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**St. Mary's University**

**School of graduate studies**

**DEPARTEMENT: -MASTERS OF BUSINESS ADMINISTRATION**

**The Effect of Digital revenue system on Revenue generation of AA Revenue Bureau with the system deployed by Ethio telecom**

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**March 2023**

**Addis Ababa, Ethiopia**

**The Effect of Digital revenue system on Revenue generation of AA Revenue Bureau with the system deployed by Ethio telecom**

**BY**

**KASSAHUN ESTIFANOS**

**A THESIS SUBMITTED TO ST. MARRY'S UNIVERSITY COLLEGE,  
SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF BUSINESS  
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**March 2023**

**ADDIS ABABA, ETHIOPIA**

## DECLARATION

I the undersigned, declare that this thesis is my original work, prepared under the guidance of **ZEMENU AYNADIS (Ass.Prof)**. All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

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Candidate's Name

Signature

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## **ENDORSEMENT**

This thesis has been submitted to St. Mary's University College, School of Graduate Studies for examination with my approval as a university advisor.

ZEMENU AYNADIS (Ass.Prof.) \_\_\_\_\_

Advisor Signature

**St. Mary's University College, Addis Ababa, March 2023**

**ST. MARY'S UNIVERSITY COLLEGE  
SCHOOL OF GRADUATE STUDIES  
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What can I offer to Lord for all his goodness to me?

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## **List of abbreviations**

VPN.....	Virtual private network
ERCA.....	Revenue and Customs Authority
ETC.....	Ethiopian Telecommunications Corporation
SMS.....	Short message service
ET .....	Ethiotelecom
VCC.....	Very Critical Customers
FAQ.....	Frequently Asked Questions
SLA.....	Service Level Agreement
eTOM.....	Enhanced Telecom Operations Map
MoR.....	Ministry of Revenue
ADSL.....	Asymmetric Digital Subscriber Line
VPS.....	Virtual Private Servers
AA LTP.....	Addis Ababa Large Tax payers
AAMTP.....	Addis Ababa Middle Tax payers
AASTP.....	Addis Ababa Small Tax payers

## ***Abstract***

*In this dynamic and competitive environment organizations in Ethiopia has no choice than joining the digital world due to the tangible advantage of technology for achieving the growth plan objectives effectively.*

*AA revenue sector is one of the organizations that are deploying modern revenue collection using the digital systems. Digital revenue system is an improvement of service delivery in telecommunication industry that has inevitable role in the developing countries business activities.*

*Digitalization has resulted in a new thinking of defining taxable events taking place in digital platforms by the end user, along with new technological solutions to administer existing tax instruments*

*The study focused on the utilization of the deployed digital system in small, medium and higher branches of AA revenue collection bureau to maximize revenue collection. Three broad categories (small, medium & higher) branches of AA revenue collection had been targeted on the study, the primary data was collected from structured questionnaire and depth interview for AA revenue IT Department IT staffs; of ethiotelecom IT staffs on digital technology, AA small tax payers, AA middle tax payers' offices, AA revenue higher tax payers' offices. The AA revenue staffs directly involving in digital revenue collection are the large target group to gather samples using random sampling.*

*Secondary data such as, organizational office report magazines bullets also used for the study. The collected raw data was analyzed using descriptive research design.*

# CHAPTER ONE

## 1. INTRODUCTION

This chapter is to point about Addis Ababa city revenue digitization concept and stated as background of the study, statement of the problem, research questions, objectives of the study, scope of the study, limitations and significance of the study for the purpose of understanding

### 1.1 Background of the Study.

Digital revenue system is an improvement of service delivery in telecommunication industry that has inevitable role in the developing countries business activities.

The term digital has fluid meaning in different policy contexts. Broadly speaking, this term can refer to any number of everyday economic activities that are connected over computers, mobile phones, or other internet-connected devices. In the realm of international tax policy, though, certain types of activities and markets have been singled out for selective taxation by some jurisdictions. Source Available online: [https://www.wita.org/wp-content/uploads/February 2022](https://www.wita.org/wp-content/uploads/February%2022)).

Before the digitization fully implemented step by step improvements had been taken electronical evolution. According to the scholars Cobham (2010), the electronic tax system has been around, globally, for the last 30 years. Its history began in 1986 as a small test program and since then, electronic tax system has grown to become common place, serving millions of taxpayers every year worldwide. By 2012, 76 of the economies measured by Doing Business had implemented electronic tax filing and payment systems.

This system makes taxpayers able to submit their tax returns electronically to the tax authorities and it is believed to improve the delivery of public services and the dissemination of public administration information to the public (Anna & Yusniza, 2009).

The digital revolution has paved the way for profound changes in tax policy design and revenue administration. In several developing countries, digital technologies have transformed how payments are made, enabling financial inclusion through easy virtual access to bank accounts Source , <https://openknowledge.worldbank.org/handle/10986/4389>

The rapidly increasing pace of technological change will have a significant impact, positive and negative, direct and indirect, on Tax administration organizations. Information technology, which includes telecommunications and computerized systems, looks set to increase productivity substantially,

Source: CIAT Handbook for Tax Administration Organizations - July 2000

The digitalization developments present opportunities and challenges for science and innovation policy. In a time of rapid change and high uncertainty, responsible policy-making requires identifying and preparing for new and unexpected developments. Accordingly, the COVID-19 crisis has triggered an unprecedented mobilization of the science and innovation community. Public research agencies and organizations', private foundations and charities, and the health industry have set up an array of newly funded research initiatives worth billions of dollars in record time. Source <https://www.oecd.org/sti/science-technology-innovation-outlook/>

The digital economy has grown dramatically worldwide, leading to the emergence of new business transactions and the growth in e-commerce and online transactions. Digitalization of the economy is viewed as a propeller for growth, innovation as well as societal change and connectivity Mpofu, Favourate Y. 2021a.

Digitalization has resulted in a new thinking of defining taxable events taking place in digital platforms and by the end user, along with new technological solutions to administer existing tax instruments

Even though, in most developing countries manual filing still remains traditional and most widespread method of submitting tax returns for government revenue services, the world advancing in technology, has made things easily done digitally. As web technology is becoming more and more popular, the introduction of Internet filing has brought fundamental changes to the method of filing tax returns (Hwang, 2000).

## **1.2 Statement of the Problem**

The topic of the problem study is to assess the level digital service accessibility & quality level in revenue using ethiotelecom services delivery particularly Addis Ababa branch revenue office, quality digital services for revenue office will eliminate tax payers ignorance for the payments and tax payers are more to be managed by digitization and giving awareness for

willingness to pay without any enforcement and more expanding the use of E filing/E-payment systems, keeping in mind that there are tax payers intentionally not implementing e filing / E payment for evasion of tax payments, not delivering updated trainings, lack of managers to technological transformation , Lack of skilled IT employees are few indication of the problem to deploy more digital services.

Management and tax audit firms are unable to find tax evasion using traditional monitoring system that is less successful on corrective actions to be taken.

Lack of implementing for digitization results poor performance of the main objectives on the organization improvement efficiency by saving time and cost, unproductivity of staff and bulk paper work case handling requirements leads to not achieving organizational services, registry, space consumption and office supplies also not to maximize revenue.

Not using digitization or e-filing or online applications directly impacts the workflow system which impacts work flow accuracy and time. In addition, increasing error rates leads to lower quality performance. Source WIT Transactions on Information and Communication Technologies, Vol 36, © 2006 WIT Press [www.witpress.com](http://www.witpress.com), ISSN 1743-3517 (on-line)

Tax evasion have had an impact on public services and the accumulation of capital that influences yield and economic growth. Fjeldstad & Tungodden (2001)

Due to the problem of tax avoidance and evasion is inherent in all tax systems, tax compliance is growing international concerns for tax authorities and public policy makers as tax evasion seriously threatens the capacity of government to raise public revenue (Chau and Leung, 2009).

For this reason, the student researcher will attempt to study or assess the organizational digital strategic service performance harmonized practice by using different theoretical frame works

### **1.3 Research Questions**

So as to address the research problem in question and to meet the objectives outlined above, the following questions were found to be answered in the course of the study.

- 1 what are the benefits of the digital services for AA revenue?
- 2 To what extent is the acceptance level and progress on digitization of AA Rev tax payers?
- 3 What are the problems to deploy more digitized services in AA revenue bureaus?

4 What are the strategic plans to expand the digital services to more tax payers?

#### **1.4. Objectives of the Study**

##### 1.4.1. General Objectives

The general objective of the study is to assess the effect of Digital revenue on AA revenue bureau using the digital services delivered by Ethio telecom.

##### 1.4.2 Specific Objectives

In order to achieve the overall objectives, this study has the following specific objectives

- To clearly identify which digital methods are more suitable for specific task, either for the purpose of tax period SMS notification or for revenue collection
- To assess the challenges and good experiences on network during the digital transformation on digitization of e-pay or e filing system.
- To examine the level of AA revenue employees' awareness and participation on the digitization process
  - To carry out activities with integrity, and to assure full responsibility in installation, maintenance services on data base server & customer devices on the network side of ethio telecom
  - To indicate the awareness level of tax payers on digital revenue system for further duties
  - To expand good trends on digitalization from one to other branch of revenue offices

#### **1.5 Significance of the Study**

The study will focus on the impact of digital service in AA Revenue Bureau. Consequently, the study is useful for these organizations to look in to the experiences of strategic interrelations towards digitalization, organizational development and success for the modern revenue collection.

The study will increase the knowledge of strategic service performance, relationship in the organization by farsighted approach showing the current state in Ethio telecom and AA Revenue. Besides, the study will use for the organizational decision makers by giving them the opportunity to work in attention for strategic updated version of digitized technologies and other organizational services.

Second, the findings of this study will add to the theoretical knowledge in other related studies and its practical engagement. It might of help for other individuals who would like to conduct further studies in similar and related areas.

### **1.6. Scope and limitation of the Study**

The technology is changing from time to time, this upgrades and changes make the new deployed infrastructure to be continuously modified due to the rapid digital requirements. Testing and feedback should be collected to improve the tools, data, that enabling technology to be modified for utilization.

As the digital transformation scales across the organization increased, adoption of the technology infrastructure will increase.

The first phase of developing the strategic road map involves making qualitative assessments to diagnose issues and evaluate the potential of value-creation opportunities. Thus the research work focuses on reliability and responsiveness and their effects on the telecom digital service delivery performance to prospected customer satisfaction.

In addition, these service quality dimensions are implemented by technical and revenue collection of both organizations who are assigned to perform the services, the research on the digital network will have examined the capability to perform the existing system and level of AA Revenue their routine tasks.

The limitations seen up to now lack of materials for references finding out related literature in the field. AA Revenue bureau is spitted from ERCA Ethiopian revenue and customs authority before five years has lack of literatures and its website is still under construction before and started with less content is loaded on their site & it was challenging for further investigation. However, the researcher will try to fill the gap by searching different up to date journals, books, professional experts, webs and articles on the case study.

## **1.7 Organization of the Study**

The study will be organized into five chapters. Chapter one will contains background, statement of the problem, objective of the study, research question, significance of the study, the scope and limitation. chapter two. Literature of the study Chapter three will describe the research methodology that will include a brief description of the study area, data collection procedures and analytical techniques used. Chapter four, detail findings Chapter five will deal with conclusion and recommendation of the study.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Introduction**

This chapter has the discussion of theoretical and empirical literature relevant to the study Accordingly, and is divided into three broad sections: theoretical literature review, empirical literature review, and conceptual framework

#### **2.2, Theoretical literature**

Digitalization for revenue can be defined as a process through which governments use information communication and technologies to obtain more accurate and timely information on revenue operations. In addition, this new tool of tax systems e-governance improves service delivery by reducing the time and cost of tax declarations to citizens.

Indeed, Besley and Persson (2014) indicated that tax systems in developing countries are characterized by Page 3/10 high tax declarations' costs, which may discourage citizens from paying their taxes. Moreover, these manual tax systems promote corruption through the frequency of in-person interactions between taxpayers and tax collectors. Adeleye, N., & Eboagu, C. (2019).

During the first phase, the digital strategic capabilities were built through several processes, such as the definition of the new vision that guided the organization transformation during the last decade, the review of the organization's mission and the formulation and deployment of the strategy. Bate (2021) analyzed the effects of digitalisation on tax revenues mobilization in Africa using a sample of 40 selected countries.

Through a multiple regression approach under the generalized method of moments, the author showed that digitalisation has positive effects on tax revenues over the study period 1980-2017. Finally, his findings indicated that financial development, the quality of human resources and industrialization are the main channels through which digitalization impact tax revenue collection.

The telecom service in the telecommunication sector is made up of companies that make the digital service possible on a global scale, whether it is through the phone or the Internet,

through airwaves or cables, through wires or wirelessly. These companies created the infrastructure that allows data in words, voice, audio, or video to be sent anywhere in the world. The largest companies in the sector are telephone (both wired and wireless) operators, satellite companies, cable companies, and Internet service providers.

Source, [www.investopedia.com/ask/answers/070815/what-telecommunications-sector.asp](http://www.investopedia.com/ask/answers/070815/what-telecommunications-sector.asp)

The main goal of these digitalisation policies is to improve tax revenue collection by taking advantage of the increasing rate of ICT penetration in the region. Myovella, G., Karacuka, M., & Haucap, J. (2020).

As UNDP (2016) report show that taxation is the means in which governments supply the public goods and services and act as a compulsory fee. It is a major part of an economy and the legislature of a nation cannot do anything without collecting tax revenue from citizens. Taxation assumes an imperative job of improving the economy in a nation. It helps the presence of the nation and the nonfinancial independence and allows the authority to support social welfare projects and framework activities in the country. It equally distributes wealth, allocates resources fairly, eradicates foreign dependency and keeps the domestic industry from external industrialists by restricting imports through heavy taxes

Not long ago, the telecommunications sector consisted of a club of big national and regional operators. Since the early 2000s, the industry has been swept up in rapid deregulation and innovation. In many countries around the world, government monopolies are now privatized and they face a plethora of new competitors. Traditional markets have been turned upside down, as the growth in mobile services outpaces the fixed-line and the Internet starts to replace voice as the staple business.

Source, [www.investopedia.com/ask/answers/070815/what-telecommunications-sector.asp](http://www.investopedia.com/ask/answers/070815/what-telecommunications-sector.asp)

In developing countries, digital revenue represents a much higher percentage of national output than in developed countries. Similarly, more national output is channeled to governmental use through taxation in developing countries with the highest levels of income than in those with lesser incomes. Certainly, in many respects the tax systems of the developing countries with the highest levels of income have more in common with those of developed countries than they have with the tax systems of the poorest developing countries. (Encyclopedia Britannica, Maria, S., Cox Charles E., and McLure Fritz, N., 2019)

The digital economy generates new business, which in turn increases the country tax base. Second, the digital economy improves tax compliance by giving better information to the tax authority on the identification of individuals and economic activities such as bank transactions and interest income of the private sector.

Thus, this information enhances the ability of tax administration to collect and disseminate tax timelier. Third, the digital economy increases the efficiency of tax administration, implying more cost reduction in tax collection and inspection. Finally, the digital economy allows e-governance by reducing the cost of administrative procedures to citizens. Hence, digitalization improves public service delivery, which in turn motivates citizens to be good taxpayers. Adeleye, N., & Eboagu, C. (2019).

The 2000s, digitalisation policies of tax administrations have been implementing in sub-Saharan Africa countries. The main goal of these digitalisation policies is to improve tax revenues collection by taking advantage of the increasing rate of ICTs penetration in the region. However, the digitalisation of tax collection systems in Africa is very recent and less documented due to limited cases of experiences. Kenani, J. M., Masiya, M., & Njolomole, M. S. (2021b).

Many authors also support the positive effects of the digital economy on tax revenues (Gupta et al., 2017 ; Ndung'u, 2017). In this study, we develop a conceptual model that conceptualizes channels through which the digital revenue on the economy could affect revenues mobilization telecommunications carriers; communications hardware and satellite & telecommunication resellers.

The telecom industry involved in the provision of national networks across the world is increasingly targeted by hackers, exposing various security issues. The hackers' main aim is to steal valuable information and use it in their own favor. Despite various measures taken by many national governments resorting to stricter regulatory norms for foreign hardware manufacturers, issues concerning national security continue to rise.

Source, [www.fortunebusinessinsights.com/telecommunication-market-102099](http://www.fortunebusinessinsights.com/telecommunication-market-102099)

The new business models of the so-called digital economy are based on modern information and communication technologies and the exploitation of large amounts of data, which frequently blur the lines between goods and services.

### **2.3 Empirical literature**

Empirical literature are simply referring to evidence from different sources of observation and report. There are several studies conducted in the field of determinants of digitalized revenue tax system and its relationship.

According to (Peterson, 2014) perception one of the digital services e-filing tried to indicate as of the best paperless systems that enhances the company account balance. Due to it being paperless, he finds it a safer system that helps protect clients and firms' and their bottom line.

(Kumar & Anees, 2014) discussed about the benefits of Electronic filing of tax to the authorities, policy makers, existing and prospective tax payers, e-tax filing intermediaries, financial software engineers and academicians. The study focused on the opportunities derived by the different sections of the society due to e-tax filing of tax returns. Therefore, several benefits of electronic filing systems have been discussed in different literature

The study that has been conducted by Ameyaw & Dzaka (2016) with the objective of investigating factors that have a detrimental effect on digital tax evasion in Ghana. The researcher has been used survey research design and quantitative approach. Both descriptive and inferential statistics also used to analyze the collected raw data.

Empirical evidence shows that there is resistance to the use of e-filing. (Ling, 2018) maintains that many studies around the world have shown taxpayer's resistance to use of e-filing system; hence it is a big challenge to the authorities.

According to (Sheikh, 2015), any new system, there have been numerous teething problems with the electronic system. As (Joanna 2014) said unwillingness of taxpayers to abandon paper-based processes because of their perception and shift to electronic system is one of the reasons which make the number of taxpayers using the e-tax filing system remained far below expectations.

Most businesses, private or public, profit or not-for profit, are increasingly dependent on digital network or IT and it has also wedged the business environment in three significant ways: IT has increased the ability to store, capture, analyze, and process great amounts of information, IT has significantly impacted the control process and IT has also impacted the auditing profession in terms of the skills necessary to perform an audit and the knowledge required drawing conclusion (Wagner, 2001).

During the first phase, the digital strategic capabilities were built through several processes, such as the definition of the new vision that guided the organization transformation during the last decade, the review of the organization's mission and the formulation and deployment of the strategy. According to (Gellis, 1991), electronic declaration is named electronic taxfiling.

Digital filing or e-filing is a method where tax documents or tax returns are submitted through the internet, usually without the need to submit any paper return. The e-filing system involves the use of internet technology, the worldwide web and software for a wide range of tax administration and compliance purposes. Electronic taxation differs among countries hence the name of the system differs from country to country. It has also been called online taxation payment by UN (2007) or e-tax lodgement by (Tumer &Apelt, 2004).

The digital revenue system provides education and information to taxpayers through electronic registration, filing, and payment. The digital revenue system is a comprehensive internet portal that can be accessed 7 days a week and 24 hours a day, which provides taxpayers with a safe self-service option package, a single point of information and action, and does not require intervention by tax administration personnel (Jimenez et al., 2013).

When using, online filing and tax declarations, which are generally web-based portals that allow taxpayers to online, share information about tax assessments between different government departments, and educate taxpayers on tax matters, are evaluated.

The digital payment E-taxation services are taxation services used in most countries and sometimes forced by customers (Decman & Klun, 2015).

The e-payment system has become fundamental, as many countries adopt information systems in tax management (Ondara et al., 2016). According to (Davis, 1989) TAM suggests that taxpayer adoption behaviour is determined by the intention to use a particular system, which in turn is determined by the attitudes towards the system. Accordingly, taxpayer adoption of digital system may be determined by the intention to perform certain behavior. The payment system is

important not only interims of reducing costs and taxpayer convenience but also interims of improving tax compliance (Guriting & Ndubisi,2006).

### **The supplier of digital services Telecom**

The digital telecom service in the telecommunication sector is the companies that make communication possible on a global scale, whether it is through the phone or the Internet, through airwaves or cables, through wires or wirelessly. These companies created the infrastructure that allows data in words, voice, audio, or video to be sent anywhere in the world. The largest companies in the sector are telephone (both wired and wireless) operators, satellite companies, cable companies, and Internet service providers.

The sector consisted of a club of big national and regional operators. Since the early 2000s, the industry has been swept up in rapid deregulation and innovation. In many countries around the world, government monopolies are now privatized and they face a plethora of new competitors.

Traditional markets have been turned upside down, as the growth in mobile services outpaces the fixed-line and the Internet starts to replace voice as the staple business. Source, [www.fortunebusinessinsights.com/telecommunication-market-102099](http://www.fortunebusinessinsights.com/telecommunication-market-102099)The telecommunications sector consists of three basic sub-sectors: telecom equipment (the largest), telecom services (next largest), and wireless communication.

The major segments within these sub-sectors include the following:

- Wireless communications
- Communications equipment
- Processing systems and products
- Long-distance carriers
- Domestic telecom services
- Foreign telecom services
- Diversified communication services

Wireless communication is a very fast-growing sector within telecommunications; more and more communications and computing methods shifted to mobile devices and cloud-based

technology. The industry is the anticipated keystone for the continued global expansion of the telecommunications service sector.

The sector's biggest challenge is to keep up with people's demand for high speed data connectivity, higher resolution, quicker video streaming, and sample multimedia applications. Meeting people's needs for faster and better connections as they consume and create content requires significant capital expenditures.

Source, [www.investopedia.com/ask/answers/070815/what-telecommunications-sector.asp](http://www.investopedia.com/ask/answers/070815/what-telecommunications-sector.asp)

The recent growth is mainly due to the companies rearranging their operations and recovering from the COVID-19 impact, which had earlier led to restrictive containment measures involving social distancing, remote working, and the closure of commercial activities that resulted in operational challenges and on the other hand better solution for companies to continue their job online. The service delivery in telecom market consists of sales of telecom goods and services by

entities (organizations, sole traders and partnerships) that provide communication hardware equipment for the transmission of voice, data, text and video. The telecoms market also includes manufacturers' sales of goods such as GPS equipment, cellular telephones and switching equipment. The telecom market is segmented into wireless telecommunication carriers; wired telecommunications carriers; communications hardware and satellite & telecommunication resellers.

The digital using telecom industry sector involved in the provision of national networks across the world is increasingly targeted by hackers, exposing various security issues. The hackers' main aim is to steal valuable information and use it in their own favor. Despite various measures taken by many national governments resorting to stricter regulatory norms for foreign hardware manufacturers, issues concerning national security continue to rise.

Source, [www.fortunebusinessinsights.com/telecommunication-market-102099](http://www.fortunebusinessinsights.com/telecommunication-market-102099)

## **2.4 Conceptual framework**

Endogenous theories of economic growth well documented the impacts of ICTs in economic development (Romer, 1990). Many authors also support the positive effects of the

digital economy on tax revenues (Gupta et al., 2017 ; Ndung'u, 2017). First, the digital economy generates new business which in turn increase the country tax base.

Second, the digital economy improves tax compliance by giving better information to the tax authority on the identification of individuals and economic activities such as bank transactions, interest income of the private sector. Thus, this information enhances the ability of tax administration to collect and disseminate tax timelier. Third, the digital economy increases the efficiency of tax administration, implying more cost reduction in tax collection and inspection.

According to (Dorasamy, et al. 2000) study suggestion that taxpayers have intention to use the e-filing systems as they perceive that tax submission method via internet is more convenient than submission by post or by hand and that perceived willingness towards using this technology is vital to their belief for using e-filing systems.

Finally, the digital economy allows governance by reducing the cost of administrative procedures to citizens. Hence, digitalization improves public service delivery that in turn motivate citizens to be good taxpayers.

In our case the history of digitalization emerges from the service provider of Ethiopian telecommunication improvement Digital or electronic Filing System in Selected Branch Offices of Ethiopian Revenues and Customs Authority that focused on the 22 tax authority side; (Dagnachew, 2018) Challenge and Opportunities of adopting E-tax system: the case of ERCA LTO.

#### **2.4.1 Evolution of telecommunication to digitalization**

Telecommunications services in Ethiopia is more than a century old, and the first time a small telephone network was established was in the year 1894.

The service was used to be administered under the Ministry of Posts Telephone and Telegraph until 1952. Then, it was later separated from posts and became an autonomous entity under the Ministry by the enactment of Telecommunication Proclamation No. 131 of 1952.

By this proclamation, a telecommunication entity, called "Ethiopian Telecommunication Board" which exclusively regulates and operates telecommunication services was established. Without affecting its functions, the name was later changed to Ethiopian Telecommunication Authority.

The Ethiopian Telecommunication Authority was operating and working on an exclusive basis as an operator and regulator the historical development process of the communication

industry, the sector demanded the importance of the separation of the telecom policy, regulation and the operation.

The new business models of the so-called digital economy are based on modern information and communication technologies and the exploitation of large amounts of data, which frequently blur the lines between goods and services

Telecommunications services in Ethiopia is more than a century old, and the first time a small telephone network was established was in the year 1894.

It was used to be administered under the Ministry of Posts Telephone and Telegraph until 1952. The major progress of telecom in Ethiopia started from Establishment of Sululta Satellite Earth Station 1979 up to Next Generation Network (NGN) of fixed telephone line,

Third Generation Network the era of digital data (3G) mobile service based on Wide Band Code Division multiple access (WCDMA) and dense wavelength division Multiplexing (DWDM) based optical fiber transmission that introduced in Ethiopia 2007 monetization Kofler, G. and Sinnig, J. (2019).

Ethio Telecom was the only provider of digital services in Ethiopia. It provides fixed, mobile, and Internet services and maintains the international gateway. Ethiopia remains the last country in Africa to allow a national monopoly on all telecom services including fixed, mobile, Internet and data communications. Despite pressures from international financial institutions, Ethiopia's telecom market structure has no more continued to be state-owned.

Another obvious reason why the government would like to hold on to the state-owned enterprise is its interest in recouping the massive investment it made in recent years and repay the US\$1.5 billion loan. The government has sunk so much borrowed capital into the network that it is highly risk averse and therefore likely to maintain the status quo

Ethiopia's ICT sector remains far behind the rest of the world. He further notes that policy makers of the country argue "liberalization will not result in positive universal access to the poor people due to the profit motives of the multinational companies that are interested in the cream telecom market".

Telecommunication Union (ITU).World Conference on International Telecommunications (WCIT-12)ITU. Archived from the original on 2012-10-13.

The purposes of EthioTelecom's establishment are stated in Article 5 of Council of Ministers Regulation No. 197/2010:

1. To provide and make accessible Next Generation Network based world class standards information technology services;
2. To build competent Next Generation Network based workforce with appropriate knowledge, skill, attitude and work culture to provide world class telecom service;
3. To engage, in accordance with development policies and priorities of the government, in the construction, operation, maintenance and expansion of telecommunications networks and services;
4. To provide domestic and international voice, data, video and other related value added services;
5. To provide communication services using integrated information technology platform, including rebroadcast television services;
6. In line with directives and policy guidelines issued by the Ministry of Finance & Economic Development, to sell and pledge bonds, to negotiate and sign loan agreements with local and international financial services;
7. To engage in other related activities necessary for the attainment of its purposes.

**Ethiopian government** has reached an agreement with France Telecom, one of the world's leader 16 telecommunications company to improve the organizational strength for the better services to be delivered.

This agreement has also aimed at Ethio Telecom to improve its management capability through the transfer of world-renowned know-how and skills. Accordingly, Ethio Telecom is trying to adopt Enhanced Telecom Operations Map (eTOM) business framework for the business process management. The Enhanced Telecom Operations Map® -eTOM has been developed by the Tele Management Forum. It describes all the enterprise processes required by a telecommunications service provider and analyses them to different levels of detail according to their significance and priority for the business

Source (ITU-T Rec. M.3050.1, 2004

The adoption and deployment of e-government led to multiple changes in the technological infrastructure needs and IT skills. The technological infrastructure, lack of knowledge, and resources and competencies available in the public sector were a real challenge. Source University of Quebec, Montreal, Canada Volume 2017, Article ID 144598, Journal of e-Government Studies and Best Practices, 14 pages, DOI: 10.5171/2017. 144598

#### **2.4.2 Ethio telecom network & enterprise customers section**

To achieve its strategical service delivery objectives Ethio telecom has been structured in to different divisions Network division, Finance division, Marketing division....,

But for the purpose of the study sales division and network divisions are selected the divisions are formed in accordance with the size and nature of the customers also the experience of international telecom organizations (Orange telecom) France telecom, the previous sales division was spitted in to sub divisions;

Enterprise sales divisions, & Residential sales division, the strategic directions here are to ensure that the information and communication infrastructure already in place is to be effectively utilized such that it provides higher qualities of information and communication services. In order to effectively utilize the infrastructure and deliver higher quality services at competitive prices the first step was rearranging to different departments

#### **1 Enterprise sales Division**

This division is also spitted into small and medium enterprise and key customers VCC dedicated for customers who are to be treated in special way from small enterprise customers. These customers had given especial attention due to different nature on the areas of pricing, products, services, distribution, and information sharing.

To satisfy their demand Enterprise, customers have also again categorized by Governmental, international, financial, production, service...sectors and all are named VCC (very critical customers) for further service delivery the nature of these customers is high revenue source for the organization and are inevitable value for the nation and the society

The VCC customers have their own dedicated VCC Manager to treat and identify their need and facilitate to get the services and product of ethio telecom on spot, also the Manager has to

facilitate their maintenance and promote the new product and services in their own location every VCC Manager has to visit regularly his own assigned customers.

Life is being developed every day in all of the life aspects. One of the major developing aspects is digital information technology (IT), and communication technology which makes life easier, faster, and more connected.

## **2. Network division**

The IT infrastructure is the investment in computer and communication technology which comprises hardware, software, telecommunication as well as other peripheral services which the system requires for its operation such as stored data, hard disks, data display and IT service staff. IT infrastructure is the foundation for IT portfolio which consists of 2 components, including, the techno ware and human ware source Bharawaj, 2000; Weil and Vitale, 2002

The core of ethiotelecom is network division the strength of the division brings the satisfaction of service and reduces customer complain by delivering quality and reliable network. The division also serves the customers either online or physical presence from the network and IS side

1. Connect Ethiopia through state of the art telecom services
2. Provide high quality, innovative and affordable telecom products and services that enhance the development of our nation and ensure high customer satisfaction
3. Build reputable brand known for its customers' consideration
4. Build its managerial capability and man power talent that enables Ethio telecom to operate at international level
5. Support community and environmental development

Source: <http://www.ethiotelecom.et>

Ethio Telecom developed better sourcing & facilities processes to speed the day to day operational activities, for faster delivery and repair that improves offer more transparency to customers.

### **More recent Journey of Ethio telecom towards improving its digital services**

2010 Ethio telecom established

- 2015 4G LTE launched
- 2016 Telecom Excellence Academy (TEXA) Established
- 2018 Additional strategical Reform
- 2020 4G sales available to Addis Ababa customers
- 2021 4G Started to expanded in all regional cities and
- 2021 telebirr established for mobile money

The below item and products are some of the Services More needed by Enterprise customers

**Machine to Machine Roaming (M2M):**

Ethiotelecom provides M2M using SIM cards that

helps to communicate devices and machines each other and managing them remotely.

Potential customers can deploy the service for:

cargo tracking in airlines

shipping lines and trucks

transportation management system

geo fencing, travel and tourism

electronics suppliers and distributors

manufacturing, agriculture, energy & utilities, health and insurance, on-board Entertainment, etc

**AA revenue bureau** is the one that utilizing more this machine to machine service to manage cash registers from data center to every corner in Addis

**ISDN (Integrated services digital network):** Integrated services digital network (ISDN) is an international communications standard for sending voice, video, and data over digital telephone lines or normal telephone wires. ISDN supports data transfer rates of 64 Kbps (64,000 bits per second

There are several kinds of access interfaces to ISDN defined as Basic Rate Interface (BRI), and Primary Rate Interface (PRI).

**ISP Services:** Domain name, Webhosting, Email, VPS (virtual private services) & dedicated hosting services are the online services to be managed by Ethio telecom enterprise division as the customer pay in CBE or tele birr the service will be activated soon.

AA revenue had the domain email and hosting services to be addressed by customers ; <http://aarevenuesbureau.gov.et/>

**Dedicated Internet Access (DIA) Service:** Revamp Dedicated Internet Access (DIA) service allows customers and partners to get a secured, guaranteed connectivity and access speed without sharing the link to others. Partners and existing DIA Enterprise customers are Media and Promotion companies; UNECA & China Telecom are some of the service users

**A Wavelength Service:** is a large bandwidth connection providing high-speed Internet or data service delivered over lit fiber-optic lines, Wavelength service is used especially for VCC that needs high security, it is secure enough to be used by very high security sensitive organizations. Because each data channel is separated from other data by wavelength (or frequency), there is no overlap in the data. Moreover, wavelength services are isolated from the public internet.

**Dedicated high bandwidth** which enables businesses to achieve maximum speeds because the setup prevents traffic bottlenecks.

**Service level agreement (SLA):** it enables organizations to achieve optimal performance and network reliability with high capacity data transfer, protected route with low latency and jitter.

Source <http://www.ethio telecom.et>

**VPN Service:** enables private and public institutions to connect with their various branches and to establish their own private network

The service enables to share information and activate all information technology systems inside the branches via fixed and mobile options.

The service is the most appropriate type of recent digital service for an organization to transact secure data throughout the organizations, it is one of the most recommended type of digital services for AA revenue

It is all over Ethiopia in areas covered by telecom terrestrial and mobile network support data services,

### **ethio telecom provide services through**

#### **Mobile Broadband VPN**

##### **Fixed wired Broadband VPN**

##### **Fixed wireless Broadband VPN**

- Fixed Wired and wireless broadband VPN helps companies to connect Branches application and data center to head office.
- It is a service that enables secured communications inside an organization.
- The VPN uses a shared public telecommunication infrastructure, such as internet, to provide remote offices or individuals secure access to their organization's network and data.

Ethio telecom offer VPN service mainly through MPLS (Multi-Protocol Labeled Switch), the most cost-effective way to have a secured connection between different sites/branches of an organization.<http://www.ethiotelecom.et>

#### **Benefits of VPN services**

- Secured Data Communication
- You can manage your geographically scattered branches from in one place
- Business continuity
- Reduces operational cost of the business

#### **FIXED LOCAL WIRELESS MPLS -VPN via VSAT**

- For VSAT Broadband Voice + VPN service request, voice subscription and rental fee will be added on top of the VPN subscription and rental fee
- Voice only service can't be offered
- Voice channel request: maximum of 6 voice channels provided to one customer
- The subscription and usage tariff for voice channel will be the same as fixed line
- Usage tariff not included in this tariff
- All tariffs are VAT inclusive
- The subscription fee is inclusive of stamp duty

Subscription, reconnection, name change, ownership change and line shifting/relocation fees are free

**Business Mobile:** Subscribe for Business Mobile and get additional call discount

- Unlimited CUG (Closed User Group)
- Provides a platform where you can facilitate Unlimited Voice and SMS communication among your employees for FREE.
- Enhance productivity and work efficiency!

### **Modern Modular Data Center:**

Modular data center is a high-capacity world class standard data center managed by skilled manpower and has more than five direction fiber connectivity with automatic switch over functionality to ensure service reliability and can help carry out quick incident detection and maintenance activities in case of network connection failure or other related problems.

Furthermore, it is designed to ensure mission-critical data and equipped with extensive security and compliance system controls with 99.99% uptime track recorded availability, reliable connectivity, high electric power saving capacity and cooling systems, security cameras, modern network, fiber cable enclosures and compartments. Moreover, the data center's major importance on customer experience includes high availability-best customer experience, flexibility to introduce new platform and service, reliability to run customers' businesses, high level physical security, fast time to market to host for collocation/ cloud service for the existing and potential partners as well as enable companies, small and medium business and startups to focus on their core businesses, increase their competitiveness, productivity and efficiency.

Source <http://www.ethiotelecom.et>

### **Independent variables**

**AA tax payers**

### **Dependent Variables**

**Digital revenue collection**

**CHAPTER THREE:  
Research Methodology**

**3.1 Introduction**

The research methodology including the approach design, research method and instrument and the data analysis techniques will be covered properly

The chapter also includes a description of the research method and its appropriateness to the purpose of objective of the research. A survey instrument, data collection, data analysis and ethical consideration of the research will be presented, the chapter will also include the reliability and validity ethical considerations of the research design to achieve the research objectives

This chapter will also have the research towards achieving the objective of the research that has been covered.

The research plans to cover all the phenomena to a more specific and manageable approach that will permit the approach to be evaluated and, maximum effort will have been done for sound basis and further organizational task. In other words, the proposal will point clearly between the actual qualitative and quantitative situation and recommends for the next action as per the findings and to be implemented in the long range research goals and the short range actual

objectives or collecting more revenue to perform this tasks primary and secondary data collection methods are to be utilized

This approach will have the explanation of the proposed research, and will be addressed to the organization employees, specialists, IT Manager AA revenue collectors' IT Staffs

There will have explanation how to take the idea and turn it into action, in turn will produce valid and reliable results in accordance with the aims of digitization in the research. That is the reason the paper planned to make use of qualitative and quantitative methods.

### **3.2 Research Design**

Research design provides the guideline for data collection. It involved the selection of the research approach. Hence the study to be employed descriptive and explanatory research method collects data through questioners.

Descriptive research describes data and characterize about the population or phenomena being studied. Descriptive research design will be used to obtain information relating to the exiting status of an issue or phenomenon and to describe "what exists" within the variable or conditions of the situation. In addition, the study has also adopted explanatory research design, since the study under investigation will be the effect of service delivery and performance of ethiotelecom in AA revenue.

The research design follows a characteristic cycle whereby initially descriptive survey method is employed with the assumption that it helps to describe the current challenges and opportunity of digital revenue approach is adopted, where an understanding of a problem is developed and plans are made for some form of improvement strategy. Then the improvement is carried out during time, pertinent observations are collected in various forms. The new improvement growth strategies are to be carried out, and guides this cyclic process repeats, continuing until a sufficient understanding of the digital technology is achieved.

### **3.3 Target groups**

A target is group of potential customers that are identified to collect revenue deliver services, is made up of different people on the basis of their same or similar characteristics in our cases categorized under digital service provider ethiotelecom and client AA revenue. In order to make or create a real picture of the objective, Gender, age, education and income are not the criteria for our purpose it is needed only to be a member/employee of the organizations for revenue collection areas the organizational services by themselves,

there will be 100 Questionnaires for the random selected revenue branch of the organizations employees from **small tax payers**(yeka, lideta, gullele, addis Ketema), **medium tax payers** AA no 1 & AA no 2, **large tax payers & Ethio telecom employees directly participating on the digital service delivery** that has 450 employees population targeted

### **3.4 Sampling Technique and Sample size**

In order to answer the research questions, there should be able to collect data from all cases. Thus, there is a need to select a sample. The entire set of cases from which researcher sample is drawn in are from different branches of the target population. Due to the scarcity of time and resources for analysis the entire population is to apply random sampling technique to represent number of cases. Prior to examining the various types of sampling method, it worth noting what is meant by sampling, along with reasons why researchers are likely to select a sample. Taking a subset from chosen sampling frame or entire population is sampling. Sampling can be used to make a population or to make generalization in relation to existing situation.

In general, sampling techniques can be divided into two types:

Probability or random sampling

Non- probability or non- random sampling

Before choosing specific type of sampling technique, it is needed to decide broad sampling technique Probability sampling, also known as random sampling, is a kind of sample selection where randomization is used instead of deliberate choice.

#### **Probability Sampling**

Probability sampling is that every item in the population has an equal chance of being included in sample. One way to undertake random sampling would be if researcher will to construct a sampling frame first and then used a random number generation computer program to pick a sample from the sampling frame (Zikmund, 2002). Probability or random sampling has the greatest freedom from bias but may represent the costliest sample in terms of time and energy for a given level of sampling error (Brown, 1947).

### **3.5 Data type and source**

Data is the core of any analysis work which is carried on in the research process. Data analysis and interpretation work purely depends on the collection of various data from different sources. Data is called the unorganized statistical facts and figures that are collected from the respective sources. The researcher will try data collection for gathering information. The sources of data can be different depending on the need for the data on the service delivery organization service receiver for our research work.

All data is categorized in to two forms: primary and secondary data. Both types of data are to be gathered from different sources . The sources will be reliable and will widely use for gathering specific information about the organizations.

The primary data collection sources are

- The service provider or Account manager, IT staffs, dedicated network team of Ethio telecom; the service delivery standards as an organizational technological transformation leader to Digitized and success and limitations are to be investigated and gathered from the feedback
- AA revenue IT Department managers, IT staffs; the technology technical findings are to be gathered from this team the benefit in their specific task and the service performance of ethio telecom especially on digital technology.
- AA small tax payers branch offices,
- AA no1 middle tax payers' offices
- AA Revenue No 2 medium Tax payer branch office (AA NO2 MTPO)
- AA revenue higher tax payers' offices
- AA revenue staffs directly involving in revenue collection are large target group to gather samples the satisfaction level of the customers and actual activities on their day to day task are

some of the primary source secondary data collection can be gathered from archived data in libraries data collection through the internet, and organizational reports.

Statistical data sources are also to be used as the secondary data sources that are reserved or implemented for official purposes through surveys and other statistical reports. These documented data methods are to be used in every need of clarifications.

### **3.6. Data Collection instrument**

Both primary Secondary data collection methods are going to be used during the research Standardize and self-administrated questionnaire are the most common method of primary data collection in service delivery and performance the advantages they are simple, manageable, and data consistency. So, primary data to be collected by means of

Depth interview & paper questionnaire for

the service provider or Account manager, IT staffs, dedicated network team of Ethio telecom

AA revenue IT Department managers, IT staffs,

AA revenue staff directly involving in revenue collection,

**Secondary data** will be collected from different literatures, reports, magazine, and company website.

**Qualitative data collection tools:** in-depth interview, observation methods, document review

**Quantitative data collection tools:** questionnaire survey is to be used

**The interview method** for this specific purpose the in-depth interview is a more preferable technique designed to give bolded picture of the participant's perspective on the research topic.

During in-depth interviews, the person being interviewed is considered as an expert and the

interviewer is considered as a student. The researcher's interviewing will be motivated by the desire to learn everything from the participant & can share about the research topic. Researchers can engage with participants by posing questions in a neutral manner, listening attentively to

The researcher will not allow to lead participants to any preconceived situations, nor do they encourage participants to provide particular answers by expressing approval or disapproval of what

they say. In-depth interviews are to be conducted face-to-face and involve one interviewer and one participant or in group or as a team.

### **The paper Questioner method**

Using paper questionnaires: In order to have more options of addressing targeted group paper questioner/open ended and closed ended/ method will also be used because of the inevitable useful means and expected to have an input not found in other means of data gathering

Considering some of the limitation of this method also to be used for the research purpose

The in-depth interview is a more preferable technique designed to have bolded picture of the participant's perspective on the research topic than the written or paper questionnaires because of the following reasons

The interview mainly focused on IS chief, IS technicians & some of the branch office specialists mainly involving on revenue collection employees.

### **3.7 Data Analyzing techniques**

Data analysis is a method researchers go from a mass of data to meaningful insights. There are many different data analysis methods, depending on the type of research. Here are a few methods to be used to analyze quantitative and qualitative data

**Analyzing Quantitative Data**, the first stage of analyzing data is data preparation, where the aim is to convert raw data into something meaningful and readable. It will have four steps:

**Data Validation** The purpose of data validation is to find out, as far as possible, whether the data collection was done as per the pre-set standards and without any bias. It steps process, which includes

**Completeness**, to ensure that the interviewer asked the respondent all the questions, rather than

To do this, researchers would need to pick a random sample of completed surveys and validate the collected data

**Quantitative Data Analysis Methods** After these steps, the data is ready for analysis. The two most commonly used quantitative data analysis methods are descriptive statistics and inferential statistics

**Descriptive Statistics** Typically, descriptive statistics (also known as descriptive analysis) is the first level of analysis. It will help researchers summarize the data and find patterns. A few commonly used descriptive statistics are: mean Median mode percentage frequency range

Descriptive statistics provide absolute numbers. However, they do not explain the rationale or reasoning behind those numbers. Before applying descriptive statistics, it's important to think about which one is best suited for your research question and what you want to show. For example, a percentage is a good way to show the gender distribution of respondents.

Descriptive statistics are most helpful when the research is limited to the sample and does not need to be generalized to a larger population. Since descriptive analysis is mostly used for analyzing single variable, it is often called univariate analysis.

**Analyzing Qualitative Data** Qualitative data analysis will work a little differently from quantitative data, because qualitative data is made up of words, observations, images, and even symbols. Deriving absolute meaning from such data is nearly impossible; hence, it is mostly used for exploratory research. While in quantitative research there is a clear distinction between the data preparation and data analysis stage, analysis for qualitative research often begins as soon as the data is available.

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**Data Preparation and Basic Data Analysis** Analysis and preparation happen in parallel and will go through the following steps:

**Getting familiar with the data:** Since most qualitative data is just words, reading the data several times to get familiar with it and start looking for basic observations is mandatory.

**Developing a framework:** can be coding or indexing, here is the step to identify broad ideas, concepts, behaviors, or phrases and assigns codes to them and even concepts such as the positive or negative response to a question. Coding is helpful in structuring and labeling the data.

**Identifying patterns and connections:** after coding, the research can start identifying themes, looking for the most common responses to questions, identifying data or patterns that can answer about the organizations, and finding areas that can be explored further.

**Qualitative Data Analysis Methods** Several methods are available to analyze qualitative data. The most commonly used data analysis methods are:

**Content analysis:** This is one of the most common methods to analyze qualitative data. It will be used to analyze documented information in the form of texts, media, or even physical items. Content analysis is usually used to analyze responses from interviewees

### **3.8 Reliability and Validity**

The collected data through the above stages will be reliable there will have an input for the organizations another finding that is new from the previous is to be submitted. There will have valid acceptable and continuous progressive documents to be held from the research

### **3.9 Ethical consideration**

Ethical issues are given the most prioritized in my research. For reliable data collection I believe in collecting the fact and informing the truth clearly such kind of honest ethical consideration will be applied, there should not be pre-arranged or guided approach or method on both organization employees, there will have more encouraging the target groups to feel free and awareness

information will clearly be given and only the real situations are needed from them for better improvements and the service quality, there will have assurance of participant's confidentiality, about the data being conducted. In this approach researcher will inform participants about the desired feedback and needs of their support

## **CHAPTER FOUR**

### **4. DATA PRESENTATION, ANALYSIS AND DISCUSSION**

#### **4.1. Introduction**

This chapter covers the presented results and discussions of primary data from respondents through detailed research instrument and semi structured interview /qualitative, in order to explore the service delivery performance of ethiotelecom in Addis Ababa Revenue Bureau collecting Revenue using digital system e-payment The study used a combination of content analysis, survey through in depth interview, questionnaires and observation to collect data.

In this study, from the prepared 100 Questionaries' 75 questionnaires were distributed and 59 returned from the questionnaires that were distributed, and this represents a response rate is 80%.

#### **4.2 Background**

Demographic and background attributes such as gender, age, position, experience and educational background was discussed and are presented in the table below.

		<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>			
	Male	34	57.6
	Female	25	42.3
	Less than 4 years	10	17
	5-8 years	33	56
<b>Experience</b>		<b>Frequency</b>	<b>Percentage</b>
	9- 12 years	7	12
	13-15 years	5	8.4
	16-18years	1	1.0
	above19 years	2	3.3
<b>Educational Back ground</b>		<b>Frequency</b>	<b>Percentage</b>
	BA/BSC degree	42	71.2
	Master's degree	17	28.8

**Table 1 Source:** Survey result

### **Gender**

The table above indicates that males participated in the questionnaire survey than females. From 59 participants who responded to this survey, 57.6% were male and 42.3% were female.

### **Work experience**

The table above shows that the majority of the respondents fall within the range of 5-8years of service experience, which accounted for 56% of responses. In addition, the category for respondents less than 4years experience accounted for 17% second level of the group; the 9-12years of service experience accounted on third level of the group; 13-15years accounted 8.3% of the group;16-18years has 1%of the group; and above 19 years has accounted 3.3% of the group, it can be observed that most of the respondents were young and on working age

### **Educational Back ground**

The levels of education of respondents were placed in two categories: Bachelor degree and Master degree. About 42% had BA degree and 17% Master degree it can be observed that most of the respondents were young age and educated in BA/BSC degree and Master's degree.

### 4.3 Data presentation of Survey result

#### Service delivery Performance questioner survey:

Respondent's given an awareness information about the questionnaires that is to be given & the findings needed before distribution in order to establish the acceptance about the subject matter

#### Telecom service delivery performance & consistency

Questionares based on Telecom service delivery & sytem performance								
Description	AA revenue IS is strongly dependent on the telecom network availability for revenue collection		The system availability from Ethio telecom is consistent and has not that much complain from tax payers		There is still manual receipt utilization in AA revenue due to Ethio telecom system unreachability problem		There are other options given by Ethio telecom in the case of interruption or poor network quality	
Respondent's choice	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Strongly agree	5	9	9	17	6	11	14	25
Agree	4	7	15	28	10	19	9	16

Neither agree nor disagree	19	33	13	25	13	25	19	33
Disagree	15	26	14	26	18	34	8	14
Strongly disagree	14	25	2	4	6	11	7	12
<b>Total</b>	<b>57</b>	<b>100</b>	<b>53</b>	<b>100</b>	<b>53</b>	<b>100</b>	<b>57</b>	<b>100</b>

Table 2 Source: Survey result,

For the question of the questioner the system availability from Ethio telecom is consistent and has not that much complain from tax payers, AA revenue collection & related task employees responded that; 17% of the respondents strongly agreed that the system availability from Ethio telecom is consistent and has not that much complain from tax payers

28% of the respondents agreed that the system availability is consistent and has not that much complain from tax payers, 25% of the respondent neutral about the service 26% of respondents disagreed that the system availability is consistent and has not that much complain from tax payers, 4% of the respondents strongly disagreed that the system availability consistent and has not that much complain from tax payers

Questioner raised as AA revenue IS is strongly dependent on the telecom network availability for revenue collection, 9% of the respondents strongly agreed that AA revenue IS is dependent on telecom network & 7% of the respondents agreed that IS revenue is dependent on telecom 33% of the respondent neutral about the service 26% of respondents disagreed that revenue bureau is dependent on Ethio telecom network & 25% of the respondents strongly disagreed that revenue bureau is dependent on the telecom network

### **Telecom service readiness in case of poor quality network or fallerity**

The next question that is needed to get feedback from the respondents was to evaluate service delivery performance suggested as there are other options given by Ethio telecom in the case of interruption or poor network quality and the feedback was 25% of the respondents strongly agreed that there are other options given by Ethio telecom in the case of interruption or poor network quality, & 16% of the respondents agreed that there are other options given in the case

of interruption or poor network quality,33% of the respondent neutral about the service 14% of respondents disagreed that there are other options given by Ethio telecom in the case of interruption or poor network quality and 12% of the respondents strongly disagreed that there are other options given in the case of interruption or poor network quality

Service interruption is occurred due to fiber cut international gateway faller and so on

but the options given to the faller makes the respondents rate highest 25% strongly agreed and 16% of the respondents agreed that there are other options given by ethio telecom in the case of interruption or poor network quality shows the better achievement response for the service delivery performance.

<b>The telecom digital system Service delivery Satisfaction level and readiness of AA Revenue</b>				
Description	During the digital transformation AA revenue bureau had given awareness to the tax payers	The AA revenue Bureau had analyzed and labeled the problems before deciding to deploy the digital transformation system	AA revenue had given awareness to the revenue collectors and other employees directly participating on the revenue collection about the e-pay system	The digital transformation of Revenue collection was smooth and acceptable by all tax payers

Respondents choice	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Strongly agree	3	5	7	12	8	14	9	16
Agree	13	22	8	14	13	22	15	26
Neither agree nor disagree	14	24	16	28	12	21	17	29
Disagree	23	39	22	39	20	34	13	22
Strongly disagree	6	10	5	8	5	9	4	7
<b>Total</b>	59	100	57	100	58	100	58	100

**Table 3** Source: Survey result

**2. Telecom service utilization throughout the organization**

Organizational commitment to deploy in their internal premises raised question to understand the full utilization of the service delivered and internal readiness for the implementation

the questions was AA revenue Bureau had analyzed and labeled the problems before deciding to deploy the digital transformation system was responded;12% of the respondents strongly agreed that AA revenue Bureau had analyzed and labeled the problems before deciding to deploy the digital transformation system; &14% of the respondents agreed that AA revenue Bureau had analyzed and labeled the problems before deciding to deploy the digital transformation system; 28% of the respondent neutral about the issue; 39% of respondents disagreed that AA revenue Bureau had analyzed and labeled the problems before deciding to deploy the digital transformation system; 8% of the respondents strongly disagreed that AA revenue Bureau had analyzed and labeled the problems before deciding to deploy the digital transformation system.

The next questions was During the digital transformation AA revenue bureau had given awareness to the tax payers; 5% of the respondents strongly agreed that During the digital transformation AA revenue bureau had given awareness to the tax payers; &22% of the respondents agreed that During the digital transformation AA revenue bureau had given awareness to the tax payers; 24% of the respondent neutral about the service; 39% of respondents disagreed that the digital transformation AA revenue bureau had given awareness to

the tax payers; 10% of the respondents strongly disagreed that During the digital transformation AA revenue bureau had given awareness to the tax payers.

The suggestion continued that AA revenue had given awareness to the revenue collectors and other employees directly participating on the revenue collection about the e-pay system

Their feedback ;14% of the respondents strongly agreed that given awareness to the revenue collectors and other employees directly participating on the revenue collection about the e-pay system;&22% of the respondents agreed that given awareness to the revenue collectors and other employees directly participating on the revenue collection about the digital system ; 21% of the respondent neutral about the service 34% of respondents disagreed that given awareness to revenue collectors and other employees directly participating on the revenue collection about the e-pay system; 9% of the respondents strongly disagreed that given awareness to the revenue collectors and other employees directly participating on the revenue collection about the e-pay system.

\*\*\*Customer based questions was the digital transformation of Revenue collection was smooth and acceptable by all tax payersTheir feedback ;16% of the respondents strongly agreed that the digital transformation of Revenue collection was smooth and acceptable by all tax payers ;&26% of the respondents agreed that the digital transformation of Revenue collection was smooth and acceptable by all tax payers; 29% of the respondent neutral about the service 22% of respondents disagreed that the digital transformation of Revenue collection was smooth and acceptable by all tax payers; 7% of the respondents strongly disagreed the digital transformation of Revenue collection was smooth and acceptable by all tax payers

### **3. Feedback on digital system service deployment**

**Feedback on the digital system from revenue employees & their tax payers**

Description	The digital system has been user friendly for employees and tax payers		All tax payers had been willing to be engaged to the digital tax paying system as the system launched		Tax payers believes that the implementation of e-pay smoothed their tax paying system		The tax payment system is modernized than ever before	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Strongly agree	6	10	5	8	5	9	6	10
Agree	19	32	18	31	9	16	8	14
Neither agree nor disagree	14	24	18	31	19	33	10	17
Disagree	15	25	16	27	20	35	29	50
Strongly disagree	5	8	2	3	4	7	5	9
<b>Total</b>	<b>59</b>	<b>99</b>	<b>59</b>	<b>100</b>	<b>57</b>	<b>100</b>	<b>58</b>	<b>100</b>

Table 4

Source: Survey result

About the digital system has been user friendly for employees and tax payers suggestion was answered ;10% of the respondents strongly agreed that the digital system has been user friendly for employees and tax payers ;& 32% of the respondents agreed that digital system has been user friendly for employees and tax payers 24% of the respondent neutral about the service 25% of respondents disagreed that digital system has been user friendly for employees and tax payers; 8% of the respondents strongly the digital system has been user friendly for employees and tax payers.

The suggestion continued that tax payers believes that the implementation of e-pay smoothed their tax paying system has got feedback 9% of the respondents strongly agreed that tax payers believes that the implementation of e-pay smoothed their tax paying system ;& 16% of the respondents agreed that tax payers believes that the implementation of e-pay smoothed their tax paying system; 13% of the respondent neutral about the service 35% of respondents disagreed thattax payers believes that the implementation of e-pay smoothed their tax paying system; 7% of the respondents strongly disagree tax payers believes that the implementation of

e-pay smoothed their tax paying system.

The feedback from the tax payment for system is modernized than ever before got feedback 10% of the respondents strongly agreed that the tax payment system is modernized than ever before ;& 14% of the respondents agreed the tax payment system is modernized than ever before; 17% of the respondent neutral about the issue 50% of respondents disagreed that The tax payment system is modernized than ever before ; 9% of the respondents strongly disagree the tax payment system is modernized than ever before.

#### **4. Survey feedback for the digital system performance using interview method**

Almost all members interviewed were estimated on the age of 26-35, all are graduated in minimum BA/BSC and Master's degree

##### **For Ethio Governmental Services Manager /AA Revenue/**

**1** The needed idea to be answered was, what kind of attention is given to support their Governmental mission /revenue collection using digital system?

Regarding the support, whenever ethiotelecom launch new service, we have given priority to promote and implement the new service if the service is compatible to the customer need. We have given special attention if there is a failure and also regularly support up to their premise from the customer side

**2** Would you explain which kind of e-payment challenges could not be solved soon and managed by your staff and escalated to you?

We had earlier there was a challenge to provide reliable connection to the customer. However, we now come to solution by providing SLA back service. To sign this service level agreement, our company provide by two option, for one and five years. Thus AAR signed five years' agreement and now have got reliable connection from ethiotelecom side

**3** The technology is growing fast globally, what is ethiotelecoms plan for such sectors to deploy and satisfy the demands of the organizations on technology?

As we know Ethio telecom wants to become best digital solution provider. Ethio telecom has a lead growth strategy for the next three years. Thus every customer challenges to perform their duties will be overcome by the new invented technology.

**4** What kind of encouragement is presented by ethio telecom to provide more updated e-pay or digitized revenue system?

Currently ethio telecom launch tele birr and cloud service solution which are supported to facilitate our customers' duties.

#### **From Revenue technical team interview response**

AA revenue technical team or (IS) department team is the team that establish or maintains and expands every branch network under their branches. Their main technical team is located at Mexico and almost 16 branches have few members of technical team but AA higher revenue main technical department have more members of Engineers staff.

-Which service of ethio telecom is more using for achieving your objective of AA revenue

-One of the team members assigned for interview stated me that more of the branches are using VPN to transact data in their branch offices the link is designed for secured digital data in the dedicated organizational premises.

-The response more appreciating the modern payment modes as e- pay system as tele birr and other e pay services and cloud type of service

-AA revenue Technical team representative had also responded to my questions about the performance level of telecom that; the network performance from the Ethio telecom or their back bone side has been progressing and improved the limitations for the performance of their routine jobs from time to time.

It was challenging to have fiber /copper maintenance in the possible short time (delayed for 15 days and weeks above) before telecom services improvement

Telecom has assigned technical team dedicated for VCC customer maintenance who visits on their own scheduled program and rehabilitate the network equipment that have been intermittent or full of interruption frequently in the possible short time minimum 1 and maximum 3 days

-The representative replied me that their limitation is on their internal network capacity and they are working on it

The solution reliable system after long discussion among has been established reliable network via SLA (service level agreement) an agreement that is used as a backup and now the poor quality or interruption rate is almost nil in 125 branches out of 138, this few branches will have SLA in the near future

-AA higher revenue tax payers technical team representative also replied for my questions to me that the telecom digital network performance was perfect and the telecom had given especial attention even before SLA for their office and always

Ethiotelecom enterprise sales team promotes and avails the product offers and services that meets their office demand mobile broadband and e pay system as tele birr and other e-pay services as cloud type of service.

Ethiotelecom network division employees answered for my questions they are delivering perfect and reliable fiber connection than ever before

For the question sustainable network performance interview questions Ethiotelecom network division manager informed me that technical team is working with accountability for every network fallerity duration and delayed maintenance

Still there are many options to be presented for VCC to be loyal with us in the competitive market

The customer demand and ethiotelecom capacity to satisfy using new digital technology and narrow the gap is still the remaining homework

## **The researcher observation**

Despite the possible challenges of digital taxes and their infant nature, a few developing countries (both African and non-African) have put in place digital taxes while waiting for the digital tax proposal to be finalized

Source African Tax Administration Forum (ATAF). 2019a. Technical Note: The Challenges Arising in Africa from the Digitalization of the Economy. Available

Ethiotelecom has performed to bring a better digital experience in the AA revenue and the technical team confirmed that the telecom service is nice and well performing throughout their internal network & needed to expand, sustain come up with better versions of telecom services.

This shows that the demand in AA revenue on digital infrastructure is limited, but the need for digital telecom service in Ethiopia is growing and unable to satisfy by the existing digital service there are customers who familiar with digital systems & needs more advanced digital technology.

Still Ethiotelecom has to adapt services for the limited digital experience throughout the revenue bureau to bring better user friendly technology for those revenue customers in order to reduce the jargon paper work to change or modernize the e filling system.

## **4.4 Data analysis& observation**

### **Feed backs that indicates the achievement from questioner survey result**

#### **Service delivery performance of digitized system from the questioner survey**

There is still manual receipt utilization in AA revenue due to Ethiotelecom system unreachability problem 34% of respondents disagreed 11%of the respondents strongly disagreed

→Indicates that the reachability of telecom digital system is almost fully addressed in all AA revenue branches.

→Service interruption may occur due to fiber cut international gateway faller and so on but the options given to the faller makes the respondents rate highest; 25% strongly agreed and 16% of the respondents agreed that there are other options given by ethiotelecom in the case of

interruption or poor network quality has the better achievement response for the service delivery performance to be continued

→The system availability from ethiotelecom is consistent and has not that much complain from tax payers rated ;17% of respondents strongly agreed & 28% of the respondents agreed that the system availability from ethiotelecom is consistent and has not that much complain from tax payers,

→The digital transformation of Revenue collection was smooth and acceptable by all tax payers;16% of the respondents strongly agreed &26% of the respondents agreed

→All tax payers had been willing to be engaged to the digital tax paying system as the system launched 8% of the respondents strongly agreed & 31% of the respondents agreed

→The digital system has been user friendly for employees and tax payers' the feedback was answered as; 10% of the respondents strongly agreed & 32% of the respondents agreed

→AA revenue Technical team has responded that the network performance from the telecom or their back bone side has been progressing and improved the limitations for the performance of their routine jobs from time to time.

→They established reliable network via SLA (service level agreement) and now the poor quality or interruption rate is almost nil in 125 branches out of 138, this few branches will have SLA in the near future

→AA higher revenue tax payers technical team informed me that the telecom digital network performance was perfect and had given especial attention even before SLA for their office and always ethiotelecom enterprise sales team avails the product offers and services that meets their office demand mobile broadband and services system as tele birr and other e-pay services as cloud type of service.

→It was challenging to have fiber /copper maintenance in the possible short time (delayed for 15 days and weeks above) before telecom services improvement

Telecom technical team dedicated for VCC customer maintenance visits on their own scheduled program and rehabilitate the network equipment that have interruption frequently in the possible short time minimum 1 and maximum 3 days

### **Feed backs that points for the improvement from the respondents of the questioner survey**

→Awareness given to the revenue collectors and other employees directly participating on the revenue collection about the digital system.

34% of respondents disagreed 9% of the respondents strongly disagreed

→During the digital transformation AA revenue bureau had given awareness to the tax payers

39% of respondents disagreed 10% of the respondents strongly disagreed

→The tax payment system has been modernized than ever before 50% of respondents disagreed &9% of the respondents strongly disagree.

→The tax payer customer demand for digitization and ethiotelecom capacity to implement and satisfy the gap is still the remaining homework

### **4.5 Discussion**

Ethiotelecom has been serving AA revenue bureau since the establishment as indicated on the previous topic it had been working under ERCA before spitted there has been less literature and books on the shelf but here is as one of the initial findings on service delivery from the findings and responses on AA revenue collection on digital system

- The digital system, which was launched at a pilot level, targets LTPs, who comprise three percent of the total number of tax payers and expanded to medium and small tax payers on the 2014/15 fiscal year, from the findings still much more of the digital system was implemented on addressing the federal tax payers

This study was aimed to assessing the digital service delivery performance on all ranges of the tax payers AA revenue bureau the output from digital services especially e filing/e-pay system Revenue collectors and technical team ethiotelecom technical team and Governmental

service manager and all participants had given inevitable response for the improvements of the service

The categories on higher tax payers are better utilizing such digitalized services, but for medium tax payers and small tax payers are still more of using the traditional way of revenue collection. Indications reveals that the digital transformation of Revenue collection was not smooth and soon acceptable by some of the tax payers The digital system on e-pay or E-filing is still on the early beginning step of the transformation process

As can be seen from the findings AA revenue bureau is one of the authorized regional organization collecting revenues from AA Tax payers & the bureau is structured under AA City Government administration

The ethiotelecom digital service delivery for the revenue bureau is not having a sign of weakness but still strives to stretch to the better expansion utilization of digital revenue collection systems and other digital services

The revenue bureau had been under ERCA and all the modern tax collecting system was derived from ERCA. After detailed evaluation and direction, the bureau reorganized starting from January 26 2018. Source, AA Rev bureau ten years' prosperity plan

But still the digital revenue implementation is poor as per the responses from the participants and ethiotelecom has to find another way or method than the way going on

The Revenue bureau has the motto implementing modern digital revenue collecting system that is reliable, fast, and quality services throughout the city and has a vision to achieve one of the African modern tax administration system Source, AA revenue customers charter May 2019, page 2 but without implementation on digital system seems meaningless

There are advanced tax payers still experiencing under their capacity due to lack of deployed digital services that are available and supplied by the sector, the bureau is delaying for utilization of tele birr or other e-payment modes of payments than other similar organizations.

- still revenue collectors are fully confined on paper document authentication and manual paper work due to lack of e payment implementation

Readiness is the first step to be transformed from the existing situation but the revenue bureau has lack of giving awareness to employees analyzing and categorizing problems to the needed transformational direction

Tax payers' acceptance, expectation and willingness to digital level was rated nice but not managed properly or poor implementation that retards the performance of the revenue generation level; that response rate indicated from Ethio telecom can put digital tax paying system is modernized than ever before.

### **The interview method has more of technical**

From the discussion on interview method feedback and readiness of the revenue technical employees for digital transformation to enhance efficiency to boost the digital service delivery performance of ethio telecom is encouraging from AA revenue response was they are more of using VPN to transact data in their branch offices the link is recommended for secured and higher band width data for e-pay and e filing system shows no problem on the back bone.

Also indicates that the capacity of telecom optical fiber has better band width capacity medium implemented for the digital system has been almost fully addressed in all AA revenue branches.

In contrary, this study revealed that most of the respondents were dissatisfied with lack of awareness given before deploying the digital system. Enough awareness for the subject matter was to be given for the revenue collectors and other employees directly participating on the revenue collection about the e-pay system for the better achievement

Regarding the support, whenever ethio telecom launch new service, ethio telecom had given priority to promote and implement the new digital service if the service is compatible to the customer need. They are given special attention if there is a network failure and also regular support up to their premise from the customer side

## **CHAPTER FIVE**

### **SUMMARY CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter is composed of four sections, introduction, the summary, conclusions, and recommendation of the researcher. The second section summary and discussion of major findings presented from the study, which includes the study objectives as well as the findings. The third section indicates conclusions based on the specific objectives, with the help of the findings and results obtained in chapter two. The final part of the chapter presents the recommendations for improvement based on the specific objectives

#### **5.2 Summary**

The purpose of the topic of the study is to assess the effect of digital service implementation performance level in Addis Ababa revenue office

There is an important link between organizational quality digital service sustainability and thus both of them have responsibility for the performance level of an organization and as an important element to present for better organizational development.

The assessment indicates that Ethio telecom is working hard to sustain one of the VCC customers AA revenue loyalty and satisfaction seems to be achieved.

The revenue bureau existed network structure has reliable back bone connection from ethio telecom as per the research findings. But before implementation it was better to give

revenue Collection employee's readiness, awareness and their tax payers' willingness to be engaged in as per the digital system assessed by the research, and the response of the performace from the survey was weak that makes the implementation unsuccessful and also for further expansion process of the technology has its own negative impact but still further willingness of the stakeholders is needed

For AA revenue Ethio telecom is not only installing fiber to the customer premises but advise the solution to achieve more revenue collection using the digital system

### **5.3 conclusion**

AA revenue bureau has benefited from the use of ethio telecom digital services delivered:

The system availability from ethio telecom is consistent and has not that much complain from tax payers

1 Ethio telecom delivered for AA revenue bureau reliable backbone even if they have not fully implemented the digitization, but within this limited utilization of the modern revenue system implementation achieved on more of their branch offices especially higher tax payers offices.

2 The customers were very excited on the beginning of the digitalization but poor implementation; on skilled man power, digital equipment, readiness of the network before the SLA are some cases that made the digitalization not to fully implemented

3 Ethio telecoms commitment on such areas has inevitable role dedicated optical fiber connection, SLA, and payment via telebirr e filling and e-pay are some of the improved digital systems and even on this early stage of implementation

4 The organizational technical team are working together for the achievement of digitization is encouraging and will grow to the better achievement

5 There is a demand from customers that will make the digitization process grow fast this triend can be seen as an experience from online registration of trade and industry from observation of the survey

- The system availability from ethio telecom is consistent and has not that much complain from tax payers

- All branches are meshed through ethio telecom optical fiber network that has unlimited band width capacity for the digital services and systems as e-payment & e-filing

- AA revenue the wereda level (16 branches) of the revenue bureau system are connected via 20mg capacity optical fiber, reliable digital network.
- For the internal network digital data connection has backbone VPN that links all branches in Addis via secure data transaction throughout the organization
- One of the critical problem on data transaction is security but the VPN network with higher capacity is reliable mode of connection and is not allowed utilizing this connection for any other internet connection makes not to be exposed for fraud.
- The higher response rate the digital transformation of Revenue collection was smooth and acceptable by the majority of tax payers indicates the need or demand to be digitized
- From the responses established reliable network via SLA (service level agreement) and now the poor quality or interruption rate is almost free in 125 branches.
- Some of the branches of AA revenue bureau has not SLA and the branches will have SLA in the near future but confirmed that ethiotelecom technical team is dedicated for AA revenue bureau network maintenance in case of any incident.

#### **5.4. Recommendations**

- Higher tax payers office has relatively good in implementing the availed digital technology system, Extend this good friends to middle & small taxyers offices
- The revenue bureau has to invite agencies that are existed and working together with ethiotelecom for the better digitized service implementation, the revenue seems unable to fully deploy the digitized services alone and better to outsource for better experience
- Reduce and transform the manual services to digital and focus on the main task of the revenue
- Can out source for agencies the tasks as;
  - √ Online revenue collection of payments online without any human intervention
  - √ Online revenue payment notification seasonal and annual tax payments
  - √ Any notifications and amendments from the bureau
  - √ Online conversations on the tax payments and other issues

→The findings of the study revealed that AA revenue bureau had given enough awareness about the digital system to the collection employees and tax payers one of the positive performance but indicators shows that there will be better to be accepted by more employees.

→Ethiotelecom will have to take part due to his mission and role on digitalized informed society of AA revenue company collection employees in particular has to train either on work shop or online trainings

→Ethiotelecom has to bring and adapt better user friendly technology for the revenue collectors to reduce the bulk paper work in order to modernize the e filling system as the recent technology tele birr and tele cloud services introduced,

→The Revenue bureau has to avail and push the branch offices to better digital customer notification medium than the bulk sms using ethiotelecom bureau, during the tax payment reminder period.

→Ethiotelecom has to work for the sustainability of the established reliable network via SLA even if the poor quality or interruption rate is almost nil in most of the revenue bureau

→Ethiotelecom is solution provider for its customers but still there are cases indicated above that had not been addressed and solved in AA revenue bureau & better to have work shop and sharing experiences with expertise.

→The revenue bureau has to make functional for the users the domain name subscribed from ethiotelecom <http://aarevenuesbureau.gov.et/> revenue bureau website that was under construction before few months and still not functional properly

→The more advanced technologies as biometric revenue collection system is better to be interoduced since ctizens of addis is relatively more educated the issuance of digital national ID in Addis Ababa also good opportunity for this new technoly to be implemented.

→The VPN uses a shared public telecommunication infrastructure, to provide remote offices or individuals secure access to their organization's network and data it is better to expand the services using mobile data or mobile broad band VPN

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**St. Mary's University**  
**School of graduate studies**

**Questionnaires for AA revenue collection employees**

**Dear Respondents,**

I am Kassahun Estifanos, a Masters student in MBA at ST MARRY University, conducting my thesis research as a partial fulfillment Master's degree in business administration the area of study.

Thus, purpose of the study is to assess the organizational digitization in AA revenue & the service delivered by Ethio telecom. This study targets getting feedback from the practice of revenue collection employees, technicians, frontline managers, from telecom technicians managers about the digitalization experience of customers in AA revenue.

	1 strongly disagree,2 disagree, 3 neither agree nor disagree 4 agree, 5 strongly agree					
No	Description	1	2	3	4	5
1	The AA revenue Bureau had analyzed and labeled the problems before deciding to deploy the digital transformation system					
2	During the digital transformation AA revenue bureau had given awareness to the tax payers					
3	AA revenue had given awareness to the revenue collectors and other employees directly participating on the revenue collection about the digital transformation					
4	The digital transformation of Revenue collection was smooth and acceptable by all tax payers					
5	Tax payers believes that the digital tax payment implementation smoothed their tax paying system					
6	All tax payers were willing to be engaged to the digital tax paying system as the system launched					
7	The digital system has been user friendly for employees and tax payers					
8	The tax payment system is modernized than ever before					
9	All tax payment devices such as cash registers & the main servers are reliable					
10	The system availability from ethiotelecom is consistent and has not that much complain from tax payers					

11	There is still manual receipt utilization in AA revenue due to ethiotelecom system unreachability problem					
12	AA revenue IS team is responsive in the case of customer device or internal server problem					
13	Customers are recommending the better way of digitized revenue collection					
14	AA revenue is trying to adapt new technologies in cooperation with ethiotelecom					
15	AA revenue IS division is introducing different systems from their server without the telecom network availability					
16	AA revenue IS is strongly dependent on the telecom network availability for revenue collection					
17	There are other options given by ethiotelecom in the case of interruption or poor network quality					

The basic objective of the study is also to point the improvement and weakness areas of both organizations to sustain strong part and take corrective actions for the poor performances of the deployed technology and also as an input for further expansion of new technologies to the decision makers. I would like to state that the response you will be providing to the question raised in the questioner will be helpful to come up with reliable findings and, therefore the researcher for this study requests you to read all the questions and provide your answer accordingly. I would like to thank you in advance for sharing your precious time to fill in the questionnaire!

**Part one:**

Back ground information Please put a tick mark (√) to give your answer in the provided box.

- 1. Your sex: 1. male  2. female
- 2. Work experience in AA Revenue? 1. Less than Four years  2. 5-8 years  3. 9- 12 years  4. 12-15 years  5. 16-18  6. above 19 years
- 3. Your level of education A. Diploma  B. BA/BSC degree  C. Masters degree  D. PhD

**Part two:**

please give your opinion weather you are **1 strongly disagree, 2 disagree, 3 neither agree nor disagree 4 agree, 5 strongly agree using √ Mark**

**St. Mary’s University**

**School of graduate studies**

**Questionnaires for AA revenue technical team**

**Dear Respondents,**

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3. Your level of education A. Diploma  B. BA/BSC degree  C. Masters degree  D. PhD

#### **The below questionnaires are for written & interview survey collections**

1 Which services and product of ethio telecom are more preferable by your company? Why?

2 Would you explain how the service performance by Ethio-telecom from your point of view?

3 How is the AA Rev level of satisfaction by the services performance of E pay & which gap is to be managed by ethio telecom?

4 What are the strength parts of the deployed technology & its advantage than the previous automated systems?

5 Which categories (small, middle & higher) of AA revenue are more utilizing by the implemented e-payment technology? What are their advantage and disadvantages?

---

6 What are the gap between expected and existed ethiotelecom e pay services performances?

7 What are the challenges to improve using e-payment on revenue system for the AA revenue?

8 Is there any compatibility gap between the server equipment of AA Rev VS EthioTelecom?

Or which version of technology is best to be implemented & what kind of readiness you suggest to ethiotelecom?

9 which category of tax payers are the least performer? which one is the best performer?

What is the main reason to perform best & least? Better to be related to e-pay, cash register, ... network connections.

10 would you explain how benefited from deployed technology in the priority of services for AA Revenue Small medium & higher branch offices, and its limitations?

10 How is the feedback from customers or revenue collectors about e-pay system or other kind of telecom digitized services?

11 What is the best solution you recommend to fill the gaps? Better to be your analysis from the experience of electronic tax-filing system or other digitized payment systems

12 Other suggestions if you have

Thank You very much for your attention & time

**With Regards,**

**For ethiotelecom technical team**

- 1 What was the experience in AA revenue digital transformation and the most challenging problems and what kind of solutions had been given?
- 2 How is the duration for the interruption or responsiveness from telecom in the cases of network maintenance? Reason for delayed maintenance?
- 3 Which branch of AA Rev has frequent failure/needs maintenance & which branch has least maintenance record what is the reason beyond?
- 4 Which e-payment services and product of ethiotelecom are more preferable by the customer? How is the availability of the items?
- 5 What is their expectation from ethiotelecom for the future e-pay service to be delivered? \_\_
- 6 How is the readiness and accessibility of ethiotelecom to satisfy or improve to the better e-payment system?

Thank You very much for your attention & time

**With Regards,**

**For Ethio Governmental Services Manager /AA Revenue/**

- 1 AA Rev. collecting the generated amount of cash from the economy What kind of attention is given to support their Governmental mission on e-payment system
- 2 Would you explain which kind of e-payment challenges could not be solved soon and managed by your staff and escalated to you?
- 3 The technology is growing fast globally, what is ethiotelecoms plan for such sectors to deploy and satisfy the demands of the organizations on technology?
- 4 What kind of encouragement is presented by ethiotelecom to provide more updated e-pay or digitized revenue system?

5 Other suggestions if you have

Thank You very much for your attention & time

**With Regards,**