes.

These measures can help to reduce opportunities for corrupt behavior by public officials and promote greater trust in government. In developing countries, eGovernment can also help to reduce corruption by promoting greater efficiency and reducing opportunities for discretion and bribery. For example, electronic tax filing systems can reduce the need for face-to-face interactions between taxpayers and government officials, which can help to reduce opportunities for petty corruption. Similarly, electronic payment systems can reduce the need for cash transactions, which can also reduce opportunities for bribery. However, it is important to note that the impact of eGovernment on corruption is not automatic, and its effectiveness may depend on a range of contextual factors, including the level of development of ICT infrastructure, the quality of governance, and the degree of political will to combat corruption. In some cases, eGovernment may even facilitate corruption if it is not implemented effectively or if it is used to conceal corrupt practices.

National Information Society Agency (2007) in a report on eGovernment in the Republic of Korea, one of the most technologically advanced nations in terms of deployment of eGovernment services, and one that has consistently invested in ICT, found four major components of the country's eGovernment initiative to be: government that offers services online, is paperless, is knowledge-based, and is clean. About clean government, it seeks to increase public confidence by disclosing information about practises and the current status of government activity and promptly responding to inquiries. The Seoul Metropolitan Government's OPEN system, an online tool designed to inform citizens of administrative procedures in numerous public service domains, is one of Korea's commendable eGovernment initiatives (SMG). The SMG created the OPEN system, which was introduced on April 15, 1999, to achieve transparency in the civil administration by avoiding needless delays or the unfair treatment of civil personnel. At every stage of the administrative process, citizens can monitor the progress of their civil matters online in real-time. The designers of OPEN aimed to increase efficiency and transparency in several sectors of civil administration where unjust treatment and corruption were frequently identified as the root of citizen complaints by moving the processing of civil affairs online. (Lee, 2003, 2005).

Since the OPEN system's introduction, citizens in Seoul can now view all the information online at their convenience, as opposed to standing in the customary long lines to be served at public offices. Also, the system sends them emails and SMS notifications about the progress of their applications so they can easily check the required details without going to the appropriate office or making a phone call. The OPEN system also presents a number of procedures in standardised forms. This guarantees the objectivity of the administrative official. The OPEN system makes all of the services' intricate processes transparent, fostering greater public confidence in civil servants. In an effort to establish people-centered services, the nation has also been successful in implementing service integration. The Government 3.0 programme, as it is known, intends to improve collaboration between government institutions by encouraging active data exchange. To enable more efficient delivery of eGovernment services, the comprehensive government site integrates all key administrative services offered by various government organisations. People may easily find all of the services offered by the Korean government from a single portal. To generate more effective service delivery, efforts are regularly made to enhance the operational and management capacities of the portal and to offer services, such as integrated searches and individually customised services. (Kim, Kim and Lee, 2009).

According to Nam (2013), the ultimate goal of the Korean Government 3.0 projects is to offer services that are relevant to each individual and are centred on the needs of the people. The National Disaster Management Information System, an information system that provides thorough and timely data about each stage of disaster management procedures, is an illustration of the Government 3.0 project (prevention, preparation, response and recovery). In comparison to the 35 minutes required before the system's creation, it now only takes one minute to communicate catastrophe status information between local governments and related agencies. 3,800 closed-circuit televisions (CCTV), which are employed in an open system for disaster management, are used to collect data. Information about disasters can also be sent by SMS to the general public. By the end of 2016, the Korean government intends to have moved over 750 eGovernment services to the cloud, and by 2017, around 60% of all eGovernment services will have done the same (Ahcopra, 2015).

Henman (2005) asserts that the Australian government was one of the first to implement a comprehensive one-stop national portal, providing citizens with a secured single sign-on for access to a variety of interactive services, both at the federal and local levels, including birth certificates, medicare, taxation, job searching, aged care, child support, and others. The health sector has been heavily impacted by the deployment of eGovernment for integrated policy execution. It is sufficient to use the Maternal Immunization Allowance and Child Care Benefit as an example. These services were combined in a way that makes receiving child benefits contingent upon a kid receiving all recommended vaccinations. The integrated services also include offering families a reliable payment mechanism. The conditionality of policy has increased as a result of the networked nature of eGovernment, whereby eligibility for a government service or policy in one policy area is dependent upon the policies and information in another policy domain. (Government of Australia, 2015).

Similar to this, the integration of Queensland, Australia's Geographic Information System (GIS) and public health information (surveillance) systems, which over time have been used to gather and tabulate data on illness, disabilities, causes of death, injuries, environmental risk factors, health costs, and other health issues, provided a setting in which the biophysical, social, behavioural, and cultural worlds have been combined for a systemic understanding of Notable is the effective use of GIS to locate water pumps for a secure water supply in Queensland settlements where Guinea Worms were most prevalent. In addition, GIS tools were utilised to locate distribution locations for diabetes promotion materials that were culturally suitable in a multicultural population and to improve community-based child welfare services. With GIS, local governments in Queensland can also evaluate significant dangers in a neighbourhood, forecast kid pedestrian injuries, and analyse disease policy and planning. Targeted interventions have included these applications. This resulted in (i) decreased guinea worm disease prevalence in villages where pumps were implemented, (ii) subsidised meals for kids in high child poverty areas while they attend family day care, (iii) a targeted and culturally-sensitive diabetes programme, (iv) the allocation of limited vector-control resources to the highest priority response areas during dengue fever outbreaks, and (v) screening programmes to assess hazards in high-risk

neighbourhoods, which also decreased overall mortality. (United Nations EGovernment Survey, 2016).

South Africa serves as an example of an African country that has implemented eGovernment programmes. It has deployed several services successfully (Thakur and Singh, 2013). Examples include the Independent Electoral Commission's (IEC) use of technology to register voters swiftly and precisely as well as to record and tabulate national results to hold free and transparent elections. The generation of several spatial management reports needed for planning, logistics, registration, and results processing of the election as well as for registration reasons by using the voter-provided information on the municipality name and streets was another efficient use of the GIS by the IEC. This programme is said to be effective in lessening the limits involved with electioneering, particularly in developing countries, due to the low literacy level and other information gaps in South Africa and elsewhere. (Ifinedo, 2006).

In a similar vein, to address some challenges that called for increased use of data and GIS information, it was necessary to: (i) increase services to semi-urban and informal settlements within urban centres; (ii) provide services to the most vulnerable, especially in rural areas; (iii) optimally locate service points closer to the people, especially in areas of changing human settlement patterns and demographics; and (iii) develop road infrastructure and transport service. (i) using GIS data for group- and sector-focused public policy formulation, implementation, and monitoring and (ii) integrating GIS applications and data into the provision of fundamental public services in areas including social welfare, health, safety, and transportation. This strategic approach presented a ground-breaking technique that incorporates the advantages of GIS technology improvements into the processes of creating public policy and providing public services. (United Nations EGovernment Survey, 2016).

Mauritius, which came in first place in Africa in the 2016 UN eGovernment report, is another impressive African case study. Yet, the process of digitization began as early as the 1990s. The implementation's key objectives were to use ICTs to manage tax collection, monitor government accounts, ensure that pensions and other benefits are paid to the correct beneficiaries, secure citizen and border identities, and more recently,

add e-services to the eGovernment agenda. The nation has steadily switched from a citizens-driven approach to a public service-centred approach, as shown by worldwide eGovernment leaders. By raising knowledge of eGovernment portals and e-services and establishing a help desk to assist citizens who are having issues utilising the government portal, e-services, and m-services, the new strategy intends to empower individuals.

The country has also put new e-Services into place in accordance with the residents' top priorities. It has created services that can be used on desktop, laptop, and mobile devices, as well as an SMS-based disaster alerting system. Using the network of Mauritius Post, Mauritius now runs a One-Stop-Shop for government services to enhance the delivery of public services. In order to promote online transactions utilising digital signatures, it has also established a Government Contact Center to provide information on government services, offer e-services with e-payment and m-payment facilities, and provide e-services. To provide better customer service, it has also built a Crime Occurrence Tracking System (COTS) with automated facilities for filing criminal complaints at police stations, centralised tracking of criminal complaints filed at police stations, a tool for the study of criminal data, serving as the backbone of the Integrated Justice Information System (IJIS), which connects the prisons, courts, and police departments. The Mauritius National Identification Card (MNIC) project 0combines a highly secure biometric ID card with an electronic birth registration system.

This is connected to both the pension payment and the senior bus pass. 53 additional e-services, in addition to the ones mentioned above, have also been implemented. These include applications for a learner's licence, positions at the Public and Disciplined Forces Commission, work permits, appointments for vehicle examinations, courses for women, and applications for environmental complaints. (United Nations EGovernment Survey, 2016). Over the years, Ethiopia has also made considerable expenditures in ICT infrastructure. For instance, national-area network infrastructure has been developed to link government agencies, educational and healthcare facilities, and agricultural research centres with the central government, regional governments, and district-level administration. To provide high-quality voice, data, and multimedia

services to government agencies, businesses, and the general public, Ethio Telecom, previously the Ethiopian Telecommunications Corporation (ETC), constructed an optical network infrastructure through its telecommunications agency. To facilitate and enable effective and efficient provision of services to the public, it also offers videoconferencing, internet connectivity, messaging, and information-sharing services.

These are thought to improve communications across the various tiers of government. Through the implementation of an innovative and technology-enhanced national strategy, the government is successfully transforming Ethiopia's agrarian economy into a knowledge-based one, with development perspectives in the education, health care, and agricultural sectors. This has improved public services and created new long-term opportunities for both individuals and business enterprises across the entire nation. There are a few noteworthy projects worth mentioning. The first is the "Woredanet," a network with the goals of providing ICT services like video conferencing, directory, messaging, VoIP, and the Internet at the federal, regional, and lowest levels of government across the nation, as well as to create a transparent and accountable government system and boost public participation in politics. Around 630 Woredas connections have been made successfully. The second is "Schoolnet," a national network that uses ICTs at all levels of the state's educational system to give the educational processes much-needed support. 191 preparatory schools and over 574 high schools are already connected to the network. with additional schools joining later. For higher education institutions, there is the EthERNEt (Ethiopian Educational and Research Network). It connects 22 public universities and has made it possible to do M.Sc. and PhD programmes by video conferencing with universities in India, South Africa, and the United Kingdom. (Debretsion, 2011).

2.6 EGovernment Implementation in Nigeria

Governments have invested so much in facilitating technology-driven governance processes at different levels, such as: connecting communities and key public institutions across all levels with ICT, under the E-Nigeria project. There are also the National Rural Telephony projects, the Nigerian telemedicine initiative, the Public

service network initiative, internet exchange point initiatives, and sub-national ICT facilities (Fatile, 2012). Only in a few cases have successes been recorded.

The National Information Technology Policy, which was adopted, aims to, among other things, replace traditional governance with electronic governance, create knowledge-based and Simple Moral Accountable Responsive and Transparent (SMART) governance, cut costs associated with service delivery and eliminate waste, maximise productivity and quality, boost efficiency, and make public information about the government more readily available. To expedite the goals and economic transformation outlined in the national plan Vision 20-2020, the National Information Technology Development Agency (NITDA) created a National eGovernment framework.

Some MDAs have also initiated eGovernment strategies in their various units; however, these efforts are individualistic and unintegrated as there is no platform for interaction between and among the various agencies and levels of government. Some of these include; the Automated System for Customs Data (ASYCUDA) by the Nigeria Customs Service, the Nigeria Immigration Service's computerization of Resident Permit, and the automation of land and Certificate of Occupancy in the Federal Capital Territory Administration (FCTA) (Akingbade, 2012). The Federal Government also implemented the Integrated Personnel and Payroll Information System (IPPIS) and the Government Integrated Financial Management Information System (GIFMIS). Both are Electronic Payment (ePayment) strategies aimed at curbing corruption. Another key e-government initiative in Nigeria is the National Identity Management Commission (NIMC), which is responsible for issuing and managing the National Identification Number (NIN). The NIMC has developed an online platform where citizens can register and obtain their NIN, eliminating the need for physical visits to the commission's offices. The NIN is also linked to other government services, such as the Bank Verification Number (BVN), which is required for banking transactions. Another example of e-government in Nigeria is the Treasury Single Account (TSA) system, which is a unified account for all government revenue. The TSA system has helped to reduce corruption and increase transparency in government transactions, as all government revenues are now collected in a single account.

In the education sector, there is the electronic registration of candidates for examination and an Electronic Test (eTest) being implemented by the Joint Admissions and matriculations Board (JAMB). It involves the use of computers in administering the Unified Tertiary Matriculations Examination (UTME), such that candidates can get the results hours after completion of the examination. Similar strategies are also implemented by the West Africa Examination Council (WAEC) and the National Examination Council (NECO) with slight modifications. The National Youth Service Commission (NYSC) has also adopted eGovernment means to ease the process of posting prospective Corp members to their respective states of deployment and the collection of Call-up letters.

In a similar vein, the conduct of the 2015 general elections relied heavily on ICT. Like in other countries, Nigeria's adoption of new technologies in the electoral process was justified by the demand for better voter identification systems, quicker voting, quicker, more accurate counting, and transmission of results, as well as improved accountability and transparency throughout the entire electoral process. The Independent National Electoral Commission (INEC) supplied up-to-date, transparent, and trustworthy information before the elections through its website, including the ability to check voters' registration status. Following the elections, results were scanned and immediately made public on the INEC website. Electronic Card Readers (ECRs) and Permanent Voters cards were introduced in Nigerian electoral history (PVCs). Voters' biometric data is stored in the PVC, which is "much more advanced than anything used in the United States," on an implanted microchip. (Sweeney, 2015).

On the other hand, voters in the 2015 general elections were also accredited using the ECR equipped with fingerprint scanners. The ECRs were used to confirm the validity of the PVCs and make sure that voters had been properly registered at the polling place. Notwithstanding the praise for the creative application of technology and its contribution to the success of the 2015 election, the procedure was not without hiccups. For instance, during the presidential elections, unauthorised individuals hacked the INEC website. Similar to this, reports of several ECR machines failing to function came

from all around the nation. Due to unanticipated delays, voting took place after scheduled times. (Ehidiamen, 2015).

The Citizens Contact Centre (CCC) was also established, particularly to facilitate two-way communication between INEC and the general public. Using social media sites like Facebook, Twitter, Google+, and email, the centre enabled communication between the Commission and the public. In contrast to prior election years, when citizens were unable to send the Commission complaints, the CCC enabled the Commission to effectively address the grievances and issues raised by citizens. The centre also worked with and educated voters on social media platforms taught Nigerian youths about the electoral process and supplied adequate and comprehensive information on election guides. (Ibrahim, 2015). Asogwa (2013) reports from the viewpoint of government employees in a study of ten federal ministries with official websites about the effectiveness of eGovernment in lowering administrative costs, bribery and corruption, as well as offering quicker access to official information and increasing transparency, among other things. Akingbade (2012) investigated how eGovernment was used to administer land in Abuja, the federal capital of Nigeria. The study identifies and categorises corrupt practices in land administration into five categories: fraud, forgery, multiple allocations, bribery, nepotism and favouritism, and white-collar malpractices. Data from the study indicates that corrupt activities have decreased to varying degrees, except for nepotism and favouritism.

At the state level, many states have demonstrated the will to implement eGovernment strategies to drive development within their respective states. According to Mundy and Musa (2010), only 30% of the websites for Nigerian states may have advanced to the second stage of eGovernment development, with 70% remaining firmly in the publication stage. Lagos State is still at the forefront of offering its citizens electronic services. Almost all economic sectors, including land processing and documentation, include ICT-based services. To speed up the processing of planning permits, the state recently established the electronic permit (e-permit) system. This should expedite resident applications for planning permissions. Users can upload design drawings and other requirements using the system. (Akinola, 2016).

It has also put in place electronic services for efficient documentation, automated electronic tax clearance certificates (e-TCC), and electronic health services (e-health), which enable access to and exchange of data for appropriate medical care at any other general hospitals in the State for patients whose records are registered with one. To manage its revenue operations, the Central Billing System (CBS), also known as Electronic ticketing (e-ticketing), is available. The CBS is an automated system that replaces handwritten tickets with fine tickets that are electronically created, making it less vulnerable to human error (PM News, 2016). Additionally, the state has put in place Student Identity Numbers (SIN), which give the government the ability to compile a thorough database of all children and students enrolled in elementary and secondary schools, both public and private. Moreover, e-service points are located at numerous ministries and agencies around the State.

In a study based on the official websites of Nigeria's 36 states and the federal capital territory to assess how well they adhered to the national IT policy strategy, Oni, Okunoye, and Mbarika (2016) found that only 23 states (or 64 percent) had websites, the majority of which provided textual information. A select few offered functional online interactions and downloadable papers. In particular, the Sokoto State Government's website was still under construction, while Benue State Government's only online presence was a blog. The state governments of Ebonyi, Kastina, Kano, Kebbi, Imo, Gombe, Zamfara, Nasarawa, Yobe, and Bayelsa were not accessible online. The survey also revealed that none of the state governments' websites had implemented eGovernment to the point where it is providing transactional services to the public. Nonetheless, Niger and Ogun States have both established arrangements for some electronic services on their websites, indicating that it may be possible for them to be implemented in the near future.

Moreover, Osun State has a citizens' interactive platform that allows the general public to submit online comments on a variety of interesting topics while also giving them direct access to the Executive Governor's office. Similar to this, twelve state websites-Anambra, Oyo, Enugu, Akwa Ibom, Taraba, Edo, Delta, Bauchi, Niger, Rivers, Kogi, and Osun-offer citizens the chance to make comments or complaints using online

contact forms. Nineteen additional states (79%) offer extras like links to social networking websites (Oni, Okunoye and Mbarika, 2016).

Although scholars like Ifinedo (2004, 2006), Adeyemo (2010), Fatile (2012), Akingbade (2012), Asogwa (2013) have written extensively on the implementation, problems and opportunities of eGovernment in Nigeria's public service as a whole, there remains a dearth of studies on the implementation of eGovernment on a sectoral basis, to ascertain the impact of its adoption on the nature, activities and performance of specific agencies of government. For instance, while existing literature highlights the potential of eGovernment services, there is a dearth of empirical investigations to either ascertain or refute these claims in Nigeria's public service. There is also the need to examine the extent of the implementation of the National Information Technology Policy (NITP), the policy framework on which Nigeria's eGovernment project is built. This research, therefore, aims to fill this gap by investigating the implementation of eGovernment in the FRSC in Southwest Nigeria.

2.7 Policy Frameworks for eGovernment Implementation in Nigeria

A national information technology policy was deemed necessary because ICT is rapidly taking over as the main engine of global development. As a result, no progressive state can ignore this global trend that is rife with opportunity. Hence, having a highly effective information technology infrastructure that is supported by a dynamic national IT strategy was crucial for a rising country like Nigeria that hopes to engage actively and play a significant role in the emerging information age (NPIT, 2001). To lay the groundwork for integrating ICT into national life, Nigeria's National Policy for Information Technology (NPIT), often known as "USE IT," was approved in March 2001. To become a significant player in the global ICT market by the year 2005 and promote national development via the use of IT, it projects the government's expectations about the integration of ICT in the corporate and public sectors on a sectoral basis (NPIT, 2001).

The justifications for a National eGovernment Masterplan are the benefits the adoption of eGovernment can provide, such as the reduction in the cost of providing services and

better public administration and service delivery on the one hand. It also can accelerate economic development, increase transparency and accountability in government, and help build an information society (Nigeria eGovernment Masterplan, 2019). The policy envisioned the need to utilize ICT in five critical areas for national development, namely: education, wealth creation, the eradication of poverty, the creation of jobs, and international competitiveness, cutting across several sectors such as Development of human resources, infrastructure, governance, R&D, health care, agriculture, urban and rural development, trade, commerce, fiscal policies, public-private sector partnerships, arts, culture, and tourism, national security and law enforcement, legislation, global consideration, IT popularisation and awareness, and policy implementation are all areas with particular relevance. As a result, an Act of the National Assembly created the National Information Technology Development Agency (NITDA) to carry out the NPIT's goals, which include creating regulations for the implementation of electronic governance and overseeing the use of electronic data exchange. (National eGovernment Master Plan, 2019).

With particular reference to the governance sector, under which this study can be situated, the NITP is to ensure that Nigeria optimizes the use of ICT to transform governance in a bid to meet the needs of the citizens creating a transparent system, "Government Wide Information System (GWIS)" at all levels. The policy's specific goal is to switch to electronic governance from the current traditional governance framework. This, it is hoped, will minimise red tape, increase output and quality, as well as cut down on waste. Also, the programme is anticipated to lower service delivery costs and boost government service efficiency. However, there are no particular provisions regarding the use of e-documents, e-signature, and the roles and responsibilities of MDAs in the implementation of eGovernment. (National eGovernment Master Plan, 2019). Due to this vacuum, the National eGovernment Master Plan was developed, and it is anticipated that it will be more detailed regarding eGovernment implementation in Nigeria.

The plan is directed by a few guiding principles in order to make this goal attainable, such as: making sure the plan is practicable, which is done by making sure it is close to

reality and not simply another piece of rhetoric like other programmes. The strategy is also created to be citizen-centric, meaning that it centres on making the citizens happy. Given that Customer Relationship Management solutions are being developed to enhance the delivery of eGovernment services, citizens are to be viewed as customers of the government, that is, as recipients of government services. Also, citizens must have access to other service delivery methods besides only the internet. While making sure that eGovernment's primary goals are service enhancement and process efficiency, effective collaborations with the pertinent stakeholders must be maintained. The development of intergovernmental cooperation among all governmental departments is also essential. Results of eGovernment must be straightforward and quantifiable, and collaborations with the private sector must be annexed.

In addition, in the implementation of the eGovernment Masterplan, the drafters emphasized the need to pay close attention to certain areas. The first is organizational changes, that is, how organisations respond to the integration of ICT to the mainstream of their activities, rather than paying attention to the actual application of ICT. The need to ensure consistency throughout the implementation phase of the Masterplan to achieve the goal of building an e-society is the second. The third bothers on the need to ensure adequate feedback by making sure that the users are included as a feedback mechanism. For a successful implementation of the Master plan feedback must be sought from the users and not just from the implementing agencies. To do this, the project's performance should be assessed at the post-implementation stage by establishing the degree to which the plan was followed without risk. Second, the management of information resources should be taken into account along with the project's operation and maintenance. Finally, to effectively utilise the services and create the second stage of eGovernment, respectively, it is necessary to promote eGovernment services to the public and solicit input for the project. All parties involved must have the same vision to foster the necessary cooperation and motivation for the task's completion.

The fifth focuses on the need to make the project citizen-centred and not Government-centred. If ICT is indeed a value-creation tool, then the need of the citizens should be

the major drive for implementing eGovernment services. Ensuring that the databases to be designed cut across all government functions, by establishing a Data Reference Model (DRM) is the sixth. The capacity to make data a shared resource shared by all organizational units, or all MDAs, is essential to the master plan's successful implementation because it will guarantee an increase in the responsiveness of the entire government structure and the creation of a range of services for the general public. The seventh calls for a shift in data management procedures to take into account new types of data, such as social data streams and the ability to collect data sensed from all real-world artefacts. The need to familiarize both government officials and the greater populace with the emerging information age with the requisite capability to function in the information drive age is the ninth. And finally, laws should be proactively enacted such that will help manage the dynamics of an information age.

The implementation of the eGovernment Masterplan is divided into three phases, the Pre-implementation phase, the implementation phase and the Post-implementation phase. The first phase is basically the design phase, where it is expected that the policy-makers give the needed impetus to run eGovernment Masterplan and build the institutional structures upon which the plan will stand. It is at this stage that the needed awareness for the plan is activated and sustained in other to increase its acceptability among the citizenry. A SWOT (strength, weakness, opportunity and threat) analysis of the policy is also expected at this stage as well as the benchmarking of success stories in the implementation of eGovernment around the world to learn from their examples. The Implementation phase, the vision and strategic goals of National eGovernment Masterplan is crafted with particularly reference to the SWOT analysis of the initial stage. The ‘how’ of the plan is also outlined at this stage, that is, the roadmap and corresponding indicators to the strategic goal. At this stage also, the strategic success factors from global eGovernment leaders should be managed and integrated into the overall strategic plan. At the Post-implementation phase, it is important that an evaluation of the performance of the project be monitored, in order to determine to what extent, it conforms to the plan. The operation and maintenance of the project should be considered along with management of information resources. Also, the promotion of eGovernment services to people and feedback for the project should be carried out to

make the services fully utilized and to develop the second stage of eGovernment, respectively.

Citing examples from Korea Republic, Kenya, South Africa and the USA, seven factors are critical for the successful implementation of eGovernment Masterplan. The foremost of these factors is the Masterplan's need to be national in its scope and adoption. This is very important to the successful implementation of the plan. All levels of government, as well as branches, must embrace it. A sustained investment in eGovernment is the second critical factor. This is required for the transformation of the nation by ICT. A proposition for a 1% of the annual budget as an investment into the eGovernment plan and the creation of a fund dedicated to the promotion of Information and Telecommunications are suggestions on how the sustained investment can be achieved.

The need for a dedicated organizational structure for the implementation of eGovernment is also very critical. To achieve this, a supervisory committee directly under the President is to be established. Also, Chief Information Officers (CIOs) shall be designated at all levels of government, thus creating a streamlined support structure. The Masterplan will enrol the technical assistance of specialized eGovernment agencies like the National Information Technology Development Agency (NITDA) and Galaxy Backbone (GBB) for field works required for the projects. Another critical factor is the maintenance of balance between the demand and supply sides of eGovernment Services. There is the need to develop policies for the balanced development of an information-oriented society on both sides of the IT industry to maintain a virtuous cycle where one side enforces the other. The government is responsible for developing and implementing eGovernment policies; IT companies provide the needed technology and skills while the citizens get involved as participants. The establishment of change management is a determinant in the successful implementation of eGovernment worldwide. In order to prevent a possible resistance from potential users like public officials and the general public, usually caused by the fear that the integration of ICT into government business will create redundancy for a majority of staff, which may then lead to job loss, it is essential to mitigate this fear by the creation of a change

management programme for public officials in the emerging ICT environment. The Masterplan finally highlighted establishing a capacity development programme for Civil Servants, on the implementation side of the plan and Citizens, on the end-users side. Such a programme can be used as a springboard for government reform. An organization for the purpose of training for eGovernment should be established and an optimized eGovernment training courses developed specifically for Nigeria.

2.8 Theoretical Framework

Innovation theory spans various academic disciplines. Initially, in the 1930s, theorists believed that innovation followed a linear model, where it started with fundamental research, then moved to applied research, technology development, and finally, diffusion. This perspective suggested that scientific advancements determined the speed and direction of innovation. According to this "linear model," the best way to increase innovation was by investing more in research and development (R&D). This approach is called technology or supply push because it focuses on pushing new technologies into the market. However, in the 1950s, another perspective emerged called demand pull. It argued that the demand for products and services was more significant in driving innovation than scientific advancements alone. This perspective highlights the importance of meeting customer needs and desires, as it stimulates inventive activity. In this view, innovation is driven by the demand for new and improved products or services. Over time, both of these perspectives have been deemed too simplistic. More recent theoretical approaches acknowledge the significance of both technology-push and demand-pull factors in stimulating innovation. These approaches recognize that innovation is a complex process involving technological advancements, market demands, and other socioeconomic factors. (Greenacre, Gross and Speirs, 2012).

This study utilized the theory of innovation as espoused by Downs Jr. and Mohr (1979) in their work “Toward a theory of Innovation”. The theory is built around four ideas namely: making the concept of innovation decision the unit of analysis, improving on the level of generalization of the independent variables in other to avoid statistical interaction, splitting innovation into two stages, that is the diffusion and the adoption

stages, and finally introducing the concept of fair-trial point, in order to solve several other problems associated with the conceptualization of innovation. The concept of innovation in this theory will be used in relation to Information and Communication Technology. Innovation is seen as the earliness or extent of use by a given organisation of a given new idea. “New” in the definition context refers to the adopting agent and not to the entire world. An innovation is new, if an organisation adopts it for the first time, even if it has been in use before it. This theory particularly brings together the two dimensions of innovation: the earliness of use and the extent of use.

Conceptualizing innovation as either of the two had been a major source of confusion in advancing an innovation theory. As a process, innovation is viewed as two stages. The first is the diffusion stage, the mere awareness that a certain innovation exists and might benefit an organisation. It terminates when the prospective adopter is said to have heard about the innovation. The second stage is the adoption stage. It begins at the point of awareness and continues until the point at which an adoption decision is made by the organization. It is with the second stage that this theory of innovation is concerned.

The need for a definitional clarification is premised on the fact that the concept has taken on different meanings and has become ambiguous. Previous attempts at advancing a theory of innovation had been hindered by the inability of such theories to generalize and predict as expected of scientific enterprises. This phenomenon is described as *complexity* and is caused by the *interaction* of several variables, making it difficult to specify the effect of a particular variable in a given study. Indeed, several variables have proven to be “highly and inexplicably erratic predictor of innovativeness”, a situation described as *instability*. Two major sources of instability are identified as, the interactions among independent variables and the conceptualization of the dependent variable, innovation. This proposition therefore aims to minimize instability in an effort at advancing the theory of innovation. To avoid further instability, the theory rather than using the conventional organizational variables such as, wealth, decentralization, size etc. as the unit of analysis for investigating the determinants of innovation, adopted the decision-making context or choice situation, what is described as *innovation decision*, a variable that combines the characteristics of

the organization and the innovation in the context surrounding a particular decision. The justifications for adopting this variable are in two-fold. First, the impact of organizational variables on adaptive behaviour varies as innovation changes. Secondly, organizational properties change from one innovation to the other. That is, no permanent organizational characteristics may be used to measure the determinant of innovation in an organization.

The concept of a fair-trial point was introduced, to combat the problems associated with the extent of use of an innovation. It refers to the extent of use at which the adopter has enough experience with the innovation to assess its cost and benefits accurately. This is the point at which the adopting organization has given the innovation a fair-trial. Although, there are instances in which a given innovation has a fair-trial point of zero, this is what is referred to as 100% psychological trialability, when an adopter simply tries out an innovation in his mind, without acquiring any experience to decide whether or not to adopt an innovation. This is not considered as innovation. Closely related to the fair-trial point, is the token-adoption point. A situation when a large innovation-decision adopts an innovation on a small scale with no risk involved and no useful information about the costs and benefits of adopting the innovation. This also is not taken as innovation.

At the core of this theory is the concept of cost-benefit as a variable of the determinants of innovativeness. This is very important because according to the theorists, innovation comes at a cost and resources are needed to offset this cost. At the other hand is the fact that organizations innovate specifically because of the benefits associated with such innovations. Also the benefits to be obtained go a long way in helping to discover why an innovation was or was not adopted.

Three sets of benefits can accrue to an organization as a result of its innovativeness. These are programmatic, prestige and structural benefits. Programmatic benefits are the benefits of increased effectiveness and efficiency in accomplishing externally related goals, usually measured in terms of profit in the private sector. Prestige benefits are those associated with recognition and social approval for the organization for being early adopters of an innovation. The structural benefits are majorly internal ones such

as job satisfaction and better relationships on the part of the workers. On the other hand, the costs of innovation are divided into two types, decision and implementation costs. Decision costs entail the managerial and technical skill, time, the cost of gathering new information and internal social costs, that is, costs associated with the disruption of the organization's status quo. These are the costs associated with whether or not to implement an innovation, to what extent and at what rate is the innovation to be implemented. On the other hand, the implementation costs are those connected with the actual implementation of the innovation to the fair-trial point. This will include, equipment, manpower, internal and external social (disrupting the status quo in the organization's environment) costs.

Closely related to the concept of cost-benefit is that of resources. Resources are seen to be vital because they are needed to offset the cost of adopting innovation. An organization will likely employ all its resources to adopt an innovation that the decision-makers consider highly beneficial. In contrast, for an innovation whose costs outweigh its benefits, no organization is likely to dispense its resources adopting such.

Since no two organizations can adopt the same innovation and get the exact results, the theory provides five discounting factors that play significant roles in determining the results obtained by organizations regarding benefits, costs, and resources. These are risk, the average cost of discontinuance, uncertainty, and unreliability in the future stream of benefits. However, the limitations of the theory are inherent in the challenges associated with its cost-benefit approach to innovation. The challenge is dealing with the variation in the perception of benefits and costs within the organization, determining the fair-trial point and identifying the factors that determine perceived benefit and cost levels.

The suitability of the theory of innovation to this study is evident in its capability to appropriately identify the motivation for the adoption of eGovernment in the FRSC as well as to assess the calculated benefits accrued to the agency from the adoption of eGovernment in relation to its cost. As Navarra and Cornford (2005) report, the underlying reasons for the adoption of eGovernment differ across states and range from the need to integrate isolated automation and to simplify business processes to

maximizing the benefits from technology, redesigning services in acceptable ways to the stakeholders, the modernization of public services and administrative procedures and the need to create a knowledge-based workplace for technology experimentation.

Furthermore, innovation is important and therefore the need to institutionalise it and make it a core value in the public service. Adopting an innovation does not automatically bring in the expected benefits. There is the need to "restructure the information architecture to allow for a seamless transition from the pre-existing information systems, structures, procedures and infrastructure towards a fluid re-design of the flows and databases which will support the process of reform and innovation" (Navarra and Cornford, 2005). This is particularly true of innovations in Information and Communications Technology, usually called systemic, discontinuous or disruptive innovations, which require fundamental changes in organisational, social and cultural arrangements to have full impact (Albury, 2005). This theory will, therefore, bring to the light the underlying reasons for the successful implementation or otherwise of eGovernment in the Federal Roads Safety Commission.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Chapter Overview

This chapter presents the methodology used to gather, present and analyse data for this study. It consists of the research design, study population, sample size and sampling technique. The chapter also includes the data collection instrument, data gathering procedure, and data analysis method.

3.1 Research Design

The mixed-method research design was adopted for this study. This design combines elements of the quantitative as well as that of the qualitative research approaches. Combining the quantitative and qualitative methods in this study cuts across the data collection, presentation and analysis. The strength of this design is in its ability to understand the research problems better and give further explanation and validation for the initial results. The convergent parallel variant of the mixed-method research design was utilized. This variant provides that both quantitative and qualitative strands of the research are carried out independently while their results are brought together in the overall interpretation. This variant helps to watch out for convergence, divergence, contradictions, or relationships between two data sources (Creswell and Clark, 2011 cited in Schoonenboom and Johnson, 2017).

The Key Informant Interview (KII) and In-Depth Interview (IDI) types were adopted on the qualitative side. The KII helped elicit information from experts who have first-hand knowledge on eGovernment in the FRSC. At the same time, the IDI was used to elicit information from the end-users on their experiences using eGovernment in the FRSC. The interviews were semi-structured, allowing the researcher to use an interview

guide and follow up on topical trajectories in the conversation that may stray from the guide as appropriate. An electronic survey was conducted on the end-users of the electronic services in the FRSC on the quantitative side. An electronic survey is described as one in which a computer plays a significant role in delivering a survey and collecting survey data (Jansen et al., 2007).

The choice of an electronic survey against the traditional paper and pencil survey was due to the small number of people who directly use the electronic services of the FRSC without the involvement of a third party. This was therefore adopted to improve the reach of the instrument as well as the response rate. The use of the electronic survey also served as a form of validation on the end-users' ability to use electronic services. Besides, an electronic survey is faster to complete and returns more accurate results. It is also cheaper, easy and quick to analyse and has become the most preferred by participants because of its ease of use (Smart Survey, 2019). This study combined the email and the web-based types. The email-based electronic survey is such that is delivered through electronic mails. On the other hand, the web-based electronic survey physically resides on a network server, which can only be accessed through a web browser (Green, 1995, Stanton, 1998, cited in Jansen, Corley and Jansen, 2007). People who met the research criteria were asked to complete it and encourage others on their networks who met the criteria to do so too.

3.2 Study Organization/Area

For this study, the study area is the Southwest of Nigeria, comprising Lagos, Ogun, Oyo, Osun, Ondo, and Ekiti. However, three (3) states were selected. The three states are Lagos, Osun and Oyo States. Lagos was chosen for its cosmopolitan nature and its strategic position as the Zonal Command, coordinating the agency's activities in Lagos and Ogun states. Osun state was selected for its role as a Zonal Command of the FRSC, coordinating its operations in Osun, Oyo and Ondo states, while Oyo state was selected for its pioneering role in institutionalizing road traffic management in Nigeria. The Commission's Headquarters in Abuja was, however, included.

The need for a dedicated government department to address road safety in Nigeria emerged as a response to the alarming state of the country's traffic situation. Road accidents rose significantly, posing significant threats to human life and causing substantial material damage. (Omiko, 2011). This dire situation prompted the recognition of the importance of having a specialized agency that could intervene and improve road safety conditions in Nigeria. By establishing a government department specifically focused on road safety, it was hoped that the escalating road accidents and their associated consequences could be halted and ultimately reversed. The desire to mitigate the devastating effects of road traffic accidents was a driving force behind the establishment of such an agency.

The FRSC was established under Decree 45 of 1988 for Nigeria's road traffic safety and management (FRSC Compendium, 2006). The enabling law was amended by Decree 35 of 1992 and was finally passed by the National Assembly as FRSC (establishment) Act 2007. The Federal Road Safety Commission (FRSC) is led by a Corps Marshal and Chief Executive, who is responsible for the overall management and administration of the Commission. The Corps Marshal oversees various activities, initiatives, and policies within the Commission, working towards the goal of enhancing road safety and creating a conducive motoring environment in Nigeria.

Before establishing the Federal Road Safety Commission (FRSC), various individuals, corporate organizations, and states within Nigeria had taken separate and uncoordinated initiatives to promote road safety. For instance, between 1960 and 1965, the Shell Petroleum Development Company of Nigeria (SPDC) had its initiatives to enhance road safety. In the early 1970s, the Nigerian Army also played a role by initiating road safety efforts. One noteworthy development was the Nigerian Army's commitment to road safety. They began conducting training programs to educate their officers and soldiers on the importance of road safety. In 1972, the Nigerian Army organized the first-ever Public Road Safety Campaign, which took place during its Annual Road Safety Week. This campaign aimed to raise awareness among the general public about road safety practices and encourage responsible behavior on the roads. The then Military Government of Nigeria thereafter established the National Road Safety Commission

(NRSC) in response to road safety challenges in 1974. This was however short-lived. In a separate development, in 1977, the Military Administration in the then old Oyo State established the Oyo State Road Safety Commission, which lasted only for about six years. However, it recorded significant improvements in road safety within that short span and was known for inculcating discipline among road users in the state (FRSC Compendium, 2006).

These early initiatives by private citizens, corporate organizations like SPDC, and the Nigerian Army laid the foundation for road safety awareness and actions in Nigeria. However, the establishment of the FRSC brought about a unified and coordinated approach towards improving road safety nationwide. The FRSC thereafter commenced operations at Ibadan and later to Lagos. It operates from its National Headquarters in Abuja since moving from Lagos in 1992. The Commission evolves policies on how road safety can be achieved. It also researches the causes of Road Traffic Crashes and proffers solutions. The FRSC operates under the Office of the Secretary to the Government of the Federation (SGF) in the Presidency.

At inception, only four major Directorates (now Departments) existed. The Directorates were: Administration and Finance, Operations, Public Education and Technical Services. However, with several administrative restructuring, it now has eight Departments namely: Operations (OP), Administration and Human Resource (A&HR), Special Duties and External Relations (SDER), Motor Vehicle Administration (MVA), Training (TRG), Finance and Accounts (F&A), Technical Service Department (TSD) and Policy Research and Statistics (PRS) (FRSC, 2015).

The Commission has also created Commission Offices for effective performance. These are Public Education, Intelligence Office, Provost, Legal Services, Commission Secretary, Commission Auditor, Commission Transport Standardization, Commission Budget, Medical and Rescue Services, Commission Procurement and Commission Safety Engineering Office. The Information Technology Centre (ITC), Project Implementation Office and Planning Advisory Unit lend additional support to the Departments and Commission Offices. There are also Special Units created to render additional support to the Commission. These include the Principal Staff Officers to

Corps Marshal, Projects Implementation Office, Planning Advisory Unit, SERVICOM, National Road Safety Advisory Council, Protocol, Technical Assistant to Corps Marshal (FRSC, 2018).

The Commission is decentralized. As such it has field offices across the Federation comprising of Zonal, Sector and Unit Commands, Outpost Stations and Corridor Commands. The Commission began with five (5) Zonal Commands charged with the coordination of the activities at the Sector Commands across the various states. The pioneer Zonal Commands were located in Kaduna, Bauchi, Benin, Aba and Ibadan. The number of zonal Commands has however increased to twelve (12) over the years. Similarly, the number of Sector Commands has also increased with the increase in the number of States of the Federation which currently stands at thirty-seven with the Federal Capital territory, Abuja. Over the years, the Commission has undergone several administrative restructurings, including its merger with the Nigerian Police between 2000-2003. With the expansion of the agency, and for greater effectiveness, Units were further created under the State Commands. The Commission as at May, 2020 has 12 Zonal Commands, 37 Sector Commands, 217 Unit Commands, and 48 Outpost Centres spread across the states of the Federation. In 2019 a new Command Structure was included in the agency's operations, known as Corridor Command. These Commands monitor road traffic crash-prone highways across Nigeria. Headed by an Officer not less than the rank of a Deputy Corps Commander and reporting to the Operations Department, the Command monitors all the routes, assesses and takes proactive actions on traffic situations liaising with the Commands along such corridors. There are seven Corridor Commands across Nigeria: Lagos-Ibadan Expressway up to Egbeda, Ore-Benin-Asaba to Enugu, Abuja-Lokoja, Abuja-Kaduna, and Abuja Metropolis. (FRSC, 2020).

Table 3.2.1: Distribution of FRSC Commands

S/N	ZONE	CODE	SECTOR COMMANDS	NO. OF SECTOR COMMANDS	NO. OF UNIT COMMANDS	NO. OF OUTPOST	TOT. NO. OF FORMATIONS
1	RSHQ	-	-	-	1	1	2
2.	RS. 1, Kaduna	RS 1.1 RS 1.2 RS 1.3 RS 1.4	Kaduna Kano Katsina Jigawa	4	27	8	40
3.	RS. 2, Lagos	RS 2.1 RS 1.1	Lagos Ogun	2	22	8	33
4.	RS. 3, Yola	RS 3.1 RS 3.2 RS 3.3	Adamawa Gombe Taraba	3	11	0	15
5.	RS. 4, Jos	RS 4.1 RS 4.2 RS 4.3	Plateau Benue Nasarrawa	3	18	1	23
6.	RS. 5, Benin	RS 5.1 RS 5.2 RS 5.3	Edo Delta Anambra	3	21	6	31
7.	RS. 6, P/Harcourt	RS 6.1 RS 6.2 RS 6.3 RS 6.4	Rivers Cross-River Akwa-Ibom Bayelsa	4	15	2	32
8.	RS.7, Gwagwalada	RS 7.1 RS 7.2	FCT Niger	2	20	11	34
9.	RS.8, Ilorin	RS 8.1 RS 8.2 RS 8.3	Kwara Ekiti Kogi	3	20	4	28
10.	RS.9, Enugu	RS 9.1 RS 9.2 RS 9.3 RS 9.4	Enugu Ebonyi Abia Imo	4	17	1	23
11.	RS. 10, Sokoto	RS 10.1 RS 10.2 RS 10.3	Sokoto Kebbi Zamfara	3	10	2	16
12.	RS.11, Osogbo	RS 11.1 RS 11.2 RS 11.3	Osun Ondo Oyo	3	21	4	29
13.	RS.12, Bauchi	RS 12.1 RS 12.2 RS 12.3	Bauchi Borno Yobe	3	13	0	17
	12			37	216	48	313

Source: FRSC Website 2020

The statutory functions of the Commission are stated in Part II Section 10 (2-3) of the FRSC (establishment) Act 2007. Generally, the Commission functions are classified into three (3), including the safekeeping of the highways for all road users. It is also to recommend ways of eliminating or minimizing Road Traffic Crashes on the highways to the appropriate authorities. The Commission is also responsible for raising public awareness and educating road users about the crucial importance of discipline while on the highways. In addition to its core functions of traffic management and preventing road crashes, the FRSC is actively engaged in enlightening the public about road safety practices. By promoting discipline among road users, the Commission aims to create a safe and responsible road behaviour culture. The FRSC strives to instill a sense of responsibility and adherence to traffic rules and regulations through various awareness campaigns, educational programs, and community outreach initiatives. Ultimately, by emphasizing the significance of discipline, the Commission aims to enhance road safety and ensure a safer motoring environment for all.

These functions are further broken down into twenty more specific functions including the prevention of accidents on the highways, the design and production of the several categories of licences, as well as that of vehicle number plates. the prevention or minimizing accidents on the highways and giving prompt attention and care to victims of accidents. The functions of the Commission also include co-operation with other agencies of government or non-Governmental groups with a similar mandate of ensuring road safety or the prevention of accidents on the highways (FRSC Act, 2007).

3.3 Study Population

The study population consists of officials of the FRSC and the end-users (clients) of the agency's electronic services.

3.3.1 Characteristics of the study population

In Table 3.3.1, the characteristics of the study population are presented. The majority of the participants, 188 (70.9%), are male, while 75 (28.3%) of them are female, while 2 (0.8%) others were not reported. This is attributed to the fact that car ownership and driving in Nigeria is primarily male-dominated. Although there are no official statistics

in the public domain on this, it is general knowledge that there are more male drivers in Nigeria. As such, there are more male applicants for drivers' licenses and therefore males are more likely to be users of electronic services of the FRSC than the females as the study suggests. For the age categories, 34 participants between ages 18-25 account for 12.8%, most of the participants (107/40.4%) are within the age group of 26-35 years, 77 others between the ages of 36-45 accounts for 29.1%, 34 participants between the ages 46-55 account for 14%, while 10 (3.8%) of them were above 56years. It is important to note that the categories with the highest numbers are those with individuals in their working years, those within the age brackets of 26-35 years, 36-45 years and 46-55 years, respectively. This also attests to the fact that the younger generation does not only populate the driving population but is also considered to be technologically savvy.

On the educational qualifications of participants, a majority, 184 (69.4%), are holders of postgraduate qualifications, 78 (29.4%) are holders of a university degree or its equivalents, while only 3 (1.1%) of them had completed WASSC. This shows that many participants are well-educated and suitable for the study. The majority of the participants, 118 (44.5%), indicated that they reside in Lagos, 87 (32.8%) in Oyo state, while 60 (22.6%) live in Osun state. Lagos is a commerce, entertainment, and technology hub, with a diverse population of over 25 million people. Its status as a large and cosmopolitan city means that e-Government initiatives related to road safety will be more accepted than the more rural and less densely populated Oyo and Osun states. By contrast, Osun and Oyo states are located in the hinterland of Southwest Nigeria. The needs and priorities of people living in these states may differ from those living in Lagos, particularly regarding e-Government services.

The largest group of participants (95/35.8%) of the total participants had five years or less of driving experience. The next largest group, representing 26.4% of participants, had six- ten years of driving experience. Other groups of participants had more extensive driving experience. Specifically, 23.8% of participants had driving experience of between 11 and 20 years, while 13.7% had driving experience of at least 21 years. One participant, or 0.38% of the total, did not report their driving experience

Table 3.3.1: Characteristics of the study population

Characteristics	Frequency	Percentage
Sex		
Male	188	70.9
Female	75	28.3
Not reported	2	0.8
Total	**265**	
Age		
18-25	34	12.8
26-35	107	40.4
36-45	77	29.1
46-55	37	14.0
56 and above	10	3.8
Total	**265**	
Level of Education completed		
WASSC	3	1.1
Degree	78	29.4
Postgraduate Degree	184	69.4
Total	**265**	
State		
Lagos	118	44.5
Oyo	87	32.8
Osun	60	22.6
Total	**265**	
≤5yrs	95	35.8
6-10	70	26.4
11-20	63	23.8
21	36	13.7
Missing	1	0.38
Total	**265**	

Source: Field Survey, 2019

3.4 Sample Size/Sampling Techniques

The study adopted the purposive sampling variant of the non-probability sampling technique for selecting the respondents for the survey.

3.4.1 Sample size strategies

The study employed the power-enhanced sample size computation formula for a cross-sectional study as follows:

$$n = \frac{\left(Z_{1-\alpha/2} + Z_{1-\beta}\right)^2 \times P(1-P)}{d^2}$$

Where

n – is the computed sample size

$Z_{1-\alpha/2} = 1.96$ - is the probability based on a normal distribution at a 95% confidence level;

$Z_{1-\beta} = 0.84$ - is the probability based on a normal distribution at a 80% power;

$P = 0.10$ - is the 10% proportion of clients who agreed that ICT has helped to improve service delivery in the public services at Amuwo-Odofin local government area of Lagos state, Nigeria (Ewuim, N C, Igbokwe-Ibeto, C J, Nkomah, B.B (2016) Information and communication technology and public service delivery in Amuwo - Odofin Local Government Council of Lagos state-Nigeria. Singaporean Journal of Business Economics and Management Studies Vol.5, No. 1).

$d = 0.04$ - is the precision rate indicating a 4% tolerable discrepancies between our study and findings in the literature.

Therefore,

$$n = \frac{(1.96 + 0.84)^2 \times 0.10 \times 0.90}{0.04^2} = 216.09$$

Accounting for a 10% non-response rate (i.e 216.09/0.9), a minimum sample size of 240 participants were required for the study but to enhance precision, a total of 265 participants took part in the study.

3.5 Inclusion and Exclusion Criteria

The inclusion criteria are end-users who are aware and have used any of the electronic applications of the FRSC. This inclusion helped reach a valid research outcome by controlling for possible errors in the responses caused by those who are not aware and have not used the electronic application. This criterion enabled the researcher to ensure that the respondents understood the purpose of the study.

3.6 Methods of Data Collection

Two major data collection methods were used: survey (Key Informant Interview, In-depth Interview and Electronic Questionnaire), and document analysis. This study, therefore, utilized both primary and secondary sources of data**.**

3.6.1 Primary Data

The primary data was collected mainly through observation and survey (Key Informant Interview, In-depth Interview and Electronic Questionnaire). The participants for the Key Informant Interviews were drawn using purposive sampling from the FRSC Headquarters, Abuja, and three (3) State Commands in the South West, namely Lagos, Osun and Oyo. The participants for the In-Depth Interviews were also purposively drawn from the end-users of eGovernment services of the agency. According to Babbie (1990), the purposive sampling method is used when the population subset the researcher wants to study is easily identifiable.

I. **Key Informant Interviews (KII)**

This set of interviews focused on eliciting vital information from the officials of the FRSC on the implementation of eGovernment. Specifically, it obtained information on the procedures and strategies adopted in implementing eGovernment in the FRSC and the internal and external factors, which has hindered or enhanced the implementation of eGovernment in the FRSC. A total of eighteen (18) KIIs were conducted with (i) a former Corp Marshal, and Chief Executive (COMASE), under whose administration eGovernment was introduced. (ii) **Abuja (**FRSC headquarters**)** - A representative of the Head of the Information Technology Centre, the Desk Officers of the following

electronic services, the National Vehicle Identification Scheme (NVIS), Road Traffic Crash Information System (RTCIS), Information verification Portal, and the Emergency Call Centre (iii) **Lagos** – Head, Drivers' Licence Centre, Head, Motor Vehicle Administration, Head, Information Technology Centre. (iv) **Oyo** – Deputy Head, Information Technology Centre, a Staff of the Information Technology Centre Unit, Head, Drivers' Licence Centre, Head, National Vehicle Identification Scheme (NVIS) and Head, Motor Vehicle Administration. (v) **Osun** - Head, Information Technology Centre, Head, Drivers' Licence Centre, Desk Officers of the Information Verification Portal/the Electronic Payment Portal and National Vehicle Identification Scheme (NVIS).

II. In-Depth Interviews (IDI)

This category of interviews aimed at eliciting vital information, such as the processes and challenges in the implementation of eGovernment from the end-users. A total of twelve (12) IDIs were conducted. Five (5) in Oyo State, four (4) in Lagos State and three (3) in Osun State.

III. Electronic Questionnaire

The instrument was designed using Google Form[3], an electronic application that aids the design of research instruments and the collation and analysis of research data. The survey focused on the end-users who have had actual users experience of the electronic services of the FRSC. This was very important to the study as it provides, on a first-hand basis, the public's views on the implementation of eGovernment in the agency. To improve the reach and response rate of the instrument, the questionnaire was shared across electronic mails (108), social and professional networks like Facebook (76), Twitter (14), WhatsApp (57) and Linkedln (10). Two hundred and sixty-five respondents were selected purposively across the three states of Lagos, Oyo and Osun states.

[3] The link to webpage **https://docs.google.com/forms/d/e/1FAIpQLSd-7oGCP_N-RKWet49E5In1MX3uDKYtfn31IrMFXkoom-3rMQ/viewform**

3.6.2 Secondary Data

On the other hand, secondary data were collected through data retrieval techniques from Government publications such as the FRSC Annual Reports, policy papers, other official publications of the FRSC, research institutions, media outfits and Non-Governmental Organizations.

Table 3.6.1: Distribution of Respondents/Participants

Methods of Data Collection	**Respondents 1**	**Respondents 2 FRSC HQTRS, ABUJA**	**Respondents 3 FRSC LAGOS SECTOR COMMAND**	**Respondents 4 OSUN SECTOR COMMAND**	**Respondents 5 FRSC OYO SECTOR COMMAND**	Total
KII	Ex-Corp Marshal and Chief Executive (COMACE)	(i) Head, ICT, (ii) Desk officers of the following Electronic services: Emergency Call Centre (ECC), National Vehicle Identification Scheme (NVIS), Information Verification Portal (IVP), Road Traffic Crash Information System (RTCIS)	(i) Head, ICT (ii) Head, Motor Vehicle Administration, (MVA) (iii) Head, Drivers' Licence Centre, (DLC)	(i) Head, ICT (ii) Head, Drivers' Licence Centre, (DLC) (iii) Desk officers of the following Electronic services: National Vehicle Identification Scheme (NVIS), Electronic Payment Portal (EPP)	(i)Deputy Head, ICT, One other officer of the ICT, (iii) Head, Motor Vehicle Administration (MVA) Head, Drivers' Licence Centre, (DLC) (iii) Desk officers of the following Electronic services: National Vehicle Identification Scheme (NVIS).	**18**
IDI						**12**
E-Survey						**265**
TOTAL						**295**

Source: Author 2019

3.7 Instruments of Data Collection

The study employed interview guides and an electronic questionnaire as data collection instruments. The interview guides were in three categories as necessitated by the study population. The first category was for the officials of the FRSC; the second was designed mainly to elicit a response from a former Corp Marshal, under whose administration eGovernment was introduced in the Federal Road Safety Commission, while the third was designed for use by the end-users. Each guide was divided into two sections; the first section sought to elicit a response on the respondents' official designation, location, and length of service. The second section comprised a set of open-ended questions, categorized by the research questions guiding the study, which were discussed with selected respondents to ascertain their opinion on the implementation of eGovernment in the FRSC. On the other hand, the electronic questionnaire was designed using Google Form. It was divided into two sections; the first elicited responses on the demographics of the respondents, while the second section contained twelve assertions to which respondents agreed or disagreed. The questions were categorized in relation to the research objectives. All but one of the questions were open-ended, as respondents were given a set of answers and asked to choose the one that most represented their views. The choice of the close-ended technique was to make the questions easy and to enhance quick responses. The Likert rating format was used for the questions. (1) Strongly agree (2) Agree (3) Neutral (4) Disagree (5) Strongly Disagree.

3.8 Method of Data Analysis

Tape-recorded interview data were analysed using the Interpretive Phenomenological Analysis (IPA). The IPA help to understand people's personal experiences on a given phenomenon (Warren, 2020), in this case the implementation of eGovernment in the FRSC in Southwest, Nigeria. The organized data was thematically grouped. While the quantitative data were analyzed using the descriptive statistical methods of frequency distribution and simple percentage.

3.9 Ethical Consideration

The researcher obtained informed consent from all participants, ensuring that they understood the purpose of the study, what their involvement entailed, and their rights as participants. Any personal identifiers or private information that is obtained during the study are kept confidential and secure, and the data is only reported in an aggregated, anonymized format[4]. Approval was also granted by the Federal Road Safety Commission's National Headquarters in Abuja[5] to conduct this study.

[4] See Appendix for the list of interviewees
[5] See Appendix for the approval letter.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Chapter Overview

This chapter interrogates the research objectives stated earlier in this study viz; the origin and rationale of eGovernment adoption in the FRSC, the procedures and strategies adopted for the implementation of eGovernment in the FRSC, the effects of eGovernment on service delivery in the FRSC and the factors that hinder or enhance the effective implementation of eGovernment in the FRSC.

4.1 The Adoption of eGovernment in the FRSC: Determinants, Procedures and Strategies

The integration of Information and Communications Technology into the operations of the FRSC dates back to 2007. The adoption of eGovernment was a necessary growth in the agency, as it is for any government organization. Therefore, its implementation in the FRSC was necessitated by the need to reverse Road Traffic Crashes (RTC) incidence among other challenges by giving a quick response to traffic-related emergencies. Therefore, the core of FRSC activities is the need to create and maintain road safety. Interviewee 5 affirmed that:

> The goal of the FRSC is to ensure a safe motoring environment. Data collation is a major cornerstone in achieving this goal. The Road Traffic Crash Information System (RTCIS) ensures a proper profiling of RTCs across the federation as such will help in management policy making.[6]

[6] Interview with the Desk officer, Road Traffic Crash Information System (RTCIS), FRSC National Headquarters, Abuja. 23rd, August, 2019.

To accommodate global best practices and meet the pace of rapid development in the ICT world, the FRSC adopted eGovernment in the delivery of public services, particularly in the area of enforcement, data gathering, analysis, reporting, evaluation and forecast as well as for its internal administration (FRSC, 2019).

The FRSC initially introduced several technological innovations to enhance its operations and services. These innovations included the implementation of an electronic salary payment scheme, a twenty-four-hour Emergency Call Centre, and the use of a Closed User Group (CUG) for management staff and field commanders. Additionally, the FRSC computerized its various departments and installed more than 147 Very Small Aperture Terminals (V-SAT) across field offices to improve communication. Other technological advancements included the establishment of an FRSC website and nationwide internet connectivity.

The agency also introduced an electronic fine payment system, an electronic register, and automated enforcement measures. Surveillance cameras and radar guns were strategically placed at key locations to control vehicle speed. It also acquired state-of-the-art ambulances and additional patrol vehicles equipped with Vehicle Management Suite (VMS) technology. This allowed for the tracking of fleet usage, maintenance, and fueling. The FRSC took steps to enhance its national database and hosted licensing information. Additionally, they introduced the dashboard, an online executive summary of operational and rescue activities across all commands. These technological advancements have significantly improved the FRSC's efficiency, effectiveness, and overall ability to deliver on its mandate of road safety and traffic management (Omiko, 2011).

The situation in the FRSC before the adoption of eGovernment could be described as less than efficient, as the information needed to run the agency was not readily available. In most cases, the agency would have to wait until the close of the year to collate data to publish the annual report.[7] Since real-time data are important in curbing road crashes, spotlighting priority areas, and devise strategies, the FRSC prioritised

[7] Interview with Ex- Corps Marshal and Chief Executive, FRSC, 20th September, 2019

data-driven decision-making. The agency went through the International Standards Organization ISO 90001 certification and emerged as a high-performance organization, thus becoming an International Standards Organization (ISO) certified organization. Also, the agency's activities became visible to the officers, stakeholders, and end-users of the agency's services. This increased visibility enabled the agency to measure, monitor and improve the activities of its Commands outside of the Headquarters. The main rationale for the adoption of eGovernment in the FRSC aligns with the fact that:

> (Since) eGovernance is about moving what was manually done by government which has become difficult being done these days; population has grown, society is more complicated, information required for decision making is now more difficult to acquire through the manual process. So, eGovernment became a necessary growth in any government organisation. In that, for public service to be able to bring up decisions quickly, …and to be able to plan for tomorrow, we need information, and we need to have data, and we can only acquire that data today through an electronic process.[8]

Furthermore, creating comprehensive databases to aid planning, the need for a quick decision-making process, and the reduction in Road Traffic Crashes, among others, necessitated the adoption of eGovernment.

4.1.1 The Reduction of Road Traffic Crashes and Fatalities

The statutory functions of the Commission, as outlined in Part II, Section 10 (2-3) of the FRSC (Establishment) Act 2007, includes the safe keeping of the highways for all categories of road users, eliminating or minimizing Road Traffic Crashes on the highways and in the case of an accident, giving prompt attention and care to the victims, and the public enlightenment of road users. However, at the core of the agency's activities is eliminating or minimising Road Traffic Crashes, as all other functions and activities revolve around it. This critical function aligns with the United Nations Decade of Action for Road Safety (2011-2020), which provides a concrete platform to put measures that will significantly bring down deaths resulting from road crashes. According to Interviewee 1:

[8] Interview with Ex- Corps Marshal and Chief Executive, FRSC, 20th September, 2019

> The eGovernment policy is being implemented in the area of making our services accessible. We can be reached on the 122 Toll-Free line, … On this platform, we can be asked any question, anything that bothers on road safety can be asked and we will be ready to answer them…The reasons behind the creation of the Call Centre is to make the deployment of resources easier, like in the case of Road Traffic Crash (RTC). Our main goal is to make sure that we reduce crashes on the highway and if any crash occurs, it must result in no death. And if there is a crash that results in casualties, it is our responsibility to rescue the victims and take them to the nearest hospitals. With this call centre, it makes the response time to be reduced drastically. Now we are working towards ten (10) minutes. As soon as we receive the call, within ten (10) minutes, we are there. This has really made the eGovernment policy to be implemented in our own little way. [9]

Therefore, it was of utmost importance, if the reduction of road crash fatalities is to be achieved, to put a mechanism in place to help achieve this. It is instructive to note that "before deploying eGovernment in the agency, there was no real-time data to enable planning, as lives were continuously lost to RTCs".[10]

The understanding that there is a direct link between the timely reporting of and response to RTCs on the one hand and the number of road traffic-related fatalities on the other necessitated the establishment of the Emergency Call Centre, equipped with a database fitted to an emergency line – 070022553772. This enhances the deployment of resources, particularly in emergencies like Road Traffic Crash (RTC). The main goal is to reduce highway crashes as much as possible, and if any crash occurs, such must result in no death, as the agency runs a zero-death policy for casualties resulting from RTCs. Therefore, when a crash results in casualties, the agency's responsibility is to rescue the victims and take them to the nearest hospitals as quickly as possible. This is where the call centre becomes very important, as it drastically reduces the agency's paramedics' response time. According to Interviewee 1, "the goal is to reduce the

[9] Interview with the Desk officer, FRSC Call centre National Headquarters, Abuja. 23rd, August, 2019.
[10] Interview with Ex- Corps Marshal and Chief Executive, FRSC, 20th September, 2019

response time to ten minutes; within ten minutes of receiving a distress call, a casualty is attended to, thereby reducing fatalities resulting from RTCs"[11].

4.1.2 The Creation of Comprehensive Databases

A database is of the essence to government departments and agencies, as it helps in the electronic storage of structured information on a computer system (Oracle, 2020). Before adopting eGovernment into the FRSC, several challenges existed with the discharge of some of its core services, such as the production of drivers' Licences and number plate for vehicles. The non-existence of a comprehensive database of drivers in Nigeria, made the production process for both the drivers' license and number plate vulnerable to several challenges such as counterfeiting driver's Licences through parallel production. Such were usually issued to unqualified drivers, increasing the risk of Road Traffic Crashes (RTCs). Multiple issuances of licences to individuals were also a common feature, this facilitated impersonation and fraud.

Furthermore, the decentralized system of issuing licences also made running identity verification very difficult. Since there was no central database of all licenced drivers in Nigeria, it was challenging to verify identities. Under the old system, only a negligible ten per cent of the millions of drivers who possessed licences in Nigeria were captured on the agency's database. Similarly, the old system under the National Uniform Licensing Scheme lacked a database for registered vehicles in Nigeria to produce number plates. This led to the counterfeiting of plate numbers through parallel production. This challenge further compounded the task of crime control, as it made it challenging to track vehicles used for criminal activities since there was no database to verify the vehicles' details. There was also the challenge of producing number plates outside the national coding sequence, restricted codes, lack of central verification facility, safety features of number plate (reflectivity) no longer valid due to age (Omidiji, 2010).

[11] Interview with the Desk officer, FRSC Call centre National Headquarters, Abuja. 23rd, August, 2019

There was also the economic side to all of these challenges, as the agency estimated annual revenue loss during this period at fifteen billion Naira (N15 Billion). (FRSC, 2013). However, with the introduction of the National Drivers' Licence portal, the FRSC now runs a more effective platform with records of millions of licence holders already captured as licensing information can now be verified both by the Commission and the end-users (FRSC Annual Report, 2010). The agency now generates the total number of drivers' licence-produced per category on a state-by-state basis: private, commercial, and motorcycle annually. These challenges necessitated new number plates in 2011 by the FRSC and the Joint Tax Board (JTB) to harmonize all existing modes of nationwide licensing vehicles (FRSC Annual Report, 2011).

Interviewee 10 historicizes Nigeria's driver's license evolution and provides some of the benefits of the database provides, stating that:

> Earlier before now, the driver's license used to be the leaflet type that was done manually, but with FRSC coming on board, with the computerized driver's license, we now have a database, we can now conveniently ascertain for example, in Oyo state, how many private drivers do we have? How many tricycle drivers do we have? How many motor bike riders do we have? How many Class G (articulated vehicles) do we have? How many J driver's license (for the physically challenged) do we have? So, with the ICT, all these can be accessed at your fingertips, we can now account for them.[12]

However, with the introduction of eGovernment, under the National Vehicle Identification System (NVIS) the generation of a database for vehicles as well as vehicle owners has been simplified. This application is accessible to the end-users as well as to the representatives of States, Federal Ministries, Departments and Agencies (Omiko, 2011). One of the effects of this database for vehicles across Nigeria is its effectiveness in the recovery of stolen vehicles. This is made possible has the system matches vehicle identification codes such as the Chassis number with existing

[12] Interview with Sector Head, Drivers' Licence Centre, Oyo Sector Command, Ibadan. 18th November, 2019

information in the NVIS platform. If such information already exists in the system, it supplies further details of the vehicle and the owner (FRSC, 2017).

Furthermore, the database provides access to information for different categories of stakeholders. For instance, the database has now improved the issuance of license, both in the case of a new application and the re-issuance of an existing one. It has also enabled the agency to effectively collaborate with sister agencies like the Police, Immigrations and the Customs in the discharge of their duties. Respondents 12 and 6 respectively described the new experience with the database, stating that:

> When it comes to drivers' license, the old drivers' license had no database for it, but presently, when we talk of drivers' license, there is database for it. If you misplace your drivers' license, it's just for you to give us your license number, we will bring out your information, then we re-issue for you. But when it comes to number plate, if your vehicle is stolen, there is a place to in the FRSC, we search our database, we get the details of your vehicle and give it to the necessary people and they can help you to trace it. So, it has maintained a good database for Nigerians.[13]

> …you can use it to access information on all the vehicles in Osun State, for example, we have their data on our system here. If the police or other para-military agencies want information about a person, they come to us. For individuals to access this platform, they need to write requesting for access, without the approval, there is a limit to the information that individual can get on the platform.[14]

Another benefit the agency anticipates is the commencement of electronic ticketing for traffic offenders. Whereas the tradition was to stop and book an offender physically, the database has brought the possibility of booking offenders without stopping them. Interviewee 11 succinctly captures it as this:

> Both the driver's license and the number plate are all settled in the database, where it is easier for us to collate. As a matter of fact FRSC is looking into non-cooperative traffic

[13] Interview with the Sector Head, Drivers' Licence Osun Sector Command, FRSC, Osogbo. 4th October, 2019.
[14] Interview with the Desk Officer, NVIS, Osun Sector Command, FRSC, Osogbo. 4th October, 2019

> offenders, such as those who refuse to stop when stopped by the officials of the FRSC, all that needs to be done is to capture the number plate, and then send to the electronic offence sheet to the offenders' email address, a concept know as e-ticketing.[15]

4.1.3 The Need for a Quick Decision-Making Process

The need to make quick decisions and plan appropriately is another factor that necessitated the adoption of eGovernment in the FRSC. As such, information is needed as quickly as possible from all agency's formations across the country. This can only be achieved through an electronic process. The prevailing situation before eGovernment was adopted revealed a considerable dependence on the surface mailing system for the transmission of information from Sector/Zonal Commands to the Corps Headquarters in Abuja and vice versa. This process usually resulted in delays. As explained further:

> Before this (introduction of eGovernment) period, it required you to send a request from a Unit Command to Yenagoa (State Command), from Yenagoa to the Zonal Command in Port-Harcourt and from the Zonal Command to the Headquarters in Abuja, which will take you, at least, sometimes, six to eight weeks for the message to get to Abuja. And then, when Abuja treats it, it takes another four to six weeks to return.[16]

However, with the adoption of eGovernment, the time taken to transmit documents has been drastically reduced, as electronic mailing systems have now been adopted. This has impacted planning and decision making in that a decision that could have taken a more extended period to reach can now be made within a few days, if not in a matter of hours. Similarly, the cost of transmitting information from one Command to another has also been reduced.This point was better stressed by Interviewee 18, who noted that:

> Enormous resources in terms of time and money have been saved because all it requires now is to send an email, copy all the relevant people at the Headquarters, and the approval

[15] Interview with an ICT Staff, Oyo Sector Command, FRSC, Ibadan. 18th November, 2019.
[16] Interview with Ex- Corps Marshal and Chief Executive, FRSC, 20th September, 2019

> sought is given, within two to three days, people are done with any approval they are seeking from the headquarters. So, there was a very substantial benefit to the organization and the Nigerian public.[17]

Furthermore, the process of migrating from the manual transmission of information to the electronic method was phased. It is noteworthy according to Interviewee 18 that:

> It began with telephones to transmit information from the various Sector Commands to the Corps Headquarters. Data were transmitted from the field offices to the Headquarters at the earlier stages of deploying eGovernment through text messaging or telephone calls. Commands were expected to send in a weekly report of activities within their operational bases on Thursdays. Such data were thereafter used at the weekly management meetings held on Tuesdays to take critical decisions and planning purposes. Upon successfully implementing this first phase, it was easy to move to the proper e-reporting platform that succeeded the initial deployment. [18]

4.1.4 The Need for an Efficient Internal Administrative Structure

Like in many other public sector agencies in Nigeria before the introduction of eGovernment, the FRSC had become incapable of delivering the essential services to her clients. This usually results in delays in service delivery and was a major cause of corruption in the agency. In addition, the inefficient administrative structure became the loophole through which corrupt officials solicited bribes from clients with the promise of fast-tracking service delivery. Hence, eGovernment was introduced into the FRSC to drive a more efficient internal administrative structure. This was achieved by introducing a number of electronic applications and processes such as the File mail Tracka, which helps track mails and other documents within the agency. Similarly, the agency also deployed an application used for collaboration and document management called Share Point.

Several other electronic applications were also introduced over a period of time to effect the desired changes in the internal administrative structure. These included the FRSC

[17] Interview with Ex- Corps Marshal and Chief Executive, FRSC, 20th September 2019
[18] Ibid

dashboard and the Duty Room Information Management System (DRIMS), which helps to monitor activities of the agency to promote efficiency, effectiveness, and productivity. The Drivers' Licence Centre (DLC) monitor is used to track the activities of all DLCs across all FRSC formations. This is very important because drivers' licence processing is one of the agency's flagship electronic services. Therefore, proper monitoring of the DLCs helps strengthen its service delivery capacity further and ensure utmost compliance with the agency's procedures. There is also the Annual Performance Evaluation Report System (APERS), has digitalised the performance evaluation process of the agency. The agency also deployed the intranet to ease internal communication processes across its formations.

4.1.5 The Promotion of Financial Transparency and Accountability

The inefficiency in the period before the introduction of eGovernment resulted in corrupt practices and enormous wastage of scarce resources. Electronic processes and applications that helped reduce waste and corruption were introduced to enforce a transparent and accountable agency. These included the Electronic Payment Platform (EPP) that helped mitigate the challenges associated with collecting fines accruing to the agency. Before this period, the total sum accrued from the collection of fines was about Five Hundred Million Naira annually. However, with the introduction of the EPP, the total sum stood at about One Billion, Two Hundred Million Naira. The EPP has also made all forms of payments within the agency seamless. This is made possible because there is no need to interface with any FRSC official to make any form of payment, and it has also led to greater visibility.

The promotion of transparency and accountability also extends to the payroll system in the agency. The payroll system before its automation was such that cheques were signed and then physically transmitted from the Corps Headquarters in Abuja to the twelve Zonal Commands, where the cheques were then deposited at designated banks. It was only then that the salaries of officers were paid. This manual process was vulnerable to several challenges. However, with the migration to the electronic payroll system and the biometric data capturing of all officers, the prompt payment of salaries is now achievable with the digital authorization by the authorizing officer. As a result, it has

saved the agency a lot in internal travels and its cost implications. In the words of Interviewee 18:

> Our payroll was such that after I signed the cheques as at June 2007, twelve people will leave Abuja to the twelve Zonal commands with the cheques to deposit with the banks there, so that the salaries can be paid. That all stopped when we migrated to an e-payroll system. We captured staff, from the headquarters the click of a button everybody's salaries are paid. You can imagine twelve people travelling every month to deposit cheques across the twelve Commands in Nigeria. This is from Maiduguri to Sokoto to Port- Harcourt to Ibadan. What it did in effect was that it reduced internal travels, it reduced the communication among the people.[19]

4.1.6 The Facilitation of Inter-Agency Partnerships

Organisations exist within given environments. This is to enable interactions between and among them. Before the emergence of eGovernment, there was limited interaction between FRSC and sister agencies, with which it should share intelligence. Indeed, most agencies existed in isolation. The integration of eGovernment into the activities of the FRSC enabled it to appropriately interact with other agencies with which intelligence is to be shared. Two essential electronic platforms that help facilitate this are the Information Verification Portal (IVP) and the National Vehicle Identification Scheme (NVIS). While the IVP is an online verification portal for Driver's Licence and Plate Number detail, the NVIS is designed to automate plate production and vehicle registration processes.

Consequent to the proper registration of a vehicle, the information provided by the applicant is usually stored on the agency's database, and members of the public can verify such. The extent of information available to public members is limited to the make and colour of the vehicle. However, the twin platforms have become veritable tools for combating crime as the information on their databases is usually shared upon request with other law enforcement agencies, especially the Police. ICT has helped in the visibility of number plates, as opposed to what was in existence before

[19] Interview with Ex- Corps Marshal and Chief Executive, FRSC, 20th September 2019.

eGovernment, as “both the driver’s Licence and the number plate are all settled in the database, making it easier for us to collate”.[20] Indeed, the FRSC is working on digital law enforcement to track and apprehend defaulters and “non-cooperative traffic offenders, such as those who refuse to stop when stopped by the officials of the FRSC, all that needs to be done is to capture the number plate and then send to the electronic offence sheet to the offenders’ email address, a concept known as e-ticketing”[21]. The NVIS has proven to be effective, and reports show that it has assisted in recovering stolen vehicles. This is made possible has the system matches vehicle identification codes such as the Chassis number with existing information on the NVIS platform. If such information already exists in the system, it supplies further details of the vehicle and the owner (FRSC, 2017).

4.1.7 To Enhance Service Delivery Capacity

Since public service organizations exist to provide essential services to the citizenry, and the capacity for most public sector agencies had been severely depleted in the period preceding the introduction of eGovernment, its introduction in the FRSC was, therefore, to enhance service delivery to its teeming clients. Some electronic applications deployed to achieve this include the Drivers’ Licence Electronic Application (DLEA), designed to house drivers' information and facilitate the production of Licences. The Electronic Payment Portal is a platform designed to ease the payment processes for services of the FRSC. Consequently, the delay associated with such services as the driver’s license application was removed as clients can now seamlessly access the service.

4.1.8 To Enhance Communications with the End-Users

The FRSC also implemented eGovernment to engender more robust communication with the end-users using the official website, social media platforms and the Electronic Call Centre (ECC). The social media platforms include Facebook, Twitter, YouTube

[20] Interview with the Head, Drivers’ License Centre, Oyo Sector Command, FRSC, Ibadan. 18th November, 2019.

[21] Interview with an ICT Staff, Oyo Sector Command, FRSC, Ibadan. 18th November, 2019.

and Instagram. To properly assess the presence of these tools, a four-level categorization, similar to Southern (2015) – not updated, updated, interactive and engaging. Categorizing a social media account as not updated means it had not been updated in the previous seven days. Updated means it had been updated, but features that enable feedback and comments from the public were not activated. On the other hand, interactive means that the account was frequently updated, feedback and comment feature activated, but the two-way communicative features had not been deployed for public engagement. The "engaging" category converges the previous three levels in addition to evidence showing the use of the interactive features for comments, feedback and questions of citizens.

The agency's social media platform on Facebook is the most active and engaging of all available records. Created in September 2009 with three hundred and sixty-eight thousand and fifty-two followers (368, 052), the platform has over forty thousand uploads, including videos and pictures. It is linked with the agency's website and can be described as engaging. The microblogging application, Twitter, closely follows this. The FRSC created a Twitter account in September 2009 and currently has two hundred and ninety-seven thousand, three hundred followers (297,300), with about twenty-five thousand posts/contents. It is also linked to the agency's website and can be described as engaging, as it is regularly updated. The agency also has an Instagram page, with about eleven thousand, six hundred followers (11,600) and a little above a thousand posts. The page is also linked with the agency's official website and regularly updated; hence, engaging. The least patronized of the agency's social media platforms is YouTube. An account created in 2012 boasts of only Seventy-three (73) followers and fifty-eight (58) posts. It is also neither linked to the agencies website nor updated regularly.

On the other hand, the establishment of the ECC was to create a direct line for the agency's clients to reach the agency, particularly in emergencies. Indeed, the ECC was created in line with pillar five (5) of the United Nations Decade of Action for Road Safety 2011-2020, anchored on post-crash care/response. It aimed to provide a concrete platform to put in place measures that will significantly reduce deaths due to road crashes.

Table 4.1.1: Social Media Platforms of FRSC

SOCIAL MEDIA TOOLS	DATE CREATED	FOLLOWERSHIP	NO. OF UPLOADED CONTENTS/POSTS	LINKED TO THE WEBSITE	STATUS
Facebook	3rd September 2009	368,052	40,000	Yes	Engaging
Twitter	September 2009	297,300	25,000	Yes	Engaging
Instagram	N/A	11,600	1,057	Yes	Engaging
YouTube	15th February 2012	73	58	No	Not updated

Source: Author, 2020. Data as at 8th October 2020

4.2 The Procedures in the Implementation of eGovernment in the FRSC in the Southwest of Nigeria

The implementation of eGovernment in the FRSC was incremental. Two essential steps were paramount to deploying technologies to improve data-driven decision-making within the FRSC. The first phase, which can be considered the foundation upon which the deployment of electronic services is founded, was to acculturate its staff into the new order, while the second was the actual deployment of the electronic services. The implementation began with familiarizing the staff with computers, a basic ICT tool. Before this time, staff proficiency in using computers could be best described as below average, as the number of computers available in the agency was insufficient. The statistics then was that one (1) computer was available for use among every two hundred (200) staff (FRSC, 2014). However, gradually the considerable deficit was closed up. All Duty Rooms have been computerized, with such data being submitted in real-time to the Data Centre at the Commission Headquarters, Abuja.

Following the successful sensitization campaign, the FRSC prioritized training its workforce to ensure the effective utilization of ICT. A mandatory computer literacy and training program was implemented to accelerate staff literacy and proficiency among staff members. In 2012, the Commission established a computer training certification program designed for its employees. The training program consisted of seven modules covering various essential topics. These modules included Information Technology, computer usage and file management, word processing, spreadsheets, databases, presentation skills, and information and communication techniques. Initially, the program had 140 participants eager to enhance their skills and knowledge in ICT (E-tech, 2018). Through this comprehensive training program, the FRSC aimed to fully equip its staff with the necessary computer skills and proficiency to achieve ICT deployment objectives within the Commission. By empowering the workforce with computer literacy and competence, the FRSC ensured that its staff could effectively utilize technology in their daily tasks and contribute to successfully implementing ICT initiatives in service delivery and operations.

Also, to help fast-track the training programme, the agency engaged about two hundred and eighty (280) technical experts. These included ICT professionals, Engineers, and computer scientists, who were drafted across all the Commands to manage the ICT infrastructure and train the field officers regularly. An important aspect of the training was that it was carried out with sufficient incentives to motivate participation, especially for a specialized certification programme, the International Computer Driving Licence Programme (ICDL). This was a computer certification programme that cut across all levels of staff. Starting with the Management staff, to the Junior staff, many of whom got incentives.

> The incentive was linked to the agency's promotional exercise, such that if an officer passes the ICDL certification, it served as the promotional examination for that year. This approach to the implementation of eGovernment, proved to be effective, as it helped in performance management. The various Commands set out what they plan to do, and every quarter their objectives were appraised. At the close of the year, the department head with the best performance ranking, went to Harvard University for further training[22]

Following the sensitization and training of the Marshals, the FRSC began to invest massively in technological infrastructure. One of the first projects embarked upon was establishing the Information Technology Centre (ITC) in 2007 to provide the needed technological backbone to drive the Commission's operations and ensure the proper deployment of Information Technology strategies to help accomplish the Commission's objectives. The agency procured many computers and other ICT facilities to support its ICT initiatives. Recognizing the importance of seamless connectivity and real-time communication among its offices and personnel nationwide, the Commission embarked on an extensive networking project. As a result, internet access was provided to all FRSC commands across Nigeria. To ensure effective connectivity, the FRSC installed over 147 Very Small Aperture Terminals (V-SAT) throughout the country. This extensive installation of V-SATs facilitated reliable and

[22] Interview with Ex- Corps Marshal and Chief Executive, FRSC, 20th September 2019.

efficient communication, thereby enabling a comprehensive approach to ICT adoption within the FRSC (FRSC, 2009).

Prior to these advancements, the FRSC offices operated in isolation from one another. Communication was primarily conducted through traditional means, such as telephone calls, and the transmission of documents relied on the traditional surface mailing system. However, with the introduction of networking and internet connectivity, the FRSC significantly improved communication, collaboration, and information sharing across its various offices and commands. These measures improved internal communication within the FRSC and paved the way for enhanced coordination, data exchange, and efficient workflow throughout the organization. The FRSC's adoption of ICT and network connectivity has transformed its operations, enabling smoother functioning and improved service delivery.

To further strengthen the internal workings of the Commission, some other electronic processes were introduced including the FRSC Intranet, which serves as the main communication platform within the agency. Closed User Group (CUG) telephone lines were also deployed for speedy communication among its personnel. It is important to state that mobile telephones played a very important role in data transmission in the pioneering period of implementing eGovernment.

> On a weekly basis, all Commands were expected to send in their reports via Short Message Service (SMS) or calls. The officers gradually got accustomed to it, as they saw that the reports from the Commands became the basis of decision making by the management of the agency. Subsequently, when the electronic reporting platform was introduced, it was easy for officers to migrate to the new platform, it was a very smooth transition[23]

Subsequently, the FRSC Call Centre was established to attend to emergency calls such as Road Traffic Crashes via a dedicated toll-free number, “122”. An emergency call to the FRSC Call Centre is redirected to the emergency response CUG consisting of more than a thousand telephone lines, which are then deployed to the relevant response teams

[23] Interview with Ex- Corps Marshal and Chief Executive, FRSC, 20th September 2019.

(FRSC, 2014). In addition to the aforementioned ICT advancements, the Federal Road Safety Commission (FRSC) established a Data Centre to effectively manage and store crucial data related to various aspects of the Commission's activities. The Data Centre served as a centralized repository for important information and records. Within the Data Centre, specific data banks were created to cover different areas of FRSC operations. These included records of offenders, the electronic payment system, the enhanced National Drivers' Licence, and the National Vehicle Identification Scheme. These data banks were designed to consolidate and organize information collected by the FRSC's Patrol Teams and Data Information Officers (DIOs) stationed nationwide.

By maintaining these data banks, the FRSC ensured easy access to vital information related to road safety, law enforcement, and compliance. This centralized approach enabled efficient data management, allowing for effective analysis, reporting, and decision-making processes within the Commission. The establishment of the Data Centre and the collection and organization of data represent an important step in improving the FRSC's operations and its ability to leverage information for enhanced road safety and traffic management.

4.3 The Strategies for the Implementation of Electronic Government in the FRSC

The FRSC has 25 electronic applications (see Table 4.3 for a comprehensive list). Some of the applications deployed by the FRSC include those deployed within the agency for greater administrative efficiency, such as the FRSC Dashboard, used to track the activities of the officials, the Duty Room Information Management System (DRIMS), which is used to capture duty room activities to promote efficiency, effectiveness and productivity, and the Road Traffic Crash Information System (RTCIS) simplified the data collection of road crashes. On the other hand, electronic applications such as the agency’s official website and other social media platforms are deployed to enhance service delivery to the citizens. the Nigeria Driver’s Licence portal which provides a database of information of drivers across Nigeria, e-payment platform, an automated platform designed for the collection of fines, and the Information Verification Portal,

which is a verification platform for driver's Licence and plate number details among several others.

4.3.1 The Official Website of the FRSC

A website is the most essential element of eGovernment, as it gives on-line presence to a government and its agencies. It also helps in cataloguing information and presenting it for easy and quick access by the public (Layne and Lee, 2001). The FRSC's website is domiciled at www.frsc.gov.ng. Its homepage contains information on the history of the agency as well as its objectives. It also contains some useful external links to other government agencies' websites such as the National Identity Management Commission pre-enrolment portal and State Traffic Management agencies to promote inter- agency collaborations.

The 'About us' menu contains items such as 'what we do' which provides information on the agency's core functions and responsibilities. It also provides information on the structure of the agency. It further highlights the Regular and Special Marshals of the agency. Under the 'Departments and Commission Office' heading, the website outlines the various Departments such as Operations, Training, Finance and Accounts, etc, and Offices such as Commission Budget, Commission Legal Adviser, Commission Medical and Rescue Office. It also contains information on the accredited driving schools across the country as well as member Associations within the agency such as the Road Safety Officers Wives Association (ROSOWA), an association comprising all women married to officers of the agency and the Road Safety Club, whose functions includes: educating motorists and members of the public on the importance of discipline on the highways. Furthermore, the menu provides information on the agency's safety partners. Information is also provided on the agency-owned NGO whose fundamental goal is the enhancement of road safety through awareness and by inculcating road safety culture among the citizenry. It provides information on staff welfare as well as the list of approved centres for number plates. The 'About us' menu also includes a 'Contact us' sub-menu, which provides citizens with the office addresses, phone numbers and email addresses of the agency's Zonal and Sector Commands across the country.

The ‘Administration’ menu contains information on the internal workings of the Agency. It thus provides information on the following: Commission Marshal, FRSC Administration, Administrative Development, Rank Structure and Organizational Structure. The Sub-menu on the Commission Marshall gives quick background information on the head of the Agency, usually referred to as the Corp Marshal and Chief Executive (CM and CE). Under the Administration sub-menu, the line of Authority of the Agency is provided. The Governing Council is the next in the line of authority and is made up of seven (7) members. The Management team headed by the CM and CE who is assisted by a retinue of other officials follows closely. The ‘Administrative Development’ sub-menu details the administrative changes within the agency since inception and provides an updated list of all Commission Departments and Offices. The ‘Rank Structure’ sub-menu outlines the agency’s ranks and structures that is the line of progression within the agency both for the Regular as well as the Special Marshals. It then provides a detailed organizational structure of the agency.

Under the ‘Commands’ menu, information on the field operations of the Agency is provided, such as the telephone numbers and electronic mailing addresses of field officials. There exists Zonal, Sector and Unit Commands spread across the country. For the ‘Government Charters’ menu, information is provided on the various charters the agency is committed to. These include the Service Compact (SERVICOM), Integrity Pact for Law Enforcement against Corrupt Practices and Electronic procurement. The ‘Offences and Penalties’ menu clearly spells out the penalties on about 38 road traffic violations. It also provides additional information such as the custody fee per day in case of impounded vehicles as well as information on the payment of fines. The website also provides a link for staff to access their official electronic mails as well as a ‘Courtesy Visit’ menu which chronicles the list of guests that have visited the Agency. In addition, the website also provides a search button for quick searches on it.

In assessing the FRSC’s website, the National Information Technology Development Agency’s (NITDA) Standards and Guidelines for Government Websites, a document that outlines how government websites should be developed and managed in order to guarantee the quality, reliability, accuracy and accessibility of information relating to

government institutions and to ensure consistency in users' experience across all levels of government was used (NITDA, 2020). The guideline is presented under four headings: Nigerian Identifiers, Information Provision, Content Guidelines, and Design Guidelines. The FRSC's website was analysed in line with the document's provisions.

The Nigerian Identifiers category is further divided into two: Nigeria Government Identity and Government Domains. The first describes the need for government websites to contain Nigerian Government Identity such as the National emblem as well as the official logos of the agencies. These identifiers are to be displayed on the homepages of the website. Also, the ownership information of the website is to be displayed on either the header or footer of the homepage and important entry pages of the website. Ownership information is also required to be displayed on subsequent pages of government websites in a simpler manner. Lastly on the Identifier, it is required for homepages of websites to be complete and clearly display the name of the agency or service. On the other hand, since the domain name of any government website is a proof of its authenticity and official status, it is required that all government websites comply with the established convention by NIRA. As such, all government website must use the.*gov.ng* exclusively.

Table 4.3.1.1: Assessment of the FRSC website using the Nigerian Identifiers

Category	Descriptors	Key Indicators	Compliance of Website with the Guidelines (Yes/No)	Remarks
Nigerian Identifiers	Nigeria Government Identity	National Emblem	Yes	
		Agency's Logo	Yes	
		Display of website Ownership Information on the homepage	Yes	
		Display of website Ownership Information on the subsequent pages.	Yes	
		Display of name of Agency	Yes	
	Government Domains	Use of.*gov.ng* exclusively	Yes	

Source: Author 2020

As presented in Table 4.3.1.1 above, the FRSC website displays both the Coat of Arm of Nigeria and the agency's official logo on its homepage and subsequent pages. In addition, the ownership information of the website is also displayed on the footer of the homepage and all important entry pages of the website. Similarly, the ownership information is also displayed on subsequent pages of the website in a simplified manner, while the homepage displays the agency's name. Also, the website is hosted on the government's domain of *.gov.ng.*

The Information Provision category is the second set of guidelines by which the website was assessed. This category is concerned with the kind of information provided by government websites, and such information is required to be current and timely. It is also expected that the information provided on such websites must be consistent with government policies. In order to ensure that information is always available on websites, the guideline requires government institutions to publish documents and where such is practically impossible due to certain complexities, information on how to obtain a hard copy should be made available on the website. The Information Provision category is further divided into five, namely: Homepages, Individual pages, Directories of services and Organizational Structure, Citizen's help sections and lastly Forms.

The guideline provides a list of items that the homepage should have. These include the name, logo of the institution or the Coat of Arm in the absence of a logo. There also should be a link to the institutions Principal Officers' page, which should contain the photographs as well as their profile. There should be a contact page that should include a functional phone number and a monitored email address through which institutions can be contacted as well as a form containing the following information: name, address, message and the email address of the public relations unit of the institution. The other components in this sub-division include a link to a feedback or comment page, a search facility and a site map.

The Individual page sub-division requires each page of the website to include a search facility, consistent navigation and a link to the contact page. The Directories of services and Organizational Structure sub-division requires the website to provide the full

contact details which should include, physical service locations, telephone numbers and mailing addresses, while email addresses should be provided for public relations unit. Under the Citizen's help sub-division, the website should provide information such as the government's expectation of the citizens as well as what the citizens' expectations of the government. These should include complaints handling processes, application, enrolment or compliance forms, explanatory notes and policies, information about benefits and entitlements. The last sub-division requires that forms that are widely used by the public are made available on the website either as downloadable or online entry format.

Table 4.3.1.2: Assessment of the FRSC website using Information Provision

Category	Descriptors	Key Indicators	Compliance of Website with the Guidelines (Yes/No)	Remarks
Information Provision	Home page	Name of Institution	Yes	
		Agency's Logo	Yes	
		A link to the institutions Principal Officers' page which displays the photo and profile about the Principal Officers,	Yes	A detailed profile is provided for the Corps Marshal, while only the names and designations of other top Principal Officers are provided.
		A link to a contact page (with functional phone number and a monitored email address)	Yes	
		- A form which has the following fields: a. Name b. Address c. Message d. Monitored email address of the institution's public relations unit.	Yes	
		A link to a feedback/comment page	Yes	
		A search facility	Yes	
		A Site Map	Yes	
	Individual pages	Each page of the website must include: - a search facility	No	
		-consistent navigation	No	
		- a link to the contact page.	No	

	Directories of services and Organizational Structure	Full contact details, including physical service locations, telephone numbers, and mailing addresses. Email addresses should be provided for public relations unit	Yes Yes	
	Citizen's Help	Provide such information as what is expected of the citizens by the government as well as what the citizens should expect of the government. These should include: -Complaints handling processes, -Application enrolment or compliance forms, -Explanatory notes and policies, information about benefits and entitlements.	 No No Yes	The website provides information on the Service Compact (SERVICOM) but did not provide access to the agency's charter with the people.
	Forms	Widely used forms by the public are made available on the website either as downloadable or online entry format.	Yes	

Source: Author 2020

As presented in Table 4.3.1.2, the website largely conforms to the NITDA's guidelines. Specifically, under the homepage sub-head, the name and logo of the FRSC and the Coat of Arm of the country are present. The website also provides a link to the institution's Principal Officers' page. However, it only provided a detailed profile and photograph of the Corp Marshal, while other principal officers only provided their names and designations. The website provides a contact page that provides an avenue for feedback to the agency. This contact page does not include the functional phone number, and a monitored email address provided by the guideline. However, the website provides for both on the homepage. The email address provided is **info@frsc.gov.ng**, while several phone numbers are provided, including the toll-free line 122. The website also provides a form with the following fields; name, address, message, and the email address of the public relations unit of the institution. The other components in this sub-division include a link to a feedback or comment page, a search facility and a site map, all of which are provided.

On the Individual sub-page, each website's page is required to include a search facility, consistent navigation and a link to the contact page. All of these requirements are absent across all pages. The directories of services and organizational structure sub-division requires the website to provide the full contact details, including, physical service locations, telephone numbers, mailing addresses and email addresses of the public relations unit. All of these requirements are present on the website, as some of the information required are provided for at the bottom of the page, while the email is at the top of the page. Under the Citizen's help sub-division, while the complaints handling processes, application, enrolment or compliance forms are not available, an explanatory note on the Service Compact (SERVICOM) is provided, detailing the agency's responsibilities to the citizens. However, there was no information about benefits and entitlements. Lastly, widely-used forms are available on the website in the online entry format.

The content guidelines category provides for what makes for effective online communication such as, highlighted keywords, titles and subheadings. It also lists a set of requirements for websites to meet to ensure the suitability of their content, including,

succinct writing, making text easy and quick to read. Content should also be unambiguous. This category is sub-divided into content and quality. While content is further divided into three, namely: creating content, writing style and text formatting.

In creating content, it is required that information provided on the website is structured such that it limits a concept to a page and apply the principles of plain language. Under the writing style sub-division, the website should avoid the use of acronyms, jargons and complex words. It should also not be offensive, while also ensuring that punctuations are correctly used. For text formatting, the website is expected to adopt pre-defined formats. These include the use of bold font style for emphasis, avoiding the use of coloured and underlined text among many others. The second part of this category is Quality. This is to ensure that the website is of high quality, accurate, current as it also meets the needs of the public and the requirements of Government. To ensure the timely updates on the website, each information resource and service is expected to be supervised by a person or unit, who will be responsible for the updates on the website. The websites should also recognize the target audience and the need of its public.

Table 4.3.1.3: Assessment of the FRSC website using Content Guidelines

Category	Descriptors	Key Indicators	Compliance of Website with the Guidelines (Yes/No)	Remarks
Content Guidelines	Creating Content	Clear information structure,	Yes	
		Limit each page to one concept each	Yes	
	Writing Style	Plain English and inclusive language to websites that apply to printed documents	Yes	
		Use of Plain English	Yes	
	Text Formatting	Content must not be offensive	Yes	
		Correct Punctuation and Spelling	Yes	
		Text left-justified	Yes	
		Bold font style for emphasis	Yes	
		Avoid underlining or coloured text	Yes	
		Italicize references to published document	No	
		Headings should be in sentence case format	Yes	
		Date, time, currency, telephone and location	Yes	

		information should take into account the geographic location of users.		
	Quality	Accurate and current information that meets the needs of the public and the requirements of Government Timely update of Information	Yes Yes	

Source: Author 2020

As presented in Table 4.3.1.3, all the key indicators under the creating content and writing style descriptors, conform to the guideline. Under the text formatting descriptor, all but one of the key indicators conform to the guideline. The quality descriptor of the website also conforms to the guideline, as the information relayed are accurate, current, meet the needs of the public and are regularly updated. The design guidelines category for websites of government institutions bothers on the need to make websites inclusive for all category of users, in a bid to make them effective and efficient in delivering the appropriate services. It is divided into thirteen subdivisions namely, Website Structure, Page Layout, Hyperlinks, Appearance, Multimedia and Animation, Display, Forms, Mailing List, Discussion Groups, Downloads and Plugins, Directory Structure and File Naming, Authoring, Error Messages and Printing.

The website structure is to ensure that website contents are user-centric as well as user-friendly such that will allow for easy navigation through its pages. To achieve the user-centric nature therefore, all websites are to ensure that users do not need to understand the workings of government to find relevant information or services on the websites. Users of the websites should of necessity be able to locate the needed information on the website as quickly as possible. The proper labelling of all menus will enhance this. The page layout section describes how the home page as well as other pages of the website should be designed. It provides that the home page should be informative, providing sufficient information for visitors. It should also allow for easy navigation around the website. On other pages, it is expected that a visual identity is established and maintained throughout the website. This could be done by incorporating logos or colours into every page, which should also not be wordy. This section also prescribes how navigation around the website should be. The guideline provides that the navigation system should be such that helps visitors to easily locate information or services. It is also expected that links to the homepage is provided as well as search facility on every page. The guideline also provides for the use of navigational links that are easy to recognize, particularly in simple English.

It also prescribes a website specific search facility or link be provided for ease of information location on each page of the website. A sitemap is also expected to be included at the footer of every page. Furthermore, government institutions' websites are expected to provide a link to the Nigerian Government portal domiciled at ***http://nigeria.gov.ng***. This is intended to provide the public with an array of government websites at a glance. Each webpage is also expected to provide a list of all levels between the home page and the current page, a concept known as Bread Crumbs. And lastly on navigation, a site map is expected on websites, this is to provide an overview of the entire website as it also allows for quick access to information.

Under the Hyperlinks subsection, the guideline prescribes the need to adequately describe text links in a way that reflects the destination of the links. This is to allow for users' accessibility and usability. Text links should also be easily recognizable. To achieve this, they should: underlined or coloured. In addition, images linking to other pages should appear like and act like buttons etc. Links that occur consecutively should also be clearly separated. Also, links that are often visited should be clearly marked and differentiated from those that are not visited. Links to external websites should also be appropriately described and evaluated. Such should be opened on new windows or tabs, and users should be adequately informed that they are about to exit the website to an external page.

On the appearance subsection, the guideline discusses screen resolution, that is, the need for websites to be fluid and adaptive across devices, mobile phones or computer screens. It also discusses the need for text to be readable both in printed and electronic fonts. The appropriate use of colours and backgrounds is also emphasized under the appearance subsection. Colours must be consistently used across the website, and backgrounds must be contrasted against text to ensure that they are readable. The guideline recommends the use of black text on a white background. Images should also be discretionarily used, as inappropriate use of images could be distractive on the website. The Multimedia and Animation subsection prescribes the minimal use of animations on website due to its distracting effects and in cases where such must be used, it's file size should be small, as large animations lead to long download time.

Also, when video and audio clips are to be used, the text equivalent should also be provided. This is to provide inclusiveness for those with visual or hearing impairment. In addition, download details such as, download and usage instructions, subject matter, size and file format, are also expected to be provided. The website should also provide a link to download a required software to access a video or audio material.

On the display subsection, the guideline discusses the need for website to be built to standards and not for any browser, as the latter is very dynamic. Furthermore, the website should maximize user access by providing alternate mechanisms for accessing web pages that rely on scripting languages. The use of cascading style sheets to control presentation is also advised, as it ensures consistency in presentations across the website and aids web page development and maintenance. The guideline also prescribes the use of templates for content development on the website has it helps consistency, but discourages the use of frames as they pose challenges to users. On the Forms subsection, the guideline prescribes that websites are to provide forms that are easy to understand and complete. To achieve this, it gives some criteria to be met, including: the need for the form to be clearly documented to identify their purpose and category of user. Also, such forms should be easy to complete, unambiguous and should provide sufficient space for responses. While electronic forms are desirable, alternate formats should be provided such as Portable Document Format (PDF). The guideline also discusses the use of mailing lists for websites that provides for such. Users should be able to subscribe and unsubscribe easily. The size of emails sent should also be minimal, with the content succinct. Guidance is also given on the use of discussion group, for websites that opt for such functionality.

For Downloads and Plugins, the guideline prescribes the provision of information to users on whether or not they will like to access downloadable materials. The size of such downloadable materials should be kept minimal and ensuring that such materials are virus free. The Directory Structure and File Naming subsection discusses the best practices for filing and directory naming to avoid broken links as well as enhance the portability of the website. Some of the best practices include: the use of lower case for file and directory names, ensuring that files and directory names are without spaces,

specifying the correct file name extensions. Lastly on Authoring, Error messages and Printing, the guideline prescribes the use of a web content management system with the following principles, there should be a hierarchy of approval, task should be assigned to each role in the hierarchy, security settings should be put in place to avoid hacking of the website. On the error messages, the guideline discusses the need to avoid generating error messages through regular website maintenance. Government website should be enabled to allow users obtain hardcopies of document by printing.

Table 4.3.1.4 Assessment of the FRSC website using Design Guidelines

Category	Descriptors	Key Indicators	Compliance of Website with the Guidelines (Yes/No)	Remarks
Design Guidelines	Website Structure	User-centric website	Yes	
	Page Layout	Informative, website branding, navigation, search facility, access to Nigerian Government portal, sitemap.	Yes	However, there is no access to the Nigerian Government portal
	Hyperlinks	Accurately recognizable and described links,	Yes	
	Appearance	Adaptive website, easy to read text, appropriate use of images, colours and backgrounds	Yes	
	Multimedia and Animation	Minimal use of animations, text equivalent and down details for video and audio clips	Yes	
	Display	Maximize user access. Use of template for content	Yes	
	Forms	Easy to understand and complete, availability of electronic forms	Yes	
	Mailing List	Ease of subscribing and unsubscribing	No	
	Discussion Groups Downloads and Plugins	Availability of information on downloadable materials	Yes	
	Directory Structure and File Naming Authoring, Error Messages and Printing	Use of lower case for file and directory names Hierarchy of approval for web content, regular website maintenance, printable documents.	Yes	

Source: Author 2020

From Table 4.3.1.4, most of the components in the design guideline meet the NITDA's guideline, except for the 'mailing list' and the 'discussion groups' descriptors that are obviously non-existent on the agency's website.

4.3.2 Nigeria Driver's Licence (NDL) Portal (https://nigeriadriverslicence.frsc.gov.ng/)

The driver's licence portal is hosted on the agency's website as a sub-domain. On the homepage, under the 'Drivers' Licence Application' menu, the portal provides an avenue for three categories of applications. The first is for a new driver's licence application, while renewal and re-issue are the other categories. The portal provides basic information for applicants, such as the basic requirements. For instance, it states that the minimum age requirement to apply for a Licence is 18 years. In addition, the applicant should have completed the driving school and obtained a driver's proficiency certificate.

The application process begins with completing the online driver's licence application form, followed by a visit to the Vehicle Inspection Office (VIO) for a driving test. The third stage is the payment of the Licence fee either online or at the bank; the payment is then confirmed at the State Bureau of Internal Revenue (BIR) office. Biometric Data Capturing is then done at Driver's Licence Centre. The final stage is to visit the Driver's Licence Centre or the Vehicle Inspection Office (VIO) for the collection of the applicant's original Licence card on presentation of the application form or temporary card. For the renewal and re-issue of a licence, details of the application process are also provided.

The portal also makes provision for editing an application. That is, if an applicant is unable to complete the application at once, he can revisit the website severally to complete it. It also provides a menu that enables an applicant to print an acknowledgement slip, to indicate the completion of an application. This is done by inserting the Application Identification Number or a Driver's Licence Number and the Date of Birth. An applicant can also track the progress of the application on the Track Driver's Licence Application. This makes the whole process transparent as it makes the

applicant updated on the application's status. There is also a menu on Frequently Asked Questions (FAQ) which answers questions bothering on various aspects of the Driver's Licence Application process such as the cost of the application, the method of payment etc.

The portal also supports applicants to attend to all complaints from the application process on a dedicated email address and telephone number. The support centre is outsourced to an Application Service Provider, SW Global Ltd, which "provides (government) institutions with quick and easy access to mission-critical applications and removes the need for these institutions to bear directly the total cost of ownership of business applications and the need to engage in expensive ICT infrastructure acquisition" (SW Global, 2020). The 'contact' menu lets applicants view the nearest accredited driving schools and data capture centres across states. It also provides for premium services such as a fast-track application process with an office or home delivery of the licence card, which incurs additional costs. All necessary information on the premium service is clearly provided on the website. The website also provides necessary information on foreign driver's licence holders who wish to obtain a foreigner's licence.

The NDL portal has dramatically changed Nigeria's driver's license landscape. It has harmonized and internationalised the license. "The licence itself is more valuable to travel outside the country. When you travel with a Nigerian driver's license, it is accepted there, you can present it"[24]. In the words of Interviewee 13:

> The new driver's license has gone beyond the shores of this country. You will be astonished if you travel to a place like the USA. If you are not staying beyond a certain period, you can still use your Nigerian driver's license to drive there. The law enforcement there knows how to ascertain the genuineness of the license. There are stages now, if not for the FRSC before it was individual states that produced driver's licenses; hence there were no records. But with the harmonized one, we have records, and there is uniformity. Unlike before, where you will be holding leaflets of various colours and sizes. Now the colour the private licensee is

[24] Interview with Head, Drivers' License Centre. Lagos Sector Command. FRSC, 25th November 2019

> carrying is different from the one commercial one is carrying, the one commercial one is carrying is different from the one the motorbike licensee is carrying, that of motorbikes is different from that of articulated vehicles. The genuineness of the license can easily be known by anybody. It is a matter of following the procedure.[25]

Furthermore, the portal provides easy access for end-users and authenticates the entire procedure

> Log onto the driver's license website; www. nigeriandriverslicense.org it will display a page. Where you want to look for the authenticity of a driver's license, if it has not expired, the website will take you to a page, where it will ask whether the application is fresh/new renewal or reissue. For the mere fact that the license has not expired, you click on re-issue. It will take you to another page, where it gives a command to type in your driver's license number. There is a driver's license number which is personalized, you type it in, along with your date of birth, click on it, it will carry you to your page. That is how you will know that your driver's license is genuine, but where it says no record found, that means it is not genuine. And in a situation where your driver's license expires, as a matter of fact, you can start the process of your license a day less than 30 days. You will still follow the same process. You can do it online. You can even be in the UK and renew your license online. The only thing is that you pick it where you want to pick it. The license number is so germane that of all the features in that license, and the license number is so critical. Two people cannot get the same driver's license number.[26]

The system also has an in-built mechanism to detect fraudulent practices such as multiple applications.

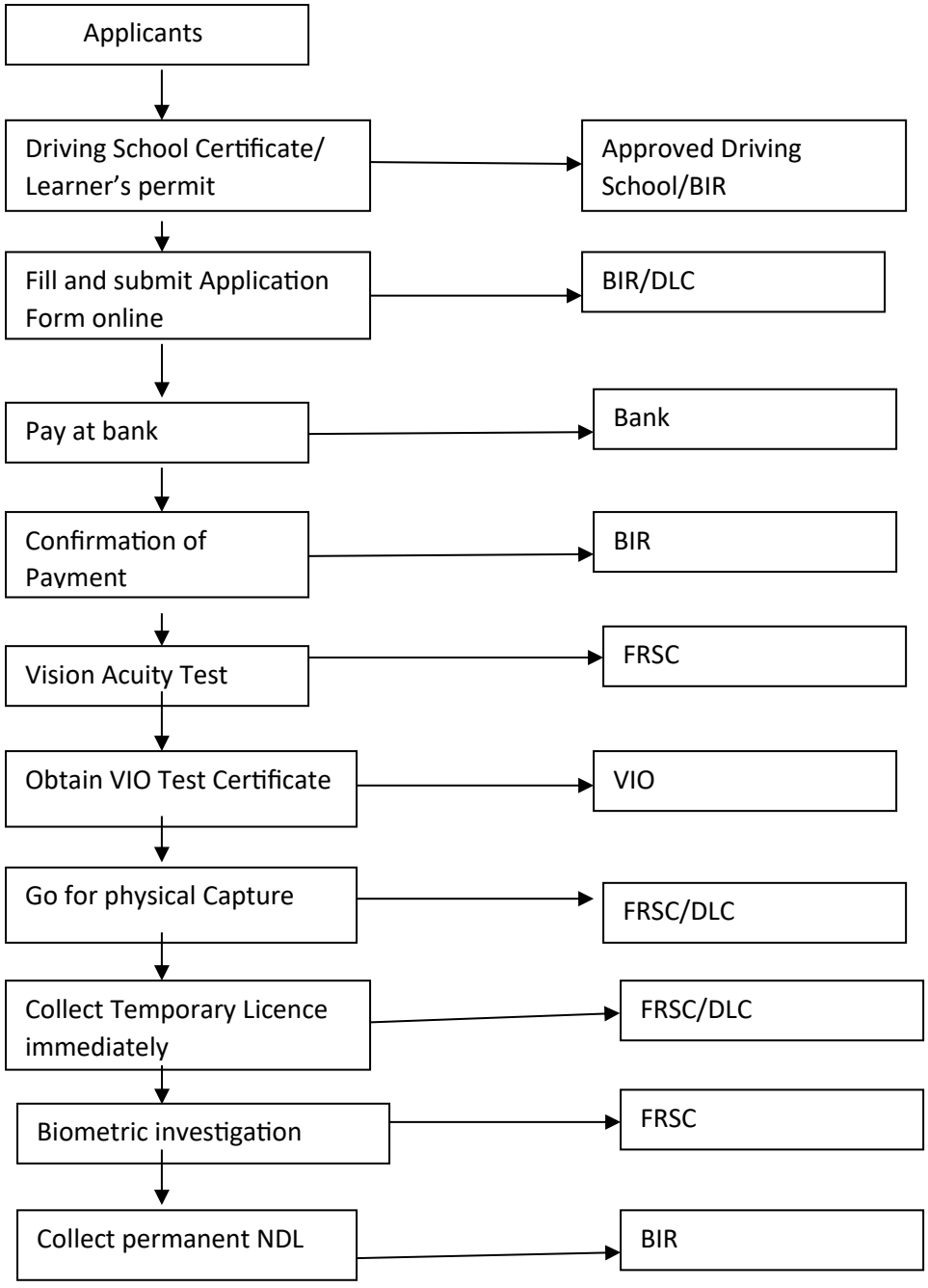
> As a matter of fact, when you lose one and you think the best thing is to get another one, none of it will come; the system will detect that you have a double record. That explains the reason why some people say they have applied for the past two years; they haven't got the license. By the time the matter is investigated, it will reveal such. When you apply at

[25] Interview with Head, Drivers' License Centre. Oyo Sector Command. FRSC, 18th November 2019.
[26] Ibid

your end, it will hit the server at the print firm and will sort them out. When you have two, it will bring the first one along with the new one and will flash it red and put it aside. So nobody can have two licenses, unlike before, where you lose one and will go and apply for another one.[27]

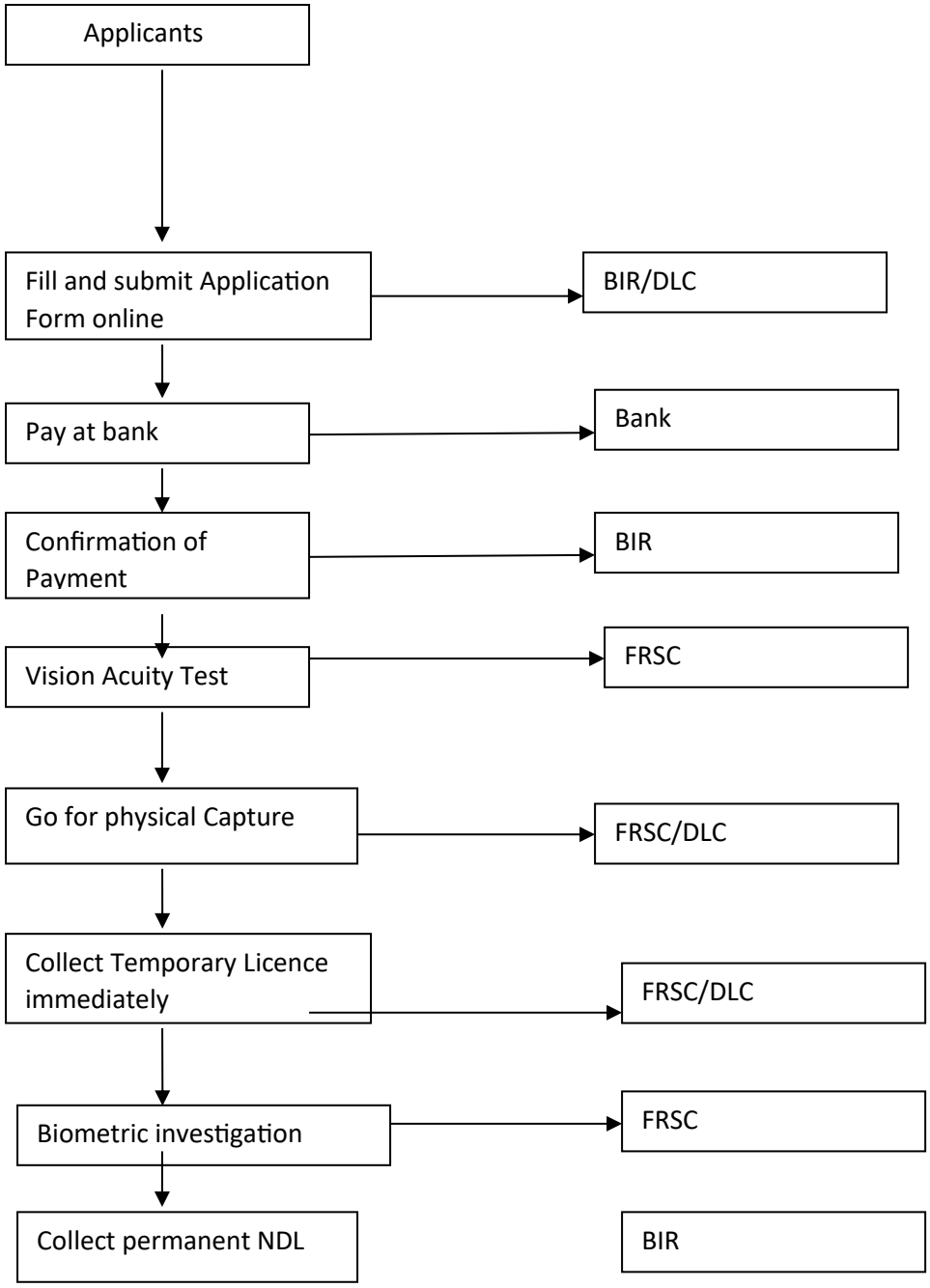
[27] Ibid

Fig 4.3.2.1: **Flow Chart on Driver's Licence Application (New Applicants)**



Source: FRSC website

Fig 4.3.2.2: Flow Chart on Driver's Licence Application (Renewal)



Source: FRSC website

4.3.3 Electronic Payment Platform (https://login.remita.net/remita/external/FRSC/collector/payments.reg)

This platform provides the opportunity for electronic payments for FRSC services or fines payable for offences committed. Road traffic offences are natural outcomes of managing road traffic situations, and most of the offences come with fines that have been categorized and are expected to be paid within a period. The complexities associated with the old payment system have been eliminated by introducing the electronic payment platform. With the Federal Government's Treasury Single Account (TSA) policy that mandates all federal Ministries, Departments and Agencies to operate a single account with the Central Bank of Nigeria, the electronic payment platform of the FRSC is hosted on **www.remita.net** and is operated by a private company that the federal government has engaged for the collection of all charges/fees etc.

The platform provides for single and recurring payments as well as payments for electronic invoices. In the case of payment of a given fine, the process involves an offender selecting the service for which payment is to be made. There are about thirty-seven offences with associated fines (see Table 4.3.3.1). Once an offender selects the relevant offence, the platform automatically fills in the amount to be paid with the service charge. The offender also needs to fill in the Government Integrated Financial Management Information System (GIFMIS) code, which helps to track from which field office of the agency the traffic offender was booked. This code is usually available on the agency's website also. Afterwards, the offender provides a set of information such as the name, email address, and telephone number. Others are: Driver's Licence Number, Vehicle Registration Number, State of offence, Offence Ticket Number etc. Before payment is made, a Remita Retrieval Reference (RRR), a code that is unique to a particular payment usually issued out by the agency or generated by the traffic offender, is to be used to complete the payment process.

Another innovation with the implementation of eGovernment in the FRSC is the issuance of electronic tickets (e-tickets). This is done when an official, with the aid of a hand-held device usually a tablet, is able to book a traffic offender. Though not in use across the federation, as charge sheets are also still be used, the advantage of the e-

ticketing system is that it allows for the issuance of electronic invoices (such as RRR) to offenders. Other than traffic offences, the electronic payment platform is also used to pay for services such as vehicle registration, driver's licence application, and other payments for the services the agency provides. "At the comfort of your home, you can decide to log in to the portal for drivers' Licence, and you choose the number of years you want to apply for, then you make your payments, you can make your payment at home. We also use it in the payment of plate number"[28] Speaking further on the platform's effectiveness, the official rates it as "very effective", mainly based on the platform's extensive patronage. The platform affords end-users a convenient payment system, as it requires no particular skill to operate. "It is also user friendly, and you do not need any password, you can just go there, click on Federal Government's agencies, then you select the one you want to pay, then you print out"[29] The integration of ICT into administrative practices has also reduced waste usually associated with administration. For example, tons of papers have now been replaced with digital storage of data. In relation to the payment platform, Respondent 6 noted that:

> The EPP has also helped, especially in the area of reduction of economic and administrative waste. Before the adoption of eGovernment, most of the agency's processes were done manually. Electronic invoices and receipts have now replaced bank tellers, as data are now stored on the computer systems instead of having the shelves for papers in the office.[30]

Similarly, it has enhanced accountability in revenue generation for the government, such that payment can now go directly into the designated accounts. Interviewee 9 affirmed that:

> The deployment of ICT has helped in the payment of the fines levied on the offenders that goes directly into the Federal Governments coffer. It has actually eliminated the time being wasted at the bank at same time, it has gone a

[28] Interview with Head, Drivers' License Centre. Osun Sector Command. FRSC, 4th October 2019.
[29]Interview with the Desk Officer, NVIS, Osun Sector Command, FRSC, Osogbo. 4th October 2019.

[30] Interview with the Desk Officer, Electronic Payment and Information Verification Portal, Osun Sector Command, FRSC, Osogbo. 4th October 2019

> long way in creating a kind of effective and efficient operation whereby the offender can do the payments on his own without visiting the command or go to the bank. It has almost eliminated the bottlenecks that people experience in the recent past.[31]

4.3.4 Emergency Call Centre (ECC)

The establishment of the emergency call centre was in line with pillar five (5) of the United Nations Decade of Action for Road Safety 2011-2020, anchored on post-crash care/response. Together with the other four (4) pillars, the Decade of Action aims to provide a concrete platform to put in place measures resulting from significantly bringing down incidents of deaths due to road crashes. The recognition that prompt reporting and response to traffic issues, like road accidents, directly affects the number of fatalities, led to the creation of the Emergency Call Centre with a special hotline (070022553772). Its purpose is to swiftly address distress calls related to traffic crashes and other challenges on the road.

The emergency line is connected to computers, manned by staff round the clock. The computers are also installed with FRSC vehicle tracking devices installed in them, making it easy to track all FRSC operation vehicles, which have also been installed with the tracking devices. The dedicated emergency number, a toll-free emergency line, 122, was launched in July, 2012, as a timely response to improving the FRSC rescue activities (FRSC Traffic Digest, 2014). Typically, when an end-user call to report a Road Traffic Crash, it triggers off any of the twenty (20) terminals. The call centre agent then retrieves vital information such as the location of crash, number and types of vehicles involved, which are subsequently used to locate the closest Rapid Emergency Responders popularly called 'Zebras" which arrives the scene of crash as reported to and relayed by the Call Centre at the National Headquarters of FRSC. (Annual Report, 2013).

Since communication also is an integral part of the Information Technology revolution, the Closed User Group (CUG) system, a system that allows a specified group of people

[31] Interview with the Desk Officer, Electronic Payment and Information Verification Portal, Osun Sector Command, FRSC, Osogbo. 4th October, 2019

make unlimited calls to each other at a monthly, flat-rate fee, was introduced in 2008. At the initial stage, over one thousand units of mobile handsets were networked by a leading telecommunications operator in Nigeria, and these were distributed to all Management staff, all Commanding Officers, all Heads of operations, all patrol teams, ambulances, tow trucks and other very vital officers of the Commission. This was to enhance communication among the officials as well as to improve service delivery to the citizens.

This is usually complemented in the case of a RTC with officers on the ground to capture information on the accident scene. Interviewee 5 noted that:

> Tablets are deployed to the field officers. Officers are expected to fill the forms in case of any RTC ensuring that important data are captures such as the sex, number of fatalities, pictures of the accident scene etc. The device works both online and offline. In the case of technical hitches sending the information to the central data base, the officer can still do the needful by filling the forms, afterwards the device will be synchronized as soon as communication network is located. At the moment, the application is only available as a web portal on windows platform. Efforts are being made to bring it on other platforms such as Android and IOS. It helps in reporting and aids timely and prompt decision making.[32]

[32] Interview with the Desk officer, Road Traffic Crash Information System (RTCIS), FRSC National Headquarters, Abuja. 23rd, August, 2019.

Table 4.3.4.1: FRSC Call Centre Report (2014-2017)

Year	Crashes	Traff. Cong.	Enquiries	Compts	Sugg	Apprec	Feed back	Info	Other incidents	Total
2014	3100	387	1399	212	3	37	-	733	-	**5871**
2015	2526	273	6202	551	-	9	759	238	523	**11363**
2016	2660	236	7896	490	-	18	2638	337	418	**14693**
2017	**3103**	**288**	**12464**	**211**	**3**	**21**	**3193**	**216**	**637**	**20129**

Traff. Cong- Traffic Congestion, Compts- Complaints, Sugg- Suggestions, Apprec- Appreciation, Info-Information

Source: FRSC Annual Reports

Over the years, the Call Centre has received thousands of calls from across the federation. These calls are classified into crashes, traffic congestion, enquiries, complaints, suggestion, appreciation, feedback, information and other incidents. Available reports from 2014 to 2017 show that calls to report road traffic crashes accounted for 21.9% of the total calls received. Traffic congestion accounted for 2.3%, while the others were: enquiries (53.7%), complaints (2.8%), suggestions (0.01%), appreciation (0.2%), feedback (12.7%), information (2.9%) and other incidents (3.0%). The high rate of calls to make enquiries through the Call Centre is buttressed by Interviewee 1 who stressed that "On this platform, we can be asked any question, anything that bothers on road safety can be asked and we will be ready to answer them. We can be reached on landline, and any request you make will be appropriately handled"[33]. These enquiries vary from the information of drivers' Licence applications to number plate registration and information verification.

Calls on Road Traffic Crashes has the second-highest figure. The core mandate of the FRSC is preventing road crashes and maintaining a conducive motoring environment for road users. The reasons behind the creation of the Call Centre was to make the deployment of resources easier, like in the case of Road Traffic Crash (RTC). The main goal is to prevent highway crashes and if any crash occurs, it must result in no death. If there is crash results in casualties, it is the responsibility of the agency to rescue the victims and take them to the nearest hospitals. With this call centre, it makes the response time to be reduced drastically. Now, the FRSC is working towards ten (10) minutes. As soon as we received the call, they arrived the scene within ten (10) minutes.[34] The Call Centre helps to expedite the work of the agency in ensuring that casualties of Road Traffic Crashes are promptly attended to, thereby reducing the number of fatalities.

4.3.5 National Vehicle Identification System (https://nvis.frsc.gov.ng/)

The NVIS makes provision for vehicle registration for new vehicles. It requires certain information to complete the process. This includes vehicle category, which provides

[33] Interview with the Desk officer, FRSC Call centre National Headquarters, Abuja. 23rd, August, 2019
[34] Ibid

the option of private, commercial and government. Each of these options further leads to other options. For instance, if the end user of this electronic service is a government official and the vehicle is to be registered as government owned, then the platform will give further options such as Diplomatic/Foreign Mission, Federal Parastatals/ Agencies and Department, Local Government Areas, Military/paramilitary, State Ministries/Agencies and Department. The make of the vehicle, colour, fuel tank, year of manufacture, model, engine number, chassis number etc, are other information that will be required to be provided by the applicant. Thereafter, information on the vehicle owner is also required. This includes a means of identification of the owner, names, and other contact information. Other information such as driver's Licence number, Licence bearer, state of allocation etc. are also provided. This is to ensure that the applicant's information is fully captured and entered into the agency's database.

The NVIS has begun to yield results across the agency's commands. Of note, is the Oyo Sector Command, where according to Interviewee 14, it has helped tremenduously in the recovery of stolen vehicles;

> Basically, ICT has really helped us in many areas of this NVIS job. For instance, in this (NVIS) office, we have recovered like 7-8 stolen vehicles across the nation since January, 2018 with the help of ICT. The implementation of ICT in the NVIS has made the work very easy. The NVIS portal has been upgraded to the extent that when a vehicle is registered in a state in Nigeria, you can't re-register it in another state, which happens before, before the implementation of ICT in the NVIS. So ICT has really changed the face of the work and has made the work hitch free.

4.4 eGovernment and Service Delivery in the FRSC in Southwest Nigeria

The objective this section seeks to answer includes examining if the introduction of eGovernment has enhanced service delivery in the FRSC in Southwest Nigeria and the factors inhibiting or enhancing the implementation of eGovernment in the FRSC. It provides the descriptive statistics of responses comprising frequencies and percentages. The questions were anchored on a five-point rating scale ranging from 1= = strongly agree to 5= = strongly disagree. Frequency tables were used to describe the distribution

of study participants among the response categories of the scale. Frequencies of each response category were further expressed as a percentage of the total number of responses to a particular question. The participants were presented with some assertions on the implementation of eGovernment in the FRSC, which required them to rate the extent to which they agreed or disagreed with the assertions in the questionnaire. These responses are complemented with interview responses of officials of the FRSC as well as those of end-users.

The presence of eGovernment in the FRSC was measured by whether participants have used any of the eGovernment services provided. In Table 5.1, of the six electronic services studied, 121 (46.2%) participants have used the FRSC's website, this represents 27.9% of the overall usage of the electronic services of the FRSC. 169 (64.5%) participants reported using the Drivers' Licence Electronic Application (DLEA), representing 38.9% of the overall usage of electronic services of the FRSC. 53 (20.2%) participants also reported using the Electronic Payment Platform (EPP), representing 12.2% of the overall usage of electronic services of the FRSC. 16 (6.1%) participants reported using the Emergency Call Centre (ECC), representing the lowest level of usage with 3.7% of the overall usage of FRSC electronic services. 37 (14.1%) of participants reported using the Information Verification Portal (IVP), representing 8.5% of the overall usage. Finally, 38 (14.5%) participants reported using the National Vehicle Information Service (NVIS), representing 8.8% of the overall usage of FRSC electronic services.

Following the above analysis, usage of FRSC electronic services is at the highest with the Drivers' Licence Electronic Application. The use of the DLEA assumes this level of importance because it is mandatory for every driver to possess a license, and since the automation of the agency's application process, the portal remains the only channel for to obtain, renew, or verify the driver's license. The popularity of this portal also demonstrates the effectiveness of digitization in delivering government services to citizens, as it provides an easy and convenient way for people to access government services from the comfort of their homes. The agency's website closely follows the DLEA in usage. This is because, it is the focal point to access information on the

agency. Indeed, the website provides a wealth of information on road safety, including road safety guidelines and policy frameworks, road accident statistics, and the process of obtaining a driver's license. It is also a powerful tool for disseminating critical road safety information, promoting awareness of road safety initiatives, and facilitating communication between the agency and the public.

The electronic payment platform is the third most widely used portal of the agency. This portal provides a convenient and secure way for individuals to make payments for various services, including driver's license application and renewal fees, vehicle registration fees, and other fines and penalties. This portal enables users to make payments from the comfort of their homes using a variety of payment options. The electronic payment platform portal is an important tool for facilitating the efficient collection of fees and fines due to the agency. The National Vehicle Information Service does not enjoy a high patronage compared to other portals. This might be due to the limited availability of services provided on the portal. The National Vehicle Information Service mainly provides information on the vehicles. However, this information is not required for every driver or vehicle owner, and many may find it unnecessary or may not know of its availability. As such, usage of this portal may be limited to a particular niche of users. The Information Verification Portal's poor public usage may be due to limited public awareness of the portal's availability to address the particular need of the public.

The Information Verification Portal provides a means where institutions, individuals, and law enforcement agencies can verify the information provided to them regarding driver's licenses, vehicles, and other related persons. However, many individuals may not be aware of the existence of this portal or may find it unnecessary for their particular needs. The Emergency Call Centre is the least patronised of all the agency's electronic portals. The low usage may be due to the limited public awareness of the existence and availability of the Emergency Call Centre. While the centre provides a critical service of responding to emergencies on Nigerian roads, many individuals may not know the phone number to dial or the exact extent of services the centre offers.

Table 4.4.1: Usage of eGovernment Services of the Federal Road Safety Commission

Level of service delivery performance	**Frequency**	**Percentage Of the total**	**Percentage Of the number of participants**
Use by participants			
The FRSC's Website	121	27.9	46.2
Drivers' Licence Electronic Application (DLEA)	169	38.9	64.5
Electronic Payment Platform (EPP)	53	12.2	20.2
Emergency Call Centre (ECC)	16	3.7	6.1
Information Verification Portal (IVP)	37	8.5	14.1
National Vehicle Information Service (NVIS)	38	8.8	14.5
Total[&]	**434**		

&- Total of multiple response categories (a respondent can choose more than one response)

Source: Field Survey, 2019

The service delivery performance was assessed using the 12-item questionnaire developed. From an aggregative point of view, a majority (185/69.8%) of the participants rated the overall service delivery of the FRSC eGovernment service as average, while 34 (12.8%) participants each rated the performance as poor and above average. 12 (4.6%) others did not report. One of the critical ways eGovernment adoption in public organisations is expected to enhance service delivery is to limit physical contacts of citizens with it. The views from the participants of this study firmly agree with the assertion of Brown (2005) that with eGovernment adoption in public organisations, the formal organisational structures assume a secondary place. Indeed, a fundamental thrust of eGovernment is its ability to limit the physical contact of citizens with government officials, thereby reducing the propensity of the officials to solicit bribes and ultimately curb corruption. Most participants, 145 (54.7%), agreed that eGovernment limits physical contact with FRSC officials compared to 74 (27.9%) who disagreed. This result affirms that eGovernment has limited the face-to-face interactions between the two sides, especially regarding services that can be accessed virtually. This point becomes very important to clarify, in the light of the fact that by the operations of the FRSC, not all services can be accessed virtually at this time.

> Indeed, certain aspects of its duties must be done while in the physical presence of the end-users, like the regular re-education and public enlightenment, the physical inspection of drivers and vehicles, enforcement of safety rules and checking the excesses of drivers, which forms a critical part of the duties of the Operations Unit of the agency. So even though end-users can process their driving Licence online, it is still a requirement to visit the agency's office for verification to ensure that the applicant is physically fit at the time of the application. The applicant, especially for a new application, also needs to go through a certified driving school, in which the applicant must be present to enrol and be certified fit[35]

Apart from the peculiarities stated above, the FRSC has had limited contacts with the general public in other areas, where services can be entirely accessed virtually, such as the verification of Licence, which has, in turn, reduced corruption, because once an

[35] Interview with the Sector Head, Motor Vehicle Administration, FRSC Oyo Sector Command, 18th November, 2019.

applicant goes online to fill forms for the driver's Licence or the vehicle, the process does not require any FRSC official.[36] In the same vein, Interviewee 13 noted that:

> For the renewal of the license, you don't necessarily need to have an interface with us; by not having an interface with us, you will brush aside the touts and fraudsters. All you need to do is to go to the website and follow the procedure outlined earlier. It will take you to your page and thereafter ask if you are applying for three or five years, which will be on the Joint Tax Board (JTB) portal, not REMITA. It will then ask if you want to capture or not; when you click no, that is called bypass. When you make your payment, your document will be moved to the print firm. After the payment, you use the ID number you have generated to print an acknowledgement slip. It will state there that your payment has been confirmed. In front of it, you will see the date your license will expire. You will then use that slip in the interim before the license comes, and when it is ready for pick-up, you will be texted with the code you will use to pick it where you wish to pick it. You can also change your pick up centre to where ever you wish. So those are the advantages there.[37]

While limiting physical contact with officials of the FRSC is desirable, some factors may not make it entirely achievable, particularly in the areas they do not require physical contact. Whereas in the case of issuance of driver's license, the arrangement is tripartite, among the State, Board of Internal Revenue and the FRSC, of these three, only the FRSC's processes are automated, the other two are largely still done manually. This implies that even when citizens have completed the FRSC's side of the application, there is the need to be physically present to complete the entire process. Some signatures that should be appended on the form when printed out, with the State Vehicle Inspection Office and the Board of Internal Revenue, make the entire process cumbersome. For this reason, FRSC officials are contacted to help facilitate the speedy completion of the process[38].

Corroborating the above statement, other officials of the FRSC had other testaments to the ability of eGovernment in limiting physical contacts. For instance, from the

[36] Interview with the Desk officer, FRSC Call centre National Headquarters, Abuja. 23rd, August, 2019
[37] Interview with the Sector Head, Driver's License Centre, FRSC Oyo Sector Command, 18th November, 2019.
[38] Interview with the Head, ICT Osun Sector Command, Osogbo. 4th October, 2019.

Emergency Call Centre, complaints can be made to FRSC without meeting any officer. With the emergency line 122, all cases logged through calls are resolved without a physical appearance. The service is also useful in verifying the status of a given application, in the case of a driver's license, the applicant is informed of the next stage and can then follow through the entire process without any officer[39]. Similarly, the bypass process for renewing a driver's license has also proven to be very effective. This system helps an applicant cut off certain stages of the application process requiring physical appearance. Electronic payment is another service that has helped to achieve limiting physical contact, as the applicant can make payments conveniently without visiting any FRSC office or bank[40].

Further interactions with end-users reveal a mixed reaction on the ability of the FRSC to limit physical contact. While some think that the agency has achieved this, others opined that physical contact with FRSC officials is still an integral part of its service delivery, even in situations where such services could have been delivered electronically. eGovernment has helped to limit physical contact with officers of the FRSC and thereby bringing respite to the masses and itself[41]. This is not without stating that consultation via electronic channels needs to be reviewed to improve the process further[42]. Recalling an experience, an end-user narrated how he only appeared physically at the FRSC office for the biometric capturing and, thereafter, picked up the driver's license at the end of the process. Every other thing was done electronically[43]. The activities of touts have also been drastically reduced, and the agency's operations more transparent. On the other hand, a contrary opinion though agreed with the view that the activities of touts have been reduced, but insisted that limiting physical contacts is yet to be achieved where necessary[44]. The system has been rigged so that without end-users involving FRSC officials, there is little or nothing that can be done[45]. From a close observation of the activities of the agency, it is clear that there are a lot of people

[39] Interview with the Desk officer, FRSC Call centre National Headquarters, Abuja. 23rd, August, 2019
[40] Interview with an ICT staff, FRSC Oyo Sector Command. Ibadan. 18th November, 2019.
[41] Interview with an end-user of FRSC's electronic services in Oyo State. 20th January 2021
[42] Interview with an end-user of FRSC's electronic services in Lagos State. 22th January 2021
[43] Interview with an end-user of FRSC's electronic services in Osun State.5th February 2021
[44] Interview with an end-user of FRSC's electronic services in Lagos State 19th September, 2020
[45] Interview with an end-user of FRSC's electronic services in Oyo State 10th August 2020

visiting FRSC offices and transacting physically than electronically[46]. Going through the physical processes again after initiating an electronic application is a proof that the online platform has not limited physical contact with FRSC officials[47]. It also reaffirms the need to make most services, if not all, accessible online under the eGovernment regime.[48]

Citizens' access to public organisations is also expected to be impacted positively with the introduction of eGovernment. 143 (53.9%) participants agreed to the assertion that the implementation of eGovernment by the FRSC has improved citizen's access to the agency, with only 74 (27.9%) other participants disagreeing with it. The majority of the end-users accepted that with eGovernment in the FRSC, citizens' access to the agency has improved. Officials of the FRSC also concurred with this opinion. For example, through the Call Centre, access has been given to citizens to the services of the agency. With the use of the 122 toll-free line, citizens can engage the agency by making enquiries on matters ranging from road safety to status of applications and all appropriately handled.[49] In addition to the Call Centre, there are several other services of the agency that validate the claim that citizens' access are ensured. These services include the checking the validity of a driver's license online as well as that of the number plate and the verification of transport operators[50].

Upon further enquiry, end-users' opinions varied on accessibility of the agency to the citizens. Of the twelve end-users that responded to this question, eight responded affirmatively. This further supports the responses of the electronic questionnaire, which also reflects that citizens' access have improved since the introduction of eGovernment in the FRSC. The access by citizens to the agency is very convincing as it was described as 'improved and increased'[51]. Since the eGovernment platforms are accessible to everybody, everyone can gain access to the platforms, so the use of the eGovernment

[46] Ibid
[47] Ibid
[48] Interview with an end-user of FRSC's electronic services in Lagos State 19th September, 2020
[49] Interview with the Desk officer, FRSC Call centre National Headquarters, Abuja. 23rd, August, 2019
[50] Ibid
[51] Interview with an end-user of FRSC's electronic services in Oyo State 10th August 2020

platforms would have been able to improve and increase citizen's access.[52] However, the agency would have had a wider reach if the awareness of such electronic services had reached a wider audience[53] . On the other hand, by opinion and experience[54], it is believed that access to the agency have not been achieved yet. FRSC's efforts at implementing eGovernment is described has a mere compliance with government's directive. The agency needs to win the confidence of the citizens by ensuring that its processes are transparent and properly monitored by the supervisory body. So, when that is done, the information passage will be a two-way thing, than you just facing the screen and the screen being non-responsive. It is also believed that access to the agency can be fully realised with the use of social media.[55]

One of the critical impacts eGovernment is expected to have on public services is transparency in the dealings with the citizens. The FRSC has become more transparent with the implementation of eGovernment, a majority of the participants 116 (43.8%) agreed with it, while 84 (31.7%) others disagreed. From the perspective of officials of the agency, transparency in the processes of the FRSC is one of the major noticeable changes eGovernment has brought into it. On this, all key informant interviewees agreed that the implementation of eGovernment has promoted transparency in the agency. In his submission Interviewee 1 affirmed that "it has made it more transparent, from your room, anybody can renew his license. Without you giving any money to anybody. So, it has really helped in making us transparent to the general public"[56].

Interviewee 15 also reiterated the same view as above. He noted that "it has become more transparent. There is nothing hidden. Everybody in Nigeria knows that if you want to process your licence, for five years, it is 10, 450 Naira"[57]. Explaining further the discrepancy between the official rate of obtaining a driver's license and what applicants actually pay, Interviewee 15 noted that the perceived hidden charges are actually

---

[52] Ibid

[53] Interview with an end-user of FRSC's electronic services in Lagos State. 25th January 2021

[54] Interview with an end-user of FRSC's electronic services in Osun State 25th September 2020

[55] Interview with an end-user of FRSC's electronic services in Oyo State 10th August 2020

56 Interview with the Desk officer, FRSC Call Centre National Headquarters, Abuja. 23rd, August, 2019.

57 Interview with the Sector Head, Nigeria Driver's License, FRSC Lagos Sector Command. 25th November, 2019.

Vehicle Inspection Office (VIO) charges. Driver's license application is actually a tripartite arrangement, there are three parties responsible it. For the FRSC payment is 10,450 Naira. The other charges are state charges which one must meet and that is because drivers' license is not on the exclusive list, it is on the concurrent list. It is under the prerogative of the states. The FRSC is involved in the process for standardisation and uniformity. Otherwise, it is the business of the states[58.] In the opinion of Interviewee 9, transparency has always been a part of FRSC's operations, the deployment of eGovernment has only enhanced it. It has made everything so clear that all remittances to the Federal Government's coffer is being accounted for. It has as well reduced the incidence of fraud[59.]

Speaking further in support of the assertion, Interviewee 21 asserts that achieving transparency in public service is the goal of eGovernment, and that has been achieved in the FRSC. However, he added that there are "some bad elements that are still trying to beat the system ."[60] This may have accounted for the "no significant change" in the operations of the agency as noted by Interviewee 19[61]. It has, however put an end to arbitrary charges by officials of the agency since the cost of accessing services is now public knowledge. Similarly, Interviewee 20 is of the opinion that the introduction of eGovernment has enhanced transparency in the FRSC by reducing the propensity of its officials to solicit for gratification[62]. It is therefore imperative to do the needful for the implementation of eGovernment in the FRSC to deliver its transparency potential.[63.]

According to Interviewee 29, transparency has been achieved in the area of payments. In the past, applicants pay a different rate from what the approved rate is. However, with eGovernment, "there's nothing like somebody is going to help you and collect a

58 Ibid
59 Interview with the Desk Officer, Electronic Payment and Information Verification Portal, FRSC Osun Sector Command, Osogbo 4th October, 2019.
60 Interview with an end-user of FRSC's electronic services in Oyo State 20th January 2021
61 Interview with an end-user of FRSC's electronic services in Oyo State 10th August 2020
62 Interview with an end-user of FRSC's electronic services in Oyo State 10th August 2020
63 Interview with an end-user of FRSC's electronic services in Osun State 10th August 2020.

higher money, you see the amount you're going to pay"[64]. Speaking further on how transparency has been achieved through eGovernment, Interviewee 9 opined that:

> There has always been transparency in the operations of the FRSC, the deployment of ICT has gone a long way in increasing that. In the past, we used to experience some people do the payment wrongly at the bank, some were being defrauded at the bank. But now you are paying online. Before you even come to the FRSC office to retrieve your confiscated property, we've gotten the notice of your payment. That has made everything so clear that every kobo that need to go to the Federal Government's coffer is being accounted for. It is in the past that at the end of the month, the accountant will need to go to the bank to clear the issues, but now, as soon as you do your payment online, before you get here, we have gotten the notification of your payment. If you come here with evidence of payment and we don't see the notification on our platform here, there is no way we will release your impounded property. The Remita Retrieval Reference that is used for the payment is usually used to confirm payment. Sometimes because of the network, there may be issues of delay, we then check from our own end here, if the payment has been truly made, it will be reflected on our platform, and once we confirm that we release you. It has as well reduced the incidence of fraud.

A vivid experience is shared by Interviewee 28, who narrated how he paid about eighteen thousand Naira to process a driver's license in the pre-eGovernment era. However, applying for the same service through the eGovernment platform, he only paid about a third of the initial amount, about Six Thousand Naira. The difference between the initial and latter payment was corruption, which eGovernment has significantly reduced. To Interviewee 27, he also believes that transparency has been achieved in the agency. He judged this by the number of times an applicant needs to appear physically to process a document. The only physical contact with the agency is now reduced to only when one wants to collect the license, particularly those that are renewing the driver's licenses, it's a lot easier and transparent.[65] However, for Interviewee 24, transparency cannot be discussed yet, because most of the services offered by the agency are done using physical contact. Sharing an experience giving

64 Interview with an end-user of FRSC's electronic services in Lagos State 22nd January 2021
65 Interview with an end-user of FRSC's electronic services in Lagos State 10th August 2020

credence to the fact that transparency has not been achieved, Interviewee 30 noted that although the payment is now streamlined, and application fees are now made public, "somehow, the officials still introduce outrageous charges."[66]

The view that eGovernment has brought services of the FRSC closer to the end-users was affirmed by 146 (55.1%) participants, while 64 (24.2%) other participants disagreed. Interviewee 9, upholding the majority's views, opined that the introduction of eGovernment in the FRSC has brought services closer to the end-users because the end-users now believe that end-users can now access services without a third party[67].

Closely connected to this is the assertion that eGovernment has brought about easy and free access to information in the Federal Road Safety Commission, to which 164 (61.9%) of the participants consented, while 51 (19.2%) participants disagreed. As earlier stated, the availability of all FRSC services electronically affords citizens to access any information at any time. Information is freely available on the agency's official websiteas much as possible and permitted. However, a restriction is placed on the sort of information that is readily accessible on the website. As it is now, only basic information is accessible, as other classified information remains so, until the Freedom of Information (FOI) Act is activated through a written request[68]. With the FOI law, citizens have the right to request information from the government or its agencies on anything they believe they need to be cleared on. This also has gone a long way and any citizen needing information on how the platform is being operated or how revenue is being generated will request formally to the appropriate channel[69].

Easy and free access to information also extends to other agencies and departments of government. This possibility that eGovernment provides has indeed enhanced inter-agency collaborations, especially in combating crime. For instance, the Police can approach the FRSC for the details of a number plate they find suspicious. ICT has helped make number plates visible in that both the driver's license and number plate

[66] Interview with an end-user of FRSC's electronic services in Lagos State 19th September 2020
[67] Interview with the Desk Officer, Electronic Payment and Information Verification Portal, FRSC Osun Sector Command, Osogbo 4th October, 2019.
[68] Interview with the Head, IT Security FRSC National Headquarters, Abuja. 23rd August 2019
[69] Interview with the Desk Officer, Electronic Payment and Information Verification Portal, FRSC Osun Sector Command, Osogbo 4th October, 2019.

are all settled in the database, making it easier to access and collate.[70] However, more needs to be done regarding easy and free access to information on the FRSC. All four interviewees who responded to this assertion had some reservations about access to information under the eGovernment regime of the FRSC. Interviewee 19, for instance, noted that the eGovernment delivery platforms of the FRSC are not designed to supply any information; on the contrary, they are merely to make applications for the various services rendered by the agency.[71] Though Interviewee 24 does not believe that free and easy access to information has been achieved in the FRSC, he believes that the agency can do so with adequate awareness campaign and promotion of its website and other services[72.] This view was also shared by Interviewee 23, adding that achieving easy and free access to information in the agency is a process.[73]

One of the gains of implementing eGovernment across the world is the reduction in the cost-of-service delivery. However, from the response of the end-users, this is not being achieved by the FRSC. 78 (29.4%) participants agreed to the statement that the cost-of-service delivery has reduced since the implementation of eGovernment in the Federal Road Safety Commission. On the other hand, a majority 108 (40.8%) of the participants disagreed. Relating this to the views of the officials of the agency, Interviewee 12 sheds light on why it seems the cost-of-service delivery is still high despite the introduction of eGovernment. He noted that there is a segment of the end-users who still choose to transact with the agency through the conventional avenues, despite the introduction of electronic channels. This set of people, who have decided to give out their application to an intermediary, perhaps, someone that has handled the processing of the application over the years, rather than taking advantage of the electronic channels, then it has become contracted, and the contractee will be charged[74.]

The explanation above opens up a new perspective on this issue. As stated earlier, because of the un-automated processes in some agencies the FRSC collaborates with,

[70] Interview with an ICT staff FRSC Oyo Sector Command, Ibadan 18th November, 2019.
[71] Interview with an end-user of FRSC's electronic services in Oyo State 10th August 2020.
[72] Interview with an end-user of FRSC's electronic services in Osun State 25th September 2020.
[73] Interview with an end-user of FRSC's electronic services in Oyo State 25th January 2021.
[74] Interview with the Sector Head, Drivers' Licence Centre, FRSC Oyo Sector Command, Ibadan 18th November, 2019.

citizens decide to solicit the assistance of intermediaries to facilitate the quick completion of the processes, and these middlemen carry out their duties for a fee, in addition to the official charges of the services. The belief that every public service rendered in Nigeria comes at an additional cost[75], could be responsible for this. This could also account for what has amounted to the majority response of the non-reduction in the cost-of-service delivery of FRSC services. What is responsible for the hike in service delivery may not be unconnected with the charges of the middlemen. The fact that eGovernment has helped eliminate physical transactions at the bank is enough proof that the cost of service delivery has been reduced. It has reduced the financial implication, as well as the stress associated with commuting. It has reduced the cost[76]. Similarly, Interviewee 15 alluded to the tripartite arrangement of the drivers' license application as responsible for the high cost of service delivery, "the only thing that seems that is hidden but is not hidden are the Vehicle Inspection Office (VIO) charges and other state charges which applicants must meet"[77] It is important to understand that the driver's license application is actually on the concurrent list, meaning that it is under the prerogative of states. The role of the FRSC in the process is for standardization and uniformity; otherwise, it is the business of the states[78]. The view of Interviewee 19 affirms the assertion. He noted that there are no arbitrarily charges. There is a benchmark, which is known to everyone. Therefore, whatever anyone charges in addition to the benchmark is illegal. Perhaps that is why some will specify that the additional charges are because "we want to help you do it"[79]. Interviewee 27 also confirms the assertion. In the past, clients had to visit FRSC offices to get things done, often through frustrating processes. However, with the advent of eGovernment, physical contact with the agency has been limited, as such, there is no room for an irregular activity or excessive payment.[80]

[75] Interview with an end-user of FRSC's electronic services in Oyo State 20th January 2021.
[76] Interview with the Desk Officer, Electronic Payment and Information Verification Portal, FRSC Osun Sector Command, Osogbo 4th October, 2019.
[77] Interview with the Sector Head, Nigeria Driver's License, FRSC Lagos Sector Command, Osogbo 25th November, 2019
[78] Ibid
[79] Interview with an end-user of FRSC's electronic services in Oyo State 10th August 2020.
[80] Interview with an end-user of FRSC's electronic services in Lagos State 10th August 2020.

Indeed, a reduction in the cost of service rendered by the agency is an expected outcome of the implementation of eGovernment. Since clients are now paying directly to the government coffers, kickbacks have drastically reduced. The transparency that eGovernment provides, inevitably comes with other benefits such as the reduction in service charges.[81] To sustain this however, clients must always put in their applications early enough to avert providing a ground for officials to solicit for kickbacks under the guise of fast-tracking the process[82.] The eGovernment regime will deliver on its mandates, if the officials manning it wants it to. The deliberate actions of some officials however to undermine the process, because it reduces their opportunity for gratification, this remains a major challenge to the implementation of eGovernment in the FRSC and the public sector at large[83.]

Innovation adoption has often been faced with resistance by public officials. This view is not different from the experiences of the majority of end-users, as the majority were of the opinion that officials of the FRSC are resisting the implementation of eGovernment. 162 (61.2%) participants agreed to the assertion that officials of the FRSC are resisting the implementation of eGovernment, while 29 (10.9%) participants disagreed. The majority of end-users consenting to this assertion depict their experiences with the agency, which will be shown later in this study. On the other hand, however, there are divergent opinions of officers of the FRSC on this assertion. While some officers believe it is impossible to resist it, others explained why they believe there may be subtle resistance. To the extent that the Corp Marshal is passionate about the implementation of eGovernment, no one can resist it, as resistance will then be seen as a confrontation with the ageny's Chief Executive, to which he will do all he can to quell[84.] The view that "he who pays the piper, dictates the tune" explains the perspective that the government determines what must be done and how it must be done. It is

[81] Interview with an end-user of FRSC's electronic services in Lagos State 19th September 2020.
[82] Interview with an end-user of FRSC's electronic services in Lagos State 19th September 2020.
[83] Interview with an end-user of FRSC's electronic services in Oyo State 10th August 2020.
[84] Interview with the Desk Officer, Call Centre FRSC National Headquarters, Abuja. 23rd, August, 2019.

therefore expected that people should be dynamic and adjust to change, rather than resist change[85].

On the other hand, some of the officers attested to the fact that there is some kind of resistance. The fact that "people hate change"[86], means that they will also hate the processes that change brings and may want to resist if they can, using everything within their power, particularly if the change will alter their lives and livelihood. Indeed, some of the services of the FRSC have become a means for some officers to make some illegitimate earnings off the end -users; the emergence of eGovernment will end such illegality. This is common with the driver's license process, where an officer may charge an applicant as much as thirty thousand Naira for a three-year license which costs six thousand, three hundred and fifty thousand Naira[87]. Resistance from officers also depends on the interest such have within the organization. Someone in the ICT unit, may be an unlikely person to resist eGovernment, because it directly impacts his works and enhances his efficiency, unlike someone, who will prefer the other way, he will prefer getting an allowance, travel to Abuja to get a message delivered, which is a long process[88]. There are also a crop of officers, particularly those approaching retirement, who feel that implementing eGovernment is inconsequential to them as they are digital illiterates and are unwilling to learn[89].

At the initial stage of the deployment of eGovernment services, there was resistance, as people were afraid of losing the influence they wielded on the job and losing their jobs, which was the biggest threat. As explained by Interviewee 18, the injection of an innovation comes with resistance, because people do not know how it will affect them and their jobs Indeed, the new transparency that it will bring about, sometimes, deprive people of power.[90] What gave people power in most organizations was the information asymmetry, the fact that others do not have the same information simultaneously, so

[85] Interview with the Sector Head, Drivers' Licence Centre, FRSC Oyo Sector Command, Ibadan 18th November, 2019.
[86] Interview with Desk Officer, IVP FRSC National Headquarters, Abuja. 23rd, August, 2019
[87] Interview with an ICT staff FRSC Oyo Sector Command, Ibadan 18th November, 2019.
[88] Ibid
[89] Interview with an ICT staff FRSC Oyo Sector Command, Ibadan 18th November, 2019.
[90] Interview with Ex- Corps Marshal, FRSC, 20th September, 2019

the electronic approach removes that power and makes everybody equal in terms of access to information and in dealing with it in real-time[91]. On how this initial resistance was tackled, the agency employed an incremental approach to the implementation of eGovernment, such that the deployment of electronic applications and services was not done all at once, but in stages. Secondly, the benefits of implementing eGovernment and the results the process yielded were duly communicated to officers. Succinctly, resistance was tackled with proper information management and dissemination and by going in slow bits[92].

All four of the end-users that responded to the assertion that officials of the FRSC are resisting the implementation of eGovernment, agreed to it. Indeed, this attitudinal disposition of the officers was to be expected since eGovernment in the public sector is perceived as rivalry by public servants. The mentality of the average civil servant in Nigeria is that there should be something to be earned beyond salary[93] is sufficient a reason to resist it. An end-users' account of how he was made to begin a process manually all over again, which he had completed electronically, establishes that there is some subtle resistance to the implementation of eGovernment in the FRSC[94].

Interviewee 24 also affirms this position, stating that "there have been stories about frustrations experienced by citizens who opted to (for instance) register for driver's license using the web platform. The personnel of the Commission seem not to appreciate this route towards obtaining driver's license"[95]. Interviewee 30 believes that the implementation of eGovernment in the FRSC abruptly ended many years of the inflow of illicit income for some of the officers of the agency. He further noted that some officers are somehow not allowing the policy properly function the way it is supposed to function[96].

Since the capacity of the agency to effectively deploy eGovernment to enhance service delivery depends on the digital literacy of the officers, the study sought to know to what

[91] Ibid
[92] Ibid
[93] Interview with an end-user of FRSC's electronic services in Oyo State 10th August 2020.
[94] Interview with an end-user of FRSC's electronic services in Oyo State 10th August 2020.
[95] Interview with an end-user of FRSC's electronic services in Osun State 25th September 2021
[96] Interview with an end-user of FRSC's electronic services in Lagos State 19th September 2020.

extent the participants believe that officers of the FRSC are computer literate. 94 (35.5%) participants agreed to the statement. 49 (18.5 %) disagreed with the statement. Almost all officers of the FRSC are computer literate, as Interviewee 1 affirmed. Computer literacy is a job requirement before getting an appointment with the FRSC. From the job application process, which is electronic, it is required that aspiring officers should have a minimum level of computer literacy. Promotion exercises are also conducted electronically. So as far as an officer would love to be promoted, he has no choice but to acquire the needed skills.[97] Therefore, it is expected for everyone to be computer literate[98]. On why it is essential for all officers to be computer literate, Interviewee 9 explained that the modern way of governance has turned electronic, for efficiency at duty posts. While some in the Command are using paper notice of offence, some have migrated to electronic ticketing pointing to the future of the agency.[99] As expected, the level of computer literacy differs as the proficiency required also differs from one unit to another.[100]

The study also sought to determine if there was a poor attitudinal disposition by the citizenry, thereby frustrating the implementation of eGovernment in the Commission. 111 (41.9%) participants consented to the statement, 91 (34.3%) participants disagreed. Digital literacy determines the citizens' acceptance of the eGovernment regime. If people are not computer literate, they believe the process is stressful[101], they see eGovernment as a threat and will want to go against it. However, if people are well informed about the eGovernment policy, everybody will embrace it.[102] In addition, the availability and functionality of eGovernment services will naturally attract users to it. The fact that eGovernment processes are available is not sufficient. People must be convinced that it is working and very effective at that. Once that is established, people will embrace it. **"**As more and more mobile phones go into peoples' hands that are

[97] Interview with the Desk officer, FRSC Call centre National Headquarters, Abuja. 23rd, August, 2019.
[98] Interview with the Head, ICT Lagos Sector Command, FRSC. 25th November, 2019.
[99] Interview with the Desk Officer, Electronic Payment and Information Verification Portal, Osun Sector Command, FRSC, Osogbo. 4th October, 2019
[100] Interview with the Deputy Head, ICT. Osun Sector Command, FRSC, Osogbo. 4th October, 2019
[101] Interview with the Sector Head, Motor Vehicle Administration, FRSC Oyo Sector Command, 18th November, 2019.
[102] Interview with the Head, IT Security, FRSC National Headquarters, Abuja. 23rd, August, 2019

internet-enabled, more and more people will adopt eGovernance in their daily activities"[103].

The citizens' poor attitudinal disposition to eGovernment is the consequence of several negative experiences with the agency and the Nigerian public sector at large. Indeed, it is the believe of the citizens that electronic services do not work. The reality is not different as Interviewee 19 opined, "…those of us who acted like the educated ones, decided that we want to do it our (eGovernment) way, we eventually got our fingers burnt as we were at it for weeks. It was just like all motion, no movement"[104.] This view was also consistent with that of Interviewee 30, who noted that citizens are always sceptical about innovations from the government. This strong view is not because the innovations are not good enough, but its poor implementation that stalls the expected outcome.[105] However, Interviewee 20 believes that citizens' attitudinal disposition may result from ignorance about it. He further argues that people are not likely to patronize what they do not know exists. In addition, the non-cooperative behaviour of officers is yet another reason for the poor attitudinal disposition by citizens. It seems that officers prefer to serve clients physically, than virtually.[106]

The opinion of end-users on whether or not poor infrastructure hampers the effective deployment of eGovernment in the FRSC was also sought. 199 (75.1%) participants agreed to the assertion, 20 (7.6%) disagreed to the statement. This assertion was generally consented to by both the end-users and the officials of the FRSC. On the part of the officials, poor infrastructure is a major issue for FRSC, which is hampering the implementation of the eGovernment strategies. Such includes poor internet connectivity, poor power supply and the use of rented premises[107]. Whereas poor internet connectivity and poor power supply are significant challenges, the former is ranked above all other challenges. This is because eGovernment services thrive on the internet, and poor connectivity will inevitably affect electronic service delivery. One

[103] Interview with Ex- Corps Marshal, FRSC, 20th September, 2019
[104] Interview with an end-user of FRSC's electronic services in Oyo State 10th August 2020.
[105] Interview with an end-user of FRSC's electronic services in Lagos State 19th September 2020.
[106] Interview with an end-user of FRSC's electronic services in Oyo State 10th August 2020.

[107] Interview with the Head, ICT Osun Sector Command, Osogbo. 4th October, 2019.

possible cause of poor connectivity could be the sole dependence of MDAs on Galaxy Backbone (PLC)[108], as mandated by the federal government. To be sure, Galaxy Backbone PLC is a shared ICT service provider established by the federal government in 2006 to meet the public sectors' ICT needs by harmonizing ICTs' acquisition and operations. Although the agency over the years has sought to improve its capacity, this has not, however met public sector demands as expressed in the views above. The monopoly of the agency as it is with other government's monopolistic ventures, has hampered the workings of the FRSC in its bid to deliver efficient services electronically (Olukoju, 2004).

Of the three end-users that responded to this assertion, one negated it, while the other two affirmed it. Interviewee 19 believes that government is doing enough in the provision of the necessary infrastructure to ensure the smooth implementation of eGovernment in the FRSC, by providing the necessary funds. The proper management of such funds is where the problem lies[109]. However, Interviewee 24 stated that "poor infrastructure such as power, internet access, and the capturing machine, have been a bane in the full deployment of an end-to-end service delivery by the FRSC"[110]. This inevitably has led to delay in service delivery in the agency. There is also an associated challenge, which is poor data aggregation. This has severally led to applicants having to undergo biometric capture at every point of license renewal.[111] Interviewee 30 was also of the opinion that poor infrastructure is a major limitation to the implementation of eGovernment in the FRSC and the Nigerian public sector at large. This has really stalled the payment verification process in the agency, which is at a cost, in terms of time, to the applicants; as Interviewee 30 noted, repeatedly visiting the FRSC office to verify a payment earlier made was one of the consequences of poor infrastructure. Noting further, the non-availability of electricity also adversely affects service delivery.

[108] Interview with the Systems Administrator, NVIS FRSC National Headquarters, Abuja. 23rd, August, 2019
[109] Interview with an end-user of FRSC's electronic services in Oyo State 10th August 2020.
[110] Interview with an end-user of FRSC's electronic services in Osun State 25th September 2020
[111] Ibid

This may even compel end-users to succumb to financial solicitations by some officers of the FRSC in a bid to get the process done without further delay[112].

On the last assertion, 95 (35.8%) participants agreed that the Federal Government had demonstrated sufficient will in implementing eGovernment in the Commission, while 86 (32.4%) disagreed. From the Key Informants point of view, there are mixed reactions. In comparison, some of the FRSC officials believe that the Federal Government has shown enough desire to implement eGovernment, like Interviewee 9, who believes that the government is doing its best, demonstrated by the government's willingness to ensure that revenue collection is done through an electronic platform. This, in a way, shows that the government is serious about eGovernment implementation. Furthermore, most applications in the agency are now electronic, and one will have to do it electronically. This is proof that Government is serious about it.[113]

Others believe that the government is not doing enough. Interviewee 18, pointing to the suppression of information on the websites of MDAs, despite the provisions of the Freedom of Information Act, requiring people to publish certain information, explained that there is still no transparency about recruitment and the annual budgets of governments. There are also no information about the objectives of government agencies.[114] Again, interviewee 7 considers the manner of the implementation of eGovernment as below average. He noted that the government has not lived up to expectations in implementing eGovernment in the agency, stating that the state of implementation of eGovernment in the FRSC is a reflection of the state of ICT in the country. However, if the government is willing to change the state of ICT, it will help achieve more. As it is, the government is trying its best.[115]

[112] Interview with an end-user of FRSC's electronic services in Lagos State 19th September 2020
[113] Interview with the Desk Officer, Electronic Payment and Information Verification Portal, Osun Sector Command, FRSC, Osogbo. 4th October, 2019
[114] Interview with Ex- Corps Marshal, FRSC, 20th September, 2019
[115] Interview with the Head, ICT Osun Sector Command, FRSC, Osogbo. 4th October, 2019

Table 4.4.2: Frequency and Percentages of Participants' Responses to the introduction of eGovernment and the enhancement of service delivery performance of the FRSC in Southwest Nigeria

S/N	Assertions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No response
I	eGovernment limits physical contacts with FRSC officials	52(19.6)	93(35.1)	44(16.6)	54(20.4)	20(7.5)	2(0.8)
II	The implementation of eGovernment has helped to improve the image of the Federal Road Safety Commission	40(15.1)	92(34.7)	59(22.3)	50(18.9)	22(8.3)	2(0.8)
III	The implementation of eGovernment by the FRSC has improved citizen's access to the agency.	34(12.8)	109(41.1)	46(17.4)	61(23.0)	13(4.9)	2(0.8)
IV	The operations of the FRSC has become more transparent with the implementation of eGovernment	24(9.1)	92(34.7)	61(23.0)	60(22.6)	24(9.1)	4(1.5)
V	eGovernment implementation has brought the services of the FRSC closer to the end-users	26(9.8)	120(45.3)	51(19.2)	50(18.9)	14(5.3)	4(1.5)
VI	The implementation of eGovernment has brought about easy and free access to information in the Federal Road Safety Commission	31(11.7)	133(50.2)	46(17.4)	43(16.2)	8(3.0)	4(1.5)
VII	The cost of service delivery has reduced since the implementation of eGovernment in the Federal Road Safety Commission	20(7.5)	58(21.9)	76(28.7)	85(32.1)	23(8.7)	3(1.1)
VIII	Officers of the Commission may be resisting the implementation of eGovernment	50(18.9)	112(42.3)	70(26.4)	26(9.8)	3(1.1)	4(1.5)
IX	Officers of the Commission are computer literate	11(4.2)	83(31.3)	120(45.3)	44(16.6)	5(1.9)	2(0.8)
X	Poor attitudinal disposition by the citizenry is frustrating the implementation of eGovernment in the Commission	24(9.1)	87(32.8)	59(22.3)	73(27.5)	18(6.8)	4(1.5)
XI	Poor infrastructure hampers the effective deployment of eGovernment in the Commission	70(26.4)	129(48.7)	40(15.1)	18(6.8)	2(0.8)	6(2.3)
XII	The Federal Government has demonstrated sufficient will in the implementation of eGovernment in the Commission.	17(6.4)	78(29.4)	79(29.8)	65(24.5)	21(7.9)	5(1.9)

Source: Field Survey, 2019

The results highlighting the impact of the introduction of eGovernment on service delivery of the FRSC in Southwest Nigeria are presented in Table 4.5.3. The results show that majority of those who rated service delivery of the FRSC as poor (21/63.7%) were those who have used the agency's website, closely followed by those who used the DLEA (19/57.6%), EPP (6/18.2%), IVP (4/12.1%), while the ECC and the NVIS both had a usage count of 3(9.1%). A majority (118/64.5%) of the participants that considered the service delivery of the FRSC as average had used the DLEA, while 84 (45.9%) others had used the FRSC's website. Some 35 (19.1%) other participants had used the EPP, 30 (16.4%) used the NVIS, 27 (14.8%) used the IVP, and only 10 (5.5%) used the ECC. Of the participants that judged FRSC service delivery as above average, 23 (67.6%) had used the DLEA. 13 (38.2%) others had used the FRSC's website, 12 (35.3%) had used the EPP, 5 (14.7) had used the IVP, and 2 (5.9%) had used the ECC.

For this objective, the "introduction of eGovernment" was defined by the various eGovernment service delivery applications deployed by the FRSC (e.g, DLEA, EPP, ECC etc.). In defining "service delivery performance", a 5-point Likert scale was developed to assess whether the introduction of eGovernment has enhanced the service delivery performance of the FRSC in Southwest Nigeria or not (see Table 4.5.2). Responses were scored as "Strongly agree" (5), "Agree" (4), "Neither agree nor disagree" (3), "Disagree" (2) and "Strongly Disagree" (1). The total service delivery performance scores were obtained by summing scores across scale items per participant. Service delivery performance was then classified as "poor", "Average", or Good" performance if the total service delivery performance score is less than the 25^{th} percentile or between 25^{th} and 75^{th} percentiles or above 75^{th} percentile, respectively

Table 4.4.3: Effect of eGovernment on Service Delivery Performance

	Assessment of Service Delivery Performance		
Level of Service Delivery Performance	**Poor performance n(%)**	**Average performance n(%)**	**Good performance n(%)**
Introduction of eGovernment			
The FRSC's Website	21(63.7)	84(45.9)	13(38.2)
DLEA	19(57.6)	118(64.5)	23(67.6)
EPP	6(18.2)	35(19.1)	12(35.3)
ECC	3(9.1)	10(5.5)	2(5.9)
IVP	4(12.1)	27(14.8)	5(14.7)
NVIS	3(9.1)	30(16.4)	4(11.8)
Total[#]	33	183	34

CHAPTER FIVE

DISCUSSION OF RESEARCH FINDINGS

5.0 Chapter Overview

This chapter presents further discussions on the study's findings. It triangulates the quantitative and qualitative findings with related empirical findings of other research works on the subject matter of the study.

5.1 E-Government and Service Delivery on the FRSC in Southwest Nigeria

The inability of the eGovernment to achieve its objectives as stipulated in the National Policy for Information Technology (NPIT) in Nigeria could be adduced to the poor implementation of the policy. The implementation stage of the policy cycle is seen as the most critical and delicate phase, as studies have shown that well-crafted policies could be jeopardized if poorly implemented (Norris et al, 2014, Basu, 2006). Indeed, several studies have also shown that eGovernment in developing countries, including Nigeria, has faced challenges. These challenges have been identified to include institutional bottlenecks, the uncoordinated implementation strategy, the digital divide, infrastructural issues such as the uneven distribution of internet facilities and connection problems, the inadequate financing of the implementation project, cultural and attitudinal problems, stakeholders' agitations, human capital problems, poverty as well as the lack of a performance evaluation mechanism (Ifinedo, 2004, Adeyeye and Iweha, 2005, Kamar and Ongo'ndo, 2007 in Adeyemo, 2011, Akomaye, 2015). These challenges have also translated into low ranking of Nigeria over the years in the United Nations Global eGovernment Development Index, which measures countries efforts at institutionalizing eGovernment based on web measure, telecommunications

infrastructure and human capital indexes (UN eGovernment Survey, 2003, 2004, 2005, 2008, 2010, 2012, 2014, and 2016).

The introduction of eGovernment to enhance the service delivery in the FRSC can be better understood in relation to the challenges the end-users encountered in using the electronic services provided by the agency as enumerated in the survey. These challenges are categorized as delay in service delivery, fraudulent practices, infrastructural/technical issues, awareness, service quality, high service delivery cost, and feedback.

5.1.1 Delay in Service Delivery

Delay in service delivery contradicts one of the motivations for adopting eGovernment, ensuring prompt and timely service delivery. However, the reality suggested by the end-users of FRSC services indicates that services are still being delayed. To be sure, the time taken to get a service delivered from the agency could take as long as two years, as the experience of an end-user was, who applied for a driver's Licence through the electronic platform in 2017 and is yet to get the Licence at the time of conducting this survey in 2019, after paying all necessary fees. Some believe that the introduction of eGovernment has not changed anything significantly, contending that the agency's performance is worse than when the process was manual. The account of an end-user describing how he had electronically completed a driver's Licence renewal form but was made to repeat the process manually at the FRSC office, lends credence to the earlier argument that officials of the FRSC may be resisting the introduction of eGovernment in the agency.

The act of making end-users repeat manually what they have done electronically on the portal, thereby discouraging them from further using the electronic platform, is a clear indication of resistance to the eGovernment regime by officials of the agency. In addition to the time-wasting narrative, officials of the agency have devised a means to make end-users come physically to their offices and thereby extort them by charging outrageously for the services through intermediaries, for such services that end-users should be able to access directly. The insistence that end-users should have a contact

person in the FRSC office before they are attended to represents a ploy to extort unsuspecting end-users. An end-user succinctly put it as "FRSC (officials) do delegate responsibilities to fake officers (thereby introducing) fraudulent practice(s)".[116] Therefore, it has almost become a norm that if services are to be accessed speedily, then going physically to the FRSC offices is the better option.

Respondent 17 also stated that "service delivery still takes time, especially with the driving Licence, but if you go there physically it is faster".[117] Respondent 18 shared an experience of a (Drivers') Licence application (that has been) pending for months, but with a visit to an office physically, the matter was resolved.[118] Yet Respondent 23 concurring with the earlier statements, noted that, "you will still have to reach the office or pay something if you want to get result fast".[119]

The delay is also experienced in some other areas of FRSC activities like data capturing, collection of the permanent Drivers' Licence and even in the sorting of the Licences An end-user in Osun state noted that:

> The time taken to be biometrically captured, coupled with the time interval between being captured and when one has to use the open-ended Temporary Licence, is undefined as one has to go to their offices for the umpteenth time before collection can become a reality! Even sorting to locate your own from the pool of those already produced is most disorderly as there is nothing 'e-' about the cataloguing process, hence the time-wasting / man-hour wastage at the offices.[120]

According to Respondent 230, who waited for more than a year to get the driver's Licence:

---

[116] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 26th October 2019, Osun state.
[117] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 27th October 2019, Lagos state.
[118] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 27th October 2019, Lagos state.
[119] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 27th October 2019, Osun state.
[120] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 2nd December 2019, Osun state.

> Service delivery, however, becomes prompt if the end-user knows anyone within the agency who will help facilitate the process usually at a cost. For others, in the case of applying for a drivers' Licence, who don't have the privilege of having any contact within the agency to help expediate the process, have a time interval of between one to three years to get their permanent driver's Licence... Besides, there is too much delay and unorganized process of collecting the driving Licence. It took three years before the issuance of permanent driving Licence".[121]

5.1.2 Fraudulent Practices

An inevitable consequence of the delay in service delivery is corruption as captured by Respondent 210, who, owing to longer administrative response time, had to "bribe" his way in the office to get things done on time[122]. One obvious way corruption is perpetuated in the agency is through the introduction of intermediaries. Respondent 9 noted that officials of the agency often delegate responsibilities to "fake officers", using third parties to provide services that should be free at a fee[123]. It is common knowledge that soliciting a bribe is unethical within the public service and, more significantly, the Nigerian state. Therefore, officials of the FRSC have devised means of soliciting and accepting bribes without being physically present through their intermediaries, who usually are within the vicinity of the agency's offices. Another means of soliciting a bribe is what Respondent 26 described as: **"**frustrating my efforts to renew (my driver's Licence)".[124] Respondent 180 noted that "when you renew your drivers' Licence online, they will try to frustrate you by wanting to get more money because you did not come to them"[125] Corroborating the statement above, another Respondent added that:

> When I made the online application to renew my driver's Licence, I was told that I have to do it manually in their

[121] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 26th December 2019, Oyo state.
[122] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 25th December 2019, Oyo state.
[123] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 26th October 2019, Osun state.
[124] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 27th October 2019, Osun state.
[125] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 20th December 2019, Lagos state.

> office before I can be attended to. I heard of someone that had to pay again after payment had been done on the electronic payment platform.[126]

Officials could make the whole process difficult to justify the need for end-users to come physically to access some of the services that could have been accessed online. For example, Respondent 45 reported that "online payment is deliberately made difficult. Most often, after filling forms, you will need the assistance of officers to make payment. The website is such that only officers can generate payment codes, and it comes with extra cost".[127] Respondents 31 noted that "officials of the FRSC tried to frustrate me for using the e-platform"[128.] Rather than encourage end-users to join the train of users of electronic services, some officers tried to dissuade people from making use of such. This is also connected to the "uncooperative attitude of some officials"[129] and shows a "lack of commitment by FRSC staff"[130] as reported by Respondents 64 and 120 respectively. It seems that some officials of the FRSC are indeed resisting the implementation of eGovernment. Respondent 170 puts it succinctly: "the staff are the greatest challengers who insist on physical presence to elicit bribes".[131]

The officials of the FRSC do not work in isolation in the perpetuation of fraudulent practices. There is a deliberate attempt at sabotaging the process by men and officers of FRSC. Who run a syndicated ring in connivance with some bank officials to make e-payment virtually impossible. This is done because when an applicant renews a licence electronically, the officials are cut off the loop and cannot force the applicant to part with some hidden and fictitious charges.[132]

---

[126] Interview with an end-user of FRSC's electronic services in Osun State. 25th September 2020.
[127] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 29th October 2019, Osun state.
[128] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 29th October 2019, Lagos state.
[129] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 7th November 2019, Osun state.
[130] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 9th December 2019, Lagos state.
[131] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 12th December 2019, Oyo state.
[132] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 4th December 2019, Oyo state.

As discussed earlier, since the driver's Licence application process is tripartite and not all aspects of the process are automated, it, therefore, means that applicants, particularly first-time applicants, will need to drop off their forms at the agency's office to complete the process. This has also created a means for officials to extort applicants. As Respondent 146 opined: "mild bribery still exists when an applicant goes to submit application, physically".[133] And yet Respondent 264, had to make "additional payment at the collection point contrary to claims on the agency's portal

5.1.3 Technical/Infrastructural Issues

For the successful implementation of eGovernment, basic infrastructures such as electricity and internet connectivity are prerequisites. The epileptic nature of both in the Nigerian situation has in no doubt limited eGovernment's effectiveness in the agency's performance, especially in delivering its services to the public. However, it should be noted that poor infrastructure is not peculiar to the FRSC as a cross-section of respondents noted that network issues was one of the challenges encountered while using the electronic services of the FRSC. However, Respondent 2 added, "it isn't the fault of the FRSC".[134] Respondents 82, 147, 21, 50, 78 and 97 among others complained of bad internet connection using various terms such as network issues, poor internet facilities, internet access, network failure, poor internet infrastructure, and server failure. Due to this peculiar challenge, Respondent 195 had to resort to physical appearance at one of the agency's office, "after applications or payments... i still have to go back to their offices because of slow response in handling services."[135]

The network challenge goes beyond the drivers' Licence portal as Respondent 238 also noted the difficulty associated with contacting the call centre saying "I was unable to get through to the Emergency Call Centre after several attempts to report an accident."[136]

---

[133] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 9th December 2019, Lagos state.
[134] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 18th October 2019, Lagos state.
[135] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 24th December 2019, Oyo state.
[136] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 29th December 2019, Osun state.

Since internet connection is integral to the working of eGovernment, its abysmal nature, will also make the service delivery output of the agency very poor as described by respondents. The difficulty in completing "…the whole process online", "frequent breakdown of site", "most of the websites are not fast.", "they should be worked upon for more efficiency and interactivity"[137], were also expressed by Respondent 87. Other than the network issues, power supply (electricity) was also reported as a major challenge. Indeed, internet connectivity and power supply are complementary, as one cannot do without the other.

Other than the significant challenges of internet connectivity and electricity, end-users in using the electronic services of the FRSC also encountered some challenges, which are categorized as technical. These technical challenges include poor maintenance of the website/portal and up-to-date information. Others are the inadequacy and relevance of data on the website, the inability to identify the application ID, the processing time for the original driver's Licence. The inadequacy of computer systems at FRSC offices in handling the number of clients that visit them daily, particularly as it relates to biometric capturing, was also a challenge. Respondent 167 puts it clearly, noting that "despite the use of the electronic applications, the stress of capturing for Licence application is still same."[138] The delay in biometric capturing is not just about too many people waiting to be captured at a particular time. The outright malfunctioning of the data capture machine was also reported.

The inability to process payments online as clients had to resort to physical payments in banks was a challenge that many also encountered. As stated by Respondent 134, the electronic payment platform is not fully functional, as it became difficult to make payment online for driver's Licence[139]. This was also corroborated by Respondent 99, who noted that he was directed to a bank to make payment; and had to make some more payment (not stipulated on the FRSC website) at the driver's licence processing office

[137] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 1st December 2019, Lagos state.
[138] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 11th December 2019, Lagos state.
[139] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 26th December 2019, Oyo state.

where the form was submitted for processing. Yet another respondent corroborated the account above, stating that the inability to make payments online, frustrated the plan of processing the renewal of the driver's Licence online, and so the applicant resorted to the old way of visiting the agency's office, where he was made to pay more than the stipulated amount.[140]

Other challenges associated with making payments online include, delay in payments and the inability to process payments on weekends as well as the herculean confirmation of payment at the FRSC office.

5.1.4 Awareness of Electronic Services

Another challenge reported by respondents is the low awareness of the electronic services available in the FRSC. Respondents noted that there was the inadequacy of information on the availability of self- services, especially the drivers' Licence electronic application. Respondent 98 noted that:

> There is little public awareness of the existence and ease of use. The officials should be mandated to encourage the literate to use eGovernment more just like the banks will redirect people to go back outside and use ATMs instead of coming in to withdraw money.[141]

Respondent 66 suggested that there may be a ploy for the "deliberate sabotaging of public literacy efforts by the FRSC officials"[142] in the course of explaining problems encountered in using their website. Lending credence to the above statement, Respondent noted that "…information about these FRSC electronic applications are not well circularized. I strongly believe the percentage of target users that are aware of these applications can't be more than 20% of the population. Certain officers still thrive from

[140] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 4th December 2019, Oyo state.
[141] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 4th December 2019, Oyo state.
[142] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 4th November, 2019, Osun State.

these information gap and exploit the citizens."[143] The low awareness may also be a ploy to extort ignorant members of the public. As Respondent stated:

> Most people (Applicants) are not aware that there is online application platform for Nigerians to apply for driving licence because FRSC has not advertised and tell would be Applicants to apply online individually instead of giving physical cash to their Officers in most of their branches nationwide. Through this method of physical cash payments, a lot of corruptions are perpetuated by these Officers of FRSC. I think it is only when you are booked for offence(s) that you pay via online platform (REMITA), otherwise you pay them physical cash because of lack of awareness by the public and the blame should be put on the desk of FRSC Management.[144]

For the eGovernment regime to work effectively, there must be a sensitization of both officials and the general public.

5.1.5 Quality of Electronic Services

Another area of challenge people encountered was in the quality of service rendered through the electronic platforms of the FRSC. As stated by Respondent, this includes the fact that "the website is not people-friendly as it has a bad interface".[145] Respondent also stated that "the content of my licence including the picture was blurred"[146], others complained that the FRSC database was not up-to-date with adequate information of motorists and that information about the commission are not readily available, as Respondent 238 stated that "after several months of acquiring a number plate, it has not being uploaded to the NVIS platform…I tried to make a search for my number plate and it seems the data was not updated … they had the former record but it wasn't

[143] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 26th December, 2019, Lagos State.
[144] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 6th December, 2019, Osun State.
[145] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 9th December, 2019, Lagos State.
[146] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 27th October, 2019, Lagos State.

updated".[147] Similarly, Respondent argued that "the electronic applications are either only for information or just to start a process. To get any task done still requires visit to the FRSC offices so in the real sense nothing has changed".[148]

5.1.6 Feedback from FRSC

One of the primary reasons for adopting eGovernment systems across countries and agencies of government is to improve on communication, especially the exchange of information with the citizens. One significant component of communication, therefore, is the feedback from the receiver of the message, in this case, the citizens. Indeed, communication is said to be incomplete without feedback from the recipients of the information. The challenge of receiving feedbacks from the FRSC was also highlighted in the study. The dimensions of the challenge as stated by a cross-section of respondents, vary from poor response time, poor response, no response at all, failure to communicate decision after a complaint is lodged, poor escalation, troubleshooting and feedback takes ages. Respondent 92 detailed an experience which reads:

> there is no room for feedback when there is an error with what has been produced, for example, error in name spelling or date of birth & that class of Licence, cannot be corrected until when the one given expires, making the individual go around with incorrect information on the document.[149]

5.1.7 High Service Charges

One of the attractions of eGovernment is its ability to reduce the cost of service delivery. However, high service charges was one of the challenges respondents highlighted that they faced in their bid to use the electronic services provided by the agency. Respondent 101 complained of the high percentage of bank charges on the electronic payment platform[150]. Also, of concern to Respondent 30 was "what constitutes how they arrive

[147] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 27th December, 2019, Osun State.
[148] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 22th December, 2019, Lagos State.
[149] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 2nd December, 2019, Osun State.
[150] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 4th December, 2019, Oyo State.

at the payment fee of renewal fees for even a driver's Licence/ getting a new one!"[151] Thereby raising concerns over financial transparency in the dealings of the agency with the public.

5.2 Inhibiting Factors in the implementation of eGovernment within the FRSC in the Southwest of Nigeria

There are far more factors hindering the implementation of eGovernment in the FRSC, than those enhancing it as highlighted by both the officials of the FRSC and end-users of electronic services in the agency. These factors are categorized into funding, political will, infrastructure, poor human resources development, and sensitization of the citizenry.

5.2.1 Inadequate funding

The implementation of eGovernment is capital intensive.[152] Thus, one of the major concerns of officers of the FRSC is the inadequate funding for eGovernment projects. Although, many of the interviewees would rather not comment on this aspect of the study, as they resorted to tagging it "policy matter". A few other officers volunteered some comments, which explains some of the challenges the agency faces in the implementation of eGovernment, including inadequate funding. On his part, Interviewee 9 acknowledges the excellent work government is doing but admits that for better performance to be achieved, there is the need for more funds*: "*The government is doing its best, but if efficiency in eGovernment is to be achieved, there is the need for more funds"[153.]

Giving credence to the statement above, Interviewee 1 provides specific examples of how limited funding has stalled the implementation process:

> To some extent, more things still need to be done. More funding still needs to be made to the FRSC, because we have some of our scopes that we have not covered, which funding

[151] Remarks on the challenges encountered with the use of the electronic applications of the FRSC, 27th October, 2019, Osun State.
[152] Interview with Ex- Corps Marshal and Chief Executive, FRSC, 20th September, 2019
[153] Interview with the Desk Officer, Electronic Payment and Information Verification Portal, FRSC Osun Sector Command, Osogbo 4th October, 2019.

> is hindering us from achieving them. Like the fine ticket, if you see anyone committing a traffic offence when you snap the person, or you snap the vehicle with the number plate, send it to our record, we should be able to book the person, send the ticket to the person anyhow. Since we have the information on the vehicle and the owner, we should reconcile it. It is a new idea which requires a huge amount of money to be implemented. So, I believe if more funding is made available to the FRSC, we will do more in most of our activities[154].

Speaking further, Interviewee 1 suggested:

> let them make more funding available for the implementation of eGovernment. For me, I believe if more resources can be allocated to the implementation or aspect of eGovernment, it's going to be good. It is not the organization per se that has the problem, it is the availability of funds. If funds can be made available, the FRSC will do better[155].

Interviewee 10 also noted the inadequacy of funding as a challenge, pointing to how he has converted his personal belongings such as Laptop and internet data to office equipment as there are none available for him to work within the office[156].

The inadequacy of funds to drive eGovernment projects in the FRSC may not necessarily be a consequence of non-availability, as Interviewee 2 opined, "…more funds are required. The government should place more emphasis on implementing eGovernment such as is placed on the anti-corruption fight"[157]. It is a matter of prioritizing. If the Federal Government sees eGovernment projects as very important, it will ensure that it is not starved of funds.

To further substantiate the claim of inadequate funding, the study examined the budgetary allocations for the FRSC from the year 2009 to 2020, as indicated on Table 5.2.1 below. The Table shows an incremental allocation to the agency from 2009 to 2013, with a sharp decline in 2014. However, the allocation rose consistently between

[154] Interview with the Desk officer, FRSC Call centre National Headquarters, Abuja. 23rd, August, 2019.
[155] Ibid.
[156] Interview with the Deputy Head, ICT. Oyo Sector Command, FRSC, Ibadan. 18th November, 2019
[157] Interview with the Head, IT Security FRSC National Headquarters, Abuja. 23rd August 2019

2015 and 2019, with another plunge in 2020. Specifically, in 2009, the FRSC received an allocation of thirteen billion, nine hundred and ninety-six million, one hundred thousand and four hundred and seventy-one Naira. By 2010, the allocation was fifteen billion, seven hundred and forty-one million, nine hundred and thirty-three thousand, three hundred and nineteen Naira, an increment of 11.09%. There was a further increment by 43.2% in 2011 with an allocation of twenty-seven billion, seven hundred and twenty-three million, ninety-seven thousand and eighty-two Naira. By 2012, the increment was further sustained with a 3.1% upward review amounting to twenty-eight billion, six hundred and thirty-three million, five hundred and twenty-one thousand, five hundred and ninety-four Naira.

With a 7.02% increase in 2013, the budgetary allocation to the FRSC stood at thirty billion, seven hundred and ninety-four million, five hundred and ninety-six, seven hundred and fifteen Naira. However, there was a decline of 2.01% in the allocation for 2014, thereby dropping the allocation to thirty billion, one hundred and eighty-seven million, two hundred and seventy-six thousand, two hundred and fifty-four. A total of thirty-two billion, seven hundred and thirty-eight million, one hundred and seventy-seven thousand, two hundred and ninety-nine Naira was allocated to the agency for 2015. This figure indicated an increase of 7.79% from the previous year's allocation. In 2017, the total allocation stood at thirty-four billion, seven hundred and ninety-seven million, three hundred and forty-nine thousand, five hundred and forty-nine Naira. A 17.2% upward review was effected in the 2018 budget amounting to forty-two billion, forty million, eight hundred and sixty-seven thousand, five hundred and eighty-four Naira. The 2019 allocation received an upward review of 39.91% making it sixty-nine billion, nine hundred and sixty-two million, nine hundred thousand, five hundred and sixty-eight Naira. However, a decline of about 34.99% was noticed in the 2020 allocation, as it dropped to forty-five billion, four hundred and eighty-four million, four hundred and ninety-two thousand, and twenty Naira.

The data on budgetary allocation to the FRSC in itself does not convey much insight on the level of spending on eGovernment projects. However, to unravel the nature of expenditure in the agency, the study compared the recurrent expenditure to capital

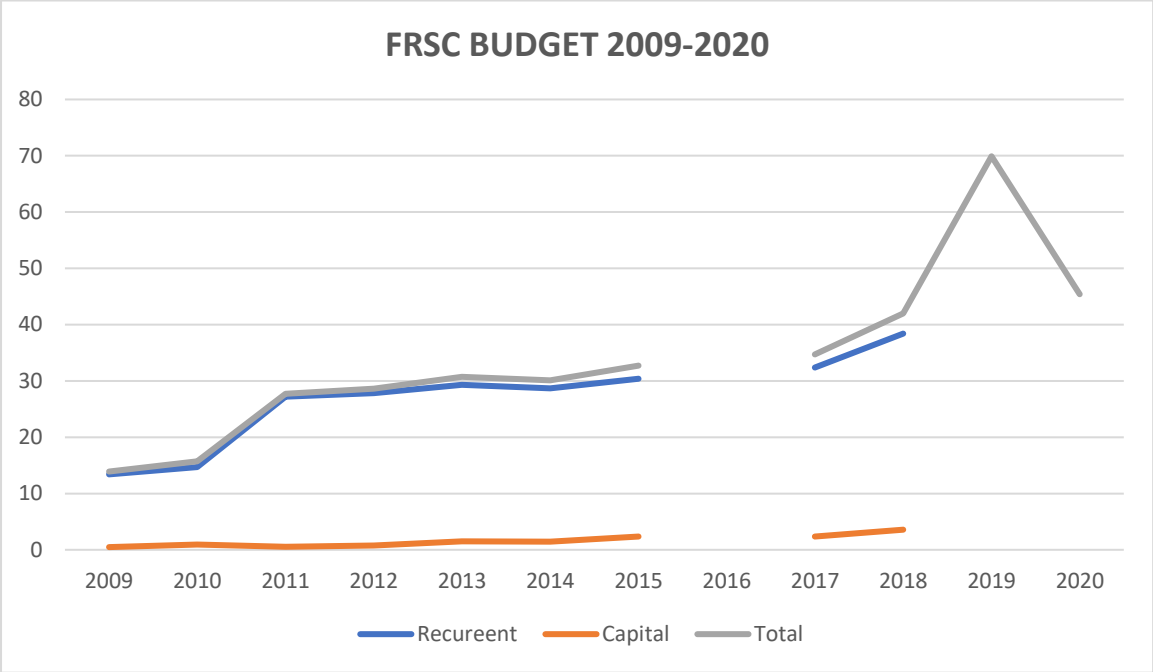
expenditure within the same period of 2009-2020. To be sure, recurrent expenditure is the type of expenditure that does not result in the acquisition of fixed assets. They revolve around such spending like the payment of salaries and allowances, operational costs like electricity bills, travelling, telephone, cost of maintaining equipment, etc. On the other hand, capital expenditure includes such spending for the acquisition of fixed capital assets like land and other intangible assets (Githuri,2020). A cursory look at Table 5.2.1, shows that recurrent expenditure across the years under review takes a large percentage of the entire spending of the agency. For instance, in 2009 the recurrent expenditure of the agency stood at 96.6% of the total allocation. For 2010, 2011 and 2012, it was 93.9%, 98.1%, and 97.3% respectively. The figures were not quite different for the subsequent years, as each of the years 2013 and 2014 show that the percentage of recurrent expenditure to the total allocation stood at 95.2%. In 2015 and 2017, the figures were 92.9% and 93.3% respectively. The year 2018, returned a figure of 91.5%, while 2020 figures stood at 93.7%

Table 5.2.1: **FRSC BUDGET 2009-2020**

YEAR	RECURRENT EXPENDITURE	CAPITAL EXPENDITURE	TOTAL ALLOCATION	PERCENTAGE CHANGE
2009	13,519,700,470	476,400,000	13,996,100,471	-
2010	14,791,933,319	950,000,000	15,741,933,319	+11.09%
2011	27,204,561,141	518,535,941	27,723,097,082	+43.2%
2012	27,856,159,711	777,361,883	28,633,521,594	+3.18%
2013	29,314,596,715	1,480,000,000	30,794,596,715	+7.02%
2014	28,731,780,832	1,455,495,422	30,187,276,254	-2.01%
2015	30,402,177,294	2,336,000,005	32,738,177,299	+7.79%
2016	N/A	N/A	N/A	+5.92%
2017	32,452,696,962	2,344,652,587	34,797,349,549	-
2018	38,468,214,996	3,572,652,588	42,040,867,584	+17.2%
2019	-	-	69 962 900 568	+39.91%
2020	42,565,630,938	2,918,861,082	45,484,492,020	-34.99%

Compiled by the author from budgetoffice.gov.ng

Figure 5.2.1: Line Chart showing FRSC's Budget 2009-2020



Source: Author, 2021

5.2.2 Poor Infrastructure

Poor Infrastructure also emerged as one of the critical factors dictating the pace of progress on the implementation of eGovernment in the FRSC. Poor infrastructure cuts across such things as, inadequate office equipment, poor internet connectivity and poor power supply. As Interviewee 6 asserts, "poor infrastructure slows down the work"[158], specifically, Interviewee 5 commented that "poor infrastructure has hampered the operations of the FRSC and this has negative effects on data collation and the required results negatively affected also"[159].

The challenge with infrastructure is not merely with its availability but with its maintenance also. As Interviewee 11opined:

> There is the challenge with power as well as the maintenance. Maintenance is a huge challenge, when we talk about organisations, they just don't provide infrastructure and then abandon it. You must follow it up with a maintenance policy and funding. For example, an organization provides a VSAT and forgets that rain will fall, the sunshine will come, dust also, wear and tear[160].

5.2.3 Poor Internet Network

Of all of the factors outlined, poor internet network seems to be the most pronounced as virtually all FRSC officials interviewed mentioned it. As interviewee 3 observed, "poor connectivity has hampered work largely because MDAs are mandated to solely patronize Galaxy backbone"[161.] The sole reliance on a single Internet Service Provider (ISP) by MDAs is enough proof that poor connectivity is to be expected. Since the internet is the major resource required in the effective running of the eGovernment projects, its absence or inadequacy as the case may be, becomes a serious challenge, as it is in the FRSC. Other interviewees also explained how poor internet connectivity

[158] Interview with the Sector Head, Drivers' Licence Osun Sector Command, FRSC, Osogbo. 4th October, 2019

[159] Interview with the Desk officer, Road Traffic Crash Information System (RTCIS), FRSC National Headquarters, Abuja. 23rd, August, 2019.

[160] Interview with an ICT Staff, Oyo Sector Command, FRSC, Ibadan. 18th November, 2019.

[161] Interview with the System Administrator, National Vehicle Identification System, FRSC National Headquarters, Abuja. 23rd, August, 2019.

hampers the effectiveness of the eGovernment services in the FRSC. Interviewee 7 stated that "the internet is the major challenge"[162] and thereafter links it with the payment portal:

> The only challenge we face is when there is maintenance on that (payment) portal, that is when people come around to complain of their inability to make payment, mostly when their vehicles are impounded and there is no other means to make payment, we have to just wait for the internet/portal to be up. That is when we have difficulty in attending to people[163].

Corroborating the statement above, Interviewee 9 stated that:

> The payment platform does not stand on its own. It still needs the Telecommunications Network Providers to operate, 9Mobile, MTN, Airtel, Globacom. At times, from the internet providers, there may be poor network, once the network is poor, absolutely there is nothing we can do on the REMITA platform. That is the basic challenge we do face, when the weather is not that good, when there is heavy downpour, then you see that the internet providers don't have good service. Any offender that is apprehended within that period will not be able to effect his payment. At times even if you direct then on how to do it on their own, they will still be unable to pay. If they explore the bank option, they will still face the same issue. The main challenge is when there is a downtime due to the weather, the provision of the network is normally fluctuated.[164]

Speaking further on the state of some of the equipment, Interviewee 9 explains that,

> … some of the VSATs are old, as it takes a long time to get connected to the internet. Offices that are provided with computers still use desktops, that is of the old. People are now using laptops, Palmtops etc. where we are using tablets, the government has to do more, like where some Commands have one or two, they need to do more so that every officer can have access to it.[165]

[162] Interview with the Head, ICT, Osun Sector Command, FRSC, Osogbo. 4th October, 2019
[163] Ibid
[164] Interview with the Desk Officer, Electronic Payment and Information Verification Portal, Osun Sector Command, FRSC, Osogbo. 4th October, 2019
[165] Ibid

Interviewee 7 explained that officers are to find alternatives should there be a failure of the internet network provided by the government.

> ... Here, for you to work online, if the internet network is not functional, you have to sort out yourself. Every day, we make use of the internet, and our internet is not as strong as that to be made use of everyday. You have to find alternative means to be online.[166]

Though interviewee 15 admits that poor internet network is a challenge, but was quick to add that the control of such a situation was not within his reach.

> Poor network, I don't have control over that. Recently rain storm destroyed our mast provided by the FRSC. Even though they are working on it, everybody is trying their best[167].

End-users also complained of inability to complete electronic applications for FRSC services due to the epileptic nature of internet service in the agency[168].

5.2.4 Power Supply

According to Interviewee 1, the challenge of power supply is one of the major strains on the agency's finance, as a large part of its funds is spent on providing electricity from alternate sources, especially generators.

> The aspect that I believe the FRSC is spending a lot is on the power. If the availability of power can be improved, it will reduce funding on alternate means of providing power. It is not easy to provide 24hrs power. Basically, we use generators here. We don't experience power failure here. Everybody knows what is happening in Nigeria now, there is no stable power supply. So anytime there is power outage the generator will be on, it may be for two or three days, it must be on, because if it is not on, the Call centre will not be available, most of our servers will be down, people will not be able to access us. It has a long damaging effect on the

[166] Interview with the Head, ICT, Osun Sector Command, FRSC, Osogbo. 4th October, 2019
[167] Interview with the Sector Head, Nigeria Driver's Licence, Lagos Sector Command, FRSC. 25th November, 2019
[168] Interview with an end-user of FRSC's electronic services in Oyo State 10th August 2020.

> system. So, the management must make sure that the power is on 24hrs by 7 days[169].

The situation is not so different across the Commands studied as the challenge cuts across. For instance, Interviewee 9 stated that the poor supply of power from the regular source and the inability of the government to use the alternate means of generators for a long period of time, due to financial constraints, hampers the delivery of services to the citizens.

> At times, we might not have power supply that we need to rely on alternative power sources, which is generator and the government may not have the financial power to put on the generator for a longer time. If there is improvement in power supply, there will be effective and efficient way of carrying out our duties[170].

While Interviewee 13 complained of the non-cooperation of the state government in providing a power generating set to enhance their work.

> The place we are here, we directly work for the state government, generating revenue for the state, but the state is not doing too well. For instance, we have been here for about three weeks now without electricity. It was last week that we just used our initiative to get the generator for us to keep working. The state government is not cooperating, only cooperation we get is from our Headquarters[171].

However, the magnitude of the challenge of power supply differs from place to place, in the words of Interviewee 7,

> Power supply is not so bad. The headquarters should supply us with a power generating set, but they have not done so. We currently use the public power source, which is not so bad[172].

---

[169] Interview with the Desk officer, FRSC Call centre National Headquarters, Abuja. 23rd, August, 2019.
[170] Interview with the Desk Officer, Electronic Payment and Information Verification Portal, Osun Sector Command, FRSC, Osogbo. 4th October, 2019
[171] Interview with the Sector Head, NVIS, Oyo Sector Command, FRSC. 18th November, 2019
[172] Interview with the Head, ICT Osun Sector Command, FRSC, Osogbo. 4th October, 2019

5.2.5 Resistance of eGovernment regime by Officers of the FRSC

There are of two different set of opinions on this issue of resistance by the officers. In a way, they believe nobody can resist the strategies, while some believe that there is resistance among the staff of FRSC. Interviewee 1 puts the resistance in his own opinion as:

> One thing I want you to know is that it all depends on the Head, the Visioner, what he sees, definitely, everyone would want to buy into it. Like the Corps Marshal, he has interest, so if he is seeing you as one that wants to frustrate eGovernment, that means you want to frustrate his system, his government. So, he will take it personal. To some extent, that is not operating within the FRSC[173].

Interviewee 8 also alludes to it as he said, there is "no form of resistance"[174]. On the other hand, some officers attested that there was some resistance. Interviewee 12 believes that the resistance is minimal. He noted that:

> He who pays the piper, dictates the tune. If the government says this is how I want my job to be done, who are you to say no. People should be dynamic. In FRSC they treat people like that as saboteurs. In para-military organisations like the FRSC, you obey orders[175].

While Interviewee 4 stated that, "people hate change"[176], Interviewee 7 expatiated on the cause(s) of the resistance. He noted that,

> There is nowhere that will not happen. People that were recruited in the 90s, some of them are not ready to learn again. They believe they are old and have left such things for their children. I have someone like that, that complains about the use of computers[177].

---

[173] Interview with the Desk officer, Call Centre, FRSC National Headquarters, Abuja. 23rd, August, 2019.
[174] Interview with the Desk Officer, NVIS, Osun Sector Command, FRSC, Osogbo. 4th October, 2019
[175] Interview with Sector Head, Drivers' Licence Centre, Oyo Sector Command, Ibadan. 18th November, 2019
[176] Interview with the Desk officer, Information Verification Portal, FRSC National Headquarters, Abuja. 23rd, August, 2019.
[177] Interview with the Head, ICT Osun Sector Command, FRSC, Osogbo. 4th October, 2019

This was also substantiated by Interviewee 11 who noted that resistance is present, however subtly. Noting that "if you see someone resisting it, it can't be openly."[178]. Interviewee 11 also hinted on the main cause of resistance among the officers in the agency, which is their personal interest, what he describes as "what is in it for me?"[179] For instance, with the manual processes, service charges can be arbitrarily fixed. However, with the emergence of eGovernment and the dismantling of the structures already established with the manual processes to extort citizens, which some officers benefit from, resistance will seem to be the immediate response. Similarly, resistance may occur when administrative tasks that were manually done before are now electronically achievable. For instance, communications with the headquarters in Abuja, which previously was done manually by an officer travelling down to deliver the message and gets an allowance for it, is now being done using the electronic mailing system. An officer caught up in this scenario, "will prefer getting an allowance, travel to Abuja to get a message delivered, which is a long process"[180]. "The uncooperative attitude of the personnel at the point of (biometric) capturing" was also reported by Interviewee 24[181]

5.2.6 Poor attitudinal disposition by the citizens towards eGovernment in the FRSC

Interviewee 2 was of the opinion that citizens are not well disposed to the eGovernment regime in the FRSC and this is largely due to the low level of digital awareness among the populace. Furthermore, he explained that:

> To some extent, the level of computer literacy of people. You know as human beings, we always want to go against change. First of all, people who are not versatile in computer education see eGovernment as a threat, "are they trying to come into our privacy". Before we got 122, which is toll free,

[178] Interview with an ICT Staff, Oyo Sector Command, Ibadan. 18th November, 2019

[181] Interview with an end-user of FRSC's electronic services in Osun State 25th September 2020.

> we were using 0700 Call FRSC which was not toll free, so some people were skeptical, "how can I be using my money to call in" Meanwhile, the life you are saving is more than the money you are spending. Nowadays, people must have now realized that change is worth venturing into. It is all about education. If people are well educated about the eGovernment policy, everybody will embrace it[182].

Corroborating the above statement, Interviewee 14 provides further information on why acceptance of eGovernment in the FRSC is low:

> The people believe the eGovernment process is stressful, meanwhile, we have to lecture and educate them. When you educate them, and they understand what you want them to know, most of them will abide with it because if they don't know, they will grumble. Maybe for the payment of a fine, they will have to generate a code from the REMITA platform, people don't like that. They prefer that other people do that for them. We then lecture them and discourage them from offering bribes to officials in order to facilitate the process. If the bribe is not offered, no one will ask, but if it is offered, then there is the likelihood that it will be received. So, the message is don't give bribe. That is what we are trying to let them know. If you stop to give, they will not kill you. eGovernment helps you to know your right[183].

People's disposition to eGovernment is often based on the level of awareness of such services and their willingness to go through the process. According to Interviewee 1:

> …the economic situation, as well as awareness. Also, people don't create time. People are ready to pay you to do it for them. …there are some signatures that should be appended on the form when printed out, that makes them feel they don't have time for such. …E-Government has really helped the FRSC, the point at which people have issues is appending of the signatures form the State Vehicle Inspection Office and the Board of Internal Revenue, for which they have to get there, because that aspect is still manual. It is for this reason that some people meet us

[182] Interview with the Head, IT Security, FRSC National Headquarters, Abuja. 23rd, August, 2019.
[183] Interview with the Sector Head, Motor Vehicle Administration, Oyo Sector Command, Ibadan. 18th November, 2019.

> (officials of the FRSC) to do it for us to help us cover that area[184]

Interviewee 18 has a different opinion about the attitudinal disposition of the citizen. When asked if citizens have a poor attitudinal disposition to the implementation of eGovernment strategies, he explained that:

> The acceptance or adoption of technology is the result of its availability, ease of use, problem-solving capabilities and such other factors. Once it is available, once it is simple, once it is easy to use and it is intuitive, people will use it. People cannot be compelled to adopt eGovernment if it does not meet their needs. Citizens' adoption will greatly increase if they are able to answer the following questions in the affirmative, is there a problem?, can you solve that problem using technology?, is that technology easy to use? and as more and more mobile phones go into peoples' hands that are internet-enabled, more and more people will adopt eGovernance in their daily activities. [185]

According to Interviewee 11, the introduction of eGovernment in Nigeria is a misplaced priority. The focus of government now should be capacity building for the citizens, that is, equipping the citizens with the requisite knowledge to live in a digital era. When this is done, the adoption of technology by citizens will be seamless as they are well equipped for it. In his words:

> … it is about whether the nation is ripe enough for what we see in other nations. Whether we can tap into that and build e-platforms to fit into the citizens… Let's start with developing our citizens. …Building the citizens, equipping the environment with adequate infrastructure, then citizens will be able to learn much and fit into it and that will make them appreciate it, because most of the citizens don't even appreciate it, because they don't understand what it is all about[186]

[184] Interview with the Desk officer, Emergency Call Centre (ECC), FRSC National Headquarters, Abuja. 23rd, August, 2019.
[185] Interview with Ex- Corps Marshal, FRSC, 20th September, 2019
[186] Interview with an ICT Staff at the FRSC Oyo Sector Command, Ibadan. 18th November, 2019.

5.2.7 Lack of Political Will

This factor addresses the role of government (particularly, the Federal Government) in the implementation of eGovernment in the FRSC. The opinion of participants is diverse. While some believe that the government is making some efforts, others think otherwise. Interviewee 7 believes the government has not lived up to its bidden. Elaborating further, he said:

> …We are far behind in ICT as a country, maybe that is what is affecting the organization . But, if we have a government that wants ICT to move forward, we will achieve more. We must understand that they are trying their best.[187]

For Interviewee 11, the government has not shown the needed commitment sufficient to effectively drive the eGovernment project in the FRSC and that is a matter of prioritizing the implementation of eGovernment. In his opinion, this can be achieved by "bring(ing) up the citizens to understand and have the knowledge of what they are going to do, before bringing it to them, so that when you bring it to them, they will appreciate it."[188]

For Interviewee 18, there is still a wide gap between the intent of implementing eGovernment and the reality, not just for the FRSC but for many other MDAs in Nigeria. This is evident in the non-display of information by MDAs on their websites despite the Freedom of Information Act requiring agencies of government to publish certain information. Also, transparency is lacking in the recruitment processes of many agencies. Furthermore, "government budget is not online, we still don't see how governments are spending the monies, how much money was voted for projects, and how much was released. We still don't have information about the objectives of the government agencies. So, I think that eGovernance has been totally neglected."[189]

Besides the challenges highlighted above, there are other challenges with the implementation of eGovernment in the FRSC in Southwest Nigeria. These challenges

[187] Interview with the Head ICT, Osun Sector Command, FRSC, Osogbo. 4th October, 2019
[188] Interview with an ICT Staff at the FRSC Oyo Sector Command, Ibadan. 18th November, 2019.
[189] Interview with Ex- Corps Marshal, FRSC, 20th September, 2019

include low awareness of the eGovernment project in Nigeria by the citizen, which calls for greater sensitization by the government for the general public. There is also the need for a legal framework to guide the implementation of eGovernment in the country. The office of the Secretary to the Government of the Federation, under whose supervision eGovernment is being implemented in Nigeria, has not done enough in ensuring proper coordination across Ministries, Departments and Agencies. As it is now in Nigeria, many of the agencies currently implementing eGovernment projects are only doing so in isolation, as there is no inter-agency synergy to maximize such ventures[190]. There is also the need to simplify the whole process, particularly for the end-users.

Aligning the findings to the theory of innovation, the theoretical framework adopted for this study, it is important to restate that at the core of this theory is the concept of cost-benefit as a variable of the determinants of innovativeness. Innovation comes at a cost, and resources are needed to offset this cost. On the other hand, is the fact that organizations innovate specifically because of the benefits associated with such innovations. Also, the benefits to be obtained go a long way in helping to understand why innovation was or was not adopted.

The theorists posited three benefits that an organisation should accrue due to its innovativeness. These are programmatic, prestige/social approval and structural benefits. Programmatic benefits concern improved effectiveness in meeting external goals and could be measured in terms of profit in the private sector. However, for this study, we measure the programmatic benefit by the efficiency in service delivery, which is expected of public sector organisations like the FRSC. Prestige benefits relate to the recognition, and social approvals organizations accrue for being early adopters of innovation, while the structural benefits are internal benefits such as job satisfaction and organisational cohesion.

The programmatic benefits seem elusive in the FRSC, as shown in the result of the hypothesis tested in this study. The adoption of innovation in the FRSC in Southwest Nigeria has not significantly impacted the service delivery capacity of the agency. To

[190] Interview with the Head, IT Security FRSC National Headquarters, Abuja. 23rd August 2019

be sure, eGovernment was adopted as an innovation in the FRSC to mitigate road traffic crashes and fatalities, create comprehensive databases, make quick decisions, improve the efficiency of the internal administrative structure, promote financial transparency and accountability, facilitate inter-agency partnerships, enhance its service delivery capacity to its clients, and to enhance communications with the end-users. While private businesses aim to maximize profit, public organisations are set up to provide essential services to the populace. Therefore, effectiveness and efficiency are crucial elements in measuring the performance of public organisations. Indeed, administrative reforms, including eGovernment, have been implemented over the years across developing countries to improve the capacity of public organisations to deliver services most effectively and efficiently. The traditional public administrative system is ridden with bureaucratic incumbrances, which weakens government institutions' capacity to effectively deploy resources for development (United Nations eGovernment Survey, 2016).

As expected, most officials of the agency attest to the efficiency of its electronic services, while the end-users, who participated in this study and who ideally should be in a better position to assess the services of the agency based on users' experience, negate the officials' stance. For example, in assessing whether eGovernment has limited physical contact with citizens, most officials affirmed that with the Electronic Call Centre, Electronic Payment Platform, the Driver's License Electronic Portal, among others, the FRSC has effectively limited physical contact. On the other hand, end-users opined that though eGovernment services are available in the agency, they have not been efficiently deployed to change the narrative from what service delivery was before the introduction of eGovernment. A typical example is the drivers' license application process which though has been digitalized, yet efforts by some end-users to utilize the Drivers, License Electronic Application have proven abortive. Although there is the technical obstruction side of end-users' inability to seamlessly use the platform, manifesting in slow network connectivity, and internet downtime.

The most daunting challenge is the human obstruction to the successful implementation of the eGovernment project in the FRSC. End-users reported the challenges posed by

the officials of the agency, thereby frustrating them in their bid to embrace the electronic medium. Indeed, some of the agency's officials and external collaborators have formed a syndicate specialising in providing assistance to uninformed citizens who have come to access the service. The asymmetric relationship between the officials, who are knowledgeable of the eGovernment operations within the agency and some clients, who are uninformed on the availability and the great potentials the eGovernment regime provides, creates an easy avenue to perpetuate their activities. A close observation of the activities of the officials in the course of this study also reveal that there is a subtle resist to the eGovernment regime. For some of the officials, the public office is not only an avenue to serve the public, it also affords them the opportunity to position themselves as intermediaries between the clients and the service to be provided. Thus an average official of the agency is usually on the look out for prospective clients/customers, whom they will help facilitate the service sought. Some have also established a strong and robust business presence around their office to which clients/customers are diverted.

Many prospective end-users of eGovernment services of the FRSC have therefore been discouraged from attempting to use such avenue or have been deceived to believe that the process is cumbersome and will require the assistance of an "insider" to get the job done. These and many more, are some of the reasons, for the non-accrual of the programmatic benefit to the agency. However, the FRSC has accrued to itself the prestige benefit, by reason of the numerous awards and recognitions it received as a result of the adoption of ICT including, the E-Governance Award for the best Government Agency in 2014, by the National Information Technology Development Agency (NITDA) (FRSC, 2014). At the Nigeria Technology Awards (NITA) in 2015, the FRSC was awarded for the Best use of technology in government and that of the Technology Project of the Year in the government category (Premium Times, 2015). Also, the agency was awarded as the best in Digital innovation in the federal government category in 2017 by NiRA, the registry for Nigerian Internet Domain Names (.ng) (Omotosho,2017). Structurally, although a previous study shows that officials of the agency affirm increased efficiency as a result of the deployment of eGovernment services (Obe, Adebambo and Richard, 2018), this study, however,

shows that officials are divided on the effect of eGovernment services on the efficiency of the agency.

5.3 Prospects of eGovernment in Nigeria's Public Service

The introduction of eGovernment into the public sector has been known to revolutionize the government's interaction with its stakeholders, including citizens, businesses, and other government entities, to deliver government services more efficiently, improve transparency, and enhance citizen engagement. (Heeks, 2003) With a large population and diverse needs, Nigeria can benefit maximally from the efficient deployment of eGovernment. Considering the massive administrative inefficiencies and corruption that typify Nigeria's public sector, eGovernment becomes a ready solution to this myriad of challenges (Olowu, 1999). By leveraging digital platforms and automation, e-government initiatives can streamline processes, enhance service delivery, and empower citizens to participate in decision-making actively. By embracing e-government, Nigeria has the opportunity to create a more efficient, inclusive, and responsive public service that meets the needs and aspirations of its citizens. Through technological advancements and strategic reforms, the Nigerian government can pave the way for a digital transformation that empowers its people and drives sustainable development.

E-Government's most significant impact on Nigeria's public sector is enhancing service delivery. With a large and diverse population, Nigeria faces the challenge of delivering government services efficiently. Deploying eGovernment solutions can streamline administrative processes and reduce the bureaucratic hurdles that often lead to delays and inefficiencies. (Ifinedo, 2006).

Implementing eGovernment initiatives will help to streamline administrative processes and reduce bureaucratic hurdles. Digital platforms and automation can enable faster processing times for services such as obtaining official documents, paying taxes, or accessing public information (Akinola, 2016). This efficiency saves time and reduces the frustration citizens often face when dealing with traditional paper-based systems It can also improve the ease with which public services are accessed. Indeed,

eGovernment brings government services closer to the people. Through online portals and platforms, citizens can access services at their convenience, anywhere, and anytime. This eliminates the need for physical presence, long queues, and travel to government offices. Such accessibility allows individuals, including those in remote areas, to easily access and benefit from essential services provided by the government.

Introducing eGovernment initiatives can help curb corruption and rent-seeking practices prevalent in Nigeria's public sector. By digitizing services and moving towards online platforms, opportunities for bribery, extortion, and embezzlement are minimized. This will lead to improved transparency and accountability, vital components of good governance. By leveraging digital platforms, eGovernment initiatives can help make government information, policies, and processes more accessible and transparent to the public. Online portals and platforms can display budgets, project allocations, and procurement processes. This transparency fosters trust and allows citizens to hold public officials accountable for their actions. In turn, increased scrutiny and engagement from the public can help reduce corruption and ensure the proper utilization of public resources.

Furthermore, eGovernment empowers citizens to participate in decision-making processes actively. Through digital platforms, citizens can give feedback, participate in consultations, and contribute to policy formulation. This inclusivity enhances citizen engagement, fosters a sense of ownership in governance, and allows policies to reflect the people's needs and aspirations better. It also helps bridge the gap between the government and its citizens, promoting a culture of collaboration and collective problem-solving.

eGovernment initiatives also facilitate digital transformation, thereby positioning Nigeria as an innovative and technologically advanced state. By embracing digital solutions, the public sector becomes more efficient, responsive, and adaptable to the changing needs of the society. This, in turn, creates a conducive environment for businesses to thrive, attract investment, and stimulate economic growth. Through the adoption of eGovernment, Nigeria can leverage its vast potential and establish itself as a digital leader in Africa, creating job opportunities and fostering economic progress.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Summary

The study essentially focused on the implementation of eGovernment in Nigeria, with specific emphasis on the FRSC in Southwest Nigeria. The study was guided by five objectives, namely to (i) examine the origin and the rationale of eGovernment in the FRS (ii) examine the procedures and strategies used for the adoption of eGovernment in the FRSC, (iii) examine the effect of eGovernment on service delivery of the agency in Southwest Nigeria (iv) investigate the factors that hinder or enhance the implementation of eGovernment in the FRSC in Southwest Nigeria and (v) explain the prospect of eGovernment in Nigeria's public service. This chapter, therefore, shows how these tasks have been accomplished by recapitulating the main findings of the study, drawing conclusions and making actionable recommendations on how to better implement eGovernment in the FRSC in Southwest Nigeria and Nigeria as a whole.

The study was organized into six chapters; the first chapter provided a general background. It begins with an introduction, showing what the study entails. This is followed by the statement of the problem, which problematizes the main research questions. This has to do with the implementation of eGovernment in Nigeria. Whereas eGovernment has the ability to effectively and efficiently drive public sector operations by bringing the government, the citizens, and all other stakeholders within a reasonable space as well as facilitate speedy delivery of public services, enhance transparency and accountability in public sector organisations, however, this has not been the case in practical terms, as there seem to be no significant changes across government businesses as expected. Therefore, this study set out to investigate the implementation

of eGovernment in the FRSC in Southwest Nigeria. Other sections are the research questions, objectives, significance and limitation of the study.

The second chapter provides a review of relevant literature on the implementation of eGovernment in Nigeria. It reviews the literature on the concepts of eGovernment and eGovernance, though both are often used interchangeably. Scholars provide definitions for eGovernment that encompass almost the same elements as those argued to be in the realm of eGovernance. Though both concepts are closely related, the latter is broader in scope, encompassing the public and private sectors. On the other hand, the former is a subset of the latter, as it focuses on e-resource coordination and distribution in the public sector alone. It allows citizens direct participation of constituents in political activities going beyond government and includes eDemocracy, eVoting and participating in political activities online.

The chapter also reviewed models of eGovernment. There exist several models of eGovernment development, one salient fact is that countries are at different stages of eGovernment development and there is a wide gap between the developed and the developing countries. A five-stage model adopted by the United Nations begins with the Emerging stage, followed by Enhanced, Interactive Presence, Transactional Presence and lastly the Networked Presence stage. Another model proposed by Layne and Lee (2001) presented a four-stage model beginning with the Cataloguing stage, followed by Transactional, Vertical Integration stages and terminating at the Horizontal Integration stage. It also reviews some salient issues in relation to eGovernment adoption, namely the transition from traditional bureaucratic processes to eGovernment, as well as the benefits, challenges and motivations for adopting eGovernment from a global perspective. It then reviews the nexus between eGovernment and public service delivery citing examples from eGovernment success stories from across the world, before reviewing the implementation of eGovernment in Nigeria. The study is anchored on the theory of innovation, propounded by Downs Jr. and Mohr (1979).

Chapter three outlined the methodology adopted for the study and the study organization, the FRSC. It historicizes the organization, as well as examines the

structures, functions and general workings of the organization. Chapter four provides the findings from the data collected through the electronic questionnaire administered on the end-users of electronic services of the FRSC, and the interview sessions conducted with officials (Key Informants Interview) of the FRSC and ender – users (In-depth Interview) of the agency's electronic services in the selected states. The data were complemented with other secondary sources of data, such as the Annual Reports of the FRSC to analyse how the implementation of eGovernment has affected the operations of the FRSC in Southwest Nigeria. From the analysis, it was discovered that although the FRSC has deployed several electronic services, usage of these services remains low. The reasons for the low patronage of electronic services of the FRSC in Southwest Nigeria range from the poor sensitization of the citizenry on the availability of electronic services, to the poor attitudinal disposition by the citizenry on the usage of electronic services.

The factors that account for marginal impact of eGovernment in the agency are situated in the challenges the end-users encountered in using the electronic services provided by the agency as enumerated in the survey. These challenges include delay in service delivery, fraudulent practices, infrastructural/technical issues, awareness, quality of service, high cost of service delivery and feedback. Chapter five further discussed internal and external factors that have inhibited an effective deployment of eGovernment in the FRSC. These factors include inadequate funding, poor infrastructure, improper coordination by the government, and resistance by officials of the FRSC among others.

6.2 Conclusion

The study focused on the implementation of eGovernment in the FRSC within the Southwest of Nigeria. The deployment of eGovernment for the effective delivery of public services across the world has become inevitable. The benefits it offers are enormous, including transparency and accountability in government processes, timely delivery of services, and cost-effective service delivery. The Federal Road Safety Commission, in line with the National Policy on Information Technology integrated Information and Telecommunications Technology into its processes. This signalled the

beginning of the implementation of eGovernment in the agency, with about twenty-five electronic applications. These applications include among many others, the National Vehicle Identification System (NVIS), National Drivers' Licence (NDL) portal, Electronic Payment Platform (EPP), Emergency Call Centre (ECC).

The implementation of eGovernment in the FRSC was necessitated by the need to mitigate road traffic crashes. create a reliable and comprehensive database for both drivers and vehicles in Nigeria, the need for a quick decision-making process, forge better partnership with sister agencies, engender effective communication within the organization and with the end-users, among several others. For instance, the non-existence of a comprehensive database in the past had led to huge losses in government revenue, a rise in the number of unqualified drivers, which also caused a surge in the number of road traffic crashes and fatalities. It also led to an unprecedented increase in crime rate. However, its implementation has not impacted on service delivery as expected.

Although the Federal government has shown some form of commitment to ensuring a successful transition from the traditional bureaucratic processes to eGovernment, this commitment has not effectively been sufficient to promote eGovernment as seen in the FRSC. This is made obvious by the decadence in infrastructure, from electricity to internet network across its Commands. The ill-motivated workforce of the agency, who, rather than support the eGovernment project, have resisted it. As reported in the study, there is a form of silent resistance from a crop of officials, who either feel the eGovernment regime will render them redundant or ultimately displace them. They justify their resistance to eGovernment in the agency on the need to defend their jobs. The end-users awareness and usage of eGovernment services available in the FRSC is also low. Whereas the deployment of eGovernment services is to make the public service in general, people-centric, the reality shows that a significant part of those who should benefit from the migration to electronic services claim to be unaware of the existence of such services. This also impacted on usage, as end-users cannot use what they are obviously not aware of.

6.3 Recommendations

To effectively address the constraints in the implementation of eGovernment in the FRSC in Southwest Nigeria, the following recommendations are suggested:

1) The Federal Government should, as a matter of urgency, ensure that digital literacy/education is incorporated into the curriculum of educational institutions at all levels in Nigeria. This will, in no small way, change the narrative of the poor digital culture that is currently pervasive in Nigeria. This is made evident from the paucity of end-users of FRSC services who utilize the electronic services.

2) The Management of the FRSC should also ensure that adequate sensitization of the general public is done regularly on the availability of electronic services in the agency to increase the level of awareness and usage of such electronic services, as many potential users claim to be ignorant of such electronic services.

3) Increased funding for eGovernment projects in the FRSC to tackle the infrastructural decadence, ensure human resources development, and ensure that the eGovernment project is fully functional. This can be achieved by seeking alternate sources of funding, besides government subventions, which are irregular and insufficient in meeting the demands of technological transformation. Seeking partnership with the organised private sector, particularly those within the technological sub-sector, who can contribute, through their various Corporate Social Responsibility projects, to the needs of the agency.

4) Adequate training, uniquely designed to enhance the officials' comprehension and adaptation to the eGovernment regime. This training should specifically highlight the benefits that will accrue to the agency and individual officers This will improve the acceptance of eGovernment among the FRSC officials for its full realization, and adequately sensitize them on the need to promote and not frustrate the eGovernment project.

5) The monopoly of Galaxy Backbone PLC, the company saddled with the responsibility of providing the eGovernment infrastructure to all MDAs, should be reviewed. Private investors/interests should be encouraged to partner with MDAs in providing the needed infrastructure.

6.4 Contributions to Knowledge

First and foremost, this study provides an opportunity for improving policy formulation in the FRSC. The findings of this study become useful for policymakers to assess the implementation of eGovernment in the agency with a view to improving its output. While several studies on the implementation of eGovernment in Nigeria exist, most of such are discussed from the official perspective, that is, taking into cognizance only the views of officials in the agencies studied. This study assumes a new dimension by incorporating the end-users' perspective into the already existing knowledge of the official perspective. This has proven to enrich the discussion, as it laid bare the factors inhibiting the implementation of eGovernment. It has also contributed to the growing field of eGovernment studies in Nigeria by providing data on the awareness and usage of eGovernment services as well as the general implementation of eGovernment in the FRSC.

REFERENCES

Abasilim, U. and Edet, L. 2015. E-Governance and its implementation challenges in the Nigerian public service. Acta Universitatis Danubius. 7.1: 30-42

Abdul-Wahab, I. 2016. Evaluating effectiveness of federal road safety commission training and education programmes for commercial vehicle drivers in Jigawa State, Nigeria. IFE PsychologIA: An International Journal. 24.1: 127-139.

Adeyemo, A. 2011. EGovernment implementation in Nigeria: an assessment of Nigeria's global e-gov ranking. Journal of Internet and Information System,2.1: 11-19.

Adeyeye, M. and Iweha, C. 2005. Towards an effective national policy on information and communication technologies for Nigeria. Information Development. 21.3: 202-208.

Ake, M. 2015. The Nigeria public service reforms of 1999-2007: a panacea for federal staff motivation. Proceedings of the 2nd International Conference on Education and Social Sciences, Istanbul, Turkey. 1275-1280.

Akesson, M. Skalen, P and Edvardsson, B. 2008. EGovernment and service orientation: gaps between theory and practice. International Journal of Public Sector Management. 21.1: 74-92

Akingbade, O. 2012. E-Land administration in the context of e-government in Africa: an evaluation of Nigeria's Abuja geographic information system. PhD thesis. The Faculty of Geo-Information Science and Earth Observation. The University of Twente.

Akinola, K. 2016. To drive eGovernment, Lagos introduces e-permit system. Retrieved on 27th October, 2016 from http://technologytimes.ng/to-drive-eGovernment-lagos-introduces-e-planning-permit/

Akman, I. Yazici, A. Mishra, A. and Arifoglu, A. 2005. Egovernment a global view and an empirical evaluation of some attributes of citizens. Government Information Quarterly. 22.2:239-57.

Akomaye, A.B. 2015. The status and nature of egovernance in Nigeria. Proceedings of the Second Covenant University Conference on eGovernance in Nigeria. 1-17

Al-Awadhi, S. and Morris, A. 2008. The use of the utaut model in the adoption of egovernment services in Kuwait, Proceedings of the 41st Hawaii International Conference on System Sciences. 1-11.

AlFawwaz, M. 2011. Evaluation of egovernment websites usability in Jordan. PhD thesis. School of Engineering and Design. Brunel University London, United Kingdom.

Al-Mamari, Q. Corbitt, Bs. and Gekara, V.O. 2013. Egovernment adoption in Oman: motivating factors from a government perspective. Transforming Government: People, Process and Policy. 7.2: 199 – 224.

Al-Shafi, S. 2009. Factors affecting egovernment implementation and adoption in the state of Qatar. PhD thesis. Department of Information Systems and Computing. Brunel University.

Andersen, K.V. and Henriksen, H.Z. 2006. Egovernment maturity models: extension of the Layne and Lee model. Government Information Quarterly. 23.2:236-248.

Asogwa, B. 2013. Electronic government as a paradigm shift for efficient public services: opportunities and challenges for the Nigerian government. Library HiTech. 31.1:141-159.

Aule, D. S. Jibril, M. S. Garba, B. D. and Adewuyi, T. O. 2022. The proximity of road traffic crash black spots to federal road safety commission zebra location/emergency health care facilities in federal capital city, Abuja, Nigeria. Land Science. 4.1:1-13.

Babbie, E. 1990. Survey research methods. 2nd ed. Belmont California: Wadsworth Publishing Company.

Baptista, P. Azevedo, I. Farias, T. 2012. ICT solutions in transportation systems: estimating the benefits and environmental impacts in Lisbon. Procedia – Social and behavioral Sciences 54:716-725

Barthwal, P. 2003. Egovernment for good governance. The Indian Journal of Political Science. 64. 3/4:285-308.

Basu, R. 2006. Public administration: concepts and theories. 5th ed. New Delhi: Sterling Publishers.

Belanger, F. and Carter, L. 2008. Trust and risk in egovernment adoption. The Journal of Strategic Information Systems. 17.2:165-176.

Bernard, I. 2013. EGovernment and e-governance – Swedish case studies with focus on the local level. Licentiate Thesis. Department of Urban Planning and Environment. Royal Institute of Technology. Stockholm, Sweden.

Bertot, J. C. Jaeger, T. P. and Grimes, M. J. 2012. Promoting transparency and accountability through icts, social media, and collaborative egovernment. Transforming Government: People, Process and Policy. 6.1:78 – 91.

Bliss, T and Breen, J. 2011. Meeting the management challenges of the Decade of Action for Road Safety. International Association of Traffic and Safety Sciences. 35.2:48-55.

Bonham, G. Seifert, J. and Thorson, S. 2001. The transformational potential of egovernment: the role of political leadership. Proceedings of The 4th Pan European International Relations Conference of the European Consortium for Political Research. 1-9.

Booysen, T. 2013. The relevance of intelligent transportation systems sub-saharan Africa. Transportation eDigest. Retrieved November, 29 2017 from (PDF) The relevance of Intelligent Transport Systems (ITS) in sub-Saharan Africa (researchgate.net). 20-22

Brown, D 2005. Electronic government and public administration. International Review of Administrative Sciences. 71.2: 241–254

Bryman, A. 2004. Social Research Methods. 2nd ed. Oxford: Oxford University.

Carter, L. and Belanger, F. 2004. Citizen adoption of electronic government initiatives, Proceedings of 37th Hawaii International Conference on System Sciences. Retrieved from (PDF) Citizen Adoption of Electronic Government Initiatives. (researchgate.net). 1-19

Chang, C.M. and Yu, T.J. 2006. Determinants of user acceptance of the e -government services: the case of online tax filing and payment system. Government Information Quarterly. 23.1: 97-122.

Coicaud, J. 2016. Administering and governing with technology: the question of information communication technology and e-governance. Global Policy. 7.2: 296-300.

Dada, D. 2006. The failure of egovernment in developing countries: a literature review. Electronic Journal on Information Systems in Developing Countries. 26.7:1-10

Dahlman, C. 2007. Technology, globalisation and international competitiveness: challenges for developing countries, industrial Development for the 21st century, Department of economic and social affairs of the United Nations. Retrieved on 4th October 2016 from 1_2.pdf (un.org) 29-83.

Davison, R.M. Wagner, C. and Ma, L.C. 2005. From government to egovernment: a transition model. Information Technology & People. 18.3: 280-299.

Debretsion, G. M .2011. EGovernment initiatives in Ethiopia. Retrieved April, 14 2017 from http://www.mcit.gov.et/web/english/egovernment-strategy.

Demchak, C. C. Friis, C. and La Porte, T. M. 2000. Webbing governance: national differences in constructing the public face. Handbook of public Information Systems. Eds. G. D. Garson. New York: Marcel Dekker: 179-196.

Dimitrova, D.V. and Chen, Y.C. 2006. Profiling the adopters of egovernment information and services: the influence of psychological characteristics, civic mindedness, and information channels. Social Science Computer Review. 24.2 : 172-88.

Dunleavy, P. Margetts, H. Bastow, S. and Tinkler, J. 2006. New public management is dead- long live digital-era governance. Journal of Public Administration Research and Theory. 16.3: 467-494.

Ehidiamen, J, 2015. Leveraging technology in the Nigerian election. Retrieved on 25 October, 2016, from https://apj.fas.harvard.edu/leveraging-technology-in-the-nigerian-elections/

E-Tech, 2018. Federal road safety corps training. Retrieved on 13th December, 2018 from http://www.etechcompletesolutions.com/frsc-training.html

Etemiku, B. 2015. Get all ministries on the gifmis and ippis. The Guardian. 07 December. Retrieved on 9th September, 2016 from http://m.guardian.ng/opinion/get-all-ministries-on-the-gifmis-and-ippis/

Ezell, S. 2010. Explaining international IT application: intelligent transportation systems. The Information Technology and Innovation Network. Retrieved on 9th September 2016 from Explaining International IT Application Leadership: Intelligent Transportation Systems | ITIF

Fang, Z. 2002. Egovernment in digital era: concept, practice, and development. International Journal of the Computer, The Internet and Management.10.2:1-22.

Fatile, J. 2012. Electronic governance: myth or opportunity for Nigerian public administration? International Journal of Academic Research in Business and Social Sciences. 2.9: 122-140.

Federal Road Safety Commission. 2010. FRSC Annual Report. Retrieved on 23rd October, 2018 from https://frsc.gov.ng/frsc2010.pdf

Federal Road Safety Commission. 2013. FRSC Annual Report Retrieved on 23rd October, 2018 from https://frsc.gov.ng/frsc2013.pdf

Federal Road Safety Commission. 2014. FRSC bags 2014 e-governance award as best government agency. Retrieved on 30th July, 2018 from http://frsc.gov.ng/frsc-bags-2014-e-governance-award-as-best-government-agency

Federal Road Safety Commission. 2015. FRSC Annual Report. Retrieved on 23rd October, 2018 from https://frsc.gov.ng/frsc2015.pdf

Federal Road Safety Commission. 2017. Two stolen highlanders discovered through frsc nvis. Retrieved on 2nd February, 2018 from https://frsc.gov.ng/

Federal Road Safety Commission. 2022. FRSC statistical digest. Fourth Quarter Edition. Retrieved on 14th June, 2022 from https://frsc.gov.ng/wp-content/uploads/2023/05/frsc-statistics-digest-fourth-quarter-2022-corrected.pdf

Fisher, E. 2014. E-governance and e-democracy: questioning technology-centered categories.The Oxford Handbook of Governance. Ed. Levi-Faur, D. Oxford: Oxford University Press. 569-583.

Florini, A. 2000. Does the invisible hand need a transparent glove? the politics of transparency. World Bank's Annual Conference on Development Economics. 163−184.

FRSC wins big at Nigeria Technology Awards. Premium Times. November 29, 2015. Retrieved https://www.premiumtimesng.com/news/more-news/194101-frsc-wins-big-at-nigeria-technology-awards.html

Gana, A. J. and Emmanuel, J. A. 2014. Road transportation and traffic law enforcement in Nigeria: A case study of the federal road safety corps. West African Journal of Industrial and Academic Research, 11.1: 134-151.

Gaskins, E. 2013. The effect of information and communications technology (ict) diffusion on corruption and transparency (a global study). PhD thesis. Texas A and M International University.

Greenacre, P. Gross, R. Speirs, J. 2012. Innovation Theory: A review of the literature. Retrieved from Evolution of tech systems in renewable energy (imperial.ac.uk) on 6th July 2023

Gifford, J, 2010. ICT and road transportation safety in the United States: A case of "American Exceptionalism". International Association of Traffic and Safety Sciences. 34.1: 1-8

Gilbert, D. Balestrini, P. and Littleboy, D. 2004. Barriers and benefits in the adoption of egovernment. The International Journal of Public Sector Management. 17.4: 286-301.

Gössling, S. 2017. ICT and transport behaviour: A conceptual review. International Journal of Sustainable Transportation. 12.3:153-164

Grant, G. and Chau, D. 2005. Developing a Generic Framework for eGovernment. Journal of Global Information Management. 13.1

Grönlund, A. and Horan, T.A. 2004. Introducing e-gov: history, definitions, and issues. Communications of the Association for Information Systems. 15:713-729.

Hague A. 1996. Administering the Oregon: challenges and issues. Public Administration in Nigeria: Challenges and Accomplishment. Ed. Haque A.S et al. London: Macmillan Publishers.

Haines, A. 2009. The role of automatic number plate recognition surveillance within policing and public reassurance. PhD thesis. University of Huddersfield

Heeks, R. 2003. Most egovernment-for-development projects fail: how can risks be reduced? Institute for Development Policy and Management. Retrieved from (PDF) Most eGovernment-for-development projects fail: How can risks be reduced (researchgate.net) on 12 September 2015.

Henman, P. 2005. EGovernment, public policy and the growth of conditionality. Proceedings of European Conference on EGovernment'05. Antwerp, Belgium. 16-17 June 2005. Retrieved on 18th October, 2016, from http://www.uq.edu.au/swahs/ECEGPaper.pdf.

Hoffman, A. J. 2001. Linking organizational and field-level analyses. Organization and Environment. 14.2: 133−156.

Hoffman, A. J. and Ventresca, M. J. 2002. Organizations, policy and the natural environment: institutional and strategic perspectives. Stanford: Stanford University Press.

Hollborn, S. 2002. Intelligent transport systems in Japan. Retrieved on 12th June, 2021 from https://www.verkehr.tudarmstadt.de/media/verkehr/fgvv/for/publik/S008.pdf

Hu, G. Pan, W. Lu, M. Wang, J. 2009. The widely shared definition of e-government: An exploratory study. The Electronic Library. 27.6:968-985.

Hudson, B. Hunter, D. and Peckham, S. 2019. Policy failure and the policy-implementation gap: can policy support programs help? Policy Design and Practice. 2:1. 1-14.

Ibrahim, O, 2015. Makanjuola Taiwo speaks about inec citizens contact centre. Retrieved on 26th October, 2016 from http://ruralreporters.com/makanjuola-taiwo-speaks-about-inec-citizens-contact-centre/

Ifinedo, P. 2004. Egovernment – precursors, problems, practices and prospects: A case of Nigeria. Proceedings of the 2004 International Business information

Management. Retrieved on 23 September 2014 from (PDF) E-government - Precursors, Problems, Practices and Prospects: A Case of Nigeria (researchgate.net)

_____2006. Towards egovernment in a sub-saharan African country: impediments and initiatives in Nigeria. Journal of EGovernment. 3.1: 3-28

Information for Development Programme. 2004. Egovernment handbook for developing countries. Retrieved February 9, 2018 from http://www.infodev.org.

Information for Development Programme. 2002. The egovernment handbook for developing countries. Center of Democracy and Technology. Retrieved 10th April 2007 from http://www.cdt.org/egov/handbook/.

Jansen, K. Corley, G. and Jansen, B. 2007. E-survey methodology. Retrieved 18 December 2019 from https://faculty.ist.psu.edu/jjansen/academic/pubs/esurvey_chapter_jansen.pdf

Johnsen, A. 2005. Determinants of non-mandatory performance measurement in Norwegian local government: a comparison of political, economic and sociological explanations. Paper presented at the European Group of Public Administration Annual Conference. Bern, 31 August-3 September.

Jonathan, O. A. and Hasimiyu, A. A. 2013. Strategic influence of information technology on the performance of Nigeria federal road safety commission. International Journal of Business and Commerce. 2.11: 46-56.

Kariuki, E. and Kiragu, K. 2011. Modernising public administration through electronic government. Ed. L. Adamolekun. Public Administration in Africa: Main Issues and Selected Country Cases. Boulder: Westview Press.

Kim, S. Kim, J. Lee, H. 2009. An institutional analysis of an egovernment system for anti-corruption: the case of open. Government Information Quarterly. 26: 42–50.

Lagos begins implementation of e-ticketing. PM News. July 31. 2013. Retrieved on 27th October. 2016 from http://www.pmnewsnigeria.com/2016/08/22/lagos-begins-implementation-of-e-ticketing/

Layne, K. and Lee, J. 2001. Developing fully functional egovernment: a four stage model. Government Information Quarterly. 18.2:122-136

Lee, H. O'Keefe, R. M. and Yun, K. 2003. The growth of broadband and electronic commerce in South Korea: contributing factors. The Information Society. 19.1:81−93.

Lee, H. Oh, S. and Shim, Y. 2005. Do we need broadband? Impacts of broadband in Korea. Info. 7.4: 47−56.

Liebenau, J. Atkinson, R. Karrberg, P. Castro, D. Ezell, S. 2009. The UK's digital road to recovery. London: LSE Enterprise Ltd and The Information Technology and Innovation Foundation. Retrieved on 30th November 2015 from The UK's Digital Road to Recovery by Jonathan Liebenau, Robert D. Atkinson, Patrik Kärrberg, Daniel Castro, Stephen J. Ezell :: SSRN

Lio, M. Liu, M. and Ou, Y. 2011. Can the internet reduce corruption? a cross- country study based on dynamic panel data model. Government Information Quarterly. 28.1: 47-53

Mistry, J. 2012. The role of egovernment in mitigating corruption. Accounting and the public interest. 12.1:137-159.

Mistry, J. and Jalal, A. 2012. An empirical analysis of the relationship between egovernment and corruption. Retrieved 30 July, 2014 from dspace/handle/1027216175.

Mohammed, S. Abubakar, M. and Bashir, A. 2010. Egovernment in Nigeria: a catalyst for national development. Being a paper, presented at fourth International Conference on Development Studies, University of Abuja, F.C.T, Nigeria between April 14 and 15, 2010.

Mouakket, S. 2010. The motivations for citizens' adoption of eGovernment: an empirical study in the UAE. International Journal of Business Information Systems. 6.2. 240-264.

Mundy, D. and Musa, B. 2010. Towards a Framework for eGovernment Development in Nigeria. Electronic Journal of eGovernment. 8.2: 148-161.

Nam, C, Kim, S, & Lee, H. 2008. The role of wibro: filling the gaps in mobile broadband technologies. Technological Forecasting and Social Change. 75.3:438−448.

National Information Technology Development Agency, 2020. National information technology development agency: standards and guidelines for government websites. Retrieved on 9th July, 2020 from https://nitda.gov.ng/wp-content/uploads/2018/07/StandardsGuidelinesforGovtWebsitesV3.pdf

Naz, R. 2009. EGovernance for improved public service delivery in Fiji. Journal of Service Science and Management. 3:190 -203.

News Agency of Nigeria, 2016. FRSC creates data bank for road traffic accident – Report Retrieved on 14th December, 2018 from https://guardian.ng/news/frsc-creates-data-bank-for-road-traffic-accident-report/.

NIA (National Information Society Agency). 2007. Introduction to eGovernment. Retrieved on 4th October 2016 from http://egov.nca.or.kr/homepage/hp_gov_ele.jsp .

Nigeria lacks institutions, systems, to prevent corruption – Okonjo _Iweala. Premium Times. February 17, 2015. Retrieved on 4th October 2016 from http://www.premiumtimesng.com/news/more-news/177045-nigeria-lacks-institutions-systems-to-prevent-corruption-okonjo-iweala.html.

Nkohkwo, Q. and Islam, S. 2013. Challenges to the successful implementation of egovernment initiatives in ub-saharan Africa: A literature review. Electronic Journal of eGovernment. 11.2: 253-267.

Norris, E. Kidson, M. Bouchal, P. Rutter, J. 2014. Doing them Justice: Lessons from four case studies of policy implementation. Institute for Government, United Kingdom. Retrieved on 20th December 2016 from https://www.instituteforgovernment.org.uk/our-work/policy-making/improving-policy-implementation .

Obe, O. O. Adebambo, H. O. and Richard, P. C. 2018. Information communication technology utilization in federal road safety corps' operations in south-west, Nigeria. Journal of Advanced Research in Business and Management Studies. 10.1:10-17.

Odili-Idiagbor, V. 2013. Better governance through eGovernment. Retrieved on 13 March, 2014 from www.punchng.com/opinion/better-governance-through-egovernment/

Okot-Uma, R. 2000. Electronic governance: re-inventing good governance. Commonwealth Secretariat. London Retrieved on 4th October 2000 from Electronic governance: re-inventing good governance (researchgate.net)

Oladeji, F.A. Akeredolu, F.I. Komolafe, O. and Oyetunji, M.O. 2017. An enhanced wireless network security framework for federal road safety corps in Nigeria. Computing, Information Systems & Development Informatics Journal. 8.1: 161-172

Olowu, B.1999. Redesigning African civil service reforms. The Journal of Modern African Studies. 37.1:1-23.

_____ 2011a. Accountability and transparency. Ed. L. Adamolekun. Public Administration in Africa: Main Issues and Selected Country Cases. Boulder: Westview Press.

_____ 2011b. Public service delivery. Ed. L. Adamolekun. Public Administration in Africa: Main Issues and Selected Country Cases. Boulder: Westview Press.

Olukoju, A. 2004. 'Never expect power always': electricity consumers' response to monopoly, corruption and inefficient services in Nigeria. African Affairs. 103.410: 51–71.

Omidiji, A.A. 2010. FRSC: transforming into world class organisation. A Presentation made at a One-Day Capacity Building Workshop in Port-Harcourt, River State. Retrieved on 21st December, 2018 from https://frsc.gov.ng/transworldclass.pdf.

Omiko, G. 2011. The challenges of technological innovations on staffing in FRSC of Nigeria (2005- 2010). PhD thesis. Department of Public Administration & Local Government, University of Nigeria – Nsukka.

Omotosho, K, 2017. Pulse, google, frsc and others emerge winners at awards night. Retrieved on 30th July, 2018 from https://www.pulse.ng/lifestyle/events/nira-pulse-google-frsc-and-others-emerge-winners-at-awards-night-id6575828.html.

Omotoso, F. 2014. Public-service ethics and accountability for the effective service delivery in Nigeria. Africa Today 60.3:119-139

Oni, A. Okunoye, A. and Mbarika, V. 2016. Evaluation of egovernment implementation: The case of state government websites in Nigeria. The Electronic Journal of eGovernment. 14. 1:48-59.

Onyekwena, C. and Ekeruche, M. 2019. The global south and development assistance. Retrieved on 18 June 2021 from https://www.brookings.edu/blog/africa-in-focus/2019/09/16/the-global-south-and-development-assistance/.

Oreko, B. U. Nwobi-Okoye, C, C. Okiy, S. and Igboanugo, A.C. 2017. Modelling the impact of intervention measures on total accident cases in Nigeria using Box-Jenkins methodology: A case study of federal road safety commission. Cogent Engineering. 4:1: 1-17.

Osuala, E. 2005. Introduction to Research Methodology. Onitsha: Africana- First Publishers Limited.

Palvia, S.C.J and Sharma S.S. 2007. Egovernment and e-governance: definitions/framework and status around the world. Retrieved on 4th October 2016 from (PDF) E-Government and E-Governance: Definitions/Domain Framework and Status around the World (researchgate.net) .

Pankaj, S. 2010. Electronic Governance. New Delhi: APH Publishing Corporation.

Park, S. 2009. An analysis of the technology acceptance model in understanding university students' behavioral intention to use e-learning. Educational Technology & Society 12.3: 150–162.

Pathak, R. D. Singh, G. Belwal, R. Naz, R. and Smith, R. F. I. 2008. Egovernment, corruption and public service delivery: A comparative study of Fiji and Ethiopia. JOAAG. 3.1: 65-79

Phang, C.W. and Sutanto, L.J. 2005. Senior citizens adoption of egovernment: in quest of the antecedents of perceived usefulness. Proceedings of the 38th Hawaii International Conference on System Sciences. Retrieved on 4th October 2016 from (PDF) Senior Citizens' Adoption of E-Government: In Quest of the Antecedents of Perceived Usefulness (researchgate.net).

Pina, V. Torres, L. and Royo, S. 2009. Egovernment evolution in EU local governments: a comparative perspective. Online Information Review 33.6: 1137-1168.

Ravi, S. 2013. Innovation with information technology: coalition government and emerging economies – fighting corruption with electronic governance. International Journal of Business and Emerging Market. 5.1:46-66.

Reffat, R. 2003. Developing a successful egovernment. Retrieved on 4th October 2016 from Microsoft Word - Reffat_FullPaper_ Developing a Successful e-government.doc (kfupm.edu.sa).

Rehman, M. Esichaikul, V. Kamal, M. 2012. Factors influencing eGovernment adoption in Pakistan. Transforming Government: People, Process and Policy. 6.3: 258 – 282.

Reynolds, M.M. and Regio-Micro, M. 2001. Introduction: The purpose of transforming government - egovernment as a catalyst. The information age. Retrieved on 4th October 2016 from http://www.netcaucus.org/books/egov2001/pdf/EGovIntr.pdf.

Salisu, M. 2001. Incentive structure, civil service efficiency and the hidden economy in Nigeria. WIDER Discussion Papers // World Institute for Development Economics (UNU-WIDER). No. 2001/86. Retrieved on 4th October 2016 from Incentive structure, civil service efficiency and the hidden economy in Nigeria/(un.org).

Sambo, A. 1999. What is public policy? Eds. R. Anifowoshe & F. Enemuo. Elements of Politics. Lagos: Malthouse Press Ltd.

Shareef, M.A. Kumar, V. Kumar, U. and Hasin, A. A. 2009. Diffusion of innovation and capability theory in the context of eGovernment. Eds. Y.K. Dwivedi, B. Lal, M.D. Williams, S.L. Schneberger & M. Wade. Handbook of Research on

Contemporary Theoretical Models in Information Systems. Hershey: IGI Global Publications. 193-211.

Smart Survey, 2019. 10 Advantages of online surveys. Retrieved on 18 December 2019 from https://www.smartsurvey.co.uk/articles/10-advantages-of-online-surveys.

Southern, R. 2015. Is web 2.0 providing a voice for outsiders? A comparison of personal web site and social media use by candidates at the 2010 UK general election. Journal of Information Technology & Politics. 12.1:1–17.

Srivastava, S. 2011. Is e-government providing the promised returns? A value framework for assessing e-government impact. Transforming Government: People, Process and Policy. 5.2:107-113.

Sunday, O. J. 2014. E-governance: An imperative for sustainable grassroots development in Nigeria. Journal of Public Administration and Policy Research. 6.4:77-89.

Sweeney, B. 2015. Nigeria's election commission introduces new technology and processes for the 2015 vote. Retrieved on 25th October, 2016 from http://www.ifes.org/news/nigerias-election-Commission-introduces-new-technologies-and-processes-2015-vote.

Thakur, S. and Singh, S. 2013. Study of some egovernment activities in South Africa. African Journal of Computing and ICT. 6.2: 41-54.

United Nations Development Programme. 2013. Public service reforms: trends, challenges and opportunities. Retrieved 4th October 2016 from Public Service Reforms: Trends, Challenges and Opportunities | United Nations Development Programme (undp.org).

United Nations eGovernment Survey, 2010. Leveraging egovernment at a time of financial and economic crisis. Retrieved 4th October 2016 from http://unpan1.un.org/intradoc/groups/public/documents/un/ unpan038851.pdf.

United Nations eGovernment Survey. 2008. From egovernment to connected governance. United Nations Department of Economic and Social Affairs/Division for Public Administration and Development Management. Retrieved 4th October 2016 from UN E-Government Survey 2008.

United Nations eGovernment Survey, 2016. Leveraging egovernment at a time of financial and economic crisis. United Nations Department of Economic and Social Affairs/Division for Public Administration and Development Management. Retrieved 4th October 2016 from http://unpan1.un.org/intradoc/groups/public/documents/un/ unpan038851.pdf .

United Nations Global EGovernment Readiness Report. 2004. Towards access for opportunity. United Nations Department of Economic and Social Affairs/Division for Public Administration and Development Management. Retrieved 4th October 2016 from UN global e-government readiness report 2004 .

United Nations Global EGovernment Readiness Report. 2005. From e-government to e-inclusion. United Nations Department of Economic and Social Affairs/Division for Public Administration and Development Management. Retrieved 4th October 2016 from UN Global E-government Readiness Report 2005 - From E-government to E-inclusion.

Vanguard Newspaper. 2014. UN ranks Nigeria high in egovernment development index. Retrieved June 29,2014 from http://www.vanguardngr.com/2014/06/un-ranks-nigeria-high-eGovernment-development-index/.

Vassilakis, C. Lepouras, G. Fraser, J. Haston, S. and Georgiadis, P. 2005. Barriers to electronic service development. E-Service Journal. 4.1: 41-63.

Warren, K. 2020. Qualitative data analysis 101: the “big 6” methods + examples. Retrieved 29th September, 2021 from https://gradcoach.com/qualitative-data-analysis-methods/.

APPENDIX

UNIVERSITY OF IBADAN, IBADAN, NIGERIA

DEPARTMENT OF POLITICAL SCIENCE

INTERVIEW GUIDE ON ELECTRONIC GOVERNMENT IN THE FRSC IN SOUTHWEST NIGERIA

(FRSC OFFICIALS)

SECTION A

Please, provide the following information on the interviewee

1. Official designation……
2. Location……..
3. Length of Service……

SECTION B

What are the procedures and strategies in the implementation of eGovernment in the FRSC in the Southwest of Nigeria?

I. What specific strategies are being adopted in the implementation of eGovernment in the FRSC?

II. What are the procedures in the implementation of eGovernment in the FRSC?

III. How effective have the procedures and strategies been in achieving their goals?

IV. How are feedbacks from the public on the performance of the procedures and strategies gotten?

V. How often are the procedures and strategies evaluated for greater efficiency?

VI. What are the challenges faced in the deployment of these strategies in the FRSC?

Has the introduction of eGovernment enhanced the service delivery performance of the FRSC in the Southwest of Nigeria?

I. To what extent would you say that eGovernment has limited physical contacts with FRSC officials?

II. How has eGovernment improved the Federal Road Safety Commission's internal administration?
III. How has the implementation of eGovernment helped to improve the image of the FRSC?
IV. What are the noticeable changes with the application of eGovernment in the Federal Road Safety Commission?
V. Has the implementation of eGovernment by the FRSC improved citizen's access to the agency?
VI. Has the operations of the FRSC become more transparent with the implementation of eGovernment?
VII. Has eGovernment implementation brought the services of the FRSC closer to the end-users?
VIII. Has greater accountability been achieved in the FRSC with the implementation of eGovernment?
IX. Would you say the FRSC has eliminated waste with the implementation of eGovernment?
X. Has the implementation of eGovernment brought about easy and free access to information in the FRSC?
XI. Has the cost of service delivery reduced since the implementation of eGovernment in the Federal Road Safety Commission?
XII. Are all officers of the FRSC computer literate?

What are the internal and external factors hindering or enhancing the implementation of eGovernment within the FRSC in the Southwest of Nigeria?

I. How often are the officers and men of the Commission trained on the proper handling of eGovernment operations?
II. Would you say eGovernment initiatives are properly funded by the Government?
III. In what ways do you think the officers and men of the Commission may be resisting the implementation of eGovernment?
IV. How has poor infrastructure hampered the effective deployment of eGovernment in the FRSC?

V. What are the challenges encountered with the implementation of eGovernment in the Federal Road Safety Commission?

VI. Do you think that there is a poor attitudinal disposition by the citizens towards eGovernment in the FRSC?

VII. How has poor infrastructure hampered the effective deployment of eGovernment in the FRSC?

VIII. Would you say that the Government has demonstrated sufficient will in the implementation of eGovernment in the Federal Road Safety Commission?

UNIVERSITY OF IBADAN, IBADAN, NIGERIA

DEPARTMENT OF POLITICAL SCIENCE

INTERVIEW GUIDE ON ELECTRONIC GOVERNMENT IN THE FRSCIN SOUTHWEST NIGERIA

(END USERS)
SECTION A

Please, provide the following information on the interviewee

1. Occupation…….……
2. Location……..

SECTION B

Has the introduction of eGovernment enhanced the service delivery performance of the FRSC in the Southwest of Nigeria?

I. To what extent would you say that eGovernment has limited physical contacts with FRSC officials?
II. What are the noticeable changes with the application of eGovernment in the Federal Road Safety Commission?
III. Has the implementation of eGovernment by the FRSC improved citizen's access to the agency?
IV. Has the operations of the FRSC become more transparent with the implementation of eGovernment?
V. Has eGovernment implementation brought the services of the FRSC closer to the end-users?
VI. Has the implementation of eGovernment brought about easy and free access to information in the FRSC?
VII. Has the cost of service delivery reduced since the implementation of eGovernment in the Federal Road Safety Commission?

What are the internal and external factors hindering or enhancing the implementation of eGovernment within the FRSC in the Southwest of Nigeria?

I. In what ways do you think the officers and men of the Commission are resisting the implementation of eGovernment?

II. How has poor infrastructure hampered the effective deployment of eGovernment in the FRSC?

III. Do you think that there is a poor attitudinal disposition by the citizens towards eGovernment in the FRSC?

IV. What were the challenges you encountered with the use of eGovernment applications in the Federal Road Safety Commission?

RESEARCH CONSENT FORM

Name of Researcher(s) *(to be completed by the researcher)*
Leke Abraham Oluwalogbon
Title of study *(to be completed by the researcher)*
Electronic Government in the FRSC in Southwest Nigeria

Please read and complete this form carefully. If you are willing to participate in this study, ring the appropriate responses and sign and date the declaration at the end. If you do not understand anything and would like more information, please ask.

- I have had the research satisfactorily explained to me in verbal and/or written form by the researcher. **YES/NO**
- I understand that the research will involve a 30 minutes audio taped interview **YES/NO**
- I understand that I may withdraw from this study at any time without having to give an explanation. **YES/NO**
- I understand that all information about me will be treated in strict confidence and that I will not be named in any written work arising from this study. **YES/NO**
- I understand that any audiotape material of me will be used solely for research purposes and will be destroyed on completion of your research. **YES/NO**
- I understand that you will be discussing the progress of your research with others at the University of Ibadan **YES/NO**

I freely give my consent to participate in this research study and have been given a copy of this form for my own information.

Signature: ……..……

Date: …….

LIST OF INTERVIEWEES

Key Informant Interviews (KII)

S/N	Official designation	Location	Length of Service	Date of Interview
1	FRSC Official 1	Abuja	12	23rd August 2019
2	FRSC Official 2	Abuja	7	23rd August 2019
3	FRSC Official 3	Abuja	6	23rd August 2019
4	FRSC Official 4	Abuja	-	23rd August 2019
5	FRSC Official 5	Abuja	5	23rd August 2019
6	FRSC Official 6	Osun	21	4th October 2019
7	FRSC Official 7	Osun	7	4th October 2019
8	FRSC Official 8	Osun	6	4th October 2019
9	FRSC Official 9	Osun	5	4th October 2019
10	FRSC Official 10	Oyo	-	18th November 2019
11	FRSC Official 11	Oyo	5	18th November 2019
12	FRSC Official 12	Oyo	-	18th November 2019
13	FRSC Official 13	Oyo	-	18th November 2019
14	FRSC Official 14	Oyo	-	18th November 2019
15	FRSC Official 15	Lagos	29	25th November 2019
16	FRSC Official 16	Lagos	23	25th November 2019
17	FRSC Official 17	Lagos	12	25th November 2019
18	FRSC Official 18	USA (Virtual)	-	20th September 2019

In-Depth Interviews (IDI)

S/N	Names	Location	Date of Interview
19	End-User 1	Oyo State	10th August 2020
20	End-User 2	Oyo State	10th August 2020
21	End-User 3	Oyo State	20th January 2021
22	End-User 4	Oyo State	25th January 2021
23	End-User 5	Oyo State	25th January 2021
24	End-User 6	Osun State	25th September 2020
25	End-User 7	Osun State	10th August 2020
26	End-User 8	Osun State	5 February 2021
27	End-User 9	Lagos State	10th August 2020
28	End-User 10	Lagos State	19th September, 2020
29	End-User 11	Lagos State	22th January 2021
30	End-User 12	Lagos State	19th September, 2020

FEDERAL ROAD SAFETY CORPS
OFFICE OF THE CORPS MARSHAL

NATIONAL HEADQUARTERS
3 Maputo Street,
Zone 3, Wuse District.
P.M.B. 125, Wuse, Abuja.
Tel: 0807 7690061, 0807 7690050
website: www.frsc.gov.ng
email: info@frsc.gov.ng

Ref: FRSC/HQ/CM/SA/265/VOL.III/02

8 Sept, 2017

The Head of Department,
Department of Political Science,
University of Ibadan,
Ibadan, Nigeria

Dear Sir,

Re: REQUEST FOR RESEARCH ASSISTANCE

I am directed to acknowledge receipt of your letter dated 12th July, 2017 on the above subject and to convey the Corps Marshal's approval of the request by **OLUWALOGBON**, Leke Abraham, a PhD student in your Department for access to official and relevant information on the implementation of E-Government in FRSC for the purpose of his PhD research work titled: **E-Government and the Federal Road Safety Corps in South-West Nigeria.**

2. Please, accept the assurances and esteemed regards of the Corps Marshal.

Julius A. Asom, *mni*
Assistant Corps Marshal
Special Assistant to the Corps Marshal
For: Corps Marshal