
**ADDIS ABABA UNIVERSITY**

**COLLEGE OF BUSINESS AND ECONOMICS**

**DEPARTMENT OF MANAGEMENT**

# DETERMINANTS OF CUSTOMERS SATISFACTION ON ELECTRONIC TAX PAYMENT SYSTEM: IN SELECTED REVENUE TAX OFFICE

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# DETERMINANTS OF CUSTOMERS SATISFACTION ON ELECTRONIC TAX PAYMENT SYSTEM: IN SELECTED REVENUE TAX OFFICE

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# Declaration

I, Hewan Tedla, hereby declare that the thesis entitled ***Determinants of Customer Satisfaction on Electronic Tax Payment of Selected Branch Office of Ethiopian Revenues and Customs Authority (ERCA)*** is the outcome of my own original work and it is not been submitted for any degree in any other University. It is done for the award of the degree of Master of Science in Management Specialization in Total Quality Management and Organizational Excellence from Addis Ababa University.

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For the Degree of

Master of Science in Management

Approved by Board of Examiners:

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| External Examiner | Signature | Date |
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Hewan Tedla

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## *Acronyms and Abbreviations*

| | |
|---|---|
| SIGTAS | Standard Integrated Government Tax Administration System |
| ERCA | Ethiopian Revenues and Customs Authority |
| LTP | Large Tax Payer |
| ICT | Information Communication Technology |
| UN | United Nation |
| EGDI | Electronic Government Development Index |
| IRS | Internal Revenue Service |
| LDC | Least Developed Countries |
| E-TAX | Electronic Tax |
| IQ | Information Quality |
| SEQ | Service Quality |
| SYQ | System Quality |
| CST | Customer Satisfaction |

# ABSTRACT

*The purpose of this study was to identify the factors of customer's satisfaction on online tax payment system of ERCA large taxpayer's branch office. The study prepared to obtain a better understanding of the e-tax filing system and the user's feedback or their perception on the system. To this end system quality, information quality and service quality were the independent variables and customer satisfaction is a dependent variable. Three research questions and six hypotheses developed to address the research objectives. A correlation and multiple regression analysis reveals that, the all hypothesis that information quality, system quality and service quality has an effect on customer satisfaction of online tax payment system are accepted. In line with the hypothesis, the regression result shows that all the independent variables have a positive significant effect. Positive and significant values in the coefficients indicate that all three independent variables namely; information quality, service quality and system quality have positive effect towards customer satisfaction in online tax payment system. Based on the finding investigated the ERCA should be give high emphasis and improving the information quality, service quality and system quality of online tax payment system in order to meet customer satisfaction as well as to increase users in the future.*

***Key Words:*** *Electronic Payment, Service Quality, Information Quality, System Quality, Customer Satisfaction*

# CHAPTER ONE
# INTRODUCTION

This chapter is serves as the foundation for the rest of the thesis. It provides readers with an overview of the thesis topic and its approach. The chapter deals with background of the study, statement of the problem, objective of the study, research questions, significance of the study, scope of the study, and organization of the study report.

## 1.1. Background of the study

Taxation is essential for sustainable economic development, and tax administration is a basic function of a successful state. Taxation is a means of finance that governments used to their expenditure by imposing charges on individual citizens and any business corporate entities. The money that collects because of tax must takes by the government used to spend in social activities such as education, health and defense. While taxation is not the only source of government revenues, but it is the large and the most important source in nearly all countries. Government is accountable to its citizens because of taxation, when the government spends the tax collected money; they are more accountable to make budget decisions transparent and accessible (Joanna, 2014).

Proper and effective development of taxation system is crucial for a well-functioning society. In most economies, taxes are the main source of revenue to fund public spending on social programs. A good tax system should ensure that taxes are proportionate and certain (not arbitrary) and that the method of paying taxes is convenient to taxpayers. This includes offering to taxpayers' electronic systems for filing and paying taxes, merging taxes with the same tax base, allowing for self-assessment and having a clear and efficient processes for refunding VAT cash refunds and undergoing tax audits (WB, 2012).

The growth of electronic services in everyday life over the past decade has been dramatic and unstoppable, through the explosion of services spanning business-to-business (B-2-B), business to consumer (B-2-C), and consumer-to-consumer (C-2-C) interactions. Electronic services enable faster, cheaper, more tailored services to be developed and delivered to

customers (whether a business or an individual), both meeting and driving their expectations. These expectations extend to all Government services, including tax administration (OECD, 2010).

The leveraging of ICT for the modernization of public administration and service delivery is receiving increased attention from governments. ICT enables governments to minimize the time, cost and resources to deliver services to taxpayer, which has led to enhanced convenience, transparency and trust in the public service. Taxpayers no longer need to go to the tax office personally and wait to file their tax returns, or send mail. At the same time, some public sector ICT projects have received criticism for not delivering the desired results and for leading to unproductive investments without much improvement in the quality of service delivery.

Online tax system has received a great attention globally through the development of information technology, which affects the tax administration system. With the emergence of information technologies (IT), it is possible for the tax administrators to improve tax administration system by creating awareness about their tax structure that most of the taxpayers have limited knowledge about (Adeyemi, 2013). The Ethiopian Government also believes that information technology has the power to counteract poverty. The government is working with US technology firm Cisco to provide universal net connectivity for the country with having of permanent implication for the growth of E- commerce and E-payment infrastructure (Wondwossen and Tsegai, 2005).

Ethiopian Revenues and Customs Authority are the larger and the only governmental tax collector office in our country. It has a responsibility of collecting different taxes from different taxpayers. The federal government used taxes as revenue to the governmental activities with a responsibility of giving facilitate effective and comfortable service to addressed customers expectation and satisfaction. ERCA has more and more customers who are coming in every month so it is a mandatory requirement to have a good quality service for customers.

Accordingly, ERCA has been good progress in the development, delivery and exploitation of electronic services. From time to time, the electronic tax payment system starts in its

different tax collecting branches, at a time medium large taxpayers and Easter branch office taxpayer's starts e-tax payment system to declare their taxes. Thus, an electronic tax payment system implemented well and used by most taxpayers, benefits both tax authorities and customers.

## 1.2. Statements of the Problem

Well-designed electronic systems can lower corruption by reducing face-to -face interactions. To ensure that taxes are collected efficiently and reduce opportunities for corruption, a generally accepted principle is that tax authorities should not handle money directly. Ideally, tax officials should have little direct contact with taxpayers and so less discretion in deciding how to treat them. E filing is also easy, flexible and convenient for taxpayers. E-filing makes it possible to file returns from a taxpayer's home, library, financial institution, workplace, tax professional's business or even stores and shopping malls.

For tax authorities, electronic filing lightens the workload and reduces operational costs such as the costs of processing, storing and handling tax returns. At the same time, it increases tax compliance and saves time. For taxpayers, electronic filing saves time by reducing calculation errors on tax returns and making it easier to prepare, file and pay taxes. The tax policy and tax administration as well as the level of taxpayer compliance and government enforcement level can affect tax revenues in an economy. Developments in information and communication technology (ICT) in recent decades, both for electronic filing and payment of taxes, have presented many opportunities for revenue bodies to increase government revenue, improve efficiency, and enhance the quality of services delivered to taxpayers, while at the same time reducing taxpayer compliance burden and government administration costs, and improving enforcement (OECD, 2017).

Having modernization system used for the tax authority to establish modern revenue assessment, easily collection system and help to collect tax revenues timely and effectively. The Ethiopian Government has been under taking substantial reforms in reforming and modernizing the revenue administration to provide equitable, efficient and

effective service to taxpayers. On the contrary, some researchers (Reddy 2018, Haftay 2018) emerged to argue that tax administration in general and the service delivery in particular of the revenue sector poorly performed. Despite the efforts taken by the government, there has been poor service delivery system and the taxpayers continued to complain about the quality of the service. Electronic service delivery system is one of the best service delivery system benefit the service giver organization in increasing profit by decreasing the transaction cost and maximizing customer's satisfaction (Quinn and Byron, 2016).

Besides this, there are limited studies made on identifying and exploring about the electronic tax payment system operating in Ethiopia. Studies made by Ruta (2017) and Samuel (2015) are among the few researches made on assessment and prospective of online tax payment system. Particularly, the researcher could not get a single research made on identifying and exploring the determinants of satisfaction on online tax payment developed by ERCA. A collection of tax is not only a service delivery system but it is a relationship between tax collector offices and the taxpayers. Tax is the work that done with the participation of the two parties. The tax payers must require to full fill any tax related form that are given by the tax authority offices and the tax collector employees must know what they do. Giving satisfaction for customers need is the best method to get a positive thinking from its customers. However, when the researcher goes to pay taxes to the tax authority office, most of the times ERCA's customers have large complain by the organization service because when they go there to pay their different taxes it may take long time.

Therefore, understanding the electronic tax collection system and customers satisfaction of the system is important. Hence, the focus of this study is to explore and identify the determinants of customer satisfaction to fill the gap to examine the perception and satisfaction of customers on online tax payment system of ERCA. The study also intended to explain the relationship between the determinant factors and customers satisfaction of online tax payment system in Ethiopia.

## 1.3. Research Question

On the bases of the above statements of the problem and objective of the study, this research attempts to address the following questions.

- ✓ What is the effect of service quality of online tax payment on customer's satisfaction?
- ✓ What is the effect of system quality of online tax payment on customer's satisfaction?
- ✓ What is the effect of information quality of online tax payment on customer's satisfaction?

## 1.4. Objectives of the Study

### 1.4.1. General Objective

The General objective this research is identifying the determinants of customers' satisfaction on online tax payment in ERCA's large taxpayers at branch office.

### 1.4.2. Specific Objective

Specifically this study aimed to-

- ✓ To determine the effect of online tax payment service quality on customer's satisfaction,
- ✓ To determine the effect of online tax payment system quality on customer's satisfaction,
- ✓ To determine the effect of online tax payment information quality on customer's satisfaction,

## 1.5. Research Hypothesis

In accordance with the research questions and the stated objectives, the study formulated the following hypothesis ($H_0$- Null hypothesis Vs Ha-Alternative hypothesis).

**Hypothesis 1**

$H_0$: Service quality has no effect on online tax payment system of customer satisfaction.

Ha: Service quality has an effect on online tax payment system of customer satisfaction.

**Hypothesis 2**

$H_0$: Information system quality has no effect on online tax payment system of customer satisfaction.

Ha: Information system quality has an effect on online tax payment system of customer satisfaction.

**Hypothesis 3**

$H_0$: System quality has no effect on online tax payment system of customer satisfaction.

Ha: System quality has an effect on online tax payment system of customer satisfaction.

## 1.6. Significance of the Study

The result of any investigation or study may serve to different parties or individuals who may be directly or in- directly benefited. The result of the study will give insights about the E-tax payment system and it is relation with taxpayer's satisfaction. In addition to this, it provides information for the tax collector branch office that could help it to evaluate the system and to take remedial actions for suitable positive results. Furthermore, the result of the study will contribute as a ground for researchers to conduct further study on ERCA's online payment system in different way.

The study helps different participant parties. Which are-

I. **Ethiopian Revenues and Customs Authority large tax payers branch office**
   Used to see the level of customer perceived value and their satisfaction on the e-tax system they were develop and given information to evaluating the system to continue as it is working or to review and customize the system, as customers need.
II. **Large Tax Payers**
   The study conducted to be one source of transferring the voice and sharing the ideas about the system based on their perception of the system quality and gives a recommendation as a way formed.
III. **Other Researcher**
   The result of the study will also contribute as a ground for future researchers to

conduct further study about customers perceived e-tax payment quality of ERCA.

## 1.7. Scope of the study

The study is focuses on only large taxpayer's branch office in Addis Ababa because, only all taxpayers of this branch of Ethiopian Revenues and Customs Authority are used e-tax payment system but not all taxpayers of other branch used the system. The electronic tax payment system is not applicable in all of the tax collector branch offices. In addition to this, the research is used only three determinant variables on customer's satisfaction of online payment and used descriptive research method to analyze data. Thus, the generalizations are limited only on the above-mentioned customers of the tax collector office under the specific conditions. As known, there are different electronic payment quality dimensions but this study focused on some of them related study.

## 1.8. Limitations of the study

The online payment system is the broad and large subject by itself but there is no enough previous research is doing on the online payment system on Ethiopia because of this there is a limited data about E-tax payment system related with ERCA's online tax payment. In addition to this online tax declaration, system is less applicability across the city so it is very difficult to conduct a research across the city and the country.

## 1.9. Organizations of the study

The rest of the chapter organized as follows, the second chapter reviews literatures related to electronic payment, electronic payment quality, electronic tax system, customers satisfaction and reviewed in relation to the objective of the study. The third chapter presents research design and methodology including data sources, the study setting, sampling techniques, data collection instruments, data collection procedures and the data analysis techniques.

The fourth chapter presents data presentation, analysis and interpretation on the data obtained while addressing the research questions. The final chapter will be about discussion and summarizing major findings conclusion and recommendation of the study.

# CHAPTER TWO

## LITERATURE REVIEW

This chapter discusses theoretical and empirical literatures related with the topic. Therefore, the primary purpose of this chapter is to give the theoretical understanding in examining the tax payment system and customer satisfaction. More specifically, review of up-to-date related literatures regarding: concept of taxation, principles of taxation, measurement of tax administration performance, electronic filing system, electronic tax payment system, E-tax system in Ethiopia and conceptual framework.

## 2.1. Theoretical Review

### 2.1.1 Customer Satisfaction

Those who buy the goods or services provided by companies are customers. In other words, a customer is a stakeholder of an organization who provides payment in exchange for the offer provided to him by the organization with the aim of fulfilling a need and maximize satisfaction. Sometimes the term customer and consumer are confusing. A customer can be a consumer, but a consumer may not necessarily be a customer. A customer is the person who does the buying of the products and the consumer is the person who ultimately consumes the product (Solomon, 2009, p. 34.) Service quality in the management and marketing literature is the extent to which customers' perceptions of service meet and/or exceed their expectations. Customer satisfaction is an evaluation of the perceived discrepancy between prior expectations and the actual performance of the product. Satisfaction of customers with products and services of a company considered as most important factor leading towards company's competitiveness and success (Hennig-Thurau and Klee, 1997). Customer satisfaction is actually how customer evaluates the ongoing performance (Gustafsson, Johnson and Roos, 2005). Customer satisfaction has been one of the top tools for a successful business. Customer satisfaction is as an overall evaluation based on the total purchase and consumption experience with the good or service over time (Kabu and Soniya, 2017)

According to Kim, Park and Jeong (2004) customer satisfaction is customer's reaction to the state of satisfaction, and customer's judgment of satisfaction level. Customer satisfaction is very important in today's business world as according to Deng et al., (2009). customer satisfaction means emotional response that customers feel to company, store, merchandise, employee, or service after making a purchase or using a service from one company (Anderson and Fornell, 2000). Kotler and Keller (2012) defined customer satisfaction as an individual's emotions of preference or displeasure measured by comparing a product or service's outcome to expectation. Customer satisfaction is a barometer that predicts the future customer behavior (Hill, Roche & Allen 2007.) Customer satisfaction can influence by specific product or service and perceptions of quality. Satisfaction also influenced by customer's emotional responses, their attributions nether perception of equity (Zeithal & Bitner. 2003). Increased customer satisfaction can provide company benefits like customer loyalty, extending the life cycle of a customer expanding the life of merchandise the customer purchase and increases customers positive word of mouth communication. When the customer is satisfied with the product or service of the company, it can make the customer to purchase frequently and to recommend products or services to potential customers. It is impossible for a business organization to grow up in case the company ignores or disregards the needs of customers (Tao 2014.)

The ability of a service provider to create high degree of satisfaction is crucial for product differentiation and developing strong relationship with customers. Increased customer satisfaction can provide company benefits like customer loyalty, extending the life cycle of a customer expanding the life of merchandise the customer purchase and increases customers positive word of mouth communication (Kabu and Soniya, 2017). Zeithaml, Berry and Parasuraman (1998) defined customer satisfaction as a gap of expected service level and perceived service level performed by a company to its customer. Also, customer satisfaction means emotional response that customers feel to company, store, merchandise, employee, or service after making a purchase or using a service from one company (Anderson and Fornell, 2000). Kotler and Keller (2012) defined customer satisfaction as an individual's emotions of preference or displeasure measured

by comparing a product or service's outcome to expectation. Customer satisfaction has been one of the top tools for a successful business. Customer satisfaction defined as an overall evaluation based on the total purchase and consumption experience with the good or service over time (Fornell, Johnson, Anderson, Cha & Bryant 1996). With marketing, customer satisfaction also comes along with means of ascertains the expectation of the customer on how the goods and services are being facilitated by the companies. Actionable information on how to make customers further satisfied is therefore, a crucial outcome (Oliver 1999.)

There are two conceptualizations of customer satisfaction; transaction-specific customer satisfaction and cumulative customer satisfaction (Boulding, et al., 1993; Andreassen, 2000).

- ✓ **Transaction specific customer satisfaction** is viewed as a post-choice evaluation judgment of a specific purchase occasion (Oliver, 1980 ) until present date, researchers have developed a rich body of literature focusing on this antecedents and consequences of this type of customer satisfaction at the individual level.
- ✓ **Cumulative customer satisfaction** is an overall evaluation based on the total purchase and consumption experiences with a product or service over time. (Fornell 1992, Johnson & Fornell 1991). This is more fundamental and useful than transaction specific customer satisfaction in predicting customer subsequent behavior and firm's past, present and future performances.

On the other hand, customer satisfaction have generally emphasized in organizations, the efficiency of processing customer interactions still given more importance than the quality of a customer interaction (Mahesh & Kasturi, 2006). Related to contact centers in particular, (Raz & Blank (2007) note that while the relevance of customer satisfaction and service quality recognized, operational efficiency given more emphasis due to the mass production model used in contact centers. Taking these finding as consideration, it would be beneficial to examine the relationship between customer satisfaction and efficiency in call centers to get a good understanding on exactly how emphasizing actions

targeted at one can affect the other (Terhi, 2003). Customer satisfaction plays an important role in business strategy and acts as a key factor in the sustainable development of companies (Lovelock, 2007). The existence of many companies on the market conditioned with a number of satisfied customers. Customers are the key factor of the existence and company development on the market. It is obvious then, that firms, which want to face the competition, need to provide valuable and unique terms to their customers that will satisfy their needs. This satisfaction includes not only the feelings associated with the purchasing process, but also the atmosphere before and after the execution of purchases (Grzegorza & Jolanta, 2017).

### 2.1.2 Concepts Tax and taxation

A number of authors have tried to define the term ‘’tax‟; however, it is difficult to get perfect definition for the term that have been successful meaning (mainly owing to the fact that too great precision is attempted in a single sentence). The best way to understand the term is to state the fundamental idea of a tax and afterwards to note its leading characteristics. The word tax is derived from a Latin word called taxo which took place in Ancient Egypt around 300-2800 BC. Tax is defined as a compulsory levy, imposed by government or other tax raising body, on income, expenditure, or capital assets, for which the tax payer receives nothing specific in return’(Lymer,etal.2009). Tax is a contribution from individuals out of their private property for the maintenance and defense of government, so that it may perform its functions and the ends of the state are realized (Misrak, 2008). Tax involves every aspects of income generating activities and consumption items, and requires not only administrative capacity of revenue authority but also the involvement of private sectors through proper accounting and reporting (Tadros, 2009). Tax administration is a complex and dynamic responsibility. On a regular basis, leaders faced with new issues, conflicting priorities, taxpayer compliance and emerging commitments (Thomson, 2008).

Tax is a mandatory distribution collected by the Government to meet the expenses of various public functions. Many economists give the unanimous opinion about tax that “the tax is a compulsory payment to the government by tax payer without any

expectation of some specified return.'' Accordingly, in general terms, tax can be defined as a contribution from individuals out of their private property for the maintenance and defense of government, so that it may perform its functions and the ends of the state be realized. Taxes defined to be burdens, or charges, imposed by "the legislative power of a state upon persons or property," to "raise money for public purposes." It is a power inherent in sovereignty, and without which constitutional government cannot exist. It vested in the Legislature by the general grant of the legislative power whether specially enumerated in the Constitution among the powers to exercise by it or not (Yohannes & Sisay 2009).

Tax is used as meet the expenditures for public welfare. According to Hugh Dalton 'tax is a compulsory imposed by a public authority irrespective of the exact amount of service rendered to the taxpayer in return and not imposed as penalty for any legal offence. Taxation is used to encourage investment in local industries among others. Taxation is a means of finance that governments used to their expenditure by imposing charges on individual citizens and any business corporate entities. The money that collects because of a system of tax must takes by the government may use to spend in social activities such as education, health and defense. While taxation is not the only source of government revenues, but it is the large and the most important source in nearly all countries. Government is accountable to its citizens because of taxation, when the government spends the tax collected money; they are more accountable to make budget decisions transparent and accessible (Joanna, 2014). Although, the goal of any tax authority is to establish a system of tax administration that allows for the collection of required taxes at a minimum cost. In simpler terms, "tax is a financial charge or other levy imposed on an individual or a legal entity by government".

Commonly tax can classify into direct and indirect taxes, based on the nature of taxes and tax payment reason.

A. **Direct tax** is one for which the formal and economic incidence are essentially the same, i.e. the taxpayer is not able to pass the burden to someone else. Accordingly, direct taxes paid entirely by those persons on who imposed. The major types of direct taxes in Ethiopia are personal income tax, rental income

tax, business profit tax, withholding tax and such other taxes like taxes from loyalties, from games of chance, dividends or property taxes.

**B. Indirect tax** is a tax whereby the taxpayer's burden to pay the tax can easily be passed on to another person. Generally, the tax incidence of an indirect tax is on the ultimate consumer; however, sometimes, sellers might absorb such indirect taxes to be competitive in the market in which they are operating. The major types of indirect taxes in Ethiopia are value added tax, custom duties, stamp duties, excise tax and turn overtax.

### 2.1.3 Principles of Taxation

Principle is a fundamental truth or proposition that serves as the foundation for a system of belief or behavior or for a chain of reasoning. A general scientific theorem or law has numerous special applications across a wide field. It is a moral rule or standard of good behavior and a basic truth that explains or controls how something happens or works. For different activities, there are different principles and rules to do the activities without any biases.

At the time of levy of tax and collection of tax there has to be its own principles, which guide the legislative party and the taxpayers.

***A. Principles of Equity***: - this principle focused on the earning on peoples to providing the aim to people economic and social justice. People should pay government tax based on their ability. The high-class people and the low class people are not paying equal tax; the high-class people should pay higher taxes to government.

***B. Principles of Certainty****:* - Any tax payment should not be arbitrary it should be certain. The taxpayer should know in advance the value of paid tax, the time when it pay and the form of it. Also good tax systems ensure that the government is also certain about the amount that collected by way of tax.

***C. Principles of Convenience***: - focuses on the payment model and the payment time. The tax payment mode and timing of the payment should be as far as possible and convenient to the taxpayers.

D. ***Principles of Economy***: - This principle focuses on the cost and the collected tax amount. Based on the principles of economy, the amount of tax collected should always be greater than that of the cost of tax collection system, the tax collection cost must not be exceed the revenues of the tax.

E. ***Principles of Productivity***: - also called principles of fiscal adequacy that focuses on the financing ability of the government. Tis principle said that the tax system is able to yield enough revenues for the treasury and the government should have no need to restore deficit financing.

F. ***Principles of Elasticity:*** - There must be the elasticity for every government-imposed tax. The tax income that collected by the government should be capable of increasing or decreasing according to the requirement of the country.

G. ***Principles of Flexibility***: - The tax structure should have a possibility of revising with respect to its coverage and rates to changing requirement of the economy.

H. ***Principles of simplicity****:* -The tax system should not be complicated it must be simple to understand and administer to interpret the problem that occurs.

I. ***Principles of Diversity****:* - The government should collect taxes from different individuals and different business sectors rather than depending up on a single tax payer.

### 2.1.4. Tax Payment System

Any tax system which is designed on the bases of an appropriate principles or rules is called a good tax system. A good tax system should have a balance of interest between the Tax payers and the tax collected authority. Taxation is, by its nature, a complicated subject and most businesses as well as many self-employed individuals use intermediaries, such as accountants, to complete and file their tax returns (Regina & Frank 2008). Tax is the government's main financial source to perform the current affairs and finally giving services to the common people, the way to gather it can generate the sense of justice between people and also to direct the social, cultural and economic activities in the way of country's development macro plans and goals, in which has a serious impact. One of the main concerns of any government is to collect taxes rightly.

The collection of tax is not a one-side activity rather it is a co-creation activity. Both the taxpayers and tax collectors are involved on the collection of the tax. The tax collection system is a process of interrelation between citizen and the tax collector office. Paying tax is the involvement of citizens in the intention of and/or the design of public service to develop beneficial out comes. During co-creation, citizens are not mere consumers but are actively engaged in building resilient societies (William, Beekkers and Tummers 2017). Taxation is a more participative process where peoples and tax collector office together generate value and develop meaning. At the time of paying/collecting tax citizens are regarded as relevant partners, who have specific resource and competence which are valuable for redesigning public service delivery (Alford, Bason, Bovaired 2009 & 2010). Tax administration is a complex and dynamic responsibility. On a regular basis, leaders faced with new issues, conflicting priorities, taxpayer compliance and emerging commitments (Thomson, 2008).

### 2.1.5. Measurement of Tax Payment System Performance

According to Americas' Internal Revenue Service's (IRS) performance of tax, administration measured as follow (Temtime, 2014):

i. **Behavioral Outcome Measures**: Behavioral outcome measures evaluate taxpayer transactions with the tax administration to determine how effectively the tax administration is influencing taxpayer behaviors, such as using the web site, filing electronically, or voluntarily fulfilling their tax obligations Taxpayers can get their questions answered faster by using tax administrations' self-assisted services on the web site
ii. **Quality Measures**: Quality measures evaluate key characteristics of taxpayer products and services, such as completeness, timeliness, consistency, and accuracy. Quality improvements can decrease the burden associated with erroneous information, and increase the public's trust and confidence in the tax administration.
iii. **Timeliness Measure:** Timeliness Measure evaluates how quickly tax administration product or service delivered. The timely execution of activities by the tax administration can help taxpayers avoid potential burdens resulting from long wait times (such as fees,

penalties, and opportunity cost due to delayed actions). Some studies indicate that timeliness is highly correlated with taxpayer's satisfaction.

iv. **Taxpayer Satisfaction Outcome Measures**: Taxpayer satisfaction measures evaluate approval levels reported by taxpayers during various tax administration transactions and identify potential areas for service improvement. Organizations applying for tax-exempt status should experience high levels of satisfaction with the process and taxpayers should experience high levels of satisfaction in their transactions with the tax administration.

As we can see in the above parts to give a good quality service for customers the first and the best method is changing of its system in different systems and for this study we may see the e-tax system because of constraints of cost and time we only focused on it.

Explosive growth of information and communication technology has had an impact on government activities, which allows for service delivery to the citizen electronically. The aim of this initiative is to deliver better services to the citizens and communities through information and communication technology (ICT), especially through the Internet (Blakeley and Matsuura, 2001). The emergence of e-government has molded the use of information and communications technology; and albeit with varying degrees of success, has transformed the public sector from being "inward looking and administration-focused" to becoming outward looking with a focus on service delivery (Connolly & Bannister, 2008).

Increasing of citizen satisfaction can be a government perspective by utilizing the information and communication technology properly; especially the internet-improved channel of communication ensures the accessibility and completeness of government information and service delivery in a more convenient way (Parmita, Atanu and Esmail, 2010). Citizen satisfaction with e-government services related with citizen's perception about online service convenience (transaction), reliability of the information (transparency) and engaged electronic communication (interactivity) (Welch, Hinnant & Moon, 2004).

### 2.1.6. Electronic Filing and E-Tax Filling System

E-service has recently become a popular research topic, with the growth of the e-commerce (Sylvie & Ina, 2010). E-service qualities described as overall customer evaluations and judgments regarding the excellence and the quality of e-service delivery in the virtual marketplace (Santos, 2003). E-service is a delivery of all interactive services on the internet, using advanced telecommunication, information and multimedia technologies (Boyer 2002). E-service is information technology based system it include the information provision and system support, the logic transportation of service and the trace and exchange of information (Rowley 2006). The factors of the website design are strong predictors of customer quality judgments, satisfactions, and loyalties for the Internet retailers (Wolfinbarger & Gilly, 2003).

Electronic payment (e-payment) development will strongly contribute to improving countries' competitiveness in many ways (Kamulegeya 2010). E-service experience greatly affects the establishment of trust and relation with customers, and enterprises must pay attention in this regard (Yang and Zeithaml 2001, 2002). Companies must used e-service to retain and attract customers in the digital age and can increase the competition of the company's requirement fulfillment because electronic service (e-service) is the key to long-term advantages in the digital times, and eservice quality is becoming even more critical (Oliveria et al. 2002). The electronic filing system is a simple electronic system designed to process files and letters electronically. The process starts with digitization of the file at its inception and users of the system needs a unique id to log in and use the system. When a file moves from one person to the other, it is as if the file is moving from one table to the other (Wahid Abdallah, 2017). Electronic filing system is a filing system of information in the form of electronically with having of more pervasive effect on the legal system than adopting of administrative procedure acts or codes of civil procedure (Willian and Robert 2003). The World Bank has also suggested on its report that e-payment is crucial for economic development. Its 2014 report states E-payment is able to that rapidly developing and extending digital platforms to provide all the means to increase financial inclusion at the desired scale by providing increased speed, security, transparence and cost efficiencies (World Bank 2014).

Electronic filing is the substitution of an electronic document for a traditional paper

document. With the evolution of Internet technology, electronic filing has become a highly secure and reliable method for sending, receiving, and managing legal documents and case information. A fully developed electronic filing system includes not only transmission of pleadings to the Clerk's Office in an electronic format, but also the routine use of electronic documents and the electronic record for case processing, for service on other parties, and for access and use by everyone involved in, or interested in the case (Judge Dennis & Dan Flory, 2006).

The use of electronic systems in areas of declaring the taxable income by taxpayers and receiving the levy, play an important role in advancing the goals of e-Government. To accelerate and advance government's goals like speed and accuracy in current affairs used to decrease the tax collecting expenses, saving the time, information accuracy. In addition, completeness facilitates to set up financial and budgetary discipline. Achieving tax goals will guarantee the taxpayers satisfaction and tax organizations to establish trust and transparency in economic activity and the prevention of tax evasion. as well as the realization of the macro objectives of e-government such as implementation the tax revenues, income and wealth fair distribution, economic and social justice and to provide the necessary background for the competitiveness and economic sustainability and achieve favorable economic resources and environmental protection, the protection of investors and create jobs and economic growth guarantees (Intamedia.ir, 2014). In most definitions, e-government refers to activities that digitally done by the government.

This system defined in activities of payment; payment is a transfer of funds from payer to payee in different forms like cash, check or in the form of other negotiable instruments. E-payment system is a system of payment or receiving of funds in the form of electronic devices. E-payment also known as electronic funds transfer (EFT) is simply the use of electronic means to transfer funds directly from one account to another, rather than by check or cash (Malak 2007)

As European Central Bank defines, E-Payment is a payment that initiated, processed and received electronically. In e-payment May 24, 2017funds held, processed and received in the form of digital information and their transfer initiated via electronic payment instrument.

E-payment greatly increases payment efficiency by reducing transaction cost and enabling trade in goods and service of very low value. They may also increase the convenience of making payment by enabling them to make swiftly and remotely from various devices connected to global networks (Wondwossen Taddesse, Tsegai G.Kida, 2005,). The e-filing system is a simple electronic system designed to process files and letters electronically (Wahid, 2017). The use of electronic systems in areas of declaring the taxable income by taxpayers and receiving the levy, play an important role in advancing the goals of e-Government.

Electronic filing is the substitution of an electronic document for a traditional paper document. With the evolution of Internet technology, electronic filing has become a highly secure and reliable method for sending, receiving, and managing legal documents and case information (Dennis & Dan Foley, 2006). Electronic filing (e-filing) is the filing of information in electronic form, as opposed to paper form. E-filing will likely have a more pervasive effect on the legal system than did the adoption of administrative procedure acts or codes of civil procedure (William & Robert, 2003).

Electronic tax system is a web-enabled system that developed to replace manual system. It enables taxpayers to register tax, returns filing, payment registration to allow for tax payments and status inquiries with real-time monitoring of accounts (Waweru 2013). E-revolution made significant changes to offer services to not only customers but also to the citizens and businesses, being applied now (Akbar & Shahria 2015). The e-government also defined as to use electronic information technology and the Internet to improve the efficiency of government activities (Shelin, 2003). E- Tax filing is a system for submitting tax documents to the tax department through the internet or direct connection, usually without the need to submit any paper documents (Chang and Hung, 2005).

This system defined in activities of payment; payment is a transfer of funds from payer to payee in different forms like cash, check or in the form of other negotiable instruments. E-payment system is a system of payment or receiving of funds in the form of electronic devices. E-payment also known as electronic funds transfer (EFT) is simply the use of electronic means to transfer funds directly from one account to another, rather than by check or cash (Malak 2007)

As European Central Bank definition, E-Payment is a payment initiated, processed and received electronically. In e-payment, May 24, 2017 funds held, processed and received in the form of digital information. Moreover, their transfer initiated via electronic payment instrument. E-payment greatly increases payment efficiency by reducing transaction cost and enabling trade in goods and service of very low value. They may also increase the convenience of making payment by enabling them to make swiftly and remotely from various devices connected to global networks (Wondwossen Taddesse, Tsegai G.Kida. 2005).

In addition, e-payment system used to reduce employee's burden at a time of collecting taxes from different taxpayers because the number of taxpayers, at a time of payment is large and it is not easy to give service for customers without any tiredness. Because of this, most of organization's employees have no interest to go to ERCA's any branch office to do their work in appropriate time.

### 2.1.7. Measurements of Electronic Payment System

There are so many developed models are done in the area of online service based on customers satisfaction. Parasuraman, Zeithaml and Berry have first introduced a model to measure service quality in 1988. In 2005, Parasuraman developed two scale of measurement; E-S-Qual includes (efficiency, fulfillment, system availability and privacy) and E-Rec-Squal includes (responsiveness, contact and compensation). E-service quality can defined as overall customer evaluations and judgments regarding the excellence and quality of e-service delivery in the virtual marketplace (Lee and Lin, 2005). Lee E-service quality (e-SQ) is comprehensive and it includes both pre- and post-Web site service aspects (Zeithaml (2002). This denotes that e-service quality is one of the key determinants of success and failure of an organization because e-service quality is the

overall customer assessment and judgment of e-service delivery in the virtual marketplace (Santos, 2003).

Based on different models done on the area of electronic payment De Lone and McLean has been developed Information Systems Success model D & M success model which has become a standard for the specification and justification of the measurement of the customer satisfaction which is a dependent variable in IS research (Agourram 2009, Agourram, and Ingham, 2007). The D & M model show that IS can be measured from three different angles; "service quality", "system quality" and "information quality" and this three are related to "user satisfaction" and "net benefit'' which are used to measure customer's satisfaction. D & M model defined the service quality can measured in terms of reliability, empathy and responsiveness, the system quality can be measured in terms of usability and availability and the information quality of online payment can be measured in terms of competence, assurance and relevance of the information on the system.

#### 2.1.7.1 Information Quality

Information quality (IQ) has become a critical concern of organizations and this information can promote understanding of some of the key issues relevant to the design and implementation of a viable quality assurance system for an organization (Balatunde, Elizabeth and Richared, 2014). A system is an organized assembly of components with special relationships between the components (Belle & Eccless, 2001). a system can be defined as a collection of components that work together towards a common goal. The objective of a system is to receive inputs and transform these into outputs (Hardcastle, 2011)

DeLone and McLean (1992; 2003), information quality is the quality of IS output, the quality of the information produced by the system, principally in the form of reports. For certain researchers, information quality also defined as information that is fit for use by data consumers (Fit for Use) (Wang and Strong, 1996; Strong, et al., 1997). Nowadays, this point of view is widely held because it stresses that, ultimately its users who determine whether the information is suitable for their utilization. According to

Ramachandra and Srinivas information is the data that is processed in a form of helps the management to take decisions i.e. it is the data that have been put into a meaningful and useful context and communicated to a recipient who uses it to make decisions. The relation of data to information is that of raw material to finished product. The word information is a processed data, useful or relevant data, data with surprise value, data which is useful in the decision making process.

Information quality is the desirable characteristics of the system outputs. Relevance, understandability, accuracy, conciseness, completeness, currency, timeliness, usability are a characteristics of IS. The output of the information systems should to be relevant to the purpose for which it is required, easy to understand, accurate or less error, concise, complete or contains all the required information, currency, quick availability and timely to support information needs, and usability. According to Al-Mamary A, number of researchers considers information quality as important factor to MIS success in organization. IQ recognized as an essential and competitive strength in every organization and this will improve consumers' provider choices only if it considers the features of care that consumers perceive as relevant to their provider choices.

#### 2.1.7.2 System Quality

According to Ramachandra and Srinivas a system is set of elements joined together to achieve common objectives i.e. Group of elements organized with a purpose. System quality is the desirable characteristics of an information system. For example ease of use, system flexibility ,system reliability ,ease of learning, intuitiveness , sophistication , response time (Petter and DeLon, 2008). Ease of use is the degree to which the users perceived that by using IS they need less effort to use the system. In addition a quality of IS needs to be flexible enough in order for the user to use the system .Flexible IS means the ability to customize the system based on the conditions and the internal and external changes (Gorla and Somers, 2010). The lower the flexibility of the system, the lower the user's satisfaction that later influences the user's engagement to the system. Moreover, reliability is important an indicator of quality IS. Reliability defined as the degree of which the users can trust the IS. In addition ease to learn is important indicators of quality IS. Ease to learning is the degree to which users perceived that the

system easy to learn. As well as system, features of intuitiveness, sophistication, and response times are important indicators of quality of IS. Response time is the length of time taken by a system to response to an instruction. Longer system response times may cause lower satisfaction of users.

System quality referred to as the system that an organization uses to manage the quality of their services or products (Balatunde, Elizabeth and Richared 2014). And according to the International Organization for Standardization, defines a quality system as the management system used to direct and control an organization with regard to quality. SQ represents the quality of the information system processing itself, which includes software and data components, and it is a measure of the extent to which the system is technically sound. Seddon (1997) espouse that SQ is concerned with whether there are bugs in the system, the consistency of user interface, ease of use, quality of documentation, and sometimes, quality and maintainability of program code. SQ is a series of actions designed to ensure consistency in approach, process and output. The outcome of a quality system is that the organization has a sound basis for applying the basic philosophy of quality assurance, a clear set of guidelines for quality systems and processes, a means of satisfying contractual obligations, and readily available guidance and direction (Gorla, Somers and Wong 2010).

#### 2.1.7.2 Service Quality

The theory of business development and service management is necessary to understand the needs and wants of customers, what they evaluate and are really looking for (Kotler & Armstrong, 2007). Service quality is one of the significant measurement tools for firms to understand consumers' needs and wants by analyzing the experience of consumers and customers' satisfaction on the services provided there is a strong effect of customers' satisfaction on the firm performance and the effect of service quality on customers' satisfaction and profitability (Ramezani, Feiz and Dr.Rohaizat, 2015). Service quality generally refers to a customer's comparison of service expectation as it relates to a company's performance. A business with a high level of service quality is likely capable os meeting customer needs while also remaining economically competitive in their respective industry. One of the most commonly used research instruments to define the

concept of service and, by extension that of service quality is SERVQUAL (Parasuraman, et al., 1988), which presents service quality as the gap between expectations and the perceived evaluation of Service Performance. SERVQUAL, a measurement scale based on five dimensions (tangible elements, service provider reliability, service provider helpfulness, service provider assurance and service provider empathy), has been adapted to the IS domain (Kettinger and Lee, 1997; Van Dyke, 1997; Pitt, 1997). Similar service quality measuring instrument SERVPERF, has been proposed by Cronin and Taylor (1992). SERVPERF and SERVQUAL possess the same dimensions, but SERVPERF is restricted to perceptions, which is why it offers the advantage of being "lighter" to implement (Jiang, et al., 2012). Delivering service quality considered an essential strategy for success and survival in today's competitive environment (Parasuraman, Zeitham & Berry, 1991). According to Parasuraman, Zeitham & Berry (1991) Defining service quality is difficult than defining goods quality because of three characteristics of service intangibility, heterogeneity & inseparability.

Service quality is related with reliability, efficiency, accessibility and security. Service quality has been recognized as a dominant factor in keeping competitive advantage and sustaining satisfying relationships with customers. Service quality is one of the factors contributing to customers' satisfaction judgments.

## 2.2. Empirical Review

### 2.2.1. E-tax system in Ethiopia

Historically, in Ethiopia the tax returns were filed manually and hand-delivered to the nearest office. According to Fortune (2013) ERCA's highly manual tax system has spent significant amount of its payroll budget on handling paper returns and transcribing data to machine readable form. ERCA has been implemented the e-tax filing system for both large and medium tax payers in 2009 which was installed by Canadian consultant firm CRC Sogema with a 90,000 dollars with a support of the Investment Climate Facilitation for Africa (ICF) (Fortune 2015). A product allows taxpayers to file their documents electronically, to see and to print their declaration form online. The E-tax payment is can be measured in two ways in which; by directly using the authority's website and authenticating through two security layers and declaring tax (Fortune, 2015). The World Bank Doing Business (2014) said that, on the online service delivery status ERCA is in its premature stage. Still, the need for manual reporting and appearing to a tax office is unavoidable.

According to Ato Birhanu, Head of Customers Education and Support Team Coordinator, interview with ERCA's official monthly newsletter (Gebi Lelemat 47), e-Tax has the capacity to provide internet/online services via ERCA's website or a dedicated website: www.etax.gov.et. (Ruta, 2017). The main web page of ERCA has almost all-common information for taxpayers. Taxpayers can find all necessary legislation, tax forms and information about main tax procedures. The web page includes a register of VAT taxpayers, public tenders by tax administration, duties and rights of taxpayers, phone numbers, acts on the amounts necessary to calculate tax obligations, short presentations on some taxes and an introduction to the tax administration (its duties, organization, working hours and annual report). It also offers links to other useful web pages (Gebre, 2006).

In the Practice, Challenges, and Prospects of e-Government; the case of ERCA study (Samuel, 2015) E-Tax is described as a large public application designed to work with the Standard Integrated Government Tax Administration System (SIGTAS). It is a product that allows taxpayers to file electronically and to see and print their

declarations on line. For security reasons, the e-Tax database is separate from SIGTAS database. An e-Tax user does not have a direct access to SIGTAS database but declaration changes are done in SIGTAS and are automatically reflected in e-Tax. A communication mechanism between the two applications allows data to flow from one database to the other.

The main web page of ERCA has almost all-common information for taxpayers. Taxpayers can find all necessary legislation, tax forms and information about main tax procedures. The web page includes a register of VAT taxpayers, public tenders by tax administration, duties and rights of taxpayers, phone numbers, acts on the amounts necessary to calculate tax obligations, short presentations on some taxes and an introduction to the tax administration (its duties, organization, working hours and annual report). It also offers links to other useful web pages (Gebre, 2006).

### 2.2.2 Empirical Findings

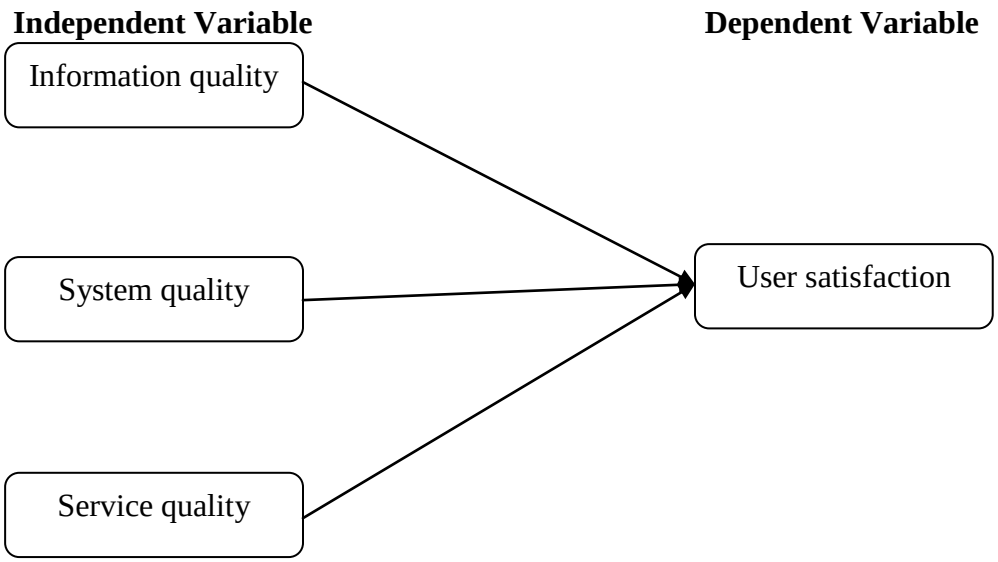
The few available empirical studies investigate the determinants of customer's satisfaction on online payment system. Rigina & Frank identified tax payers of Irish peoples used the electronic tax declaration and they are satisfied by the system. In the same paper, Rigina & frank can used Parasuraman E-S- Qual mode. A study on Swedish electronic tax declaration system (Rita Egwan) highlight recommends that the electronic tax declaration system is more accepted payment system than the paper work. Digital payments in India have been experiencing exponential growth and with growth of internet and mobile penetration, in coming years the country is ready to witness a huge rush in the adoption of digital payments (Dr K.Ksmstchi, 2019). The D & M model show that IS can be measured from three different angles; "information quality", "system quality" and "service quality" and this three are related to "user satisfaction" which are used to measure customer's satisfaction. This model is has been cited in more than 300 articles in refereed journals. Joanna (2014) in her study on implementing electronic tax filing and payment in Malaysia, stated that E-tax filing system increase the quality and quantity of information available to tax officers, enabling them to complete transactions faster and more accurately.

Several benefits of electronic filing system have been discussed in literatures. Anna & Yusniza (2009) conducted a study on Adoption of tax e-tax filing in Malaysia and stated that e-tax filing allows customers to conduct transactions within a few mouse clicks. This convenience can serve as a key driver of e-tax filing adoption. E-tax filing provides many aspects of 'convenience' to taxpayers (that is time to file, place to conduct the filing, ease-confuse, information searching and online transactions) at a degree that is not available through traditional channels.

The study done by Puthur and Lakshman in 2016 proposed and empirically tested a model to understand the factors that influence adoption of e-filing system in India and found that perceived usefulness and perceived ease of use under conditions of website quality and information quality significantly enhance taxpayer's satisfaction and intention to re-use the e-filing system . The findings also indicate that the income tax department should redesign the existing e-tax filing architecture and put in place a system that ensures convenience and ease of use to the taxpayers to motivate them to use it in the future.

Uchenna, Jeen, Su Zhuang, Gerald and Choon's study of E-Service quality and Users satisfaction toward E-Filing aims to examine users' satisfaction toward electronic tax return filing (e-filing) in Malaysia and takes a step further by studying users' satisfaction using e-service quality. The results from Pearson correlation analysis show all the nine dimensions of e-service quality are significance positive correlated with user satisfaction toward e filing. In addition to this, Moyi & Ronge in 2006 done with Taxation and Tax Modernization in Kenya, e-tax filing enhances administration through measures entrusting of sensitive negotiations to special teams minimizing contacts between tax payers and tax collectors and reducing the discretionary powers of tax officers; setting up supervisory systems with at least three hierarchical levels to reduce benefits for collusion; and devise incentive systems that match public and private interests.

## 2.3 Conceptual Framework




**Conceptual Framework developed based D & M Model**

# CHAPTER THREE

# RESEARCH DESIGN AND METHODOLOGY

This chapter outlines the methodology on how data and information relevant to the research is going to be gathered and analyzed in order to achieve the objectives of the study. It discusses the description of study procedures and the methods, which will be employed in the study. Areas covered include the research design, sources of data, instruments of data collection, population and sampling procedures, methods of data analysis, and ethical consideration.

## 3.1. Research design

Research design deals with planning the strategy or overall design of the study. A research design is a plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems. This study is a plan of doing on customer's satisfaction on the e-tax filing system developed by ERCA and this research area is selected to see the level of customer's satisfaction of the system and try to see the e-tax system benefits, challenges and tax payers relation and satisfaction of electronic tax filing system in ERCA. In this study, explanatory design is applied.

## 3.2. Research Approach

In general, there are two basic approaches to research, which are quantitative approach and the qualitative approach. Quantitative approach involves the generation of data in quantitative form, which will subjected to rigorous quantitative analysis in a formal and rigid fashion. On the other hand, qualitative approach to research is concerned with subjective assessment of attitudes, opinions and behavior. Research in such a situation is a function of researcher's insights and impressions. Such an approach to research generates results either in non-quantitative form or in the form that has subjected to rigorous quantitative analysis.

To come across suitable description of the research and valid generalization of findings, the researcher was used quantitative method of data analysis. Moreover, descriptive survey method is employed with the assumption that it can help to describe the current benefits and challenges of e-tax filing system and its relation with tax compliance in ERCA.

## 3.3. Data source and type

Basically there are two types of data sources which are primary and secondary data sources. The primary data are those that are collected afresh and for the first time, and thus happen to be original in character. The secondary data, on the other hand, are those already have been collected by someone else and have already been passed through the statistical process. In this research, both primary and secondary data sources are used. In order to collect the primary data, survey strategy and structured questionnaire are employed to collect the information from the taxpayers. On the other hand, the secondary sources of data included different documents, literatures, research papers related to the study area, journal articles and books.

## 3.4. Data Collection Method

For the purpose of this study a quantitative methodology involving a close-ended questionnaire was used as the measuring instrument. This method of data collection is quite popular, particularly in case of big enquiries. It is being adopted by private individuals, research workers, private and public organizations and even by governments. A questionnaire consists of a number of questions printed or typed in a definite order on a form or set of forms. The questionnaire was distributed to respondents. The respondents have to answer the questions on their own. In this study, a total of 292 questionnaires were distributed to the target samples of customers.

## 3.5. Sampling and Sampling Techniques

### *3.5.1 Target Population*

Population is the entire group of people, events or things of interest that the researcher wishes to investigate (Sekaran 2011). While the target population is the total collection of elements about which the researcher wishes to make some inferences (Okiro & Ndungu, 2013). The target populations for this study were 790 taxpayers of large tax payer's branch office in Addis Ababa.

### *3.5.2 Sample size determination*

The sample size was consider as representative of the tax payers of the selected branch office and this was expected to be large enough to allow precision, confidence and to generalize the research finding. The researcher used Kothari sample size determination formula developed by (Kothari, 2004) because it is a standard formula and is used in different related studies it is calculated as follows:

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

Where;

N: Designate total number of customers on large tax payers branch office

e: Designates maximum variability or margin of error 5% (0.05).

1: Designates the probability of the event occurring.

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

$$= \frac{790}{1+790(0.05)^2}$$

$$= \frac{790}{2.975} = 265.54$$

In an attempt to maximize confidence on the representation of the sample, additional 10% were prepared and 292 respondents are chosen.

### *3.5.3 Sampling Techniques*

In this study, 292 sample units (selected taxpayers) of the research chosen based on the non-probability sampling method of purposive sampling. This sampling method utilized for a reason that since the aim of the researcher is to collect reliable information from the sources having relevant knowledge and/or experience directly related to the subject of the study.

## 3.6. Method of Data Analysis

Data analysis is the way of analyzing the collected data. Depending up on way of collecting information and the way of communicate the findings. After the questionnaires and interview collected, the researcher checked if there were unintended participants, who had filled the questionnaire distributed to the samples and had organized the returned questionnaire. Then the researcher performed the analysis process for the collected valid data using Statistical package for social science (SPSS). The descriptive statistics includes frequencies, percentages, means and standard deviation. The inferential statistics (correlation analysis and regression analysis) used to test the hypothesis developed.

### 3.6.1 Inferential Analysis

According to Sekaran (2000:401), "inferential statistics allow researchers to infer from the data through analysis the relationship between variables; differences in a variable among different subgroups; and how several independent variables might explain the variance in a dependent variable". The purpose of inferential approach to research is to form a database from which to infer characteristics or relationships of population. This usually means survey research where a sample of population is studied (questioned or observed) to determine its characteristics, and it is then inferred that the population has the same characteristics. Accordingly, on this study, Pearson's Correlation Coefficient and multiple regression were used to analysis and test the hypothesis.

#### 3.6.1.1 Regression Analysis

Multiple regression analysis is one of the most commonly used multivariate procedures and is used to build models for predicting scores on one variable, the dependent variable, from scores on a number of other variables, the independent variables Terre Blanche, et al, (2006). The researcher tried to predict the model in terms of customer satisfaction (dependent) variable from independent variables such as information quality, system quality and service quality.

The equation of multiple regressions on this study generally built around two sets of variable, namely dependent variables (customer satisfaction) and independent variables (information quality, service quality and system quality). The basic objective of using regression equation on this study is to make the researcher more effective at describing, understanding, predicting, and controlling the stated variables.

**Table 4. 1: Regression Variables**

| **Independent Variables** | **Dependent Variables** |
|---|---|
| Information Quality<br>Service Quality<br>System Quality | Customer Satisfaction |

### 3.6.1.2 Model Specification

To figure out the effect of independent variables on customer satisfaction of online tax payment system, this paper used multiple regression method for the cross sectional data. In doing so the SPSS software package is employed. Thus, this paper specified the multiple regression method as follows:

$$CS = f(IQ, SEQ, SYQ)$$

$$CS = \alpha_1 + \beta_1 IQ + \beta_2 SEQ + \beta_3 SYQ + \varepsilon \ldots\ldots\ldots Eq(1)$$

Where:

*CS*: Customer Satisfaction

*IS*: Information Quality

*SEQ*: Service Quality

*SYQ*: System Quality

$\beta$ : Coefficient of the factor

$\alpha$ : Constant and

$\varepsilon$ : Residual

## 3.7. Reliability and Validity

Reliability tells about stability of the results i.e. how accurately the study has been carried out (Webropol, 2011). Reliability refers to whether a measurement instruments is able to yield consistent results each time it is applied. Reliability or internal consistency can be measured in different ways. In this study, the reliability assessed by means of the Cronbach Alpha. The generally agreed lower limit, to be able to claim an instrument to be reliable, for the Cronbach Alpha coefficient is 0.70, although the limit may be lowered to 0.60 in the case of explanatory research (Hair et al., 1988).

Likewise, in order to determine the validity of the dataset, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (MAS) and Bartlett's Test of Sphericity were respectively carried out.

## 3.8. Ethical Consideration

The researcher has consent of the organization for the study. Taxpayers who are completed the questionnaire and interviews may inform about the purpose of data collection, analysis and the covenant to maintain privacy of their responses. Regarding published and unpublished materials used in the literature review and throughout the study, all citations from copyright holders can made properly.

# CHAPTER FOUR

# DATA PRESENTATION, ANALYSIS AND INTERPRTATION

In this section, the researcher tried to analysis the collected dataset. The analysis carried out descriptive analysis such as response rate, demographic characteristics of the respondent, perception of the respondent on online tax payment system and inferential statistics (correlation and multiple regressions).

## 4.1. Descriptive Analysis

### 4.1.1 Response Rate

For the sake of data collection, 292 questionnaires distributed to the target samples of customers. Out of 292 questionnaires distributed, 267 returned which represented a response rate of 91.4%. This response rate indicated very appropriate to conduct research. And this is supported by the literature of Mugenda and Mugenda (1999), which is stated that a response rate of 50% is adequate for analysis and reporting, a rate of 60% is generally good while a response rate of above 70% is excellent, and this also asserted by Babbie (2010) that 70% is excellent. The data received subjected to data screening in order to remove any issue of outliers and missing data.

### 4.2.2 Reliability and Validity Test

The reliability or internal consistency test is conducted using Cronbach Alpha, while the validy test is carried out using Kaiser-Meyer-Olkin Measure of Sampling Adequacy (MAS) and Bartlett's Test of Sphericity. As seen from Table 4.2 the Cronbach Alpha score value for all items scored more than the threshold value 0.7, we can say that there is internal consistency. Likewise, the (KMO) values are greater than 0.4, which exceed the threshold 0.60. The Bertlet's test of sphericity is significant since P value is 0.000. This indicates that the dataset is reliable and valid and used for analysis.

**Table 4. 2: Reliability and Validity Test**

| Variables | No. of Items | Cronbach's Alpha | Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy | Bartlett's Test of Sphericity Significance Level |
|---|---|---|---|---|
| Information System | 4 | 0.82 | .516 | 0.000 |
| System Quality | 3 | 0.72 | .504 | 0.000 |
| Service Quality | 5 | 0.81 | .788 | 0.000 |
| Customer Satisfaction | 3 | 0.76 | .500 | 0.000 |
| All | 15 | 0.818 | 0.61 | 0.000 |

### *4.2.3 Demographic characteristics of the respondent*

In this research, the demographic factors of the respondents included gender, age, educational background etc. As can be seen from Table 4.3 below, from the total respondents participated under the survey, out of the total 267 respondents about 55 % of the respondents were male, while the remaining 45 % were female. The finding indicates that most of the participants are male.

Regarding the age distribution, the sample age categories divided with five age categories. Accordingly, the results showed that out of the total 267 participants, majority of respondents (39 %) were aged between 18 and 28 years old followed by aged between 26 and 35 years (31 %), aged between 36 and 45 years (24 %), aged between 46 and 55 years (3 %) and aged above 56 years (3 %). This is an indication that most taxpayers in the sample are at their matured ages and information given to this study is free from emotional (Table 4.3).

When coming to education level, from the 267 participants in the survey, 54.7 % of the respondents have first degree, 22.5 % of the respondents have diploma, 4.9 % have second degree and the rest 18 % of the respondent were not mentioned their education level. Therefore, it is possible to say that approximately all the respondents had good

education background resulting majority of business taxpayers were well educated to know the online tax system (Table 4.3).

The respondents also requested to indicate how long time they know the tax authority office. The results shown in Table 4.3 indicates that, from total of 267 participants, 36 % of respondents know the office 3 to 5 years ago, 30 % of the respondents have know the office before 6 and 7 years ago, 22 % of the respondents know the office before 1 and 2 years ago and the rest 12 % of the respondent know before 7 years ago. The finding indicating that, most of the respondents know the office very well.

The respondents were also asked to indicate the duration of time that they using internet as a tax payment system. From the responses it become evident that out of 267 participants, majority of the respondents (64 %) indicated that they use the internet as a tax payment system for 3 and 5 years, 24 % of the respondents use for 1 and 2 years, 7 % of the respondents use for less than one year and 5 % use more than 5 years (Table 4.3).

**Table 4.3: Demographic characteristics of the respondent**

| Variables | Categories | Frequency | Percent |
|---|---|---|---|
| **Gender** | Male | 148 | 55% |
| | Female | 119 | 45% |
| | Subtotal | 267 | 100% |
| **Age** | 18-25 | 104 | 39% |
| | 26-35 | 84 | 31% |
| | 36-45 | 63 | 24% |
| | 46-55 | 7 | 3% |
| | >56 | 9 | 3% |
| | Subtotal | 267 | 100% |
| **Level of education** | Diploma | 60 | 22% |
| | First Degree | 146 | 55% |
| | Second degree | 13 | 5% |
| | Other | 48 | 18% |
| | Subtotal | 267 | 100% |
| **Knowing tax** | 1-2year | 58 | 22% |

| | | | |
|---|---|---|---|
| **authority office** | 3-5years | 96 | 36% |
| | 6-7 years | 81 | 30% |
| | >7 years | 32 | 12% |
| | Subtotal | 267 | 100% |
| **Number of Frequency come to the office** | Once in a year | 56 | 21% |
| | Once in a month | 56 | 21% |
| | Twice in a month | 126 | 47% |
| | Other | 29 | 11% |
| | Subtotal | 267 | 100% |
| **Duration period using the internet as a tax payment system** | Less than one year | 20 | 7% |
| | 1-2years | 63 | 24% |
| | 3-5years | 171 | 64% |
| | >5 years | 13 | 5% |
| | Subtotal | 267 | 100% |

### *4.2.4 Perception of Taxpayers toward Online Tax System*

In order to assess the perception of taxpayer towards online tax system, the respondents asked to indicate their extent of agreement or disagreement with some statements relating to some of the factors that influence ones' view on online tax system. The respondents were requested to rate each item using five scale liker-scaling, ranging from strongly agree to strongly disagree. The following statistics used in interpreting the results of the study: 1.00 – 1.80 "Strongly disagree/very dissatisfied", 1.81 – 2.60 "Disagree/dissatisfied, 2.61 – 3.40 "Moderate agreement/moderately satisfied", 3.41 – 4.20 "Agree/satisfied", 4.21 – 5.00, and "Strongly agree/very satisfied". Moreover, the researcher tried to calculate the mean and standard deviation for each items.

#### 4.2.4.1 Perception on Information Quality

In this sub section, the data related to perception of customers on information quality presented and discussed. Total of four questions were questioned to understand the level of perception on information system quality. The standard deviations of respondent response were around 1, which indicates that the respondent perceptions were almost close to one another.

**Table 4. 4: Perception on Information System Quality**

| Items | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly Agree | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Count | Percent | Count | Percent | Count | Percent | Count | Percent | Count | Percent | Count | Mean | Std. Deviation |
| The ERCA's electronic tax application has complete information. | 0 | 0.0% | 0 | 0.0% | 100 | 37.5% | 89 | 33.3% | 78 | 29.2% | 267 | 3.9 | 0.8 |
| The information on electronic tax declaration is up-to-date. | 1 | 0.4% | 21 | 7.9% | 96 | 36.0% | 77 | 28.8% | 72 | 27.0% | 267 | 3.7 | 1.0 |
| The information on electronic tax declaration is easy to comprehend. | 23 | 8.6% | 57 | 21.3% | 82 | 30.7% | 60 | 22.5% | 45 | 16.9% | 267 | 3.2 | 1.2 |
| ERCA's online transaction is always accurate. | 0 | 0.0% | 79 | 29.6% | 111 | 41.6% | 56 | 21.0% | 21 | 7.9% | 267 | 3.1 | 0.9 |

From table 4.4 result, the mean value 3.9 and 3.7 for question 1 and 2 indicates that the respondent were agreed that The ERCA's electronic tax application has provide complete information and the information on electronic tax declaration is up-to-date. Whereas, the mean value 3.2 and 3.1 refers to the respondents have moderately satisfied related to the information declaration understanding and ERCA's online transaction accuracy.

#### 4.2.4.2 Perception on Service Quality

Under this sub section, a total of five questions were covered to realize the perception on service quality. As it is shown in the below table most of the mean values were almost 3 which revealed that on average the respondents were moderately agree or satisfied with the service quality of online tax payment system at ERCA. For the meantime, the standard deviation of respondents response were above 1, which indicates that the respondent's perception were not close to one another (Table 4.5).

**Table 4. 5: Perception on Service Quality**

| | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly Agree | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Count | Percent | Count | Percent | Count | Percent | Count | Percent | Count | Percent | Count | Mean | Standard Deviation |
| I feel secure using the electronic tax declaration. | 13 | 4.9% | 103 | 38.6% | 71 | 26.6% | 28 | 10.5% | 52 | 19.5% | 267 | 3.0 | 1.2 |
| This system designed with the user's best interest at heart. | 12 | 4.5% | 99 | 37.1% | 75 | 28.1% | 27 | 10.1% | 54 | 20.2% | 267 | 3.0 | 1.2 |
| The steps on electronic tax applications are clearly written. | 6 | 2.2% | 99 | 37.1% | 85 | 31.8% | 35 | 13.1% | 42 | 15.7% | 267 | 3.0 | 1.1 |
| Employees in the institution have the knowledge to answer my questions. | 12 | 4.5% | 110 | 41.2% | 67 | 25.1% | 24 | 9.0% | 54 | 20.2% | 267 | 3.0 | 1.2 |
| ERCA's electronic tax application has modern-looking equipment | 22 | 8.2% | 59 | 22.1% | 82 | 30.7% | 58 | 21.7% | 46 | 17.2% | 267 | 3.2 | 1.2 |

#### 4.2.4.3 Perception on System Quality

In order to examine the perception of customers on online tax payment system quality, three questions were covered. As presented in the below table similar to the service quality result, most of the mean values were 3.0 which revealed that on average the

respondents moderately satisfied with the online tax payment system quality. For the meantime, the standard deviation of respondents response were above 1, which indicates that the respondent's perception were not close to one another (4.6).

**Table 4. 6: Perception on System Quality**

| | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly Agree | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Count | Percent | Count | Percent | Count | Percent | Count | Percent | Count | Percent | Count | Mean | Standard Deviation |
| The ERCA's electronic tax application is easy to use. | 18 | 6.7% | 44 | 16.5% | 89 | 33.3% | 64 | 24.0% | 52 | 19.5% | 267 | 3.3 | 1.2 |
| The ERCA's electronic tax application feels same like the paper version. | 57 | 21.3% | 43 | 16.1% | 53 | 19.9% | 60 | 22.5% | 54 | 20.2% | 267 | 3.0 | 1.4 |
| The ERCA's electronic application is available at all times. | 23 | 8.6% | 59 | 22.1% | 82 | 30.7% | 59 | 22.1% | 44 | 16.5% | 267 | 3.2 | 1.2 |

#### 4.2.4.4 Customer Satisfaction on Online Tax Payment System

The respondents asked about their satisfaction on online tax payment system. Three questions asked to understand their level of satisfaction. The standard deviations of respondent response were more than one, which indicates that the respondent satisfaction level were not close to one another.

**Table 4.7: Customer Satisfaction**

| | Strongly disagree | | Disagree | | Neutral | | Agree | | Strongly Agree | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Count | Percent | Count | Percent | Count | Percent | Count | Percent | Count | Percent | Count | Mean | Standard Deviation |
| I likely use the online tax system again in the future. | 56 | 21.0% | 77 | 28.8% | 68 | 25.5% | 33 | 12.4% | 33 | 12.4% | 267 | 2.663 | 1.280 |
| I likely recommend the online tax system to other taxpayers. | 58 | 21.7% | 58 | 21.7% | 58 | 21.7% | 45 | 16.9% | 48 | 18.0% | 267 | 2.876 | 1.402 |
| The electronic tax declaration system developed for all categories of persons. | 22 | 8.2% | 58 | 21.7% | 83 | 31.1% | 59 | 22.1% | 45 | 16.9% | 267 | 3.176 | 1.190 |

As seen from Table 4.7 result, the mean value 2.66, 2.87 and 3.17 for question 1, 2 and 3 indicates that the respondents were moderately agreed that; to use the online tax system again in the future, to recommend the online tax system to other tax payers and the electronic tax declaration system was developed for all categories of persons.

## 4.2 Inferential Analysis

### *4.2.1 Multi co-linearity Test*

Multi co-linearity means that one of the independent variables is not really necessary to the model because its effect/impact on the model is already captured by some of the other variables. This variable is not contributing anything extra to the predictions and can be removed. It happens when one or more explanatory variables are highly linearly related to each other. If the correlation coefficient is high in absolute value, then the variables are quite correlated and multi co linearity is a potential problem. Some researchers pick an absolute value of 0.80, and concern about multi co linearity when the correlation coefficient exceeds 0.80. On the other hand this study adopted the rule of thumb for VIF value 5 as the threshold. The VIF value greater than 5 shows the existence of multi co linearity. (Studenmund,2016). In this research, the multi co linearity between the

explanatory variables was tested using correlation values and variance inflation factor (VIF).

**Table 4. 8: Correlation Matrix Result**

| Correlations | | | | | |
|---|---|---|---|---|---|
| | | **Information quality** | **System quality** | **Service quality** | **Customer satisfaction** |
| **Information quality** | Pearson Correlation | 1 | | | |
| | Sig. (2-tailed) | | | | |
| | N | 267 | | | |
| **System quality** | Pearson Correlation | .435** | 1 | | |
| | Sig. (2-tailed) | .000 | | | |
| | N | 267 | 267 | | |
| **Service quality** | Pearson Correlation | .384** | .521** | 1 | |
| | Sig. (2-tailed) | .000 | .000 | | |
| | N | 267 | 267 | 267 | |
| **Customer satisfaction** | Pearson Correlation | .409** | .554** | .593** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | |
| | N | 267 | 267 | 267 | 267 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | | |

**Table 4. 9: Variance Inflation Factor**

| Collinearity Statistics | |
|---|---|
| Tolerance | VIF |
| .776 | 1.288 |
| .664 | 1.506 |
| .698 | 1.432 |

The multi co linearity test result indicated in Table 4.8 and Table 4.9 that the VIF values of the independent variables were less than the threshold of 5 as well as all correlation results between independent variables are below 0.8 which reveals there is no multi co linearity problem.

Furthermore, as shown in Table 4.8, information quality, system quality and service quality have a positive relationship with customer satisfaction and significant at the 1%

level of significance. The Pearson correlation coefficient values between; information quality and customer satisfaction, system quality and customer satisfaction and service quality and customer satisfaction were 0.409, 0.554 and 0.593.

### *4.2.2 Multiple Regression Analysis*

Multiple regression analysis is one of the most commonly used multivariate procedures and is used to build models for predicting scores on one variable, the dependent variable, from scores on a number of other variables, the independent variables Terre Blanche, et al, (2006). The researcher tried to predict the model in terms of customer satisfaction (dependent) variable from independent variables such as information quality, system quality and service quality.

Based on the cross section data, multiple regression method is applied to empirically investigate the effect to which information quality, system quality and service quality can predict the criterion variables customer satisfaction of online tax payment system. The adjusted coefficient of determination ($R^2$) shows that the three factors explained approximately 44.7 % of the variation in customer satisfaction. This gives the regression line a good fit while the remaining 55.3% of the total variation in the job performance is accounted by the factors included in the error term (Table 4.9).

**Table 4. 10: Model Summary Result**

**Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .669[a] | .447 | .441 | .64377 | 1.831 |

a. Predictors: (Constant), Systemquality, Information, Servicequality

b. Dependent Variable: Usersatisfaction

The Durbin Watson statistics tests for autocorrelation value ranges from 0 to 4 and as a rule of thumb, the value should be between 1.5 and 2.5 to indicate independent of observations (Garson, G. David, 2010). Therefore, as shown from Table 8 the Durbin Watson value 1.831 reveals that there is no autocorrelation and implies that independent of observation and the model is adequate.

From Table 4.10 model coefficients estimation result, all the independent variables i.e. information quality ($P$ =0.013), service quality ($P$ =0.000) and system quality ($P$ =0.000) are statistically significant at 5% significance level and hence the alternate hypothesis is accepted. It means that independent variables have significant effect on customer satisfaction of online tax payment system. Information quality, service quality and system quality have positive effect on customer satisfaction of online tax payment system. The estimated coefficients give a measure of the contribution of each variable to the model. Higher the coefficient value, greater is the effect of independent variable on dependent variable. Service quality has the highest coefficient (β= 0.383) and therefore it has greater effect on customer satisfaction of online tax payment system followed by system quality (0.287) and information quality (0.184). The statistically validated model coefficient estimation result is given in Table 4.10.

**Table 4. 11: Model Coefficients Estimation Result**

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .186 | .237 | | .783 | .435 |
| | Information | .184 | .073 | .131 | 2.510 | .013 |
| | System quality | .287 | .055 | .295 | 5.245 | .000 |
| | Service quality | .383 | .054 | .389 | 7.090 | .000 |

a. Dependent Variable: Customer satisfaction

Multiple regression equation that was specified under section three can be written based on the above estimation result as follow:

$$CS = 0.186 + 0.184IQ + 0.383SEQ + 0.287SYQ$$

The coefficient value 0.184 for information quality represents that as the information quality increase, the customers' satisfaction on online tax payment system would increase, and other variables are constant. The coefficient value 0.383 for service quality implies that as the service quality increase, the customers' satisfaction on online tax

payment system would increase and other variables are constant. The coefficient value 0.287 for system quality represents that as the system quality increase, the customers' satisfaction on online tax payment system would increase, and other variables are constant.

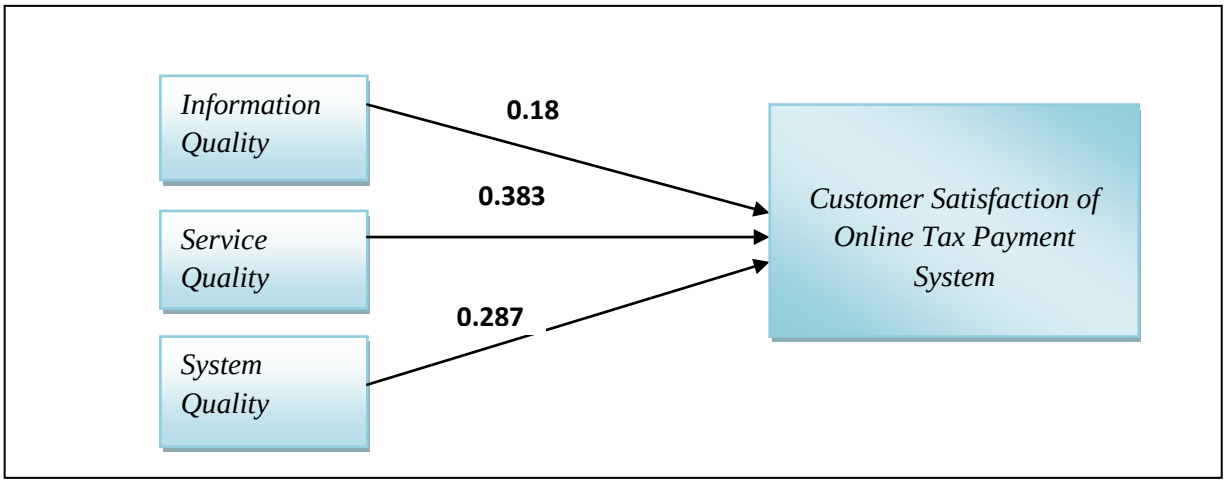



***Figure 4. 1: Independent Variables Coefficient Values***

#### 4.2.2.1 Results of hypothesis testing

The potential influence factors (independent variables) on the customer satisfaction of online tax payment system (dependent variable) are described with 3 formulated hypotheses for each linkage. These theoretical hypotheses are empirically tested. Independent variables or factors with significant values less than 0.05 would be accepted the alternative hypothesis or rejected the null hypothesis. The result is providing as shown below based on the above regression result.

*Hypothesis 1:* Service quality has an effect on online tax payment system of customer satisfaction. This result is accepted. Since the significance value of the predictor service quality is 0.000. This result is less than the upper limit significant value of 0.05. That suggests service quality has effect toward customer satisfaction in online tax payment system. Relationship between both variables is uni-directional that means higher service quality would bring higher customer satisfaction in online tax payment system.

*Hypothesis 2:* Information system quality has an effect on online tax payment system of customer satisfaction. This result also accepted. Since the significance value of the predictor information quality is 0.013. This result is less than the upper limit significant

value of 0.05. That suggests information quality has effect toward customer satisfaction in online tax payment system. Relationship between both variables is uni-directional that means higher information quality would bring higher customer satisfaction in online tax payment system.

*Hypothesis 3:* System quality has an effect on online tax payment system of customer satisfaction. This result also accepted. Given that the significance value of the predictor system quality is 0.000. This result is less than the upper limit significant value of 0.05. That suggests system quality has effect toward customer satisfaction in online tax payment system. Relationship between both variables is uni-directional that means higher system quality would bring higher customer satisfaction in online tax payment system.

### *4.2.3 Normality Test*

One of the Classical Linear Regression Model (CLRM) assumptions is that the error term is normally distributed with the mean of error being zero. The normality of error term is examined using the graph to detect the pattern of the residual.

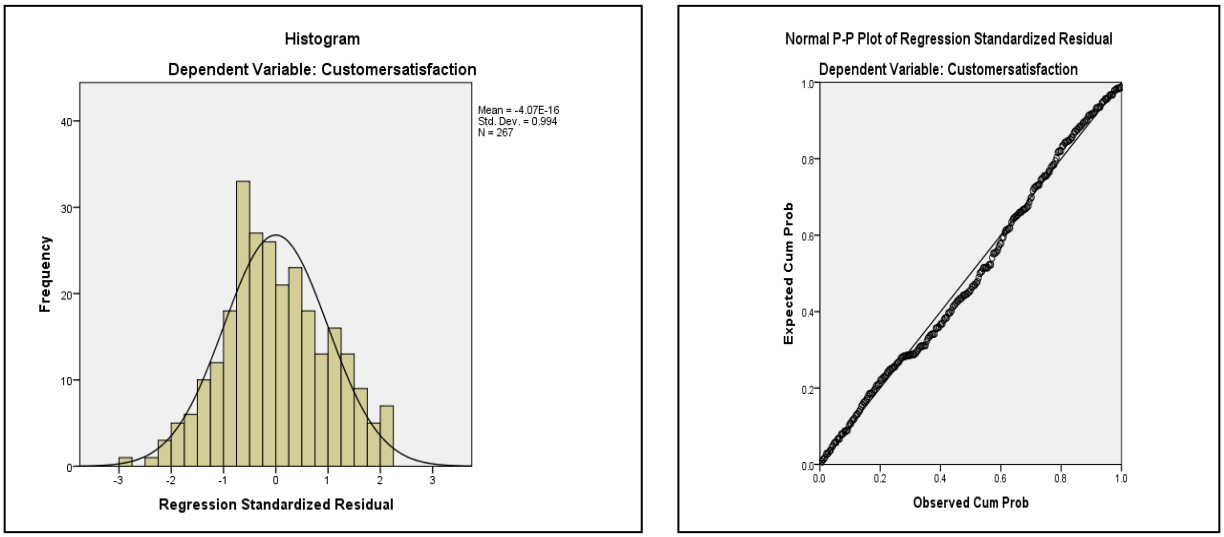



***Figure 4. 2: Normality Test Plot***

The normality histogram plot as well as the normal P-P plot of residual depicted in the above Figure 4.2 reveals that the residual estimates are following the normal density.

# CHAPTER FIVE

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 5.1. Summaries of Major Findings

The general purpose of the study is to identify the determinants of customer satisfaction of on online tax payment in ERCA's large taxpayer's branch office.

- ✓ A total of 292 questionnaires were distributed to the target samples of customers. Out of 292 questionnaires distributed, 267 were returned with a response rate of 91.4%.
- ✓ The information quality, system quality and service quality have a positive relationship with customer satisfaction and significant at 1% level of significance.
- ✓ The Pearson correlation coefficient values between; information quality, system quality and service quality with customer satisfaction were 0.409, 0.554 and 0.593, respectively.
- ✓ In terms of relationship, the *p*-value is less than α value (.05). Therefore, the alternative hypothesis for research questions is accepted.
- ✓ In cumulative IQ, SYQ and SEQ contribute 44.7% for customer satisfaction. The remaining 55.3% goes to other factors
- ✓ Based on the multiple regression estimation result, the coefficient value 0.184 for information quality represents that as the information quality increase, the customers' satisfaction of online tax payment system would increase, other variables are constant.
- ✓ The coefficient value 0.383 for service quality implies that as the service quality increase, the customers' satisfaction of online tax payment system would increase, other variables are constant.
- ✓ The coefficient value 0.287 for system quality represents that as the system quality increase, the customers' satisfaction of online tax payment system would increase, other variables are constant.

## 5.2. Conclusion

This study conducted with the intention to examine perception and satisfaction of customers on online tax payment quality in ERCA's large taxpayers' branch office. Based on the finding most of the respondents explained factors such as information quality, service quality and system quality has an effect for their satisfaction of online tax payment system. The respondents moderately agreed to use the online tax system again in the future, to recommend the online tax system to other taxpayers and the electronic tax declaration system was developed for all categories of persons.

Similarly, a correlation and multiple regression analysis reveals that, the test hypothesis 1, 2 and 3 that information quality, system quality and service quality has an effect on customer satisfaction of online tax payment system are accepted. In line with the hypothesis, the regression result shows that all the independent variables have a positive effect. Positive values in the coefficients indicate that all three independent variables namely; information quality, service quality and system quality have positive relationship towards customer satisfaction of online tax payment system.

## 5.3. Recommendations

The following recommendations are forwarded with the basis of the research findings to the tax collector office ERCA.

- The clarity, completeness and the presentation style of the information are considered as important and it is more effective when information provided in the interest of the taxpayers.
- Online tax system which is more accurate, relevant, convenient and availability of the system should be considered as important variable to give quality of the system.
- Service quality has been recognized as a dominant factor in keeping competitive advantage and sustaining satisfying relationships with customers.

- Therefore, the ERCA should be consider variables and give high emphasis on the information quality, system quality and service quality of online tax payment system in order to meet customer satisfaction as well as to increase users in the future.
- According to the multiple regression result IQ, SEQ & SYQ are not the only important factors for customer satisfaction. To this effect, future research needs to be made to address the variables that account to determine customer's satisfaction on online payment.

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# APPENDICES

## *Appendix A Questionnaire*

**Addis Ababa University**
**College of Business and Economics**
**Department of Management**
**Questionnaire Completed by Customers of ERCA**

**DEAR RESPONDENT,**

First of all my sincere gratitude goes to you. My name is HewanTedla. I am conducting this Thesis research for a partial fulfillment of master's degree in Management Science (MSC). My study entitled "Customers Perception ononline tax Declaration SystemQuality in the case of ERCA large tax payer's branch office". This questionnaire is prepared with an intention to collect data about the Online Payment System delivery of ERCA's and users perceived value on it. Your responses will be kept absolutely confidential, and it will be used for academic purpose only. Hence, you are kindly requested to give an accurate and sufficient data as much as possible.

1. **What is your gender?**

   [ ] Female [ ] Male

2. **Age**

   [ ] 18 – 25 [ ] 26 - 35

   [ ] 36 - 45 [ ]46–55 [ ]Over 56

3. **What is Your Education level?**

   [ ] Diploma [ ] 1st Degree
   [ ] 2nd Degree [ ] Other

4. **For how many years you know the tax authority office?**

   [ ] 1-2 years [ ] 3-5
   [ ] 6-7 [ ] above 7 years

5. **How many times do you come to the office of the tax authority?**

   [ ] Once a month [ ] Twice a month
   [ ] Once a year [ ] other

**6. How long have you been using the internet as a payment system?**

[ ] Less than one year [ ] 3 – 5 Years

[ ] 1 – 2 Years [ ] More than five years

Following are the factors that you might have considered while service quality in ERCA**.**

Please give your answer for the following questions properly.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| **Strongly disagree** | **Disagree** | **Neutral** | **Agree** | **Strongly agree** |

| S/N | **Variables** | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| | **Information quality** | | | | | |
| 7 | The ERCA's electronic tax application has complete information. | | | | | |
| 8 | The information on electronic tax declaration is up-to-date. | | | | | |
| 9 | The information on electronic tax declaration is easy to comprehend. | | | | | |
| 10 | ERCA's online transaction is always accurate. | | | | | |
| | **System quality** | | | | | |
| 11 | The ERCA's electronic tax application is easy to use. | | | | | |
| 12 | The ERCA's electronic tax application feels same like the paper version. | | | | | |
| 13 | The ERCA's electronic application is available at all times. | | | | | |
| | **Service quality** | | | | | |
| 14 | I feel secure using the electronic tax declaration. | | | | | |
| 15 | This system was designed with the user's best interest at heart. | | | | | |
| 16 | The steps on electronic tax application are clearly written. | | | | | |
| 17 | Employees in the institution have the knowledge to answer my questions. | | | | | |
| 18 | ERCA's electronic tax application has modern-looking equipment | | | | | |
| | **User satisfaction** | | | | | |
| 19 | I likely use the online tax system again in the future. | | | | | |
| 20 | I likely recommend the online tax system to other tax payers. | | | | | |
| 21 | The electronic tax declaration system was developed for all categories of persons. | | | | | |