



Addis Ababa University

College of Business and Economics

**Assessment of Challenges and Benefits of Electronic Tax
System Adoption in Ethiopia: The Case on Medium Tax**

Payers Branch Office

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Addis Ababa, Ethiopia

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**Assessment of Challenges and Benefits of Electronic Tax
System Adoption in Ethiopia: The Case on Medium Tax
Payers Branch Office**

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Finance of Addis Ababa University in the Partial Fulfillment of
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Certification

This is to certify that the thesis prepared by Betelehem Lulu, entitled: “Assessment of Challenges and Benefits of Electronic Tax System Adoption in Ethiopia the Case on Medium Tax Payer’s Branch Office” which is submitted in partial fulfillment of the requirements for Master of Science in Accounting and Finance complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Signed by the Examining Committee:

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Declaration

I Betelehem Lulu, student of the Department of Accounting and Finance, Faculty of Business and Economics, Addis Ababa University, Ethiopia declare that the research work is based on my desire to assess Challenges and Benefits of Electronic Tax System Adoption in Ethiopia the Case on Medium Tax Payer's Branch Office. This research work is my original work and to the best of my knowledge, it has not been submitted elsewhere for academic achievement.

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Sign _____

Date _____

Acknowledgment

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List of Acronyms and Abbreviations

CBE	Commercial bank of Ethiopia
CPO	Cash payment order
E - Tax Filing	Electronic Tax Filing
E-Government	Electronic Government
E - Tax Payment	Electronic Tax Payment
ERCA	Ethiopian revenue and customs authority
ICT	Information Communication Technology
INSA	Information Network Security Agency
IT	Information Technology
MOR	Ministry of Revenue
SIGTAS	Standard Integrated Government Tax Administration System

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Abstract

This study was conducted to describe the Challenges and benefits of electronic tax system adoption in Ethiopia at the ministry of revenue medium tax payer's branch office. To achieve its objective, Primary data was collected from employees of the ministry office through questionnaires and interviews. For the research mixed approach or the hybrid of the quantitative and qualitative approaches was applied. The researcher adopts a descriptive method of research design. Primary data had been obtained by use of structured questionnaire and semi-structured interview respondents of this study were employees of the ministry of revenue medium taxpayers branch office, by considering the research questions. questionnaire data were analyzed using SPSS version 20 and interview questions were summarized and presented an interview responses were categorized, summarized, and narrated. The research result shows system backwardness, lack of sufficient training, some taxpayers using old system, taxpayers encoding incorrect data, many parties involved in e-tax payment system, taxpayers lack confidence in the system, lack of sufficient IT infrastructure and trained manpower in the ministry office as a challenge and easiness to use, saving time and cost, convenience, enhancement of improved customer service, decrease space needed for manual paper, reduce manpower required and allowing taxpayers to finish all tax payment process for office as a benefit of electronic tax system adoption. The result also shows that employees of the ministry officials have a positive perception about the electronic tax system adoption and regarding network connection, the challenge of network on the e-filing system very less. But when it comes to electronic tax payment system when some problems occur in the bank system it delays the tax payment process. By referring to the above result the researcher recommends the ministry office to update both SIGTAS and E-Tax system software, implement all features of the system, work in a great collaboration with CBE and National Bank of Ethiopia and also try to involve other private banks on e-tax payment system.

Chapter one

Introduction

1.1 Background of the study

E-government is the application of information and communication technologies (ICTs), such as the internet and other similar device to enhance the government's ability in discharging its functions and services to the citizens. Mainly, the objective of e-government platform is to improve the governmental service delivery at the conveniences of the citizens, while promoting transparency and accountability in public administration. Thus, it is not surprising to see a major shift towards the automation of public services worldwide (Mohammad & Hijattulah, 2016).

The electronic tax system is one of the systems which is included in the E-Government systems. The electronic tax filing system can be described as a new channel to pay taxes via an electronic medium such as the internet. According to Lu, et al., (2010) electronic tax filing is also, defined as a system in which individual taxpayers or companies file their taxes through the internet. An electronic tax filing system has also been defined as a "non-manual tax filing system,". Electronic tax filing systems can be recognized as a general term for electronic filing or electronic lodgment or electronic declaration of tax returns through the submission of tax data to a tax authority in a computerized file format through an internet connection(Mohammad & Hijattulah, 2016).

Dagnachew (2018) In his study states that increase productivity reduces paper work, reduce transaction cost, increase the volume of tax payers and generate better revenue collection as some of the potential operational efficiency benefits of E-Tax adoption.

Despite its benefits, the adoption of electronic tax systems specially for a most developing country is a bit challenging due to this most of the countries are not getting the expected

benefits from the system. According to Abera M. (2018) electronic tax filing system in Ethiopia is just in its infant stage of implementation and are aimed at developing a better and easier system, the acceptance rate for this system is very low and remain underused by the taxpayer's adoption rates must increase for any benefits to be reaped.

1.2 Statement of the problem

As cited by Gekonge & Wallace (2016) Governments in developing countries face great challenges in collecting tax revenues, which results in a gap between what they could collect and what they collect. Some of these challenges according to Mills (2017) are the lack of modern infrastructures, such as IT systems, and (Abera T. , 2019) states there is a significant influence of network connectivity on tax compliance which restrains the tax collection process. As for Ethiopia revenue collection performance remains low at 12.5% of GDP compared to the average for sub-Saharan Africa (17%)(Fekade, Asnakech, & Ronald, 2019) they state Malfunctioning of e- filing and e-payment systems is a major problem in their research, requiring strategical improvement in tax collection and modernizing tax collection system.

The electronic tax system is one of the E-government systems. Electronic tax payment or e-tax lodgment was first coined and implemented in the US in 1986(UN, 2007) (Haryani, Motwani, & Kaur, 2015)

It's been years since Ethiopia has launched an Electronic tax system especially an electronic tax filing system but since it wasn't obligatory most taxpayers were filing manually; In the current situation, the Ministry of Revenues has fully operationalized the electronic payment order from the end of March 2019 as part of its new e-tax payment system intending to modernize its services.

According to Fasika (2019), the ministry office is Operating at all four branches of the Ministry in Addis Ababa, the new system requires taxpayers to fill out a form to order the banks to make a cash deposit or transfer a balance into the Ministry's account. This process was formerly

conducted through CPOs. The system is launched in collaboration with the Commercial Bank of Ethiopia which allows taxpayers to file and pay their tax from the office but meanwhile, it's a new system it has been challenging to cope up with the system.

Even though studies have been conducted on the adoption of electronic tax filing, challenges, and prospects in Ethiopia, as per the understanding of the researcher previous studies have focused mainly on large taxpayer's branch office. Not only this but the previous studies focused only on electronic tax filing which is one part of the electronic tax system and also unlike previous times currently using an electronic tax system is compulsory to comply with tax for federal taxpayers. Therefore, this study attempts to bridge this gap and tries to study the challenge and benefits of the electronic tax system adoption at the ministry of revenue Medium tax payer's branch office.

1.3 Research Question

1. What are the major challenges of adopting an Electronic Tax System (E- Filing and E-Payment)?
2. What are the major benefits of adopting an Electronic tax system both for MOR and Tax Payers?
3. What is the Perception of employees of MOR regarding the adoption?
4. Is Network connection a challenge for E- filing and E- tax payment during tax compliance?

1.4 Objectives of the study

1.4.1 General Objective of the study

The main purpose of the study was to examine the challenges and benefits of electronic tax system adoption in Ethiopia specifically in the Ministry of Revenue Medium Tax Payers Branch Office.

1.4.2 Specific objectives of the study

Under the general objective stated above, the research has the following specific objectives:

- To assess the challenges of electronic tax system adoption.
- To assess the benefits of adopting an electronic tax system.
- To assess the perception of employees of MOR regarding the adoption.
- To assess the challenges related to network connection on E- filing and E- tax payment.

1.5 Significance of the study

In addition to its significance for academic requirements, this study has the following significance.

- Ministry of revenue would be able to use the findings from this study to critically assess and improve problems in the process of electronic tax system adoption and to take corrective measures regarding the problems and drawbacks in the system and the recommendation forwarded on existing scenario regarding the system would contribute much to the tax authority.
- Taxpayers would find some solution regarding the adoption process and take their measures before they face problems.
- In conducting this research, the researcher develops research skills.

- Finally, the research paper can be used as a base for further research and will fill the knowledge gap in the field.

1.6 Scope of the study

In this study, the researcher covers the challenges and benefits of the Electronic tax system adoption by including only electronic tax filing and electronic tax payment systems considering the Ministry of revenue Medium tax payer's branch office but the researcher was only confined to the employee's judgment about the adoption of the system. Moreover, in undertaking the study the researcher only focuses on the non-technical aspect of electronic tax system.

1.7 Limitation of the study

In conducting this study, the researcher focuses on assessing the challenges and benefits of electronic tax system adoption but due to time and Covid 19 pandemic constraints the study was delimited only to the Ministry of revenue Medium tax payer's branch office, it didn't consider the practice of other branch offices and the opinions of tax payers. Additionally, in collecting data from respondents the researchers couldn't find sufficient willing respondents to be included in conducting interviews.

1.8 Organization of the study

The paper was organized into five chapters. The first chapter was an introduction to the research paper which included the background of the study, statement of the problem, objective of the study (general objective and specific objectives), significance of the study, and scope of the study. The second chapter presented an important literature review. Subsequently, the third chapter was about the research methodology, research area, and source of data, method of data collection, sampling and sampling techniques, and method of data analysis. Chapter four presented data presentation, analysis, and interpretation and finally, chapter five was about summary, conclusion, and recommendation.

Chapter Two

Literature Review

This section presents a review of related literature to the Electronic tax system and issues related to the adoption of an electronic tax system are presented. It consists of a general overview of the Electronic government system, Electronic tax system, challenges of adoption, and benefits of adopting the system.

2.1 Taxation

As described by many scholars, Taxation is involuntary and compulsory fees levied on individuals or entities enforced by the government to finance government activity. And in almost all countries tax collection and administration is the duty of a government. According to Thomson (2008), Tax administration is a complex and dynamic responsibility. Regularly, leaders are faced with new issues, conflicting priorities, taxpayer compliance, and emerging commitments. To solve this complexity and conflicting priorities most countries are trying to advance the system and to make the complexity to the minimum possible. From those solutions, Electronic tax system is the crucial and major one as it aims in maximizing revenue collection and providing enhanced customer service.

2.2 Tax Compliance

Tax compliance is the process of filing, Complying, and payment of taxes. Kirchler (2007) Stated that compliance might be voluntary or enforced compliance. Voluntary compliance is made possible by the trust and cooperation between the tax authority and taxpayer and it is the willingness of the taxpayer on his own to comply with the tax authority's directives and regulations. According to Michael, Christine, Josef, Claus, & Patric (2008) tax system should be designed to maximize compliance for the tax authorities while minimizing compliance costs

for the taxpayers. Requiring updated and modern system of filing and payment of tax. An electronic tax system gives a great chance for making tax filing and payment systems easier and effective it also helps in satisfying the canons of taxation like convenience.

2.3 Electronic Government systems

To start with the general point of view according to Åke & Thomas (2004) the term e-Government (e-Gov) emerged in the late 1990s, but the history of computing in government organizations can be traced back to the beginnings of computer history. E-government is simply the use of ICT to improve the process of government activities (Kolachalam, 2002) or it can be defined as a combination of people, processes, and technology used to deliver superior service to the constituent (Samuel , 2015). E-Government also refers to the use by government agencies of information technologies that can transform relations with citizens, businesses, and other arms of government (Mesfin, 2010). He also mentioned the aims of e-government as a means for better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management which will result in a decrease in corruption, increased transparency, greater convenience, revenue growth, and cost reductions. In agreement with this, Mohammed & Steve (2010) stated main purposes of E-government system application is a reduction of customers' and organization's time, effort, and costs, improvement of service delivery, citizens' satisfaction, an increase of users' ICT skills, internet knowledge and computer usage and creation of new business and work opportunities.

E-government functions can be Categorized into four main categories. These are Government-to-citizen (G2C) which aims to serve the citizen and facilitate citizen interaction with the government by making public information more accessible through the use of websites, Government-to-government (G2G) having a main purpose creation of online communications

between government organizations, departments, and agencies based on a super-government database, Government-to-employee (G2E) is about the relationship between government and its employees only. The purpose of this relationship is to serve employees and offer some online services and the last Government-to-business (G2B) which includes various services exchanged between government and the business sectors, including distribution of policies, memos, rules and regulations, obtaining current business information, new regulations, downloading application forms, lodging taxes, renewing licenses, registering businesses, obtaining permits, and many others (Alshehri & Drew , 2010). From the Government-to-business category, the major concern for this paper is Electronic tax system which is expected to enhance the tax collection system, reduce the time and cost required for tax filing and payment, and also to increase efficiency tax collection from the government side.

2.4 Electronic tax system

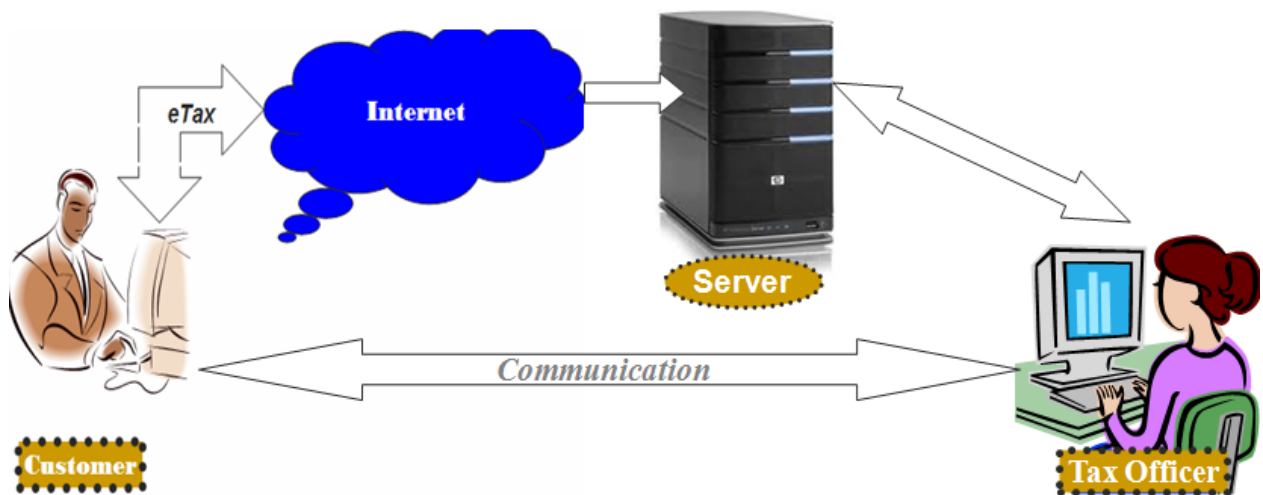
Electronic taxation (or e-taxation) is the deployment of computer systems and networks in the process of levying and payment of taxes. It involves the application of computer techniques in the process of tax assessment, collection, and administration generally referred to as e-payments and e-filing (Newman & Ekhaton, 2019). In agreement with this (Wasao, 2014), states that an electronic tax system is an online platform that enables the taxpayer to access tax services through the internet. Such services include registration for a tax identification number, filing of returns, and registration of a payment and compliance certificate application cited by (Bananuka, 2019).

Electronic taxation differs among countries hence the name of the system also differs from country to country. An electronic declaration is named electronic tax filing in International literature. E-tax payment is also called online taxation payment (UN, 2007) or e-tax lodgment cited by (Haryani, et al., 2015). Electronic tax system includes electronic tax filing and

Electronic Tax System. (Denise , 2008)States that E-filing is a transmission of tax information directly to the tax administration using the internet. Electronic filing options include (1) online, self-prepared return, using a personal computer and tax preparation software, or (2) online submission of returns using a tax professional's computer and tax preparation software. Electronic filing may take place at the taxpayer's home, a volunteer site, the library, a financial institution, the workplace, malls, and stores, or a tax professional's place of business. She also States E-payment as the transfer of money from a person's bank account to the tax administration's bank account using the internet. E-payments can be made online, at any time (during and after banking hours), and from any place.

In Our Case E- filing is submitting or filing tax to the revenue office using the internet without the need to submit manual papers. In addition to filing tax return data, the system offers the opportunity to communicate with tax officers without the need to go to a branch office, ask for a tax refund and check tax payer's validity for fraud.

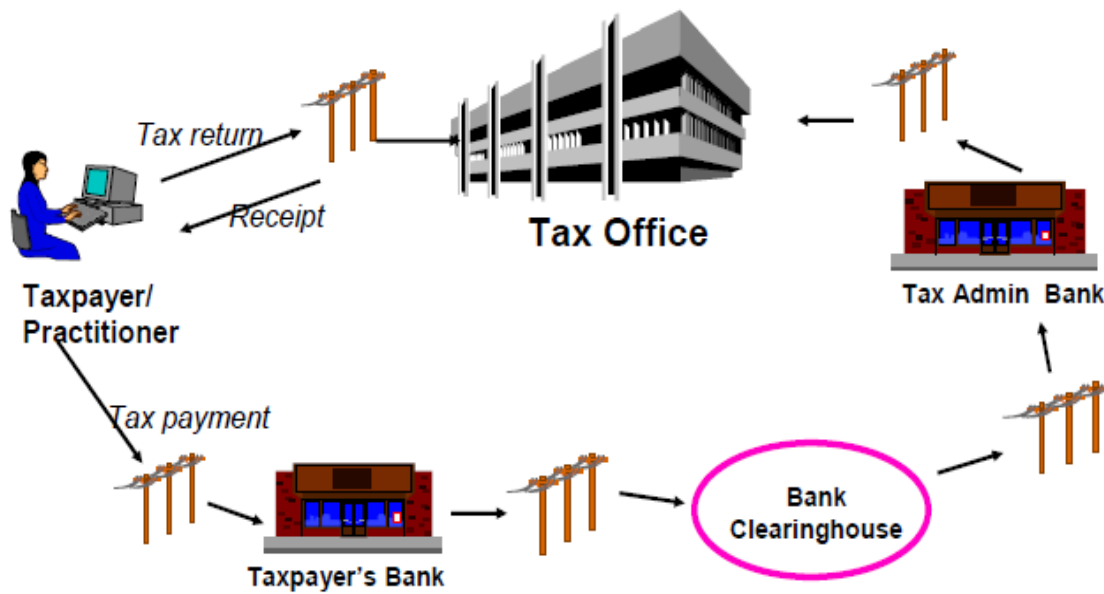
Figure 2. 1 : Electronic tax filing process



Source: MOR Medium tax payer's branch office electronic tax system training material

Electronic tax payment is a system that links taxpayer and revenue office through bank using the internet. For both systems, the taxpayer is only required to fill in the documents and approve the bank transfers online from his or her own office.

Figure 2. 2: An ideal Paperless Filing and Payment System



Source: Electronic tax system process Adapted from (Edwards-Dowe, 2008) cited by (Abera T. , 2019)

2.5 Electronic tax system adoption

The electronic tax system is one of the E-government systems. Electronic tax payment was first coined and implement in the US in 1986(Sharda , Bharti , & Sukhjeet, 2015). However, electronic taxation was fully entrenched in the US by the introduction of the Internal Revenue Service Restructuring and Reform Act 1998(Newman & Ekhaton, 2019) Today, electronic taxation has been extended to too many countries.

For the past 30 years, there has been a consistent move from manual tax processes to an electronic tax system in most parts of the world. For instance, Sweden started functioning e-tax in December 1996(Ritah , 2011). In 1998, in China, all three systems manual, Internet, and 2D bar code were available to taxpayers in Taiwan city(Wang, 2002) and the next year an

"Internet Tax Office" was first established in 1999 in Turkey(Metin , Ali , &Metehan , 2019). In the year 2001 South Africa introduced electronic tax system by the South African Revenue Service (SARS)(Newman & Ekhtator, 2019) While e-filing was introduced in India in September 2004, initially on a voluntary usage basis for all categories of income tax assesses but it was made mandatory for all categories of taxpayers in July 2006. (Sharda , et al., 2015). the Inland Revenue Board Malaysia (IRBM) had launched e-filing for individual taxpayers on10th February 2006(Ling & Fatt , 2008). Electronic taxation was introduced in Mauritius by the Mauritius Revenue Authority (MRA) in 2007, Korea launched its electronic tax system in 2012 while Uruguay's compulsory electronic payment of national tax was introduced in 2014, This was followed by Serbia in 2014 (Newman & Ekhtator, 2019).

Several African countries have also adopted the electronic tax system in their operations. Such as, Electronic taxation system that was rolled out in Ethiopia in 2012, in2013 by the Kenya Revenue Authority(Gekonge & Wallace, 2016), In 2015, Nigerian, and Namibia in 2016(Newman & Ekhtator, 2019).

2.6 Electronic tax system adoption in Ethiopia

In developing countries like Ethiopia, computerized systems are in an infant stage specially in a government-owned organization like Ministry of revenue there may be many reasons for these but the common reasons can be stated as lack of budget to develop and implement a computerized system, lack of literate man power for developing and working in computerized based systems and lack of civilized citizens which are aware of the usefulness of computerized systems. On the contrary, the world globalization and economical and social factors were pulling technologies and computerized systems to developing countries since globalization is making the world closer than ever countries like Ethiopia are forced to cop up with changing nature of the world technological systems to stay in the world socioeconomic relations even if

these countries couldn't make it as the developed nations due to the above mentioned and some other factors with the help of other nations and by themselves, they have been trying to follow the developed nations (United Nations, 2004).

The electronic tax system is one of these technologies, for the past 20 years, Ethiopia has been trying to change the tax system from manual to online system. Before 2003 the ministry office stayed using a manual system for tax collection. But in the year in 2003, the domestic tax office started using Standard Integrated Government Tax Administration System (SIGTAS) only for VAT, while all other tax and customs still manual and paper-based. Following the 2003 introduction of SIGTAS to handle corporate VAT, the government in 2006 decided to use the system for all other tax types and across all branch offices but the ministry office was using this system only in the ministry office which means still the tax payers have to prepare and bring manual paper which shows the details of the tax that they are filing and paying the tax officers will file it on SIGTAS using their username and password which was a good improvement compared to the manual system but which still also needs improvement (Leon, 2018).

Governments of developing countries are eager to create modern tax systems although saddled with weak tax administrations and sometimes have experimented with tax administration mechanisms that inflict higher compliance costs on the private sector (Bahro & Glenn, 2005) from the measures that have been taken by the government's Electronic tax system is one of them it's believed that the system will enhance the efficiency and effectiveness of tax collection (Akitoby, 2018) and also minimize tax payers tax compliance cost by considering these benefits most governments are implementing electronic tax system in their country.

As for Ethiopia, in 2010 ERCA built an electronic tax-filing module on SIGTAS and rolled out e-filing to selected large taxpayers on a pilot basis. It extended the program to all large taxpayers during the following tax season and in 2013 expanded it to cover medium-sized

taxpayers in urban areas where power supply and internet connections were adequate (Leon, 2018). Ethiopian revenue and customs authority (ERCA) has brought significant benefits to the business community and Ethiopia's wider economy by developing the e-tax system. 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 &Yusinza, 2009).as cited by(B.C.M, Ipseeta, & Mesele, 2019) .

In 2015, the e-filing system faced the most pressing problem. “Which is the system would slow down when the number of persons logged increase and even in some cases, you would log in with your name but end up in someone else's account." Dadour consulting team implemented a series of technical fixes from 2015 to 2018 and worked to clear problems and put e-filing back on track, the team also built a new module for electronic payments that it rolled out on a pilot basis in September 2015 and then to all large taxpayers in 2016. Although ERCA had hoped to launch a system for electronic payments alongside e-filing, that goal proved beyond reach at the time. "Ethiopia was not ready for electronic payments because the banking sector was not ready,"(Leon, 2018) That means the taxpayer needs to pay with the old system (no e-Payment mechanism)(Samuel , 2015) which will only ease the process of paying tax by half since the taxpayer has to come to the ministry officials. Finally, E-payment was implemented on March 2019 in collaboration with the Commercial bank of Ethiopia.

2.7 Empirical Review

According to Ferhat & Aykut (2007) Integration of e-tax filing and e-tax payment systems has created a new perspective for Turkish tax management system and represents a new as well as a good example of the application of modern information and communication technologies in taxation process in Turkey. They also state that e-taxation system has offered valuable

opportunities for tax authorities to more efficiently manage tax system. Similarly (Harold , 1991) states that Electronic tax filing Biggest benefit from the tax payers point of view is that it shortens the time for refunds from an average of 12 weeks to about 3 weeks but in contrast to this, (Anna & Yusniza, 2010) In their conceptual study about E- tax filing identified that taxpayers tend to e-file near the tax deadline and this may lead to system crashes and being jammed which will increase the time needed to comply tax for tax payers and this will lead to increase burden for tax office employees. This shows even if the adoption of electronic tax system tends to increase the efficiency of the tax office since most taxpayers filing and paying tax on the closing dates it seems to decrease the efficiency of the tax office and it will also be time-consuming for the tax payers.

Ritah (2011) in her study which was conducted on Sweden about the perspective of tax payers on E-service specifically on electronic tax declaration states that Sweden has succeeded to a larger extent indicative of the fact that much progress has been made over time. Even though e-services are somewhat new and still facing rebuff from the public, the respondents think they are the quickest and most convenient methods to execute actions that have been voiced as drawbacks to the paper version. The survey result shows that while the old people, people with non-academic jobs, and the uneducated are adapted to the paper versions, but the reverse is true for the young and educated. Showing that e-services are integrated over time, citizen's perceptions equally need time to change.

Gekonge & Wallace (2016) In their result conducted in Kenya on the Effects of Electronic-Tax System on the Revenue Collection Efficiency of Kenya Revenue Authority indicate that revenue collection has been affected upwards and Kenya revenue authority workers are comfortable using the process as compared with the old manual one. They also stated in their study electronic system has also reduced corruption loopholes by making moist payments through mobile phones and submitting returns online. On the contrary, the study moreover

states that most taxpayers complain of a difficult process, lack of electricity, internet, and knowledge to access computers and related media in filing and paying their taxes.

Newman & Ekhaton (2019) In their study conducted in Nigeria, states the adoption of electronic solutions in tax administration aligns the Nigerian tax system with the global trends in tax administration of shifting from manual tax processes to an automated tax administration system. From the benefits stated by the researchers some of are the system obviates the need for cumbersome manual paperwork in the filing of tax returns and preparation of tax assessments, which leads to administrative efficiency, in conformity with the canons of a good tax system of simplicity, equity, and efficiency, it helps to reduce sharp practices of corrupt tax officials who may tend to manipulate information to aid evasion and avoidance and it also increases the accessibility of tax services from anywhere in the world as a taxpayer can pay tax from anywhere in the world. In support of these (Metin , Ali , & Metehan , 2019) in their study conducted in Turkey on the effect of electronic taxation systems on tax revenues and costs states implementation of electronic tax system positively affected the tax and reduced the cost per tax collection. Similarly, (Qassim , Abbas , & Dhyaa Al-Laban, 2018) in their study conducted in Iraq on the impact of electronic taxation on reducing tax evasion the study was conducted by taking 100 employees from companies registered on the Iraqi stock exchange, the study showed that the better use of electronic taxation systems in the tax system increases revenues and reduce tax evasion opportunity.

Newman & Ekhaton (2019) also state some challenges In Nigeria, like the electronic tax system is confronted with several challenges, which include a low computer literacy level and the high cost of setting up an e-taxation system, and many tax authorities at the state level are still using manual tax processes, which inhibits effective collaboration between tax authorities at the federal and state levels to prevent double taxation.

2.7.1 Challenges of Electronic Tax System Adoption

Even if a change is inevitable most people refuse changes especially for the first time and when it comes to the electronic taxation system in addition to its being a change in the meantime it's the change from a manual and accustomed system to an electronic system it makes it a lot more challenging to implement the adoption. From the reasons which make the adoption process challenging (Ritah , 2011) identified in her study old people, people with non-academic jobs, and the uneducated are adapted to the paper versions and even though a majority of the people were positive with e-tax, some are still unwilling to collapse the paper counterpart. Not only this but she also explains that since Tax filing is a sensitive (money) topic which people might not require help from friends or family except the authorities. In cases of enquiries or wrong data, the user would want to consult the office in person, which will create a burden for the Ministry of revenue staffs and crowd in the ministry office specially on the last date of tax filing.

On the other hand (Dowe 2008) as cited by Gekonge & Wallace (2016) argued that the basic prerequisites for implementing successful e-filing and e-payment systems are: (1) a reliable and accessible internet service; (2) cooperative financial institutions; (3) an IT-oriented public; and (4) adequate financing to set up the appropriate infrastructure in tax offices. Which makes it challenging to adapt to Electronic tax system especially for developing country like Ethiopia here most companies don't have active internet access specially in their office so they have to use internet cafes and also training rooms of the ministry of revenue which makes their presence in the ministry office certain this decreases the taxpayer's positive perception towards the adoption of the electronic tax system. In agreement with this (Dagnachew, 2018) in his study shows that lack of adequate coordination, interaction, and cooperation between banks

and other decision-making centers, limitation in network infrastructure, and internet-related support services as major challenges facing the implementation of E-Tax system. On the same wave length Low level of internet insight and poorly developed telecommunication infrastructure, lack of suitable legal and regulatory framework for e-commerce and e-payment, high rates of illiteracy, high cost of Internet, absence of financial networks that link different tax revenue authorities, lack of reliable power supply, and Cyber security issues have been stated as challenges(B.C.M, et al., 2019) and (Ruta, 2017) also states challenges like taxpayers forgetting their password, incorrect data encoding by new e-tax users, e-tax users still visiting tax offices, slow and interrupted internet system, power disruption, lack of management support, lack of IT staff members, taxpayers not trusting the system and not being willing to shift from the manual system. in addition to these (Samuel , 2015) states slow server capacity of ERCA, poor/no internet connection and limited support mechanisms as challenges of electronic tax system adoption.

2.7.2 Benefits of Electronic tax system Adoption

Electronic systems by nature give the benefits of working from where one resides, require less amount of time and effort and it's also easy and clear for end users. The E-Taxation system offers multiple solutions to both sides of the taxation system. On One Side the tax collector's job is more effectively carried out as access to data required to determine the volume of taxes currently paid is readily available and can confidently estimate deficits. The tax organization is seen as more transparent and effective in carrying out its duties as it has records to support stated facts in its report. On the other hand, the taxpayers, in general are more receptive to taxation as the whole process is convenient and flexible. It doesn't require visits to the tax office (Onuiri, Faroun, Erhinyeme, & Jegede, 2015).

According to Gekonge & Wallace (2016) when compared with the old manual system, the electronic system is good and convenient by far. It reduces queues, workload, physical filing of large files, and cumbersome registration processes by both revenue authority officials and the government. Supporting this (Abera T. , 2019) states e-tax filing system benefits mainly, making data filing easier, making data storage safer, making data loss less risky, reduces time spent on auditing taxpayer's data which will increase the efficiency of both tax payers and ministry office employees, There is less chance of errors(Harold , 1991) and (Alfred , Cyril, & Joyce , 2019) in their study indicate that e-filing will improve tax returns filing process.

As Discussed by Samuel (2015) on his paper conducted on challenges and prospects of e-government in Ethiopia he stated Large Taxpayers are benefiting from savings on their time, energy, cost wasted in higher paper works, low prone to error from manual computation, need to travel ERCA office for tax filing, bearing the stress on month-end long queues. Supporting this (Segun & Babalola, 2017) also states electronic tax system offers the flexibility of time; reduces calculation error on the tax return form to the taxpayer. In agreement with this (Ruta, 2017)in her study states e-tax filing system benefits mainly by making data filing easier, making data storage safer, making data lossless risky, reduces time spent on auditing taxpayer's data, faster and more accurate with less error, decrease penalty. In Addition to the above benefits according to (Abera M. , 2018)The government gains in the form of reduced operational costs such as costs associated with submission, storage, and handling of returns in addition to saving time which in turn boosts compliance(Abera M. , 2018).

2.8 Summary and Gap in the Existing Literature

As per the review of the literature most of the previous studies were conducted outside Ethiopia, most of the findings show low computer literacy level (Newman & Ekhatior, 2019), high cost of Internet(B.C.M, et al., 2019), slow and interrupted internet system (Ruta, 2017) limitation

in network infrastructure and frequent power disruption (Dagnachew, 2018) as a challenge to adopt electronic tax system in different countries including Ethiopia. On the other side saving time(Abera M. , 2018), increasing revenue(Qassim , et al., 2018), reducing cost per tax collection (Metin , et al., 2019), making data filing easier, making data storage safer and data lossless risky(Abera T. , 2019), and reducing manual paperwork (Newman & Ekhaton, 2019) are some of the benefits stated in the previous studies.

Even though previous works attempted to fill the knowledge gap regarding electronic tax systems throughout the world when we came to the case of Ethiopia While, Electronic tax system seems to be equally important for all ministry of revenue branches most of the researchers emphasize large tax payer's branch office. There is a dearth of empirical study that examines the data from Medium tax payer's branch office in Ethiopia; besides, studies that have been made earlier were during the adoption of electronic tax filing voluntarily currently the ministry office made the adoption of both the electronic tax filing and electronic tax payment compulsory. Hence, the study attempted to bridge the gap and elaborated challenges and benefits that could influence the adoption of an Electronic tax system and also the perception of employees of the ministry office regarding the adoption of the electronic tax system on the Ministry of revenue medium tax payer's office in Addis Ababa.

Chapter Three

Research methodology

This chapter deals with the research methodology that was used in conducting the study. The chapter includes research approaches, design, area of study, source of data, data collection method, sample size, method of data analysis and interpretation, validity and reliability of instruments, and finally ethical consideration of the researcher in conducting the study.

3.1 Research Approach

Among the three available research approaches which are qualitative, quantitative, and mixed the hybrid of the quantitative and qualitative approach. The quantitative approach is for close-ended matters or for specific and only one answer whereas the qualitative deals with subjective matters and also certain types of social research problems call for specific approaches. On the other hand, if a concept or phenomenon needs to be understood because little research has been done on it, then it merits a qualitative approach (Creswell, 2009). Hence each individually limits the research to meet the expected result. And according to (Creswell, 2014) the mixed research approach uses separate quantitative and qualitative methods as a means to offset the weaknesses inherent within one method with the strengths of the other method. The mixed Approach involves a collection of both qualitative (open-ended) and quantitative (Close-ended) data in response to research questions. By considering and being convinced by the scholar the researcher used both the quantitative and qualitative research approach, which is the concurrent mixed approach. The required data for this study was collected using a structured questionnaire for collecting quantitative data and unstructured in-depth interviews for qualitative data.

3.2 Research design

The researcher used a descriptive type of research. Descriptive research designs provide answers to the questions of who, what, when, where, and how matters are associated with a particular research problem. It is used to obtain information concerning the current status of the phenomena and to describe what exists concerning variables or conditions in a situation. The study describes the challenges and benefits of electronic tax system hence, it is categorized as descriptive research. Data for this research was collected from primary sources. Questionnaire and interview were used as an instrument in collecting primary data. Questionnaire helped in collecting data from large population and interview questions for collecting detailed information from respondents to describe the current situation in the adoption process.

3.3 Research area

The study is conducted on the challenges and benefits of electronic tax system adoption by collecting data from Employees at Ministry of revenue medium tax payer's branch office located at Kazanchis.

3.4 Source of data and Methods of data collection

To conduct the study primary was used, Primary data are those which are collected afresh and for the first time, and thus happen to be original. In the study primary source of data is gathered by the researcher. This includes the distribution of questionnaires which includes general information questions and five-point Likert scale questions. The reason for using a questionnaire is that it's relatively easy to analyze and respondents have time to think about their answer since they are not usually required to replay immediately and also closed questions have the benefits of easy handling, simple to answer, quick, and relatively inexpensive to analyze and are most amenable to statistical analysis (Kothari C. , 2004). Regarding the

interview method, it's used because it helps to gather more and detailed information and that too in greater depth can be obtained, the language of the interview can be adopted to the ability or educational level of the person interviewed and as such so that misinterpretations concerning questions can be avoided(Kothari C. , 2004); Interview was conducted with tax assessment and collection manager and E-tax implementation team leaders.

3.5 Sample and sampling techniques

During the study, the total number of employees in the branch office was 373 but from the staff of the Ministry of revenue medium taxpayers branch office, only employees who are directly and more involved in electronic tax system adoption which were electronic tax system adoption team leaders, tax compliance team, data encoders, customer service officers, tax payers training team and tax audit team are included which is 149 number of employees.

$$n = \frac{N}{1 + N(e)^2}$$

Where n is the sample size,

N is the population size, and

e is the level of precision

Table 3. 1:Number of Population and sample size

MOR Medium Tax Payers branch office	Size of Population(N)	Sample Size(n)
E - Tax Officers	4	108
Tax Compliance Team	46	
Tax Audit Team	84	
Tax Training Team	8	
Managerial and Administrative Staffs	7	
Total	149	

Source: MOR Medium tax payer's branch office Human Resource Management

For this study, the researcher used a non-probability sampling technique of judgmental sampling Technique. The reason behind selecting Purposive non-probability sampling is based

on the findings of (Tongco, 2007) his findings revealed a purposive non-probability sampling technique is most effective when one needs to study a certain cultural domain with knowledgeable experts within. For this study, the researcher adopted a purposive sampling method to segregate support and administration staffs from tax collection, audit and e- tax team.

3.6 Data Analysis

Data processing implies editing, coding, classification, and tabulation of collected data so that they are amenable to analysis. The term analysis refers to the computation of certain measures along with searching for patterns of relationship that exist among data groups (Kothari C. , 2004). For this study respondent's response to the questionnaire was carefully coded and analyzed using Statistical Package for Social Science (SPSS) version and for an interview the data was categorized, summarised, and interpreted.

3.7 Validity and Reliability

A. Validity

Validity explains how well the collected data covers the actual area of investigation (Ghauri and Gronhaug, 2005) cited by (Hamed , 2016).which is dependent on the extent of data collection instrument to measure what is intended to measure. For the study, the researcher prepared clear and easily understandable questions for both instruments and also, the validity of both questionnaire and interview questions were evaluated by the research advisor.

B. Reliability

Reliability concerns the extent to which a measurement of a phenomenon provides stable and consistent results (Carmines and Zeller, 1979). Reliability is also concerned with repeatability cited by (Hamed , 2016) According to Whitley, 2002, Robinson (2009) the most commonly used internal consistency measure is the Cronbach Alpha coefficient. It is viewed as the most appropriate measure of reliability when making use of Likert scales. No absolute rules exist for internal consistencies, however, most agree on a minimum internal consistency coefficient of

.70 cited by (Hamed , 2016).) by considering the above the researcher conducted a reliability test of the instrument using the Cronbach Alpha coefficient as show in the below table 3.2 the result of the reliability test derived is 0.75,0.76,0.83, and 0.80 for challenges, benefits, perception, and network connection questions respectively which indicates a high level of internal consistency.

Table 3. 2: Reliability test

Reliability Statistics	
Cronbach's Alpha	N of Items
.749	19

challenge

Reliability Statistics	
Cronbach's Alpha	N of Items
.756	11

Benefits

Reliability Statistics	
Cronbach's Alpha	N of Items
.834	5

Perception

Reliability Statistics	
Cronbach's Alpha	N of Items
.808	11

Network

3.8 Ethical Considerations

The researcher takes into account the ethical commitments to all parties involved in the study. All respondents involved in the study were not required to mention their names or any information that can lead to their identity. And the willingness of respondents was requested before administering questionnaires and interviews and researcher maintain their anonymity throughout the study. In addition, the researcher ensured findings of the study were only used for academic purposes.

Chapter Four

Data presentation and Analysis

This chapter deals with data presentation, analysis of results based on Data gathered from ministry of revenue medium tax payers branch office employees through questionnaire and interview question.

4.1 Questionnaire Results

From the 108 questionnaires distributed to the respondents only 101 which is 0.93% of the questionnaire were fully completed and returned to the researcher. The questionnaire questions were divided into five parts which were related to general information about the respondents, challenges of electronic tax system adoption, benefits of adopting electronic tax system, perception of employees regarding the adoption of electronic tax system, and assessment of network connectivity challenge on the electronic tax system.

4.1.1 General Information of respondents

This part of the questionnaire included questions that help to gather data about respondent's demographic information's which are respondents' gender, level of education, educational background, current work division, and their year of service in MOR.

4.1.1.1 Gender

As shown in table 4.1 in terms of gender 59 (58.4) percent of respondents were male and the remaining 42 (41.6) percent of the respondents were female showing male participants were a little bit higher than females.

Table 4. 1: Gender of Participants

		Gender		
		Frequency	Percent	Cumulative Percent
Valid	Male	59	58.4	58.4
	Female	42	41.6	100.0
Total		101	100.0	

Source: *Own survey 2021*

4.1.1.2 Level of Education

Out of the total respondents participated on study 8 (7.9) percent of the respondents were diploma holder, 79 (78.2) percent of the respondents were degree holders and 14 (13.9) percent of the respondents were Master's degree holders.

4.1.1.3 Respondents educational background

Regarding the respondent's field of study as shown in table 4.3, 64 (63.4) percent of respondents have an Accounting background, 33 (32.7) percent of the respondents were having management background, 3(3.0) percent of respondents were from Economics, and 1 (1) percent of respondent

4.1.1.4 Respondents work Division

As shown in the below table 4.4, 49 (48.5) percent of the respondents were from tax audit team, 38(37.6) percent of respondents from tax compliance team, 6(5.9) percent from managerial and administration staffs,4(4.0) percent of respondents from E-Tax team leaders and 4(4.0) percent from tax training team. In general, the researcher includes all staff from E-

Table 4. 2: Respondent's level of education

		Level of Education		
		Frequency	Percent	Cumulative Percent
Valid	Diplo.ma	8	7.9	7.9
	Degree	79	78.2	86.1
	Masters	14	13.9	100.0
	Total	101	100.0	

Source: *Own survey 2021*

have an Information technology education background.

Table 4. 3: Respondents profession

		Field of study		
		Frequen cy	Percent	Cumulative Percent
Valid	Accounting	64	63.4	63.4
	Manageme nt	33	32.7	96.0
	Economics	3	3.0	99.0
	IT	1	1.0	100.0
	Total	101	100.0	

Source: *Own survey 2021*

tax team leaders and more participants from the tax compliance and training team since they are the most involved in the adoption process.

Table 4. 4 : Respondents work division

Division			
	Frequency	Percent	Cumulative Percent
E-tax team leader	4	4.0	4.0
Tax compliance	38	37.6	41.6
Audit	49	48.5	90.1
Valid Training	4	4.0	94.1
Managerial and Administrative Staffs	6	5.9	100.0
Total	101	100.0	

Source: *Own survey 2021*

4.1.1.5 Respondents service year in MOR

From the participants included in study 30 (29.7) percent of respondents served on the ministry office 1–3-year, 29 (28.7) percent served 5-10 years, 24 (23.8) percent served for 3-5 years, 11(10.9) percent served for above 10 years and 7 (6.9) percent of respondents served in the ministry office for less than a year.

Table 4. 5: Respondents service year in MOR

Year of service in MOR			
	Frequency	Percent	Cumulative Percent
Below 1 year	7	6.9	6.9
1-3 Years	30	29.7	36.6
Valid 3-5 Years	24	23.8	60.4
5-10 Years	29	28.7	89.1
Above 10 Years	11	10.9	100.0
Total	101	100.0	

Source: *Own survey 2021*

4.1.2 Challenges of electronic tax system adoption

For identifying these challenges, the researcher provided 19 (Nineteen) questions, for ease of summarization these questions were categorized into three clusters as Training and creating awareness, cost, infrastructure, and Management support, and usage or practice of electronic tax system.

4.1.2.1 Training and creating awareness

For any change that is going to take place, there should be sufficient training and information about how it works, what it's going to bring, what are the things required for the change, the benefits expected from the change, and even if there are consequences that the change will bring.

This part covers seven questions (Question number 1,2,3,4,6,15&16) regarding whether Ministry of revenue provides sufficient training and provides awareness both to ministry office employees and taxpayers. The overall mean on these ideas 3.1782 showing almost all respondents are neutral on the availability of sufficient training. As shown in below table 4.6 regarding the provision of sufficient training to staff and taxpayers respondents' responses show a mean of 3.089 and 3.4356 respectively which confirms ministry of revenue didn't provide sufficient training on the use of Electronic tax system. And again, for the question about providing continuous training still, the result shows 2.9703 and 3.3960 for employees and tax payers denoting there hasn't been sufficient continuous training for both tax payers and employees of the ministry office but as we compare the result for tax payers and employees the response shows there is a better chance both one time and continuous training have been provided to tax payers than to employees of the branch office.

The survey results also presented a mean of 3.1386 on awareness creation through television, social media, and brochures there hasn't been adequate work done on this area. Regarding provision of training on electronic tax payment system respondent's response shows a bit greater value of mean (3.4851) from neutrality displaying training has been done but not addressed to all tax payers in the branch office. The result on the easy ness of electronic tax system training shows a mean of 2.7327 meaning the training is not that complicated to be understood by the tax payers. In general, the respondent's response confirmed that the branch office didn't work well on the provision of training and creating awareness.

Table 4. 6 :Training and awareness

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
MOR offered Sufficient training about E-TAX to the Employees	101	1.00	5.00	3.0891	1.00099
MOR offered Sufficient training about E-TAX to Tax Payers	101	1.00	5.00	3.4356	.89906
MOR provides continued training and technical support to Employees	101	1.00	5.00	2.9703	.95347
MOR provides continued training and technical support to Tax Payers	101	1.00	5.00	3.3960	.87269
MOR is providing public awareness through Television, social media, brochures, magazines and newspapers.	101	1.00	5.00	3.1386	1.05858
E-payment training is not addressed to all tax Payers	101	2.00	5.00	3.4851	.70162
E- payment system is Complicated to understand	101	1.00	5.00	2.7327	.89321
Valid N (listwise)	101				

Source: *Own survey 2021*

4.1.2.2 Cost, infrastructure, and management support

As revealed in table 4.7 respondents reply to the question “E-Tax requires High cost of implementation” shows an average mean of 3.1089 which is close to being neutral but when we see the minimum response for this question its 2 and the maximum is 5 meaning some respondents strongly agree electronic tax system requires high cost for implementation. Regarding the question about computer and internet infrastructure the response shows a mean of 2.7723 and the minimum response for the same question was 1 meaning strong disagreement and about lack of IT Staff and management support the result shows a mean of 2.9010 and 2.7624 respectively. Overall, the result shows for the implementation of an electronic tax system requires a moderate amount of cost. Implementation Cost includes expenses for developing and installing the system, provision of computer and internet infrastructure, training costs, and if there are any developments and improvement costs related to the system. The result also showed there is a moderate level of infrastructure, IT Staffs and Management support which can be seen as a challenge for smooth adoption of the electronic tax system.

Table 4. 7:Cost, infrastructure, and management support

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
E-Tax requires High cost of implementation	101	2.00	5.00	3.1089	.74701
There are enough computers, internet facilities to implement the E-Tax system.	101	1.00	4.00	2.7723	.82318
There is a lack of IT staff members who facilitate E-tax system	101	2.00	4.00	2.9010	.79379
E-Tax system implementation Lack sufficient management support.	101	1.00	4.00	2.7624	.80185
Valid N (listwise)	101				

Source: Own survey 2021

4.1.2.3 E-tax system usage

Once a new system is implemented and believed to be useful it should be used at the list by most of the end-users this portion covers 8 questions (Question number 10,11,12,13,14,17,18,19) regarding the usage or applicability of electronic tax system (both e-filing and e- payment). As it's presented in average mean score for “all tax payers in the branch office use e-tax system” is 2.5644 which reflects that respondents disagree with this statement in agreement with this for the question “all tax payers in the branch office submitting all necessary document through e-filing” the response reflects a mean of 2.5050 which means some portion of tax payers in the branch office are not using e-filing system.

Respondents were also asked about whether tax payers are encoding incorrect data which makes E-filing system less effective their response showed a mean of 3.34 with a minimum response of 2 and a maximum response of 5 the overall result is greater than neutral meaning some tax payers encode incorrect data to the system which force them to come to the ministry office for correction which creates another work load for both tax officers and tax payers.

The above table result indicates a mean of 3.8911 about tax payers still visiting the ministry office for manual filing which is closer to an agreement. While none respondents show disagreement or strong disagreement about this issue. This visibly indicates still some taxpayers are using a manual system to file taxes due to different reasons.

From the result presented in the below table it's observed that E-payment is not used by most taxpayers, the result shows a mean of 2.4554 with a minimum response of 1 and a maximum response of 4. Even if taxpayers use an e-filing system to file online if they are still using the old system for tax payment it will be mandatory for the tax payer to visit the branch office for submitting deposit slips and collecting invoices which is no less than using the old manual tax payment system.

Respondents were also asked whether taxpayers still prefer to pay tax with the old system the result shows a mean of 3.3546 with a minimum response of 2 and a maximum response of 5 indicating agreement with the statement. This is caused may be by a lack of sufficient training, a bank system, or by being averse to the change.

On the 18th Question, respondents were asked whether tax payers who paid through e-payment are getting their invoice online without the need to go to the branch office in person their response shows a mean of 2.4752 with a minimum response of 1 and a maximum response of 4 indicating most of the taxpayers who are paying tax online using the e-payment system are not getting their invoice through email. Finally, respondents were asked about whether all features of an e-tax system were implemented the result shows disagreement with a mean of 2.3861 on the system there are some features some partially and some fully not implemented yet.

Table 4. 8 : E-tax system usage

Descriptive Statistics				
	N	Minimum	Maximum	Mean
All tax payers in the branch office are using the E-tax filing system	101	1.00	5.00	2.5644
All tax payers in the branch office are submitting all the necessary tax documents through E-filing	101	1.00	5.00	2.5050
Taxpayers encode incorrect data which makes E- tax filing less effective	101	2.00	5.00	3.3465
Taxpayers still come to the ministry office to file through manual.	101	3.00	5.00	3.8911
All tax payers in our branch office are using E-tax payment system	101	1.00	4.00	2.4554
Tax payers still prefer to pay tax with the old System	101	2.00	5.00	3.3564
E-payment users are getting their invoice online all the time	101	1.00	4.00	2.4752
All features of E- Tax systems are implemented	101	1.00	4.00	2.3861
Valid N (listwise)	101			

Source: *Own survey 2021*

4.1.3 Benefits of Electronic tax system adoption

In any circumstance when one plans to make a new change or development the basic things to be under consideration are what it's going to bring or the benefits of the change are the very crucial question. If the cost of the change or the disadvantage of the change is greater than the advantage it's going to provide it's not worthy to adopt or implement the change. In the adoption of electronic tax system, there are benefits several for both taxpayers and for the government (Ministry of revenue) from those benefits the researcher tries to identify major benefits of adopting an electronic tax system using below listed 11(eleven) question.

As it's presented in the below table 4.15 the first question was related to the easiness of electronic tax system for use the respondent's response shows a mean of 3.96 with a minimum response of 2 and the maximum response of 5 confirming agreement and as shown in table 4.9, 60.4% respondents agreed, 18.8% strongly disagree and 18.8% of respondents were neutral. Only 2% of respondents disagree with the statement of E-tax system software is easy to use. Tan & Foo (2012) in their study state ease of use should be the characteristics of the e-filing system in order to accommodate non-users. In this case, we can say the electronic tax system satisfies the very basic characteristics.

Table 4. 9: E-tax system software is easy to use

	Frequency	Percent	Cumulative Percent
Disagree	2	2.0	2.0
Neutral	19	18.8	20.8
Valid Agree	61	60.4	81.2
Strongly Agree	19	18.8	100.0
Total	101	100.0	

Source: *Own survey 2021*

For the second question related to enhancement of timely tax filing and payment, their response shows a mean of 3.9703 with a minimum response of 2 and a maximum response of 5 and as it's presented in the below table 4.10 having 75% agreement 12.9% strong agreement, 7.95% Neutrality and with only 4% of Disagreement confirming that electronic tax system enhances timely tax filing and payment.

Table 4. 10: E-tax system enhance Timely tax filing and Payments

	Frequency	Percent	Cumulative Percent
Disagree	4	4.0	4.0
Neutral	8	7.9	11.9
Valid Agree	76	75.2	87.1
Strongly Agree	13	12.9	100.0
Total	101	100.0	

Source: *Own survey 2021*

Respondents were also asked about E-tax system Convenience for taxpayers their response shows a mean of 3.8515 with a minimum response of 2 and the maximum response of 5 indicating convenience of e-tax system for users and for the question “E-tax system allows tax officers to provide Improved customer service to tax payers” the respondents response shows a mean of 3.8812 with a minimum response of 2 and the maximum response of 5 presenting electronic tax system is convenient for use and it helps tax officers to provide improved customer service for the tax payers.

As presented in Table 4.15 For the question “E-tax system is less time consuming compared to manual system” the survey result shows a mean of 4.3565 a mean with a minimum response of 2 and the maximum response of 5 for the same question as it’s shown in the below table

52.5% of respondents strongly agree, 32.7% of respondents agree, 12.9% of respondents expressed their neutrality and 2% disagree with the statement.

Table 4. 11: E-tax system is less time consuming compared to a manual system

	Frequency	Percent	Cumulative Percent
Disagree	2	2.0	2.0
Neutral	13	12.9	14.9
Valid Agree	33	32.7	47.5
Strongly Agree	53	52.5	100.0
Total	101	100.0	

Source: *Own survey 2021*

As it can be seen from the below table 4.15 respondents' response to the question "E-tax system decreases space needed for manual Documents" shows a mean of 4.3663 with a minimum response of 3 and a maximum response of 5 for the same question as it's presented in the table 4.12, 44.6% respondents strongly agreed, 47.5% show agreement and 7.9% of respondents express their neutrality on the statement. The result shows e-tax system reduced the place needed for documenting manual tax filing reports since all the process is done online on the system and the print-out reports of tax filing will be kept with tax payers' custody.

Table 4. 12 : E-tax system decreases space needed for manual Documents

	Frequency	Percent	Cumulative Percent
Neutral	8	7.9	7.9
Valid Agree	48	47.5	55.4
Strongly Agree	45	44.6	100.0
Total	101	100.0	

Source: *Own survey 2021*

The 7th question from the benefits of electronic tax system survey was” E – Payment system is more convenient and time saving tax payment system” their response shows a mean of 4.4158 with a minimum response of 3 and a maximum response of 5 and as it's presented in the table 4.12, 52.5% of respondents strongly agree, 47.5% of respondents agree and 10.9% of respondents were neutral about e-payment convenience and time saving ability in overall the result shows e-tax payment is convenient and time saving way of paying tax.

Table 4. 13: E – Payment system is a more convenient and time saving tax payment system

	Frequency	Percent	Cumulative Percent
Neutral	11	10.9	10.9
Agree	36.6	36.6	47.5
Strongly Agree	52.5	52.5	100.0
Total	100.0	100.0	

Source: *Own survey 2021*

As discussed, earlier E-tax system has two features e-tax filing and electronic tax payment. E-tax payment offers the benefit of paying tax without the need to go to the bank or the ministry of revenue office. One can pay his tax by directly transferring the due amount to a ministry office account online from where ever he resides. For the statement “E – Payment system allow tax payers to pay their tax from their office without going to the bank” respondents' feedback shows a mean of 3.9703 with a minimum response of 2 and the maximum response of 5 presenting an agreement with the statement.

In relation with the above for the survey “E- Tax system allows tax payers collect their invoice online without the need to go to Ministry of revenue” respondents response shows a mean of 3.663 with a minimum response of 2 and the maximum response of 5 for the same survey the result shows 56.4% of respondents agreed that tax payers can get their invoice online through

email after paying tax using e-tax payment system. Which is very convenient for those tax payers since it eases the burden of going to the ministry office monthly for tax payment.

Table 4. 14:E- Tax system allows tax payers collect their invoice online without the need to go to Ministry of revenue

	Frequency	Percent	Cumulative Percent
Disagree	4	4.0	4.0
Neutral	33	32.7	36.6
Valid Agree	57	56.4	93.1
Strongly Agree	7	6.9	100.0
Total	101	100.0	

Source: *Own survey 2021*

As revealed in table 4.15 the survey result for the statement” Tax payers can file for their tax refund from their office online” the result shows a mean of 3.5743 with a minimum response of 2 and a maximum response of 5 indicating agreement with a statement. Using e-tax filing system tax payers can file for their tax refund but currently, the ministry office is not using this feature of the system.

And for the statement “E-tax system allows tax payers to get information from ministry office from their office online” respondents' response shows 3.1485 with a standard deviation of 1.06 and the minimum response of 1 and the maximum response of 5 presenting a scattered response. The mean shows respondents are neutral about whether the respondents can get information using E-tax system or not.

Table 4. 15: Benefits of electronic tax system

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
E-tax system software is easy to use	101	2.00	5.00	3.9604	.67706
E-tax system enhance Timely tax filing and Payments	101	2.00	5.00	3.9703	.60754
E-tax system is Convenience for taxpayers	101	2.00	5.00	3.8515	.66912
E-tax system allows tax officers to provide Improved customer service to tax payers	101	2.00	5.00	3.8812	.66764
E-tax system is less time consuming compared to a manual system	101	2.00	5.00	4.3564	.78210
E-tax system decreases space needed to for manual Documents	101	3.00	5.00	4.3663	.62806
E – Payment system is a more convenient and time saving tax payment system	101	3.00	5.00	4.4158	.68216
E – Payment system allows tax payers to pay their tax from their office without going to a bank	101	2.00	5.00	3.9703	.68492
E- Tax system allows taxpayers collect their invoice online without the need to go to Ministry of revenue	101	2.0	5.0	3.663	.6675
Taxpayers can file for their tax refund from their office online	101	2.00	5.00	3.5743	.79179
E-tax system allows taxpayers to get information from ministry office from their office online	101	1.00	5.00	3.1485	1.06194
Valid N (listwise)	101				

Source: Own survey 2021

4.1.4 Perception of Employees regarding electronic tax system adoption

A person's perception regarding any change may have a positive or negative influence on the process of adoption of change depending on his/her willingness to accept change, belief that the change will bring advancement on their performance or increase their efficiency and effectiveness.

The same goes to the adoption of electronic tax system adoption as indicated in the below table 4.16 the survey result for the statement “Electronic tax filing system is fast & makes work simple compared to the manual system” shows 32.7% strong agreement, 54.5% agreement, 6.9% neutrality and 5.9% disagreement confirming almost 82.7% of respondents agreed that electronic tax system makes tasks simpler compared to a manual system.

Table 4. 16: Electronic tax filing system is fast & makes work simple compared to the manual system

	Frequency	Percent	Cumulative Percent
Disagree	6	5.9	5.9
Neutral	7	6.9	12.9
Valid Agree	55	54.5	67.3
Strongly Agree	33	32.7	100.0
Total	101	100.0	

Source: *Own survey 2021*

The survey result for the statement “E-tax system is Convenient for tax officers” shows 16.8% of respondents responded with a strong agreement, 67.3% respondents agreed, 14.9% express neutrality on the subject, and only 1% of respondent respond disagreement with the statement. This means tax officers are perceiving convenience in their work due to the adoption of the electronic tax systems. This shows their positive perception towards the newly adopted electronic tax filing and electronic tax payment system in the branch office.

Table 4. 17: E-tax system is Convenient for tax officers

	Frequency	Percent	Cumulative Percent
Valid			
Disagree	1	1.0	1.0
Neutral	15	14.9	15.8
Agree	68	67.3	83.2
Strongly Agree	17	16.8	100.0
Total	101	100.0	

Source: *Own survey 2021*

The 3rd question provided to respondents regarding their perception towards electronic tax system was “E-tax system improve my productivity” for this statement the survey result shows 21.8% of strong agreement, 62.4% of agreement, 12.9% of neutrality, and 3% of disagreement which is almost 75.3% agreed with the statement and some officers show their neutrality on the subject. In general, the result shows tax officers believe that electronic tax system improves their productivity.

Table 4. 18: E-tax system improve my productivity

	Frequency	Percent	Cumulative Percent
Valid			
Disagree	3	3.0	3.0
Neutral	13	12.9	15.8
Agree	63	62.4	78.2
Strongly Agree	22	21.8	100.0
Total	101	100.0	

Source: *Own survey 2021*

Respondents were also asked about whether “E-Tax system reduces the manpower need for the tax offices” for this statement respondents response shows 28.7% of strong agreement, 54.5%

of agreement, 13.9% of neutrality and 3% of disagreement. Overall the survey result shows 83.2% of agreement meaning employees of the ministry of revenue medium taxpayers branch office believe that the electronic tax system reduces the manpower needed for the branch office.

Table 4. 19: E-Tax system reduce the manpower need for the tax offices

	Frequency	Percent	Cumulative Percent
Disagree	3	3.0	3.0
Neutral	14	13.9	16.8
Valid Agree	55	54.5	71.3
Strongly Agree	29	28.7	100.0
Total	101	100.0	

Source: *Own survey 2021*

The last survey statement regarding the assessment of employee’s perception of the adoption of electronic tax system was “E- tax system enhances the service provided to Tax Payers” for this statement respondents response shows 19.8% strong agreement, 62.4% agreement, 13.9% neutrality, and 4% percent disagreement meaning 82.2% agreement with the statement with only 4% disagreement. This result shows that the ministry office employees believe that electronic tax systems enhance the service provided to the taxpayers.

Table 4. 20: E- tax system enhance the service provided to Tax Payers

	Frequency	Percent	Cumulative Percent
Disagree	4	4.0	4.0
Neutral	14	13.9	17.8
Valid Agree	63	62.4	80.2
Strongly Agree	20	19.8	100.0
Total	101	100.0	

Source: *Own survey 2021*

In general for the survey related to an assessment of employees perception regarding electronic tax system adoption present a mean value computed based on the Likert scale showed on average employees agreed that electronic tax system is fast and makes work simpler compared to a manual system, convenient for tax officers, improve productivity, reduce human resource needed for specific, enhance service provided to taxpayers by officers having a mean score of 4.1383,4.0,4.0297,4.0891 and 3.9802respectively with a minimum response of 2 and the maximum response of 5 for each. Overall the response has a mean of 4.048confirming that employees of the ministry of revenue medium taxpayers branch office have a great perception regarding the electronic tax system adoption.

Table 4. 21: Employees perception regarding the electronic tax system

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Electronic tax filing system is fast & makes work simple compared to the manual system	101	2.00	5.00	4.1386	.78778
E-tax system is Convenient for tax officers	101	2.00	5.00	4.0000	.60000
E-tax system improve my productivity	101	2.00	5.00	4.0297	.68492
. E-Tax system reduces the manpower need for the tax offices	101	2.00	5.00	4.0891	.73619
E- tax system enhance the service provided to Tax Payers	101	2.00	5.00	3.9802	.70683
Valid N (listwise)	101				

Source: *Own survey 2021*

4.1.5 Challenges related to Network Connection on electronic tax system

ICT infrastructure, trained(knowledgeable) manpower and stable network infrastructure are the basic prerequisite for the implementation of technological advancement in one entity or at an individual level. Electronic tax system is a way of paying tax using an internet connection to access the tax office server for tax filing and bank account for tax payment. In this section as presented in table 4.29 using 11 (eleven) survey statements, the researcher tries to discuss issues related to the challenges related to network connectivity (both in the ministry office and bank branch office), power interruption, and the interaction between the bank and the ministry office system.

As presented in Table 4.29 For the statement “Limited network infrastructure in the office is affecting E-filing system” the survey result shows a mean of 3.7822 mean with a minimum response of 1 and the maximum response of 5 for the same question as it’s shown in the below table 25.7% of respondents strongly agree, 33.7% of respondents agreed, 34.7% of respondents expressed their neutrality 5% disagree and 1% of respondent show strong disagreement with the statement. By these, we can conclude that since almost 60% agreed and 34% shows neutrality we can say there is limited network infrastructure in the ministry office.

Table 4. 22: Limited network infrastructure in office is affecting E-filing system

	Frequency	Percent	Cumulative Percent
Strongly Disagree	1	1.0	1.0
Disagree	5	5.0	5.9
Neutral	35	34.7	40.6
Agree	34	33.7	74.3
Strongly Agree	26	25.7	100.0
Total	101	100.0	

Source: *Own survey 2021*

Respondents were also asked about whether “There is Lack of active Internet connection affecting E-filing system” for this statement as it’s shown in the table 4.22 respondents response shows 22.8% of strong agreement, 42.6% of agreement, 32.9% of neutrality, and 2% of disagreement. Overall the survey result shows 65.24% of agreement. For the same statement, survey response shows a mean of 3.8614 with a minimum response of 2 and the maximum response of 5 meaning employees of the ministry of revenue medium taxpayers branch office believes that there is a lack of active internet connection. In agreement with this for the statement “E- Filing system required Fast network connection” respondents' response shows a mean of 3.99 with a minimum response of 2 and a maximum response of 5 confirming that electronic tax filing system requires a fast network connection to operate actively.

Table 4. 23: There is Lack of active Internet connection affecting E-filing system

	Frequency	Percent	Cumulative Percent
Disagree	2	2.0	2.0
Neutral	33	32.7	34.7
Valid Agree	43	42.6	77.2
Strongly Agree	23	22.8	100.0
Total	101	100.0	

Source: *Own survey 2021*

For the 4th question presented to respondents regarding the challenges related to network connection on electronic tax system was “There is Frequent Electric power interruption causing network faller” for this statement the survey result shows a mean of 3.04 with a minimum response of 1 and the maximum response of 5 the result shows respondents’ neutrality that means the effect of power interruption is not much severe or its effect is not much realized. For a related statement” Due to network disruption data losses occur in E- filing” respondents' response shows a mean of 2.90 with a minimum response of 1 and the maximum response of 5 which confirm that network disruption has not been causing major data loss on the server.

For the statement “E-payment system requires fast network connection” respondents feedback shows a mean of 4.0693 with a minimum response of 2 and a maximum response of 5 presenting an agreement with statement as it shown in the table 4.23 respondents response shows 26.7% of strong agreement, 56.4% of agreement, 13.9% of neutrality and 3% of disagreement. Overall the survey result shows 83.1% of agreement meaning e-payment system requires a fast network to operate well.

Table 4. 24: E-payment system requires fast network connection

	Frequency	Percent	Cumulative Percent
Disagree	3	3.0	3.0
Neutral	14	13.9	16.8
Valid Agree	57	56.4	73.3
Strongly Agree	27	26.7	100.0
Total	101	100.0	

Source: Own survey 2021

In relation with the above result for the survey “There is network connection problem on E-payment system” respondents response shows a mean of 3.9604 with a minimum response of 2 and the maximum response of 5 for the same survey the result shows 22.8% of strong agreement, 57.4% of agreement, 12.9% of neutrality and 6.9 % of disagreement and in general 80.2% of respondents agreed that there is a network connection problem on e-payment system.

Table 4. 25: There is network connection problem on E- payment system

Source: Own survey 2021

	Frequency	Percent	Cumulative Percent
Disagree	7	6.9	6.9
Neutral	13	12.9	19.8
Valid Agree	58	57.4	77.2
Strongly Agree	23	22.8	100.0
Total	101	100.0	

The survey result for the statement “Connection between banks system and the ministry office for the E- payment service” confirms 14.9% of respondents responded with a strong agreement, 61.4% respondents agreed, 16.8% express neutrality on the subject, 5.9% of respondents express Disagreement and only 1% of respondent respond disagreement with the statement. For the same survey, statement mean result shows 3.8317. This means tax officers perceive that there is lack of active connection between bank system and the ministry office system for electronic tax payment.

Table 4. 26 : There is a lack of active Connection between banks system and the ministry office for the E- payment service

	Frequency	Percent	Cumulative Percent
Strongly Disagree	1	1.0	1.0
Disagree	6	5.9	6.9
Neutral	17	16.8	23.8
Agree	62	61.4	85.1
Strongly Agree	15	14.9	100.0
Total	101	100.0	

Source: *Own survey 2021*

As revealed in table 4.29 the survey result for statement “There is lack of efficient cooperation with bank” the result shows a mean of 3.9802. In agreement with statement as it shown in the table 4.25 respondent’s response shows 21.8% of strong agreement, 59.4% of agreement, 13.9% of neutrality and 5% of disagreement. Overall the survey result shows 81.2% of agreement showing ministry office employees perceive that there is a lack of efficient cooperation between bank and ministry office.

Table 4. 27: There is lack of efficient cooperation with a bank

	Frequency	Percent	Cumulative Percent
Disagree	5	5.0	5.0
Neutral	14	13.9	18.8
Valid Agree	60	59.4	78.2
Strongly Agree	22	21.8	100.0
Total	101	100.0	

Source: *Own survey 2021*

As presented in table 4.29 the survey result for the statement “E-payment system is crowded on month-end” the result shows a mean of 4.1188 with a minimum response of 2 and maximum response of 5 indicating agreement with statement. This is caused because of the system's drawbacks and taxpayers’ intention to pay on the last dates of the tax payment period.

Table 4. 28 : Its better if other private banks start providing an e- tax payment system

	Frequency	Percent	Cumulative Percent
Disagree	5	5.0	5.0
Neutral	9	8.9	13.9
Valid Agree	31	30.7	44.6
Strongly Agree	56	55.4	100.0
Total	101	100.0	

Source: *Own survey 2021*

For the statement “Its better if other private banks start providing e- tax payment system” as it’s shown in the table 4.29 respondents response shows a mean of 4.3663 and minimum response of 2 and maximum response of 5 presenting agreement response. For the same statement, survey result shows 55.4% of respondents responded with a strong agreement,

30.7% respondents agreed, 8.9% express neutrality on the subject, and 5% of respondents express Disagreement. In general, the survey result shows 86.1% of agreement with the statement. Increasing the number of banks involved in the tax payment increase banks' competition and initiates them to provide better service for the taxpayers.

Table 4. 29: Challenges related to of Network Connection on electronic tax system

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Limited network infrastructure in office is affecting E-filing system	101	1.00	5.00	3.7822	.92308
There is Lack of active Internet connection affecting E-filing system	101	2.00	5.00	3.8614	.78778
E- Filing system required Fast network connection	101	2.00	5.00	3.9901	.72794
There is Frequent Electric power interruption causing network faller	101	1.00	5.00	3.0495	.88743
Due to network Disruption data losses occur in E- filing	101	1.00	5.00	2.9010	.80629
E-payment system requires fast network connection	101	2.00	5.00	4.0693	.72467
There is network connection problem on E- payment system	101	2.00	5.00	3.9604	.79901
There is a lack of active Connection between banks system and the ministry office for the E- payment service	101	1.00	5.00	3.8317	.78828
There is lack of efficient cooperation with bank	101	2.00	5.00	3.9802	.74807
E-payment system is crowded on month end	101	2.00	5.00	4.1188	.79104
Its better if other private banks start providing e- tax payment system	101	2.00	5.00	4.3663	.84525
Valid N (listwise)	101				

Source: *Own survey 2021*

4.2 Interview Question Responses

As presented in the above discussions the researcher tries to address the basic research goals using a questionnaire for supporting the questionnaire results and to find out more and detailed information the researcher conducted semi-structured interview with 2(Two) electronic tax system team leaders and 1(One) tax assessment and collection manager.

The researcher wished to include more persons in the interview but due to the pandemic, unavailability of staff in their office, and lack of willingness to cooperate the researcher is forced to an interview with only 3 staff. Interview questions were divided into seven parts, challenges of electronic tax system adoption, benefits of adopting electronic tax system, perception of employees regarding the adoption of the electronic tax system, network connectivity challenge on the electronic tax system, Implementation of Electronic tax payment system, Involvement of Commercial bank of Ethiopia in the tax collection system, features of electronic tax system not implemented yet and any recommendations the respondents may have are the basic issues included in the interview. Here below the researcher tries to summarize their response in 8 categories.

1. What are the basic challenges of electronic tax system adoption?

The first question raised to respondents was concerning about challenges of the electronic tax system for these question respondents put the system backwardness as a major challenge, according to the respondents the system is developed 8 years back and it has many drawbacks and also electronic tax system is linked with SIGTAS which is an old system. SIGTAS by itself has a problem of backwardness and these problems affect e tax system since it's linked to E-tax system in relation to this the system is not well developed which leads to continuous updates and taxpayers lack trust and confidence in using it when they see a new feature every time and since the system is developed by outsiders when there is a need for improvements they are

needed and to get them this takes time on the process of acquiring government and the ministry office approval and requires additional costs.

The second major problem raised by respondents was issues related to an electronic tax payment system. The electronic tax payment system works using two ways first one is the taxpayer after filing his tax returns online by using his computer or mobile application they can transfer to the tax office account the second one is after the taxpayer file online by printing the declaration form and filing bank instruction they will physically submit to their nearest commercial bank of Ethiopian branch office then the bank officer will transfer the amount on behalf of the taxpayer. In this process for the amount to be available on the ministry office account, there are several parties involved in the process which causes a delay in tax payment. Not only these but any small problem on party lags the whole system and for any problem caused in the process up to now, there is no share problem-solving mechanism.



Figure 4. 1: Ideal diagram of electronic tax payment system

In relation to this, It takes time for the tax paid to be available to the tax office account and this delay cause late sending Invoices to the taxpayers and sometimes after the taxpayer transfer the amount it bounces to the taxpayer account and the taxpayers has to start the process again and it also may expose them to penalty. For these reasons, most taxpayers prefer to pay using the old system which is transferring the money by going to the bank to collect their invoice for the tax office in person.

Other issues raised as a challenge for the adoption are lack of professional for solving major problems in the system, lack of sufficient awareness about the benefits of electronic tax filing and electronic tax payment system from taxpayers side, taxpayers expect perfection from the system and when they face any discrepancy they shift their demand to the old system, Some taxpayers find the system hard to understand due to their lack of advanced educational background and exposure to electronic systems and electronic tax payment training is not addressed to all taxpayers.

2. What are the major benefits of electronic tax system adoption?

The second interview question was related to the benefits of electronic tax system adoption. For these question respondents express several benefits of the system from them the major benefits of electronic tax filing is easy to file tax from office or home, the system works 24 hours in a week, Taxpayers will encode all the data by themselves this will decrease errors that may occur when data encoders do the coding, decrease backlogs since taxpayers encode all the data when they file tax and it decreases manual work for the taxpayers for tax office side It decreases the workload for tax officers, Decrease loss of the manual document, Decrease the time needed to search and place needed to store hard copy documents in the tax office and manpower resource required specially manpower required as data encoder. As for electronic tax payment they stated taxpayers can pay their tax without the need to go to the bank, it evades

the physical presence of taxpayers for submission of bank transfers and collection of invoices since if they pay online and also taxpayers can get their invoice via email.

3. What is the perception of the employees in the ministry office including you regarding the adoption of the system?

Regarding the perception of employees in the ministry office on the adoption of the electronic tax system, they responded that most of the ministry office employees appreciate the system since it's convenient and easy to use but few resist the change and prefer to work in the old system. This is because of personal perception towards change and lack of sufficient training about the benefits of the system.

4. How do you rate the challenges related to network connection on the E-tax system?

About the network connection, they responded that at first the network problem was severe but nowadays it's showing a great improvement. In the current situation, "we can say that network is not bothering the e-filing system". But when it comes to electronic tax payment system when some problems occur in the bank system it delays the tax payment process and causes inconvenience for the taxpayers. So, in general for e-filing network is not interrupting but in the case of electronic payment, there is a slight problem since it involves several parties in the system and the problem in one party system affects all the process.

5. How do you see the electronic tax payment system?

An electronic tax payment system is the second part of an electronic tax system which enables to pay tax from office or home after filing taxes. In relation with this respondent's response shows the system creates convenience for the taxpayer by saving the time needed to go to the bank and tax office for tax payment, a tax payer can get their invoice through email without the need to go personally to their tax branch office and for the tax office side, it eases the work of cashiers since the amount is directly transferred to the tax office account. Keeping this as a

benefit the system is also facing some problems these are training is not addressed to all taxpayers so most taxpayers are using their second option which is by filling bank instruction and by going to the bank physically make the bank officer transfer on behalf of them or use the old transfer system.

6. How do you see the involvement of commercial banks of Ethiopia in the tax collection system?

As for the involvement of CBE in the tax payment system respondents state that since its government-owned bank Commercial bank of Ethiopia was forced to start an electronic tax payment system and for these reasons, they were only taking it as a burden and consider only their current benefit that they will get from this service they are not considering the benefit of the system as a country and this is because most of the staffs in CBE didn't understand the benefits of the system. But currently, private banks are eager to join and work with MOR. Nonetheless, the system is not matured enough to allow private banks in the system. If they started working in the electronic tax payment system subsequently there will be competition between banks hopefully, they will provide a better service.

7. Are there any features of the system still not implemented? If yes Why?

For the above question, their response was Yes, "there are many features still not implemented from electronic tax system". they started this by dividing into two the first one is those features currently available on the system surface these are electronic tax refund requests, electronic clearance requests and Message Centers. The second one is some features of the system neither implemented nor available on the system surface these are electronic tax audit, electronic tax assessment, Electronic accounting, and real-time transaction link which enables any transaction to be available in the ministry office server in real-time. And these features are not implemented

because the ministry office is emphasizing the adoption of electronic tax systems and electronic tax payment systems in advance before starting the implementation of the remaining features.

8. Any recommendations you have regarding the adoption system?

Finally, respondents were asked if they have any recommendations regarding the adoption of an electronic tax systems. Their response shows it's better to update the system or if possible to install the latest version of the system so that it will not require repeated improvement and development of new features every time, the ministry office has to make implementation and usage of the online electronic tax system forceful for both taxpayers and tax officers that way it would be easier to avoid manual work, the ministry office has to develop stand by support system in case of any discrepancy in the main system, Ministry office has to emphasize IT professionals regarding their work condition and the environment by providing competitive salary since most IT professional are migrating to other countries seeking for a better working condition and better earning which is causing lack of manpower to solve major problems in the system.

Chapter Five

Summary, Conclusion, and Recommendation

The major objective of this paper was to assess the challenges and benefits of the electronic tax system, to evaluate the perception of employees of the ministry of revenue concerning electronic tax system adoption and challenges related to network connection on the e-tax system. For the achievement of these objective data was collected through questionnaire and interviews. This chapter presents a summary of the survey findings, conclusion, and finally recommendations.

5.1 Summary of Findings

The study assessed challenges and benefits of electronic tax system adoption, perception of the ministry office employees regarding electronic tax system adoption, and to evaluate challenges related to network connection on the adoption of the system in the ministry of revenue medium tax payer's branch office which is located around Kazanchis.

In general, for the study, a sample of 108 respondents were included in the study from those only 107 respond to the questionnaire and 3 respondents participated in the interview. To start with general information of respondents, from the sample 58.4% respondents were male and 41.6% were female, almost 78.2% of respondents were degree holders, 63.4% of respondents had accounting profession 32.7% were from management profession, in terms of work division almost 86.1% of respondents were from tax compliance and audit team and concerning their service year 93.1% of participants served in the ministry office for more than 1 year.

The next major point in the study was an assessment of challenges of electronic tax system adoption in this concern the research finding presents there hasn't been sufficient and continuous training provided for both taxpayers and ministry office staffs and in the creation of public awareness the result shows that's there hasn't been adequate work done in this area,

there is lack of trained manpower in the ministry office, due to several reasons some taxpayers are not using e-filing and e-payment system, some taxpayers encode incorrect data and come to the ministry office to solve the problem and some features of E-tax system are not implemented are the major challenges.

In terms of benefits of the electronic tax system, the survey result shows the system is easy to use, convenient for both taxpayers and tax officers, less time consuming, decrease manual work and allow taxpayers to pay their tax from where ever they reside are some of the benefits. The result of the perception measuring survey shows most of the ministry office staff believed that electronic tax system adoption makes work simple, convenient for tax officers, improves tax officer's productivity and enhances service provided for the taxpayers indicating their positive perception towards the system.

In relation to challenges related to network connection on both electronic tax filing and electronic tax payment, the result shows there is limited internet infrastructure, lack of active internet connection, lack of active connection between bank and ministry office system and on due dates e-payment system face network jam are the major points stated. In terms of the effect the result shows the current effect of the network connection on e-tax filing is less but bank connection and inter-entity system (between CBE, National bank, and MOR) is affecting e-tax payment system.

5.2 Conclusion

From the findings of the study, the researcher concludes that the electronic tax system is still in its improvement stage. In Ethiopia, several features of the system are still not implemented and the basic features of the system which are electronic tax filing and electronic tax payment system still not fully implemented but compared to the other features E-filing shows great progress in implementation. lack of sufficient training specially on electronic tax payment, lack of continued technical support, the system is linked to an old system (SIGTAS), lack of

sufficient IT infrastructure and trained manpower to solve problems on the system, some taxpayers using the old system due, taxpayers encoding incorrect data, many parties involved in e-tax payment system, taxpayers lack confidence in the system and Some taxpayers and officers find the system hard to understand are the major challenges considered.

On contrary to the challenges the system also has numerous benefits. The study shows easiness to use, saving time and cost, convenience, enhancement of improved customer service, decrease space needed for manual paper, reduce manpower required, allow taxpayers to finish all tax payment process for office and decrease the loss of manual document as a major benefit of the system. Supporting these survey result confirms employees of the ministry of revenue medium taxpayers branch office have a great perception about the electronic tax system adoption as per their response most of the ministry office employees appreciate the system since its convenient and easy to use but few still resist the change and prefer to work in the old system because of personal perception towards change and lack of sufficient training about the benefits of the system. In the current situation, we can say that network is not bothering the e-filing system. But when it comes to electronic tax payment system when some problems occur in the bank system it delays the tax payment process and causes inconvenience for the taxpayers.

5.3 Recommendation

Based on the findings of the questionnaire and interview survey the researcher would like to recommend the following points.

For Ministry of Revenue

- To solve the problems related to the system as it's mentioned the system is developed before 8 years back and is getting outdated to solve these its recommended that if the

ministry office installs a new software or if it's not affordable update both SIGTAS and E-tax systems to the most possible.

- MOR has to expand adoption and usage of the electronic tax system to city administration taxpayers since currently it's applied only for federal taxpayers.
- MOR Should allow private banks into electronic tax payment systems so that they will provide a competitive and convenient tax payment system.
- The ministry office should work in a great collaboration with commercial and national banks to develop a shared problem-solving mechanism to solve arising problems of the e-tax payment system.
- MOR should implement all features of the e-tax system so that taxpayers will be more interested in the adoption.

For future study

- The researcher would like to recommend future researchers conduct a study on the practice of electronic tax system adoption in small tax payer's branch offices.
- In this study due to lack of expertise in the field the researcher only considered the non-technical aspect of electronic tax system considering these the researchers would like to recommend future studies to assess the status of electronic tax system software which is in use in Ethiopia and its effect on the adoption process.

References

- Abera, M. (2018). Factors Affecting the Adoption of Electronic Tax Filing in Ethiopia: Perception of Taxpayers'. *Addis Ababa University College of Business and Economics*.
- Abera, T. (2019). The Influence of Electronic Tax Filing System on Tax Compliance: The Case of Large Taxpayers' Branch Office [LTO]. *Addis Ababa University College of Business and Economics*.
- Åke, G., & Thomas, A. H. (2004, January). Introducing E-Gov: History, Definitions, And Issues. *Communications of the Association for Information Systems, 15*, 713-729.
- Akitoby, B. (2018, March). Raising Revenue. *Five country cases illustrate how best to improve tax collection*.
- Alfred , K., Cyril, C., & Joyce , S. (2019, July). Analysis of Taxpayers' Intention to Use Tax E-Filing System in Tanzania: Controlling for Self-Selection Based Endogeneity. *African Journal of Economic Review, VII(2)*.
- Alshehri , M., & Drew , S. (2010). E-Government Fundamentals. *IADIS International Conference ICT, Society and Human Beings* (pp. 35-42). Brisbane, Australia: Griffith University.
- Anna, A. C., & Yusniza, K. (2010, May). Adoption of tax e-filing: A conceptual paper. *African Journal of Business Management, 4(5)*, 599-603.
- B.C.M, P., Ipseeta, S., & Mesele, K. M. (2019). Adoption of Electronic Taxing System in Ethiopia: Reflections of Barriers and Drivers. *International Journal of Mechanical Engineering and Technology (IJMET), 10(03)*.
- Bahro, A., & Glenn, P. J. (2005). The High Costs of Controlling GST and VAT Evasion. *53*, 720-736.
- Bananuka, J. (2019). The mediating role f adoption of and electronic tax system in relationship between attitude towards electronic tax system and ta compliance. *Journal of Economics, Finance and Administrative Science ISSN:2218-0648*.
- Creswell, J. W. (2009). In q. a. Research design: Qualitative. SAGE Publications Ltd.
- Creswell, J. W. (2014). *Research Design ; qualitative, quatitative and mixed methodes approches*. Sage Publications, Inc.
- Dagnachew, T. T. (2018). Challanges and Opportunities of Adopting E-Tax System In The Case of ERCA (LTO). *St.Marry University School of Graduate Studies*.
- Denise , E. D. (2008). E-Filing and E-Payments – The Way Forward. *Caribbean Regional Technical Assistance Centre, 7*.
- Fasika, T. (2019, MAY 11). Ethiopia: The New Electronic System Replaces Cash Payment Orders. Addis Abeba: Addis Fortune.
- Fekade, S., Asnakech, L., & Ronald, W. (2019). Practices, challenges and prospects of public sector taxation in Ethiopia. *nternational Centre for Tax and Development, Institute of Development Studies (IDS) Brighton, BN1 9RE, United Kingdom*.
- Ferhat , B. O., & Aykut , H. T. (2007). Usage And Adoption Of Online Tax Filing And Payment System In Tax Management: An Empirical Assessment with Technology Acceptance (TAM) Model in Turkey.

- Gekonge , J. M., & Wallace, A. (2016). Effects of Electronic- Tax System on the Revenue Collection Efficiency of Kenya Revenue Authority: A Case of Uasin Gishu County. *Imperial Journal of Interdisciplinary Research (IJIR) Vol-2, Issue-4*, 815-827.
- Hamed , T. (2016). Validity and Reliability of the Research Instrument;How to Test the Validation of a Questionnaire/Survey in a Research. *International Journal of Academic Research in Management*, 5(2296-1747), 28-36.
- Harold , C. G. (1991). How to Get Plugged in to Electronic tax Filling . *Journal of Accountancy*, 56.
- Haryani, S., Motwani, B., & Kaur, S. M. (2015). Behavioral Intention of Taxpayers towards Online Tax Filing in India: An Empirical Investigation. *Journal of Business & Financial Affairs*.
- Kirchler , E. (2007). *The Economic Psychology of tax Behaviour* . United States of America : Cambridge University Press .
- Kolachalam, S. (2002). An Overview of E-Government. *International Symposium on Learning Management and Technology Development in the Information and Internet Age*.
- Kothari, C. (2004). *Research methodology methods and techniques*. NEW AGE INTERNATIONAL (P) LIMITED, PUBLISHERS.
- Kothari, C. R. (2004). *Research Methodology Methods & Techniques*. New Delhi: New Age International (P) LIMITED, Publishers.
- Leon, S. (2018). *Funding Development: Ethiopia Tries to Strengthen Its Tax System, 2007 - 2018*. Innovations for Successful Societies.
- Ling , M. L., & Fatt , C. K. (2008). Electronic Tax Filing System: Taxpayers' Perspectives., 1, pp. 338-343. Wuhan.
- Mesfin, B. (2010). E-Government Initiatives in Ethiopia.
- Metin , A., Ali , A., & Metehan , O. (2019). The Effect Of E-Taxation System On Tax Revenues And Costs: Turkey Case. *International Conference on Accounting Studies (ICA)*. Putrajaya, Malaysia.
- Michael, L., Christine, O., Josef, S., Claus, S., & Patric, W. (2008). *Tax Compliance Costs for Companies in an Enlarged European Community*. Netherland: Kluwer Law International.
- Mills, L. (2017). Barriers to improving tax capacity. *K4D Helpdesk Report*. Brighton, UK: Institute, 1-14.
- Mohammad, A., & Hijattulah, A.-J. (2016). Electronic Tax Filing Adoption and its Impact on Tax Employees Performance in Jordan: A Proposed Framework. *World Applied Sciences Journal* 34, 393-399.
- Mohammed , A., & Steve , D. (2010). Implementation of e-Government:Advantages and Challenges.
- Mutinda , C. M., Gatotoh, A. M., & Keiyoro, P. N. (2019). ATTITUDINAL AND TECHNOLOGICAL DETERMINANTS OF ITAX SYSTEM ACCEPTANCE:THE CASE OF KENYA REVENUE AUTHORITY. *International Journal of Current Research*, 11(03), 2259-2262.
- Newman, R., & Ekhatior, E. (2019). Electronic taxation in Nigeria: challenges and prospects. *International Company and Commercial Law Review*.

- Onuiri, E. E., Faroun, F., Erhinyeme, O., & Jegede, A. (2015). DESIGN AND DEVELOPMENT OF AN ETAXATION SYSTEM . *European Scientific Journal May 2015 edition vol.11, No.15 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431* .
- Qassim , M. A., Abbas , A. A., & Dhyaa Al-Laban, A. A.-L. (2018). The Impact of Electronic Taxation on Reducing Tax Evasion Methods of Iraqi Companies Listed in The Iraqi Stock Exchange. *Academy of Accounting and Financial Studies Journal, 22(4)*.
- Ritah , E. (2011). Assessing e-services from a user perspective: A study of the Swedish electronic tax declaration. *Swedish business school at Örebro University* .
- Ruta, Y. (2017). Assessment of Electronic Tax Filing System in Selected Branch Offices of Ethiopian Revenues and Customs Authority (ERCA). *St.Marry University School of Graduate Studies*.
- Samuel , E. T. (2015). The Practice, Challenges, and Prospects of e-Government: The case of Ethiopian Revenue and Customs Authority (ERCA) Large Taxpayers Office (LTO). *Addis Ababa University*.
- Segun , I. A., & Babalola, R. A. (2017). Electronic Taxation and Tax Evasion in Nigeria: A Study of Lagos State. *Journal of Academic Research in Economics, 122-129*.
- Sharda , H., Bharti , M., & Sukhjeet, K. (2015). Behavioral Intention of Taxpayers towards Online Tax Filing in India: An Empirical Investigation. *Journal of Business & Financial Affairs, 4(1 * 1000135), 1-5*.
- Tan, T. H., & Foo, Y.-F. (2012). Predicting Taxpayers' Intentions of Adopting Electronic Tax-Filing (E-Filing) in Malaysia. *Journal of Accounting – Business & Management, 19, 59-71*.
- Thomson, R. (2008). *Strengthening Risk Management and Audit Strategies to Improve Compliance*. Belize: Caribbean Organization of Tax Administration (COTA) General Assembly .
- Tongco, D. M. (2007). Purposive Sampling as a Tool for Informant Selection. *A Journal of Plants, Peple and Applied Research, 147-158*. Retrieved from <http://hdl.handle.net/10125/227>
- UnitedNations. (2004). *Facilitatng Transfer of Technology to Developing Countries: Survey of Home - Country Measure*. Geneva: United Nation.
- Wang, Y.-S. (2002). The adoption of electronic tax filing systems: an empirical study. *Government Information Quarterly , 333.352*.

APPENDIX -1

ADDIS ABABA UNIVERSITY

College of Business and Economics

Department of Accounting and Finance

Dear Respondents,

My name is Betelehem Lulu, I am a student at Addis Ababa University studying Master of Science in Accounting and Finance. And this questionnaire is set up to collect data for a project entitled “Assessment of Challenges and Benefits of Electronic Tax System Adoption in Ethiopia the Case on Medium Tax Payer’s Branch Office” which will be conducted as partial fulfillment of the requirements for the Master’s Degree in Accounting & Finance.

The purpose of this thesis is to assess the major challenges and Benefits of Electronic tax system adoption based on your response to the questions stated below so, I kindly request your kind cooperation in responding to the questions as much as possible. Your participation in this project is completely based on your willingness and I guarantee your responses will be recorded anonymously with strict confidentiality.

I thank you very much in advance for your kind cooperation

For any comment and questions, please contact me by the following address:

Tel- (+251939581641)

Email -(Betelehemlulu12@gmail.com)

Betelehem Lulu

Part I: General Information

1. Sex (please tick what applies to you)

a. Male

b. Female

2. Level of Education (please tick what applies to you)

A. Diploma

B. Degree

C. Masters

D. Other (specify).....

3. Field of study?

A. Accounting

B. Management

C. Economics

D. IT

E. Other, please specify

4. Your current position, Please Specify.....

5. Year of service in MOR:

A. below 1 year

B. 1-3 year

C. 3-5 year

D.5-10 years

E. above 10 years

Part II: Challenges of Electronic tax system Adoption

S. N	Descriptions (Challenges)	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	MOR offered Sufficient training about E-TAX to the Employees					
2	MOR offered Sufficient training about E-TAX to Tax Payers					
3	MOR provides continued training and technical support to Employees					
4	MOR provides continued training and technical support to Tax Payers					
5	E-Tax requires a High cost of implementation					
6	MOR is providing public awareness through Television, social media, brochures, magazines, and newspapers.					
7	There are enough computers, internet facilities to implement E-Tax system.					
8	There is a lack of IT staff members who facilitate E-tax system					
9	E-Tax system implementation Lack sufficient management support.					
10	All taxpayers in the branch office are using E-tax filing system					
11	All taxpayers in the branch office are submitting all the necessary tax documents through E-filing					

12	Taxpayers encode incorrect data which makes E-tax filing less effective.					
13	Taxpayers still come to the ministry office to file through manual.					
14	All tax payers in our branch office are using E-tax payment system					
15	E-payment training is not addressed to all tax payers					
16	E- payment system is Complicated to understand					
17	Tax payers still prefer to pay tax with the old system					
18	E-payment users are getting their invoice online all the time					
19	All features of E- Tax systems are implemented					

Part II: Benefits of Electronic tax system Adoption

S. N	Descriptions(benefit)	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	E-tax system software is easy to use					
2	E-tax system enhance Timely tax filing and payments					
3	E-tax system is Convenience for taxpayers					
4	E-tax system allows tax officers to provide Improved customer service to taxpayers					

5	E-tax system is less time consuming compared to a manual system					
6	It decreases space needed for manual documents					
7	E – Payment system is a more convenient and time saving tax payment system.					
8	E – Payment system allow tax payers to pay their tax from their office without going to bank					
9	E- Tax system allows tax payers collect their invoice online without the need to go to Ministry of revenue.					
10	Tax payers can file for their tax refund from their office online					
11	E-tax system allows tax payers to get information from ministry office from their office online					

Part III: Perception of employees regarding Electronic tax system Adoption

S. N	Descriptions (perception)	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	Electronic tax filing system is fast & makes work simple compared to the manual system					
2	E-tax system is Convenient for tax officers					
3	E-tax system improves my productivity.					
4	E-Tax system reduces the manpower need for the tax offices					

5	E- tax system enhance the service provided to Taxpayers					
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Part IV: Challenges related to Network connection on Electronic tax system Adoption

S. N	Descriptions (Network)	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	Limited network infrastructure in office is affecting E-filing system					
2	There is Lack of active Internet connection affecting E-filing system					
3	E- Filing system required Fast network connection					
4	There is Frequent Electric power interruption causing network faller.					
4	Due to network Interruption data losses occur in the E-filing					
5	E-payment system requires a fast network connection					
6	There is network connection problem on the E-payment system					
7	There is a lack of active Connection between bank system and the ministry office for the E-payment service.					
8	There is lack of efficient cooperation with a bank					
9	E-payment system is crowded on month-end					

10	Its better if other private banks start providing e-tax payment system					
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Thank you!

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Part I: Interview questionnaires intended for MOR tax authority Management and electronic tax system adoption team leader staffs.

1. What are the basic challenges of electronic tax system adoption?
2. What are the major benefits of electronic tax system adoption?
3. What is the perception of the employees in the ministry office including you regarding the adoption of the system?
4. How do you rate the challenges related to network connection on the E-tax system?
5. How do you see the electronic tax payment system?
6. How do you see the involvement of commercial banks in the tax collection system?
7. Are there any features of the system still not implemented? If yes Why?
8. Any recommendations you have regarding the adoption system?

Thank you!