



ADDIS ABABA UNIVERSITY

COLLEGE OF NATURAL AND COMPUTATIONAL SCIENCES

SCHOOL OF INFORMATION SCIENCE

**FACTORS AFFECTING THE IMPLEMENTATION OF ELECTRONIC
FILING SYSTEM IN THE FEDERAL SUPREME COURT OF ETHIOPIA**

By

HAGOS GIRMAY GEBRU

JUNE, 2018

ADDIS ABABA, ETHIOPIA



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A Thesis Submitted to the School of Graduate Studies of Addis Ababa
University in Partial Fulfillment of the Requirements for the Degree of
Master of Science in Information Science

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Declaration

This thesis has not previously been accepted for any degree and is not being concurrently submitted in candidature for any degree in any university.

I declare that the thesis is a result of my own investigation, except where otherwise stated. I have undertaken the study independently with the guidance and support of my research advisor. Other sources are acknowledged by citations giving explicit references. A list of references is appended.

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Hagos Girmay

This thesis has been submitted for examination with my approval as a university advisor.

Advisor's Signature: _____

Dereje Teferi (PhD)

Dedication

This thesis work is dedicated to my mother

Abrihu Brhane

Acknowledgements

First and foremost, I would like to thank the almighty GOD for giving me the ability to do this research study. I would like to thank my research advisor Dr. Dereje Teferi for his suggestion, and support throughout my study. His comments and advice have helped me in maintaining the right direction for my study.

My thanks to my sisters Alemtsehay, Yrgalem, Meaza and Hiwot and brothers Tadesse and Shushay. Without your support this would not have been possible.

My special thanks to my sister Mebrhit and my close friend Yemane Gebrehiwot for giving me the encouragement and support to keep moving forward throughout my study. Without your support and encouragement this would not have been possible.

My special thanks also to all research participants of Federal Supreme Court especially judges' and registrars who have gave me time from their busy schedule. Special thanks to Solomon Amare, Judge Endeshaw Adane, Solomon Ejigu, Aron Degol, and Solomon Abebe for their kind cooperation and assistance during my study.

It's also my great pleasure to thank my classmates Henok Sisay, King Solomon, Alemayoh Tsegaye, Berihun Haddis, Mesfin Legese and Yosef Zeleke for their awesome discussions with splendid humor and for sharing enlightening experiences during these years.

Finally, I want to thank my beloved wife Tsigewoyni Brhane, My son Mussie Hagos and my daughter Axumawit Hagos Without your love, patience and support this would not have been possible. Thank you for understanding that the hours spent immersed in this effort were for good purpose, and for giving me the encouragement to keep moving forward.

Hagos Girmay

June, 2018

Addis Ababa, Ethiopia

Abstract

In today's digital world information system (IS) is considered as critical facilitator to enhancing efficiency and effectiveness of an organization. However, the benefits of the technology can only be realized if the overall implementation is successful. Many technically elegant information systems have turned into implementation failures because other factors of the system was not handled correctly. The purpose of this study is to identify and analyze the factors that affect the implementation of electronic filing system (EFS) in the Federal Supreme Court of Ethiopia.

In order to accomplish the objective of the study the researcher used survey questionnaire, observation and participation and document analysis techniques to collect data. After deep review of literatures, research model was defined consisting of organizational, individual, and technological factors. The survey questions were designed based on the research model some of them were adopted from literatures and modified according to the context of the organization.

Fourteen factors were identified, organizational plan and vision, top management support, effective communication, project management, business process re-engineering (BPR), user education and training, user involvement, change management program, teamwork and composition, IT Expertise, IT infrastructure, IT Standards, IT security, and software testing and troubleshooting are identified, synthesized and categorized under the three common broad categories (organizational, people/individual and technological) factors. This results to a rich picture implementation of the system that helps to identify possible solutions.

Data was analyzed using IBM SPSS version 20. The results of the analysis is presented using frequency, percent, tables, pie charts and bar graphs. Pearson's correlation analysis were also applied to test association among the factors. A framework for categorizing the factors affecting the implementation of the system is proposed.

The research is believed to give an insight into identification of the factors affecting the implementation of electronic filing system (EFS) and finally business process re-engineering (BPR), project management, IT infrastructure and IT Standards are found critical factors for successful implementation of the system.

Key words: Electronic Filing System (EFS), EFS implementation

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List of Acronyms

BPR	Business Process Reengineering
CCMS	Court Case Management System
CSF	Critical Success Factors
DOI	Diffusion Of Innovation
E- Commerce	Electronic Commerce
EDI	Electronic Data Interchange
E-Filing/ e-filing	Electronic Filing
EFS	Electronic Filing System
E-Government	Electronic Government
FDRE	Federal Democratic Republic of Ethiopia
FSC	Federal Supreme Court
GTPII	Growth and Transformation Plan II
H	Hypothesis
ICT	Information Communications Technology
IS	Information System
IT	Information Technology
PDF	Portable Document Format
SPSS	Statistical Package for the Social Sciences
TOE	Technology Organization Environment

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Access to justice has become an important issue in many justice systems around the world. Increasingly, technology is seen as a potential facilitator of access to justice, particularly in terms of improving justice sector efficiency. The international diffusion of information systems (IS) within the justice sector raises the important question of how to insure quality performance (Lupe, & Bailey, 2014).

Paper files are one of the most important basics of office work. Regarding to the increase in the quantity of files in the administrative transactions, people had used paper to create and distribute documents. Now, however, they create electronic documents using word processor or presentation documents using presentation software's with a personal computer and distribute these documents via computer network (AbuSafiya & Mazumdar 2004).

Paper-based processes involve the handling of physical document(s), photocopying, archiving, and retrieving physical document(s) from a file cabinet (Kissell, 2013, p. 76). Paper-based processes are inefficient, cost valuable office space, and pose security risks (Selvi et al., 2011). Kissell (2013) notes that filing systems require a large amount of physical space and spawn inefficiencies in searching for previously filed papers (Welsh, 2007, p.11).

Organizations that use paper-based processes face security risks due to paper documents that have (a) lost, (b) damaged, (c) misfiled, or (d) fallen into the wrong hands (Mills-Senn, 2014, p.28). Brusco (2011) finds that “more and more companies and organizations are making the shift toward electronic filing (e-filing), saving space and increasing security. Large computer servers have the ability to store mass quantities of information in a secure state and location” (p. 17). Digital documents stored on these servers can be easily retrieved within minutes, which increases employee productivity due to the elimination of the chore of searching for misfiled physical documents (Paperless Office, 2009, p. 16).

Having very large number of cases which required a large Storage space is expensive. Electronic documents require less storage space as most documents are stored electronically, can be found in seconds easily, allow multi users access at the same time and improve client service with fast response time. Electronic filing systems enable the rapid creation and distribution of documents. File storage system has become gradually more important, especially as the world is heading towards computerized systems (Konishi & Ikeda 2007). Great advances in electronic information technology have made the creation, storage and flow of electronic documents not only feasible but economical, and consequently have led to great increases in productivity.

1.2 Background

With the advancement in technology, the way information is provided and exchanged among interested parties, presented in the courtroom, communicated to the public, stored, and archived, is changing. Judicial administration can and should take advantage of these new technological ways of doing business to increase its productivity and enhance services to the public. The ability of the computer to receive, process, store, retrieve, and distribute large volumes of information, combined with current telecommunications technologies makes it an essential tool for the administration of justice (Lawrence P. VA, 1996, p. 2).

According to the Growth and Transformation Plan II (GTP II) (2015/16-2019/20) of Federal Democratic Republic of Ethiopia (EDRE) Information and Communication Technology ICT can help to increase productivity, enhance competitiveness of the economy, access timely information to public, create job opportunity and generate foreign exchange earnings. Accordingly, during the plan period, the major strategic directions were to enhance the information communication technology infrastructure and human development, utilize ICT in government administration, industry development and private sector development. On the other hand, during GTP I, 125 informational electronic services and 152 transactional electronics services have been developed (against targets of 39 and 125 during the plan period). Likewise, wider application of e-government, e-commerce, e-learning, e-library, mobile banking and others have enabled to improve the quality and efficiency of public and private services.

The Federal Court is an independence judiciary at Federal and State levels established by the Constitution of the Federal Democratic Republic of Ethiopia (FDRE). The Federal Courts comprise the Federal Supreme Court, the Federal High Court, and the Federal First Instance Court. They have jurisdiction over cases arising under the Constitution, Federal Laws, and International Treaties; parties specified in Federal Laws; places specified in the Constitution or in Federal Laws.

Federal Courts are judicial organs that are established by the Federal Democratic Republic of Ethiopia constitution and proclamation No.25/96. As governmental power is divided into Federal and Regional administrative structures, jurisdiction of courts is also divided into Federal and Regional structures. This means the constitution of the Ethiopian Federal Democratic Republic has facilitated a condition in which both the Federal and regional courts perform their judicial activities side by side. Proclamation No.25/96, enacted based on the constitution, has established a three tiered courts. Those are: - The Federal First Instance Court, the Federal High Court and The Federal Supreme Court. All the courts have the mandate to preside over civil, criminal and labor cases brought to them.

The permanent places of sitting of the Federal Courts, as determined by law are: The Federal Supreme Court in Addis Ababa, The Federal High Court in Addis Ababa, and Diredawa, and The Federal First Instance Court in Addis Ababa and Diredawa

The Federal High Court has 5 branch benches 4 in Addis Ababa and one in Diredawa, namely Kality, Bole, Lideta and Arada. The Federal First Instance Court has 11 Branches including the branch in Diredawa.

The domain of this research is the Federal Supreme Court (FSC), which is the highest and final judicial organ over Federal matters. Since its establishment FSC strives to support its operations and services with the latest information technology. Currently it provides up-to-date information to its customers regarding court cases through its website as well as using touch screen services and today court list display in its compound.

1.3 Statement of the Research Problem

Manual filing is the traditional and still the most popular method of case filing in Ethiopian courts. According to Court Case Management System (CCMS) database report of the Federal Supreme Court, more than 70% of total cases in the Federal Supreme Court (FSC) of Ethiopia are originating from regional courts as well as federal courts out of Addis Ababa.

Attempts have been done to support the operations and services of the court by ICT in the past decade. Currently there are 41 video conferencing sites 34 of them are near high courts or zonal courts and 7 within prison centers throughout Ethiopia which litigants can follow-up their cases near those video conferencing sites. In March 2014 as a pilot test, 5 “e-filing” centers were opened in Diredawa, Hawassa, Mekelle, Bahridar and Harer which litigants can open their cases by providing the necessary requirements to agents near those centers. Agents verify the correctness of the case and convert in to Portable Document Format (PDF) format using a scanner and send it through an e-mail exchange. At the FSC the files are printed.

According to the ICT Directorate report around 1,200 cases are opened annually through an e-mail exchange which brought significant change in making the court more accessible and litigants are able to open their cases easily near their families and work places. However, this aspect is only one part of a mature e-filing system. The electronic file do not have any further continuity. The paper file continue as an ordinary manually opened file. Because e-filing centers coverage is limited compared to the geographic coverage of Ethiopia and the maturity level of its implementation is not at the required level of the court, the following four major problems exist.

First, litigants far from these e-filing centers are forced to come physically to open their cases, to follow up, to take decision copies, to attach their documents and so on. At an average litigants can travel three times until their case is decided (disposed). Hence they are exposed to unnecessary wastage of time, extra expenses like transportation cost, and accommodations costs.

Second, stakeholders like lower level courts, the attorney general, banks, police, prosecutors and prison centers are also faced to forgery decision copies since they do not have a system that they can easily authenticate the correctness of the decision copies and other documents of the court.

Third, FSC is in a problem of high shortage of file storage space. For example, by the year 2017, 15,578 cases are opened (CCMS Database Report), at an average a single case contains 30-40 pages of paper which require a storage with an area of 600 cubic meter (15mX10mX4m) to properly store in a file cabinet so that the court required to construct big storage houses every year. The number as well as the complexity of cases is increasing from year to year by more than 10% as shown in the table 1-1. Similarly the number of employees and judges also increase which result in high shortage of office rooms as well as court rooms. Currently two directorates of the court are working in a rented building (training directorate and women and youth directorates) out of the head office compound.

Budget Year	Newly Opened Cases	Percentage of Increment relative to previous year
2013	10,394	-
2014	12,122	16.66%
2015	13,245	8.74%
2016	14,172	6.99%
2017	15,578	9.92%
Percentage of Incremental of Cases		10.57%

Table 1-1 Numbers of cases open within 5 years and their incremental rate (CCMS report)

Fourth, when the court demand certain document from lower level courts and other organizations for further investigation, it takes a lot of time until the copy of the document arrive manually or via postal to the court. Most of the time, the required documents do not reach to the court before the adjournment date. This is one of the reason for multiple adjournments and failure of the court to dispose cases in a reasonable time frame.

In addition, currently decisions made by the court are written by secretaries and printed in paper which exposes FSC for high printing cost. Once the necessary signatures and stamp duty are done the documents are either given to the litigants or sent through postal office to the stakeholders. Sending those decision copies and other documents via postal service or manually is very time consuming and vulnerable for loss and fraud.

Therefore, from delivering responsive service and accessibility to all citizens living in different regions point of view, the current filing system of the court demands the implementation of an end to end electronic filing system. Implementing e-filing system without considering the factors affecting it might turn into implementation failures. Thus the purpose of this research is to identify and investigate the factors that affect the implementation of an end to end of e-filing

system that can help the court in addressing the above mentioned problems of the court and then to improve its service with effective e-filing management.

1.4 Research Questions

In this research, factors that affect the implementation of electronic filing system in the FSC the main goal is to answer the following research questions

1. What does the existing e-filing system in the FSC look like?
2. What are the factors affecting the implementation of an end to end electronic filing system in the FSC?
3. To what extent does the factors could affect FSC to the implementation process of EFS?

1.5 Objectives of the Study

1.5.1 General Objective

The general objective of this research is to identify the factors that affect the implementation of electronic filing system in the Federal Supreme Court of Ethiopia.

1.5.2 Specific Objectives

To achieve the aforementioned general objective the following specific objectives are formulated

- To assess the existing electronic filing system in the FSC
- To identify and investigate the factors that affect the implementation of electronic filing system
- To evaluate the factors and their influence against current organizational performance
- To identify the factors that hinder/facilitate the implementation of electronic filing system

1.6 Operational Definitions

Electronic filing in this study is considered as the process of transmitting documents and other court information to the court through an electronic medium, rather than on paper which lets stakeholders to send and receive documents, pay filing fees, notify other parties, receive court notices, and retrieve court information.

Stakeholders' in this study refers to all level federal courts, the attorney general, banks, police, prosecutors and prison administration centers.

End to end electronic filing system in this study consists of six elements of the system namely document scanning, storing, indexing, archiving, retrieval and access.

Litigants' in this study are both people/organizations who are involved in lawsuit' plaintiff and defendant.

The court in this study is Federal Supreme Court of Ethiopia

1.7 Significance of the Study

The findings and results of this research may be of potential value to the FSC, it provides new insights of file management .Based on the identified factors influencing the implementation of electronic filing system at providing the necessary considerations to be undertaken by FSC in making the court more accessible to litigants in efficient and effective manner. In addition organizations who are in need to implement e-filing system particularly courts can use it. The study will be used as the springboard for other researchers for the future work on the domain area.

1.7 Scope of the study

The study only identify the factors that affect the existing e-filing system and the implementation of an end to end electronic filing system, and identify and evaluate the factors that affect the implementation of the system in the FSC. The stakeholders' who work closely with the court and their input that could be very relevant was not covered due to the need of ample time and budget for a better analysis result. As this research is conducted in government organization, some aspect of the approach used in this study may not be suited for business organization with profit oriented goals.

1.8 Organization of the Study

This thesis constitutes five chapters. The first chapter is introduction and contains statement of the research problem, background of electronic filing system, research questions, objectives and significance of the study. The second chapter is literature review which provides both conceptual and contextual ground in the existing body of knowledge related to the factors that affect the implementation of electronic filing system. The third chapter presents the research design and methodology used in this study. In chapter four, the data gathered from research participants is analyzed and its discussions on results are presented. Conclusion, recommendations and limitation of the study are presented in the final chapter five.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

With the evolution of the Internet, e-filing has been redefined. Today, Internet based electronic filing and service is rapidly replacing other less capable and less dependable approaches. When properly implemented, e-filing is a highly secure and reliable method for sending, receiving, and managing legal documents and case information.

Electronic filing is an endeavor that requires a great amount of effort to implement, and for which court leaders often underestimate the impact. It is important to recognize the opportunity offered by technology to break with traditions, and to modernize court processes.

2.2 Definitions of Electronic Filing

Various definitions of electronic filing (here in after "e-filing") exist, ranging from the simple action of submitting documents by electronic process, to the development of more complex systems that include a variety of sub functions. Simply defined, Electronic filing consists in transmitting a document by electronic means. Others interpret the terms "electronic filing" as referring only to the process by which documents are submitted to a court for filing. But this aspect is only one part of a mature, end-to-end electronic document process.

A guidebook developed by the *National Center for State Courts* (NCSC) provides a more comprehensive definition: Electronic filing is the process of transmitting documents and other court information to the court through an electronic medium, rather than on paper. Electronic filing lets people get more of their work done with their PCs, to send and receive documents, pay filing fees, notify other parties, receive court notices, and retrieve court information.

Electronic 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. It will require fundamental changes in organization, operation, management, and resource utilization by courts, lawyers, clients, citizens, and government entities. Before analyzing the basis for such a sweeping statement, it is proper to

begin at a common starting point. Traditionally, filings in courts and government agencies have been in paper form. Official court record systems have traditionally been paper-based. The following definitions are also given by some authors:

- E-filing is the filing and storage of information made up of electronic bits and bytes, rather than paper. Electronic filings are generally either electronically transmitted to a court, or government agency, or created and submitted by the completion of forms made available online by courts or government agencies. Delivery or "service," with the exception of some initial pleadings, is electronic; and electronic versions of the information are received, stored, and maintained in an electronic system. Fenwick, W. A., & Brownstone, R. D. (2002).
- Electronic filing system (EFS) is a management control system used to regulate the creation, use and maintenance of the creation of the document electronically. This system links the paper, images and electronic documents into flexible and powerful electronic filing system (Omar 2005).
- Electronic filing system (EFS) is the application of technology to save paper and speed up communications, and increasing the productivity of business operations (Zantout & Marir 1999).

2.3 Elements of electronic filing system

A complete or an end to end electronic filing system consists of six components namely scanning, storage, indexing, archiving, retrieval, and access. The following paragraphs provide a brief description of each of these components (Lea & Smith Judy Read 2002).

a) Document Scanning

Scanning makes conversion of paper document to electronic format a fast, inexpensive, and easy process. A good quality scanner will allow putting your paper files into your computer easily. It should also be able to convert accurately the original information so as to ensure that no details are lost in the process.

b) Document Storage

Storage or Storing which is also called filing allows the placement of the hard copies or saves the computer records in a suitable location. The storage system creates an organized document filing

system and makes the retrieval simple and efficient. A stable storage system should be able to adopt the ever-changing documents, increasing volumes, and advancing technology.

c) Document Indexing

The indexing component in an electronic filing system produces an organized document filing system that makes it easy for simple and efficient retrieval. A proper indexing system permits for more effective procedures and systems. The index can incorporate physical location information such as location: where the document is stored and document identification information: the date created, the date archived, and subject matters of its contents. In addition, indexing is the process of determining the filing segment or name by which a record is stored or the placing or the listing of items in an order that follows a specific system.

d) Document Archiving

Archive refers to a group of records or documents with specific characteristics, which also refers to a location in which these documents were kept. It is a long-term storage of electronic documents that might be needed in the future.

e) Document Retrieval

The system uses the information retrieval of documents, including index and text, to find images stored in the system (Lea & Smith Judy Read 2002). This system makes finding the right documents easily, as well as retrieves it quickly. Recovery is the process of identifying and retrieving record or file from storage. It also work on information retrieval in a particular subject of stored data.

f) Document Access

One major component of any electronic filing system is access. Document viewing should be readily available to those who need it, with the flexibility to control access to the system. To access any document one must know the location of the file and need to have the proper authority.

2.3 Benefits of Electronic Filing System

An electronic filing system can help organizations in many ways. Some of the benefits of implementing an electronic filing system are discussed as follows

2.3.1 Improved Security and Compliance

One of the great advantages of an electronic filing system is having the ability to keep files indexed. This means that each document entered into the system is categorized and registered according to specific properties that the business can define.

Whatever business rules may be applied in the specific situation, an electronic filing system makes it easy to implement organizational policies directly into the system. Taking it a step further, most electronic filing systems include additional security features that automate compliance. For example, an audit trail is a feature that runs in the background, tracking every action that a user takes within the system, as well as every action performed by the system. This is an important compliance feature for many industries and departments. Password protection, version control and secure file sharing are also features built in to many electronic filing systems that help you comply with regulations automatically.

2.3.2 Instant File Retrieval

The beauty of an electronic filing system is that, since documents are indexed, file retrieval becomes instantaneous. If someone want to pull up the entire file or folder for a specific client, don't go rummaging through the filing cabinet; simply begin typing their file number or their name into the system. Instantly, will have their file. What makes this even more powerful is the ability to run a cross-reference search.

2.3.3 Disaster Resistance

When using a paper filing system, what happens if the office is damaged? One must be very careful to keep backups of all files in a separate location just in case. A disaster, fire, flood or even poor plumbing can result in the loss of business critical documentation. Electronic systems help keep files safe in the event of a disaster by using automatic backups. At the end of each day, every document in the system can be automatically synced to a backup drive that resides in a

different physical location (maybe a satellite office or a professional data center). This ensures confident kept the files safe that in the event of a disaster.

2.3.4 Eliminate paper, Save Money

By shifting to an electronic filing system organizations can significantly reduce their office's paper production. This a good thing for the environment, but also a great thing for their budget. Taking traditionally paper-based processes to the digital world means reduced lag time, better productivity and ultimately, lower costs for the company. There is no longer a need for paper, ink, filing cabinets, over-nighting time-sensitive documents, etc. All of the document management can be done directly using electronic filing system. And, with the integration of electronic signatures and online forms, organizations can truly go paperless with very little effort. New applications, forms, requests or memos are easier to handle, navigate and quicker to process.

2.3.5 Be Green and Eco-Friendly

The other most obvious reason for going to electronic filing system is helping the environment by not cutting tress to produce tons of papers. Since papers are made of trees as we use electronic files we will contribute for saving tress as a result of which eco-friendly environment can be realized.

2.5 Factors affect the implementation of EFS

Most of literatures which the researcher consulted focus on the factors affecting enterprise resource planning (ERP), e-government, e-commerce adoption and most of them are done for profit-oriented business and organizations in developed countries. The researcher identified 14 factors which are categorized under three themes (organizational, Individual/People and technological) factors which most authors mentioned in the implementation of information systems which are found to be relevant for the implementation of electronic filing system in the judiciary sectors in developing counties like Ethiopia.

2.4.1 Organizational Factors

The factors directly or indirectly relate to the structure of the organization, operational, human and management requirements. These factors include organizational plan and vision, top management support, effective communication, project management and business process reengineering (BPR).

a) Organizational plan and vision

A clear business plan and vision to steer the direction of the project is needed throughout the EFS life cycle (Buckhout et al., 1999). A business plan that outlines proposed strategic and tangible benefits, resources, costs, risks and timeline is critical (Wee, 2000). This will help keep focus on business benefits. There should be a clear business model of how the organization should operate behind the implementation effort (Holland et al., 1999). There should be a justification for the investment based on a problem and the change tied directly to the direction of the company (Falkowski et al., 1998). Project mission should be related to business needs and should be clearly stated (Roberts and Barrar, 1992). Goals and benefits should be identified and tracked (Holland et al., 1999). The business plan would make work easier (Rosario, 2000).

H1: Having organizational plan and vision has influence in the implementation process of EFS.

b) Top management support

Top management support is needed throughout the implementation of an e-filing system. The project must receive approval from top management and align with strategic business goals. This can be achieved by tying management bonuses to project success. Top management needs to publicly and explicitly identify the project as a top priority. Senior management must be committed with its own involvement and willingness to allocate valuable resources to the implementation effort (Holland et al., 1999). This involves providing the needed people for the implementation and giving appropriate amount of time to get the job done.

Top management is liable to provide the general guide on information systems and the support from top management is a very important factor in the success and failure of information systems. Top management determines the logical and physical configuration of the systems. The level and usage direction of EFS are dependent upon management support. The support from top management is the precondition for successful information systems (Zmud, 1983).

Managers should legitimize new goals and objectives. A shared vision of the organization and the role of the new system and structures should be communicated to employees. New organizational structures, roles and responsibilities should be established and approved. Policies should be set by top management to establish new systems in the company. In times of conflict, managers should mediate between parties (Roberts and Barrar, 1992).

Top management support is one of the most important and critical success factor for the implementation of e-filing. Senior management must be committed with its own involvement and willingness to allocate valuable resources to the implementation of e- filing system (Holland et al., 1999).

Top management support is a prerequisite for the successful system implementation. Top managers supervise the whole implementation procedure, enable resource distribution, and support conflict management (Wang and Chen, 2006). Moreover, top management has the responsibility to align the new system with the current business practices and prepare the employees for the change brought by the new technology. When top management works closely with various users in the direction of the successful implementation of the EFS system, the communication between business groups is being enhanced and conflict resolution becomes attainable (Thong et al., 1996; Thong,2001).

H2: Top management support has influence in the implementation process of EFS.

c) Effective Communication

Effective communication is critical to EFS implementation (Falkowski et al., 1998). Expectations at every level need to be communicated. Management of communication, education and expectations are critical throughout the organization (Wee, 2000). User input should be managed in acquiring their requirements, comments, reactions and approval (Rosario, 2000).

Communication includes the formal promotion of project teams and the advertisement of project progress to the rest of the organization (Holland et al.,1999). Middle managers need to communicate its importance (Wee, 2000). Employees should be told in advance the scope, objectives, activities and updates, and admit change will occur (Sumner, 1999).

H3: Effective communication has effect in the implementation process of EFS.

d) Project management

Good project management is essential. An individual or group of people should be given responsibility to drive success in project management. First, scope should be established and controlled (Rosario, 2000; Holland et al., 1999). The scope must be clearly defined and be limited. This includes the amount of the systems implemented, involvement of business units, and amount of business process reengineering needed. Any proposed changes should be evaluated against business benefits and, as far as possible, implemented at a later phase (Sumner, 1999; Wee, 2000). Additionally, scope expansion requests need to be assessed in terms of the additional time and cost of proposed changes (Sumner, 1999).

Then the project must be formally defined in terms of its milestones (Holland et al., 1999). The critical paths of the project should be determined. Timeliness of project and the forcing of timely decisions should be managed (Rosario, 2000). Deadlines should be met to help stay within the schedule and budget and to maintain credibility (Wee, 2000).

Project management should be disciplined with coordinated training and active human resource department involvement (Falkowski et al., 1998). Additionally, there should be planning of well-defined tasks and accurate estimation of required effort. The escalation of issues and conflicts should be managed (Rosario, 2000).

Delivering early measures of success is important. Rapid, successive and contained deliverables are critical. A focus on results and constant tracking of schedules and budgets against targets are also important (Wee, 2000).

Monitoring and evaluation come into play at the end. Milestones and targets are important to keep track of progress. Achievements should be measured against project goals. The progress of the project should be monitored actively through set milestones and targets.

Two criteria may be used. Project management based criteria should be used to measure against completion dates, costs and quality. Then operational criteria should be used to measure against the production system. Monitoring and feedback include the exchange of information between the project team members and analysis of user feedback (Holland et al., 1999).

There should be an early proof of success to manage skepticism (Rosario, 2000). Reporting should be emphasized with custom report development, report generator use and user training in reporting applications (Sumner, 1999). Management needs information on the effect of the system on business performance. Reports or processes for assessing data need to be designed. These reports should be produced based on established metrics. It must include effective measurable project goals that meet business needs and are reasonable. Additionally, performance should be tied to compensation (Falkowski et al., 1998).

H4: Project management has effect in the implementation process of EFS.

e) Business process reengineering (BPR)

Another important factor is BPR and minimum customization. It is inevitable that business processes are molded to fit the new system (Bingi et al., 1999). Aligning the business process to the software implementation is critical (Holland et al., 1999; Sumner, 1999).

Organizations should be willing to change the business to fit the software with minimal customization (Holland et al., 1999; Roberts and Barrar, 1992). Software should not be modified, as far as possible (Sumner, 1999). Modifications should be avoided to reduce errors and to take advantage of newer versions and releases (Rosario, 2000). Process modeling tools help aid customizing business processes without changing software code (Holland et al., 1999).

Broad reengineering should begin before choosing a system. In conjunction with configuration, a large amount of reengineering should take place iteratively to take advantage of improvements from the new system. Then when the system is in use reengineering should be carried out with new ideas (Wee, 2000).

Quality of business process review and redesign is important (Rosario, 2000). In choosing the package, vendor support and the number of previous implementers should be taken into account (Roberts and Barrar, 1992).

H5: Business process reengineering (BPR) has effect in the implementation process of EFS.

2.4.2 Individual/People Factors

a. Education and training

User education and training are considered as important factors that reduce the resistance of users to changes and increase the possibility of eventual success of the systems adopted. EDI education and training for customers affects the successful implementation of customer-oriented inter organizational information systems. EDI education and training positively affect the successful implementation of EDI systems (Carter, Monczka, Clauson, & Zelinski, 1987; McGowan, 1994). There will be a higher possibility of successful implementation of EFS systems when systematic and efficient education programs are provided for inside users. The user education reduces inside resistance during the implementation process and promotes system understanding and facilitates the implementation process. Further, the training makes it possible to use the EFS systems after EFS is its Implementation.

H6: User education and training has influence in the implementation process of EFS.

b. User involvement

The user involvement in the implementation process of EDI (Electronic Data Interchange) systems positively affects the system implementation (Grover, 1990; Hwang, 1991). User involvement reduces resistance to changes and increases user acceptance for the new system. The user involvement during the implementation process makes it possible for users to reflect various work characteristics in the systems to be developed and match organizational requirements and system characteristics. Further, the user involvement reduces the possibility of costly system changes after EDI is adopted as it improves user satisfaction with the completed system. Thus, the level of user involvement in the implementation has a positive influence on the successful implementation of EFS.

H7: User involvement has effect in the implementation process of EFS.

c. Change management program

Change management is important throughout the implementation of the system. Enterprise wide culture and structure change should be managed (Falkowski et al., 1998), which include people, organization and culture change (Rosario, 2000).

A culture with shared values and common aims is conducive to success. Organizations should have a strong corporate identity that is open to change. An emphasis on quality, a strong computing ability, and a strong willingness to accept new technology would aid in implementation efforts. Management should also have a strong commitment to use the system for achieving business aims (Roberts and Barrar, 1992). Users must be trained, and concerns must be addressed through regular communication, working with change agents, leveraging corporate culture and identifying job aids for different users (Rosario, 2000).

According to Dourish and Bellotti (1992), awareness is "an understanding of the activities of others, which provides a context for your own activity". Awareness includes using the mass media to introduce the concept of E-government system for people in the public sectors, conducting seminars or workshops to encourage the public sectors' work force to apply the concepts as their daily operations. A package of activities could be delivered that includes seminars and training workshops, web-based documentation, individual meetings, and support for monitoring and project evaluation.

There are awareness materials that can be used such as magazines, articles, videotapes, websites, books, newsletters, brochures, CD-ROMs, presentations, roadmaps, guidelines, and case studies. The rapid growth of E-government technologies and practices has created a tremendous need for awareness creation in organizations which seem to lack the necessary information about technology (Papazafeiropoulou, Pouloudi and Doukidis, 2002). The organization would realize the benefits of E-government system. Reducing the time and cost of providing services to empowering the employees, reducing bureaucracy, and increasing efficiency are the benefits.

Kotter (1996) stated that, individuals are willing to accept change (e. g. e-government initiatives) if the potential benefits are outlined and they believe that the transformation is possible. Developing economy of the country, inducing actual use of E-government system are the purpose of implementing appropriate public awareness programs which build on the favorable sentiments towards the E-government system.

As part of the change management efforts, users should be involved in design and implementation of business processes and the e-filing system, and formal education and training should be provided to help them do so (Bingi et al., 1999; Holland et al., 1999). Education

should be a priority from the beginning of the project, and money and time should be spent on various forms of education and training (Roberts and Barrar, 1992).

Training, reskilling and professional development of the IT workforce is critical. User training should be emphasized, with heavy investment in training and reskilling of developers in software design and methodology (Sumner, 1999). Employees need training to understand how the system will change business processes. There should be extra training and on-site support for staff as well as managers during implementation. A support organization (e.g. help desk, online user manual) is also critical to meet users' needs after installation (Wee, 2000).

H8: Change management program has effect in the implementation process of EFS.

d. Teamwork and composition

Teamwork and composition is important throughout the implementation of system life cycle. The team should consist of the best people in the organization (Buckhout et al., 1999; Bingi et al., 1999; Rosario, 2000; Wee, 2000). Building a cross-functional team is also critical. The team should have a mix of consultants and internal staff so the internal staff can develop the necessary technical skills for design and implementation (Sumner, 1999). Both business and technical knowledge are essential for success (Bingi et al., 1999; Sumner, 1999).

The EFS project should be their top and only priority and their workload should be manageable (Wee, 2000). Team members need to be assigned full time to the implementation (Wee, 2000). As far as possible, the team should be co-located together at an assigned location to facilitate working together (Wee, 2000).

The team should be given compensation and incentives for successfully implementing the system on time and within the assigned budget (Wee, 2000). The team should be familiar with the business functions and products so they know what needs to be done to support major business processes (Rosario, 2000).

The sharing of information within the company, particularly between the implementation partners, and between partnering companies is vital and requires partnership trust (Stefanou, 1999). Partnerships should be managed with regularly scheduled meetings. Incentives and risk-sharing agreements will aid in working together to achieve a similar goal (Wee, 2000).

H9: Teamwork members and composition has effect in the implementation process of EFS.

e. IT expertise

IT expertise is the technological ability needed to adopt e-government (OECD, 2003). Therefore, it is considered to be one of the essential requirements needed for the adoption of e-government. This technical expertise is considered to be a very important factor. There must be such a technical expertise in order to move toward e-government services and to raise the level of e-government services provided from the e-government to the public.

Authorities must move towards recognizing and certifying the expertise required for successful e-government (OECD, 2003). To achieve a successful e-government project, various government agencies need to hire a qualified IT expert in order to achieve the desired goal of e-government services. The existence of such expertise in different e-government services would have a positive effect in enriching the services provided to the public. Maintaining IT expertise inside the organization is important (OECD, 2003). Providing the necessary IT expertise to the government agencies to carry out the functions of e-government is a very urgent need, especially if the goal of these experiences will raise the productivity of e-government services as well as the management and maintenance with the required knowledge and skills.

Ebrahim and Irani (2005) indicate that IT experts are increasingly leaving their jobs in the government to work in the private sector, due to better offers they are getting. The government should consider better offers for their IT expertise to avoid this issue, which is basically affecting their e-government services.

The field of information technology is changing very fast, which makes urgent the need to train IT experts to keep pace with the ongoing evolution in technology. Ebrahim and Irani (2005) and Moon (2002) argue that to improve the efficiency of e-government services, governmental departments need to move forward in their development of highly trained IT expertise. As a result the IT experts are up to date with the new practices and technologies related to the e-government, which will help them to accomplish their work with high performance. The existence of such technical expertise will be reflected positively on the adoption of e-government. Hence, the researcher hypothesize that IT expertise affects the implementation of electronic filing system.

H10: IT expertise has effect in the implementation process of electronic filing system.

2.4.3 Technological Factors

a. IT Infrastructure

Infrastructure is one of the most important word not specific to IT. Infrastructure is probably most visible: we can see streets and other structures for transportation and logistics (Gray, 1998; Suomi, 2002), public buildings such as schools, museums and libraries (Coult, 2001; Hopkins, 2001). Infrastructure can be seen too in abstract things such as legislation, education system, public health care system, different markets and governance structures (Hyppönen, Salmivalli and Suomi, 2005). The word infrastructure is also used in the area of IT (Broadbent, Weill and St Clair, 1999; Broadbent, Weill and Nco, 1999), and IT plays more and more important role in public administration (Gore, 1993; Bellamy and Taylor, 1998; Heeks, 1999).

In the late 1980s before the Internet emerged, some governments were already actively pursuing IT to improve operating efficiency and to enhance internal communication (Kraemer and King, 1977; King, 1982; Fletcher et al., 1992; Norris and Kraemer, 1996; Brown, 1999). IT can help government public sectors to increase productivity and performance, improve policy-making, and provide better public services to the citizens (Akbulut, 2002). Moreover, there is an opportunity to derive productivity and business benefits from an intelligent IT infrastructure built on the pervasive computing paradigm. Furthermore, there is a need to protect investments already made in the existing IT infrastructure (Gupta and Moitra, 2004). Developing E-government system based on the IT infrastructure which has played as a bedrock role. Internet allows access to multiple services, as a foundation to support the digital broadcast systems to apply a global digital network. It is a government's responsibility to determine the quality and quantity of the telecommunications networks to handle the new traffic resulting from the use of these new services' level of service quality. Hence, the researcher hypothesize that IT infrastructure affects the implementation of electronic filing system.

H11: IT infrastructure has effect in the implementation process of electronic filing system.

b. IT Standards

IT is developing fast, and the need to have the same technology type and criteria is an essential indicator that makes the work compatible, which is referred to as ICT standards (Borras,

2004). Since different government agencies have different IT elements that may confront problems to function, integrate and interoperate with each other; this might result in e-government adoption complexity. E-government is anticipated to make available access to all users from one single integrated gateway. Furthermore, it necessitates the involvement of government agencies to contribute their data to meet users' needs of e-government services (Layne & Lee, 2001; Vishanth et al., 2011). Hence, IT standards are required to avoid any ICT obstacles that would hold back the adoption of e-government systems. Standards have been described as conformity of system elements that would help software and hardware within the system to build up new services differently from each other. However, they should be appropriate and well-matched in with each other (Keen, 1991; Vishanth et al., 2011). In addition, ICT standards have been defined by Freeman as specification for hardware and software that are either widely used and accepted or sanctioned by a standard organization (Freeman, 2006). So in this case, to attain the adoption of e-government successfully, it is required to standardize ICT to facilitate the interaction between government agencies e.g. using the same database and other software and hardware to ensure the compatibility and avoid information redundancy. It has been argued that IT standards guide IT acquisition, management, and utilization, and it takes action as interlink between the use of physical and intellectual IT assets (Nyrhinen, 2006; Vishanth et al., 2011).

There are some advantages of technical interoperability, such as it has minimal intellectual property restrictions, or should be royalty-free on a logical and fair-minded basis. Also the standards allow technical interoperability between different products, and enable multiple competing implementations so that users are able to choose whatever product they want whereas the products work in interoperability properly (DeNardis, 2009). Moreover, it helps to improve government's efficiency, building the knowledge economy (Borras, 2004). So IT standards would be considered as a technical factor of e-government adoption.

H12: IT standard has effect in the implementation process of electronic filing system.

c. IT Security

Security is treated as the most important concern in the online world (Nikkhahan et al., 2009). Since e-government services are offered online to the public, IT security is extremely important. The importance of IT security is constantly growing (Sharma et al., 2005).

IT security is considered to be one of the most significant divisions of information security (Euting & Weimert, 2009). The main purposes of the information security are protecting the information and guarantee to obtainability, privacy and honesty of information (Aljifri & Navarro, 2003; Elmarie & Elme, 2000; National Institute of Standards and Technology, 2000; Pfhleeger, 1997; Von Solms, 1999).

The e-government services are frequently dealing with enormous amounts of private data (Hermann et al., 2009; Zweers & Planque', 2001), which makes the IT security in e-government one of the most important technical factors that affect the adoption of e-government, and without it, e-government projects will be a failure. IT security is one of the main issues concerning the use of system, network, data...etc. IT security must be treated with great importance in e-government to ensure the security of e-government services provided to the public. IT security is important from different perspectives such as from the e-government services as well as the public. There are many concerns related to IT security, such as: identify users accessing the system with appropriate grant of access to specific e-government services, protection of data/information against any type of computer scam, and system policy. To improve the security and minimize the threat against the e-government services in general, the government needs to build Internet trust and to have a national security standard.

In order to have a successful e-government project, the organization needs to be aware of all security issues which are needed to avoid any kind of failures of the e-government project (Hermann et al., 2009). Security is a crucial component in the development of citizens' assurance and their implementation of e-government (Nikkhahan et al., 2009).

H13: IT security has effect in the implementation process of electronic filing system.

d. Software testing and troubleshooting

Software testing and troubleshooting is essential, beginning in the project phase. The overall EFS architecture should be established before deployment, taking into account the most important requirements of the implementation. This prevents reconfiguration at every stage of implementation (Wee, 2000).

There is a choice to be made on the level of functionality and approach to link the system to legacy systems. In addition, to best meet business needs, companies may integrate other

specialized software products with the ERP suite. Interfaces for commercial software applications or legacy systems may need to be developed in-house if they are not available in the market (Bingi et al., 1999).

Troubleshooting errors is critical (Holland et al., 1999). The organization implementing ERP should work well with vendors and consultants to resolve software problems. Quick response, patience, perseverance, problem solving and firefighting capabilities are important (Rosario, 2000). Vigorous and sophisticated software testing eases the implementation of the system.

H14: Software testing and troubleshooting has effect in the implementation process of EFS.

2.5 Related Works

The literature conducted on factors affecting the implementation of electronic filing system is necessary to have better understanding, research model, selection of methodology, etc. Various aspects of information system implementation have attracted the attention of academicians, researchers and policymakers from time to time in different countries (Prakash and Ashish, 2011).

Accordingly, many researchers have conducted different experiments to identify the factors that affects the implementation of information systems, However there is high scares of literatures in regarding to the topic factors affecting the implementation of electronic filing system within an organization particularly in the court sector which made the study challenging. Most of the literatures are related to the factors affecting the implementation of enterprise information systems like ERP, E-government, E-commerce, e-service, and paperless office. Some of them are as discussed below

(Fozia 2017) revealed that factors which affect ERP implementation as technological, organizational and people. The stages of Commercial Bank of Ethiopia (CBE) ERP implementation (requirement analysis, solution design, solution built and test, and production transition and support), the impacts of these factors in their associated stage and current status (progress) of ERP implementation.

To conduct the study, the researcher has employed a case study in which quantitative research methods were used to collect and analyze data. Correlation analysis technique was used to check the relationship of the item under each factor analyze the data collected through survey questionnaire, direct observation and participation.

Abbas (2015), have conducted a research on factors affecting ERP implementation success in banking sector of Pakistan. The researcher identified organizational, technological and individual factors from literature and then determined their significant impact on successful implementation of Enterprise Resource Planning (ERP) in banking sector of Pakistan. The researcher also affirmed IT infrastructure and IT skills belongs to technological factors and self-efficacy, user involvement that belong to individual factor. The researcher has used a survey questionnaire to collect data and analyzed it by correlation and regression values show that all Critical Success Factors (CSFs) have significant impact on success implementation of ERP. IT infrastructure is less significant as compared to management commitment, IT skills, Training and education, self-efficacy and user involvement (CSFs) in Pakistan Banking Sector. Finally, In order to measure the reliability of constructs the researcher has developed a theoretical framework.

The other researchers are Lee and Lee (2001) who conducted a research on factors affecting ERP system implementation in higher education institutions. They identified three factors affecting ERP system implementations in higher education. These are administrators, technical teams and End users. The researchers have used a survey questionnaire to collect data and analyzed it by ANOVA results and showed critical success factors (CSF) have significant impact on success implementation of ERP. They hypothesized these factors and analyzed on ANOVA for testing. And after analysis they have identified seven implementation difficulties: lack of end user involvement, inadequate project funding, lack of business process reengineering, insufficient planning time, insufficient research on vendors, improper technical and insufficient training.

2.6 Summary of related Researches

Authors	Objectives/purpose	Methods/techniques	Main findings
Byung & Sangjae	To identify the determinant factors which affect implementation of Electronic Data Interchange (EDI)	A case study with survey questionnaire using mail FAX and E-mail	11 factors identified and Top management support and the participation of trading partners promote the extent of EDI operations
Kaula Lumper (2011)	To examine organizational factors (i.e. top management support, training	survey questionnaire	Top management must provide full support and commitment to the project if the system is to be successful. In addition, management must also ensure the plans are communicated

	and education, enterprise-wide communication) that may influence the enterprise resource planning system implementation success in Iran		and understood by the entire company. Finally it is also illustrated that adequate training and education pertaining to the systems must be given to all users to ensure that they are able to use the system effectively and efficiently thus contributing to their satisfaction which subsequently influence the implementation success.
Sintayehu (2014)	To find out the factors that determines the success of ERP implementation.	A case study with questionnaire and Interview	Identified twenty critical success factors of ERP implementation.
Foziya (2017)	To identify and analyze the organizational, technological, and individual factors and their influence at each phase of ERP implementation	Semi structure interview/pattern matching	Identified factors affecting the implementation of ERP system and finally recommend the good management strategy and clear communication during the implementation of the system is a critical issue to success of the ERP.
Fui-Hoon Nah, F., Lee-Shang Lau, J., & Kuang, J. (2001).	To identify Critical factors for successful implementation of enterprise systems	Literature Review	11 factors were found to be critical to ERP implementation success ERP teamwork and composition; change management program and culture; top management support; business plan and vision; business process reengineering with minimum customization; project management; monitoring and evaluation of performance; effective communication; software development, testing and troubleshooting; project champion; Appropriate business and IT legacy systems.

Table 2.1 Summary of related literatures

2.9. Research Model

The study focus on the factors affecting the implementation of EFS at FSC, the research model on which the high level theoretical framework is adopted from Abbas (2015) as shown in figure 2.1. However this theoretical framework is very general. The researcher identified 14 factors under the mentioned three independent variables and incorporated these factors based on their nature and developed a proposed framework (figure4.4)

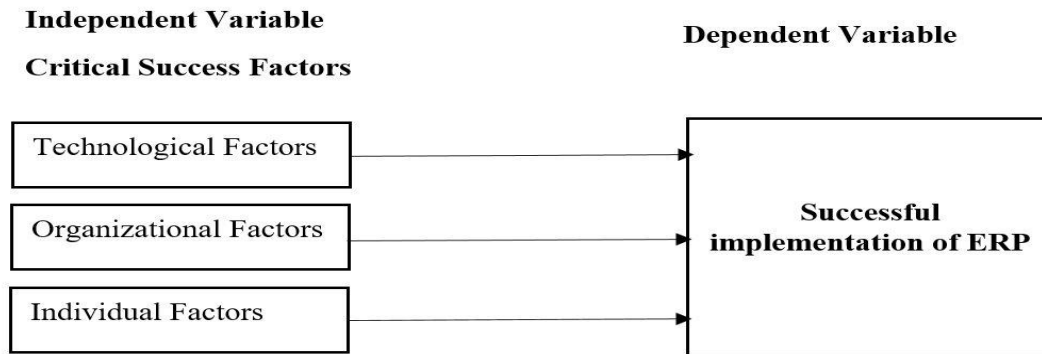


Figure-2.1: Theoretical Framework (Adopted from Abbas 2005)

As we can see from figure 2.1, there are three critical success factors for an implementation of ERP in an organization. These three factors were deeply analyzed and agreed factors by different scholars and, so we will use them as factors for the case organization, FSC. These factors are classified into three main themes: organizational, individual/people and technological factors.

Organizational Factors: these factors directly or indirectly relate to the structure of the organization, operational, human and management requirements. These factors include organizational plan and vision, top management support, effective communication, project management, and Business Process Re-Engineering (BPR).

People or individual factors: these factors are related to human resource factors like skills, education and training, user involvement, change management program and availability of IT expertise.

Technological Factors: these factor group relates to the telecommunication infrastructure, software and hardware aspects of the technologies being used, including IT infrastructure, IT Standards, IT Security, software testing and troubleshooting.

CHAPTER THREE

RESEARCH DESIGN AND METHODS

3.1 Introduction

The previous chapter, presents the overview of electronic filing, its benefits and factors affecting the implementation EFS and issues related to EFS system implementation by reviewing literature. This chapter discusses about the methodology by which the researcher employed to conduct the study. Thus, overview of the methodology, research purpose, research approach, research strategy, data collection method, data analysis techniques and validity and reliability are presented. Therefore, this chapter outlines the methods that were used in answering the research questions.

The main emphasis of this study is exploring ideas about how electronic filing system could be successfully implemented by identifying the factors that can affect the implementation in substituting the paper intensive work of FSC, and show its benefits in making FSC more accessible and efficient.

3.2 Overview of Methodology

Several authors' have written widely on research methodology. The primary issue in most of the studies on research methodology is that the selection of methodology is based on the research problem and stated research questions. Methodologies cannot be true or false, only more or less useful (Silverman, 2001). According to Naichiamas et al. (1996) for instance methodologies are considered to be systems of clear rules, upon which the research is based, and against which claims for knowledge are evaluated. Conducting any type of research should be governed by a well-defined research methodology based on scientific principles. Research methodology can be again defined as a method or way to systematically solve the research problem (Blaxter et al, 2006).

The research method is the important part of a research, because it helps researchers to decide how to achieve the specified objective, what data to collect, and how to collect and analyze the data in order to solve the target problems. Therefore, it needs much consideration on choosing the appropriate methods, which can provide the desired outputs.

3.3. Research Purpose

An academic research purpose is usually undertaken to further enhance knowledge on a topic of interest to the researcher. There are three types of academic researches depending on the problem area and the nature of the phenomenon and based on the purpose of the research namely;, descriptive, explanatory and exploratory (Saunders et al., 2007). These all methods can be used against the research strategy of a case study to assist in explaining, describing and illustrating the research as a means of adding knowledge to research through the case. These three research types are discussed in detail below.

Descriptive studies: these studies would be used in order to “describe an accurate profile of persons, events, or situations” (Robson, 2002, as cited in Saunders et al., 2007). A descriptive study can be considered as an extension of the exploratory study where it is actually necessary to begin the research by having a clear picture of the concept proposed. It is also appropriate for situations where a problem is clearly identified and the intention of the research is not to present the link between causes and symptoms.

Explanatory studies: Explanatory studies are valuable when studies are meant to establish causal relationships between different variables. Examining a situation or a problem to explain the relationship between variables would be the outcome of an explanatory study (Saunders et al., 2007). Yin (2009) adds that explanatory study is used as a means to answer ‘how’ and ‘why’ questions and get answers, especially for the case study research method.

Exploratory studies: According to Saunders et al. (2007), exploratory studies are most beneficial if one needs to clarify their understanding of a certain difficulty. He also states that such a study is applied to assist one in finding out “what is happening; to seek new insights; to ask questions and to assess phenomena in a new light”. As described by Saunders et al. (2007), there are three ways of undertaking exploratory studies, which are studying different literature, interviewing professionals in the topic of choice, and conducting focus group discussions. All lead to the input of gathering information from trusted and qualified sources.

Exploratory research is often used when a problem is not well known, or the available knowledge is not absolute. The technique best suited for information gathering when performing an exploratory research is interview (Yin, 1994). So this exploratory research can be used for the purpose of this research.

For this research, a mixed method is used to assess the existing EFS implementations in light of the factors affecting that would be highlighted to understand the best and most beneficial way of implementing the EFS. Since this research aims to explain and assess the current situation of EFS implementation in FSC, it is important to understand certain concepts on the data that would be collected prior to collection. So, descriptive research was used for the case of this research. The output of this research would also be focused on explanatory studies where understanding the cause and effect of variables are of importance to the researcher. Therefore, all three methods were employed, but mostly explanatory studies are used to achieve the objective of this research.

3.4. Research Approach

Research approach can be divided into a quantitative, qualitative, or mixed approach. The decision of whether to carry out a quantitative or qualitative approach lies in the researcher's approach based on the nature of the subject of the research (Kanaan, 2009).

3.4.1. Quantitative versus Qualitative Research

Quantitative approach involves counting and measuring (quantifying) using numbers to explain certain answers. They give out descriptive data such as mean, frequency and correlation as they draw significant relations between variables (Gillham, 2000). Qualitative approach simply signifies that the information gathered from qualitative data needs to be interpreted by the researcher since information gathered from people is what the result is.

According to (Saunders et al. 2007) qualitative data refers to all non-numeric data or data that have not been quantified and can be a product of all research strategies. It is practical when the researcher wants to transform data that has been observed or reported without the use of numbers, only words. Qualitative approach of analysis is usually used when the sample size of the study is small.

Disclosing the factors affecting the implementation EFS through single case study, and comparing them with existing literature was the method we followed in this study. The purpose of this research was to investigate certain factors in detailed and provide a better understanding of them, rather than providing a causal relationship without generalization. Therefore, quantitative research approach method is employed for this study.

3.4 Research strategy

According to Sunders (2000) research strategy is a general plan of how a researcher will go about answering the research questions the researcher has set. Survey, One of the research strategies, is described as a system for collecting information to describe, compare, or explain knowledge, attitude and behavior. It has considerable ability to generate answers to the question 'what?' as well as 'how?' questions. Based most often on a questionnaire, these data are standardized allowing easy comparison (Sunders, 2000).

Since this thesis aims to identify and analyze the factors that affect the implementation of e-filing system in the FSC, survey is the appropriate research strategy. According to management study guide, respondents may be asked a variety of questions regarding their behavior, intention, attitudes, awareness, motivation, demographic and lifestyle characteristics. Survey will also allow reviewing the same concept in multiple organizations so that generalizations could be drawn.

3.5 Data Collection Methods

As you can see from the table 3. 1 the researcher used both primary data collection methods as well as secondary data collection sources.

Data Collection Methods	
Primary Data collection Methods	Secondary Data Collection Sources
<ul style="list-style-type: none"> • Survey Questionnaire 	<ul style="list-style-type: none"> • Annual Reports
<ul style="list-style-type: none"> • Observation/ Participantion 	<ul style="list-style-type: none"> • Conference Papers
	<ul style="list-style-type: none"> • Published Journal Articles
	<ul style="list-style-type: none"> • Published Books
	<ul style="list-style-type: none"> • CCMS Database Reports

Table 3.1 Data Collection Methods

3.5.1 Primary Data collection Methods

As a primary data collection sources survey questionnaire, observation and participant tools are used. The methods are discussed in detail below

3.5.1.1 Survey questionnaire

Survey questionnaires are effective to produce information on socio-economic characteristics, attitudes, opinions, motives etc and to gather information for planning product features, new service setup, advertising media, sales promotion, channels of distribution and other marketing variables. With survey, questioning is usually faster and cheaper than observation, questions are simple to administer, data is reliable, the variability of results is reduced, relatively simple to analyze, quote and interrelate the data obtained by survey method. Therefore by using this strategy it is expected to receive suitable answers from the organization representatives in order to analyze the factors for the implementation of EFS.

The questionnaire were designed based on the research conceptual model (figure 2.1). Items has been adopted from related prior works on implementation of IS (Information Systems) .Survey responses were grouped based on the factors that affect the implementation of the system. The responses for all questions were entered on five likert type scale as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. The survey questionnaire were include demographic data of participants like gender, age, education status, job position and work experience.

Questionnaire was prepared and disseminated with the ICT experts, registrar, directors, and judges to collect data and evaluate the identified 14 factors from literature that can affect the implementation of e-filing system under the three themes against the court (FSC).

3.5.1.2 Observation and Participation

Direct observation and participant observation were also used as primary data collection method in addition survey questionnaire for this study. Direct observation is a situation in which the researcher makes a site visit and collects data from the case company. Participatory observation is a method in which the researcher actually participates in the events being studied and related activities (Yin, 2009).

3.5.2 Secondary Data Collection Sources

As a secondary data collection source, written documents about file opening legal procedures, annual reports within the organization, published journal articles, conference papers, published books and CCMS database reports were used.

3.6 Sampling Design

In the FSC, there are 520 employees organized in 20 directorates. However, employee belong to top management, registrar, strategic directorate, ICT directorates and judges are found target group which highly relevant with domain area of the study.

Purposive sampling were used for selecting all the top management, strategic directorate and team leaders which are very relevant and potential source of information in the business in survey questionnaire. Census sampling is used for collecting data from registrars, record officers, clerk officers, ICT experts, and bench clerk all of them were participate in filing questionnaires. Systematic sampling is used for selecting 10 judges who participate in survey questionnaire.

3.7 Pilot Test

After extensive reviewing of literature and related works, some of the survey questionnaire were adopted from (Kaula Lumpur, 2011) and organized as per the context of FSC's e-filing system implementation. The survey questionnaire were tested through discussion with five individuals involved in the e-filing know the business process of file opening and transactions very well. The purpose of the pilot is to identify errors and ambiguity of ideas in the questions, as well as its inclusion of all ideas about the factors that can affect e-filing system implementation. Corrections were made to the questions with vague, unclear terminologies that are difficult to understand by the participants based on the pilot test.

After the questionnaire is filled by the respondents a Cronbach's alpha test was conducted to check the consistency of the questionnaire by using SPSS analysis tools. As the result indicted in the table 3.2 0.94 is obtained which is greater than the minimal value of 0.70 which indicated that the questionnaire consistency and reliability were found very good to the study.

Reliability Statistics	
Cronbach's Alpha	N of Items
.94	5

Table 3.2 Reliability Statistics

3.8 Data Analysis Method/Technique

According to Yin (2009), data is analyzed to draw empirically based conclusions. There are some techniques of analyzing data; to examine, categorize, tabulate, test etc. After the researcher collected data from different sources, it is organized and edited using statistical methods and tools. Generally, analyzing data is based on the developed hypothesis and applying a certain method that will break the data down into results that were tested against the factors affecting EFS implementation success. The factors have been derived from the literature.

For data analysis, SPSS (statistical package for social science) version 20 software were used to code all the required variables. Accordingly, the questionnaire items were coded and the data imported to SPSS tool. To summarize the collected data, descriptive statistics methods such as frequency distribution, percent, pie charts and graphical representation methods are used. In addition, Pearson’s correlation analysis were applied to test the inter relationship among the factors under the three themes. There were fourteen (14) factors involved on the analysis stage which based on the selected framework grouped under the three themes as shown in table 3.3

Category Themes	Factors affecting the implementation of EFS
Organizational	Organizational Plan and Vision
	Top management support
	Effective communication
	Project Management
	Business process Re-engineering
People/Individual	User education and training
	User involvement
	Change management program
	Teamwork and composition
	IT Expertise
Technological	IT infrastructure
	IT Standards
	IT security
	Software Testing and Troubleshooting

Table 3.3 Category Themes and their factors

Accordingly data was labeled and categorized based on their properties. Then using narrative analysis the researcher sort out, enhance and presented the revised data.

3.9 Validity and Reliability

To measure the quality of the research, both reliability and validity were applied. Reliability is used to measure the consistency of the survey, whereas validity is used to measure the degree to which a scale or set of measures accurately represents the construct (Hair et al., 1998).

To measure the reliability of the questionnaire, Cronbach's alpha is applied. From the pilot study, the Cronbach's alpha result became (0.964) which is greater than (0.7) and this showed that the questionnaire is reliable.

On the other hand, content validity was used to measure the survey instrument items address the problem being investigated. In order to measure the content validity of the research, the FSC staff check the survey questionnaire questions. Then based on the feedback from the staffs the instruments were updated.

3.10 Ethical Concern

The researcher used letter of cooperation from the university written to FSC to collect data (Appendix A). The data which is collected from the organization respondents was used for this study and confidentiality is maintained in all the process and the questionnaires did not indicate any thing about filling the identity of the respondents. Moreover, all works of other authors used for this study are duly acknowledged both in text citation as well as in the references section of the study.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

In chapter three, the methods and techniques that were used in answering the research questions has been presented. In this chapter, quantitative data are presented and analyzed from the survey questionnaire that was conducted to evaluate factors affecting the implementation of electronic filing system in the Federal Supreme Court of Ethiopia based on the research framework. Observations and participation, and document review were also analyzed. In the quantitative data analysis part, characteristics of the respondents, availability of general understanding, and factors affecting the implementation of EFS are presented and analyzed.

4.1 Quantitative Data Analysis and Presentation

Sixty questionnaire has been distributed to the selected survey respondents. The selected survey respondents are directors, judges, registrars, ICT expertise, and record officers which have direct contact with the business process of the electronic filing system (EFS). Fifty four of the respondents have filled and returned the questionnaire and 6 of the respondents refused to return the questionnaire. This implies 90% of the questionnaires are returned. However, 6 of them were with lot of missing values and are excluded during data cleaning and preparation. 48 of them used for this study.

The questionnaire has a total of 80 questions (items), 5 of them are about the demographic data, and 15 of them are to evaluate about general understanding (perception) of electronic filing system and the remaining 60 questions are about the 14 factors that can affect the implementation of electronic filing system with five scale likert type response under 14 factors grouped in three general factors (organizational, people/individual, and technological) factors. The likert scale type responses used in this research has five categories or responses as strongly disagree, disagree, neutral, agree and strongly agree. As per the data collected from the survey respondents the responses are grouped in to the different factors that affect the implementation of EFS in the Federal Supreme Court of Ethiopian. Characteristics of respondents, total average score results of each item under the general understanding and 14 factors is calculated.

To make the data presentation and analysis clear and easy to understand those responses with ‘agree’ and ‘strongly agree’ are considered as agreement, and ‘disagree’ and ‘strongly

disagree’ are merged as disagreement. As a matter of fact, there was very few responses in the ‘strongly agree’ and ‘strongly disagree’ category. Using Pearson’s Correlation analysis the inter-relationship among the factors under the three category organizational, people, and technological factors was analyzed. The summary of the responses for each factors is discussed below.

4.2 Characteristics of the respondents

This is the first section of the survey questionnaire concerned with background of the respondents to understand the employees or respondents who participate in filling the questionnaire for this research. Respondents are requested to fill their sex, age, their level of education and their present work position in the organization and year of work experience.

4.2.1 Distribution of respondents by gender

The study establish the gender distribution of the respondents, from the study revealed that majority of the respondents as shown by 64.6% were males whereas 35.4% of the respondents were females.

Gender		
Gender	Frequency	Percent
Male	31	64.6%
Female	17	35.4%

Table 4.1 Distribution of respondents by gender

4.2.2 Distribution of respondents by Age

When we see the respondent by age range 45.8% respondents are categorized in age range between 20 - 30 years, 25% in the age range 31 – 40, 25% of the respondents are found in the age range of 41-50 years. Only 4.2 % accounted for the age range 51-65 years old. This shows that more than 95% of the respondents are below the age range of 20 to 50 years.

Age		
Age	Frequency	Percent
20-30	22	45.8%
31-40	12	25.0%
41-50	12	25.0%
51-65	2	4.2%
Total	48	100%

Table 4.2 Distribution of respondents by age

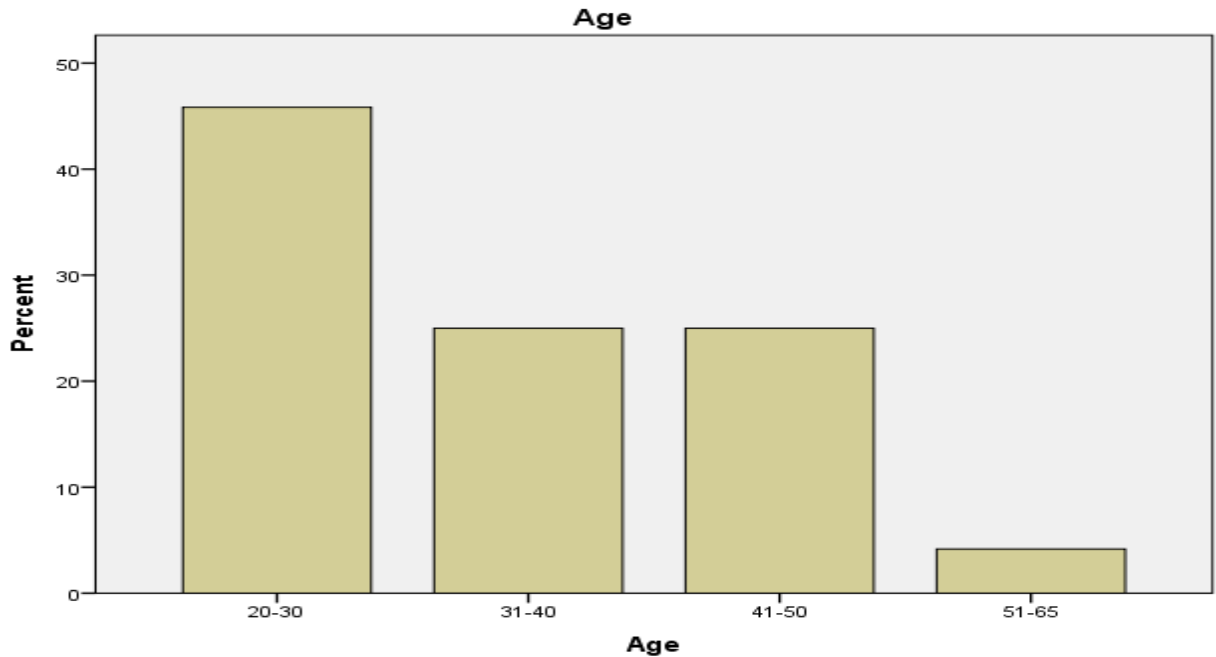


Figure 4.1 Distribution of respondents by Age

4.2.3 Distribution of respondents by Educational Status

The study establish level of educational status of respondents. Majority of the respondents are bachelor degree holders with percentage of 54.2%. Whereas 18.8% of the respondents had master degree, similarly the same percent have 18.8 % of the respondents had diploma and only 2.1% of the respondents had PhD. Moreover, (6.3%) of the respondents refuse to indicate their educational status. More than 90% are bachelor degree and above holders. This implies that respondents were well educated and therefore they were in position to respond to the research question with ease.

Educational Status		
Educational Status	Frequency	Percent
Bachelor Degree	26	54.2
Diploma	9	18.8
Master	9	18.8
PhD	1	2.1
Missing	3	6.3
Total	48	100.0

Table 4.3 Distribution of respondents by Educational Status

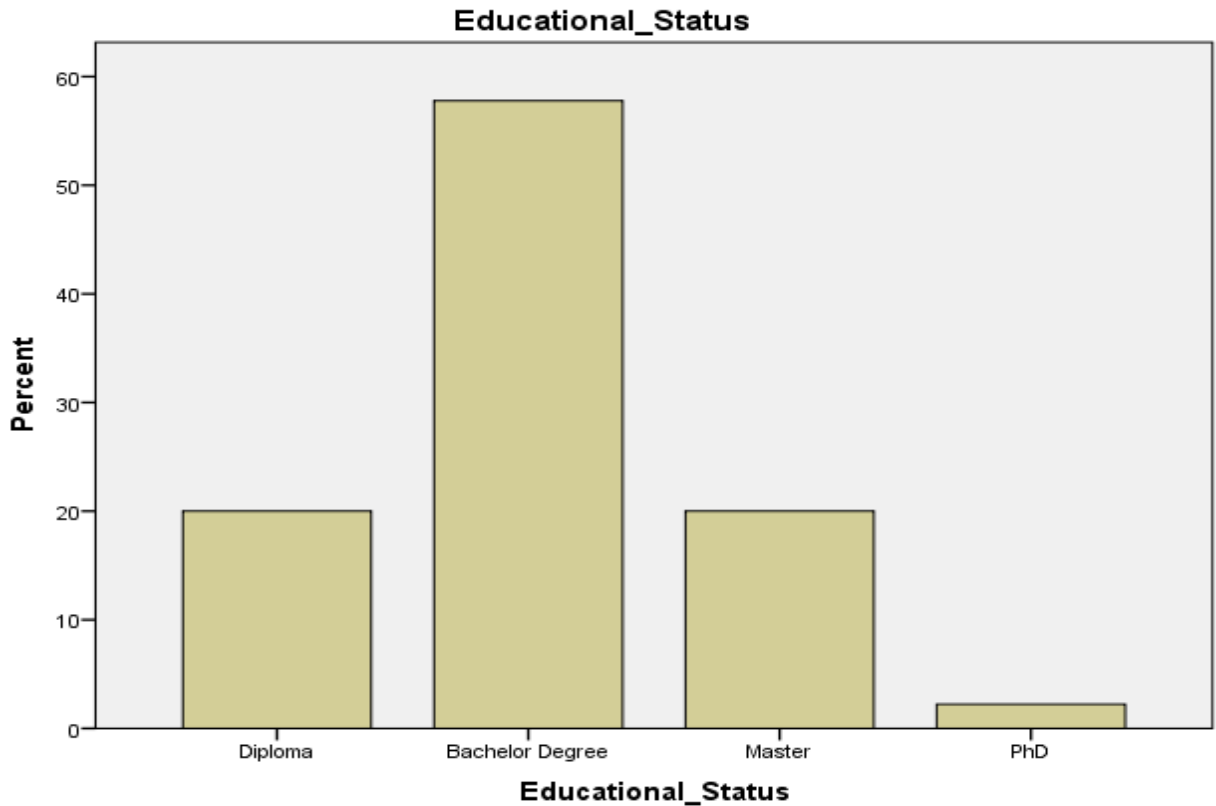


Figure 4.2 Distribution of respondents by their level of education

4.2.4 Distribution of respondents by Job position

With regard to the job position of the respondents (table 4.4) shows that 20(41.7%) of the respondents are experts, 9 (18.8%) are registrar, 8(16.7%) are judges, 8(16.7%) are team leaders and 2 (4.2%) are in a position of director.

Job Position		
Job position	Frequency	Percent
Expert	20	41.7%
Registrar	9	18.8%
Team Leader	8	16.7%
Judge	8	16.7%
Director	2	4.2%
Total	47	97.9%

Table 4.4 Distribution of respondents by Job position

4.2.5 Distribution of respondents by work experience

When we see the respondent by their work experience (table 4.5) 19 (39.6%) respondents are categorized under the work experience range 1-5 Years, 12 (25%) are under the work experience range more than 15 Years, 9(18.8)% of the respondents are found in the age range of 6-10 years. Only 2 (4.2 %) respondents refuse to indicate their work experience which considered as a missing value.

Work Experience		
	Frequency	Percent
1-5 Years	19	39.6
More than 15 Years	12	25.0
6-10 Years	9	18.8
11-15 Years	6	12.5
Missing Value	2	4.2
Total	48	100.0

Table 4.5 Distribution of respondents by work experience

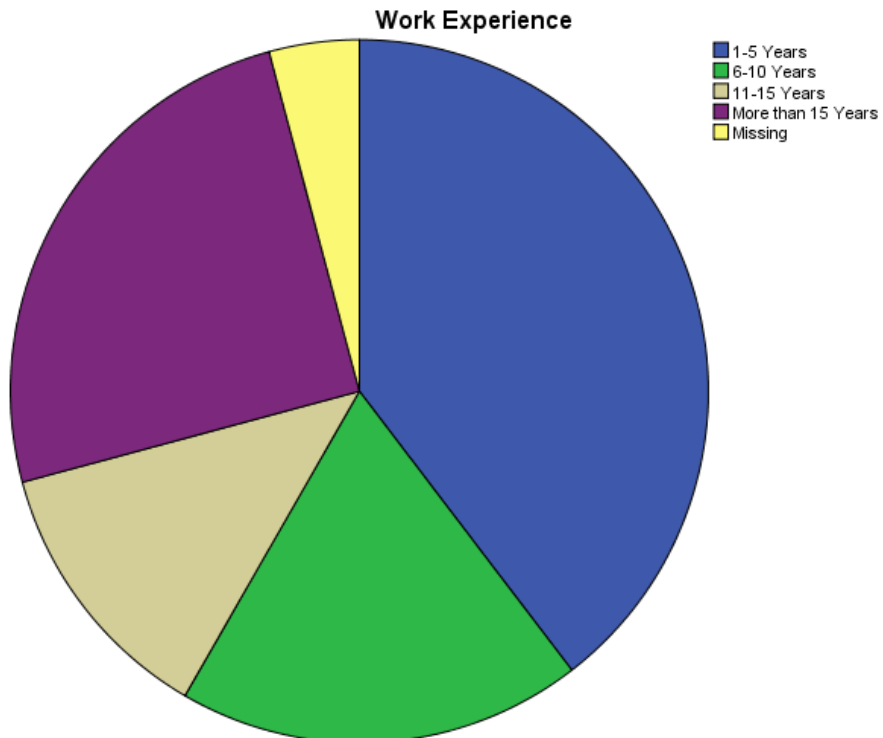


Figure 4. 3 Distribution of respondents by work experience

4.2.6 Pearson's Correlations Analysis of Demographic Data

Pearson's correlation analysis was used to assess the relationships among the variables (Sekaran, 2003). Table 4.6 indicates the correlation result between gender, age, education status, job position and work experience.

Correlations of Demographic Data						
		Gender	Age	Educational Status	Job Position	Work Experience
Gender	Pearson Correlation	1	-.088	-.509**	-.334*	-.141
	Sig. (2-tailed)		.552	.000	.022	.349
	N	48	48	45	47	46
Age	Pearson Correlation	-.088	1	.524**	.602**	.899**
	Sig. (2-tailed)	.552		.000	.000	.000
	N	48	48	45	47	46
Educational Status	Pearson Correlation	-.509**	.524**	1	.687**	.584**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	45	45	45	45	44
Job Position	Pearson Correlation	-.334*	.602**	.687**	1	.667**
	Sig. (2-tailed)	.022	.000	.000		.000
	N	47	47	45	47	45
Work Experience	Pearson Correlation	-.141	.899**	.584**	.667**	1
	Sig. (2-tailed)	.349	.000	.000	.000	
	N	46	46	44	45	46
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Table 4.6 correlation analysis of demographic data

According to the result, age is positively correlated with work experience with $r = .889^{**}$, job position is positively correlated with educational status with $r = .687^{**}$ and work experience is also positively correlated with job position with $r = .667^{**}$. The highest correlation value is $r = .889^{**}$ between age and work experience. This indicates there the highest positive relation between them compared to other variables.

4.3 General understanding of using EFS

This is the second section of the questionnaire, there are 15 items that ask about the availability of general understanding of respondents on using electronic filing system. The summary of their results are shown in table 4.7.

Forty (85.1%) respondents revealed that using Electronic Filing System (EFS) enables the court to accomplish its task more quickly, whereas 4(8.5%) are indifferent and 3(6.4%) respondents responded that using EFS does not enable the court to accomplish its task more quickly. Similarly, 34(70.9%) respondents strongly agreed/agreed that using EFS improves job performance of employees, whereas 10 (20.8%) are neutral and 4 (8.3%) respondents disagreed.

Similarly, 44 (91.7%) respondents strongly agreed/agreed that using EFS helps litigants to open files easily, whereas 3(6.3%) respondents are indifferent and only 1(2.1%) respondent disagreed. While 42(98.1%) respondents strongly agreed/agreed to the statement 'using EFS makes my job easier', 3(6.4%) are neutral and 2(4.3%) disagreed on the statement.

Thirty nine (84.84%) respondents strongly agreed/ agreed that using EFS shortens the retrieval time of files, 4(8.5%) are indifferent and 3(6.5%) respondents disagreed. While 34 (72.3%) of the responses strongly agreed/ agreed to the statement 'using EFS enables the court to be more accessible to litigants in different areas', 10(21.3%) were neutral and 3(6.4%) disagreed. Similarly

Thirty four 34 (72.3%) respondents strongly agreed/ agreed that using EFS provides stakeholders better access to the court information, 10(21.3%) are neutral and 3(6.4%) respondents disagreed. 34 (70.8%) respondents strongly agreed/agreed to the statement 'using EFS improves efficiency of judges', 13(27.1 %) are neutral and only 1(2.1%) respondent disagreed on the statement. Similarly, 35(72.9%) respondents strongly agreed/agreed to the statement 'using EFS improves communication with stakeholders', 9 (18.8 %) are neutral and 4 (8.3%) respondents disagreed on the statement.

Thirty three (70.2%) respondents strongly agreed/ agreed that using EFS helps managers to make strategic decisions, 12(25.5%) were neutral and 2(4.3%) respondents disagreed. Similarly, 36 (76.6%) respondents strongly agreed/agreed to the statement 'using EFS reduces storage area cost', 7(14.9 %) are neutral and 4(8.5%) respondents disagreed on the statement.

32 (69.6%) respondents strongly agreed/agreed to the statement ‘using EFS increases the security of files’, 13(28.3 %) are neutral and only 1(2.2%) respondent disagreed on the statement.

Thirty eight (84.5%) respondents strongly agreed/ agreed that using EFS increases availability of the court, 6(21.3%) were indifferent and only 1(2.2%) respondent disagreed. Similarly, 36 (76.6%) respondents strongly agreed/ agreed that using EFS allows multiple access to files, 6(12.8%) were neutral and 5(10.7%) respondents strongly disagreed/ disagreed. 40(85.1%) respondents strongly agreed/agreed to the statement ‘using EFS improves transfer of files easily’, 6(12.8%) are neutral and only 1(2.1%) respondent disagreed on the statement.

S.N	General Understanding about the use of electronic filing system	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	enables the court to accomplish its task more quickly	0 0%	3 6.4%	4 8.5%	17 36.2%	23 48.9%
2	improves job performance of employees	0 0%	4 8.3%	10 20.8%	15 31.3%	19 39.6%
3	helps litigants to open files easily	0 0%	1 2.1%	3 6.3%	24 50%	20 41.7%
4	Makes my job to do easier	0 0%	2 4.3%	3 6.4%	24 51.1%	18 38.3%
5	shorten the retrieval time of files	0 0%	3 6.5%	4 8.7%	19 41.3%	20 43.5%
6	enables the court to be more accessible to litigants in different areas	0 0%	3 6.4%	10 21.3%	12 25.5%	22 46.8%
7	provides stakeholders better access to the court information	0 0%	3 6.4%	10 21.3%	14 29.8%	20 42.6%
8	improves efficiency of judges	0 0%	1 2.1%	13 27.1%	18 37.5%	16 33.3%
9	improves communication with stakeholders	0 0%	4 8.3%	9 18.8%	22 45.8%	13 27.1%

S.N	General Understanding about the use of electronic filing system	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
10	helps managers to make strategic decisions	0 0%	2 4.3%	12 25.5%	19 40.4%	14 29.8%
11	reduces storage area cost	0 0%	4 8.5%	7 14.9%	17 36.2%	19 40.4%
12	increases the security of files	0 0%	1 2.2%	13 28.3%	20 43.5%	12 26.1%
13	increases availability of the court	0 0%	1 2.2%	6 13.3%	21 46.7%	17 37.8%
14	allows multiple access to files	2 4.3%	3 6.4%	6 12.8%	22 46.8%	14 29.8%
15	improves transfer of files easily	0 0%	1 2.1%	6 12.8%	18 38.3%	22 46.8%
Total Score		0.28%	5.1%	16.45%	40.02%	38.16%
Sum Score		5.38%		16.5%	78.19%	
Final Responses Result		Total Percent Disagree		Neutral	Total Percent Agree	

Table 4.7 General Understanding of using EFS (Frequency and Percentage)

- **Note:-** Total Percent Agree = Percent Strongly Agree + percent Agree,

Total Percent Disagree =Percent Disagree + Percent Strongly Disagree

In general 78.19% of the respondents have strongly agreed/agreed based on the 15 evaluation items, However 16.5% of the respondents are neutral and only 5.38% were disagreed. Therefore **78.19%** of the total respondents have the general understanding about using EFS.

4.4 Organizational Factors

In relation to the organizational factor as indicated there are five independent factors. These are organizational plan and vision, top management support, effective communication, project management and Business process Re-engineering (BPR). The result of each of those factors is discussed below.

4.4.1 Organizational Plan and Vision

Under the factor organizational plan and vision, there are four items as show in table 4.8. Twenty two (45.8%) respondents strongly agreed/agreed that the court has a clear organizational strategic plan, whereas 13 (27.1%) are neutral 13 (27.1%) respondents strongly/disagreed. 18(38.3%) respondents strongly agreed/agreed that the court has a clear ICT strategic policy, whereas 13 (27.7%) are neutral 16 (34%) respondents strongly/disagreed. Eighteen (38.3%) respondents strongly agreed/ agreed that the court has a clear vision on the implementation of e-filing system, 13(27.7%) are neutral and 16 (34%) respondents strongly disagreed/ disagreed. Similarly, 20 (43.5%) respondents strongly agreed/ agreed on the statement ‘E-filing system fits well with the beliefs and practices of the court’ whereas, 16 (34.8%) are neutral and 10 (34%) respondents strongly disagreed/ disagreed on the statement.

S.N	Items under Organizational plan and vision	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The court has a clear organizational strategic plan	3 6.3%	10 20.8%	13 27.1%	16 33.3%	6 12.5%
2	The court has a clear ICT strategic policy	5 10.6%	11 23.4%	13 27.7%	13 27.7%	5 10.6%
3	The court has a clear vision on the implementation of e-filing system.	7 14.9%	9 19.1%	13 27.7%	13 27.7%	5 10.6%
4	E-filing system fits well with the beliefs and practices of the court	1 2.2%	9 19.6%	16 34.8%	16 34.8%	4 8.7%
Total Score		8.5%	20.72%	29.32%	30.87%	10.6%
Sum Score		29.22%		29.32%	41.47%	
Final Responses Result		Total Percent Disagree		Neutral	Total Percent Agree	

Table 4.8 Organizational plan and vision (Frequency and Percentage)

In general **41.47%** of the respondents having organizational plan and vision strongly agreed/agreed based on the 4 evaluation items, However 29.32% of the respondents are neutral and 29.22% were strongly/disagreed.

4.4.2 Top Management Support

Under the factor top management support four questions are asked as shown in table 4.9. Results show that 19(39.6%) respondents strongly agreed/agreed that the top management of the court is aware about strategic importance of e-filing system, whereas 14 (29.2%) are neutral and 15 (31.3%) respondents strongly/disagreed. 20(41.7%) respondents strongly agreed/agreed that the top management of the court is interested to implement e-filing system, whereas 15 (31.3%) are neutral 13 (27.1%) respondents strongly/disagreed. 14(29.2%) respondents strongly agreed/agreed that the top management of the court is ready to allocate adequate finance and other resources for the implementation of e-filing system, whereas majority 19 (39.6%) are neutral and 15 (31.3%) respondents strongly/disagreed. Similarly, 11(22.9%) respondents strongly agreed/agreed that the top management has sufficient experience in the implementation of different information systems project, whereas majority 19 (39.6%) are neutral and 18 (37.5%) respondents strongly/disagreed.

S.N	Items under Top management support	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The top management is aware about strategic importance of e-filing system	6 12.5%	9 18.8%	14 29.2%	15 31.3%	4 8.3%
2	The top management is interested to implement e-filing system	5 10.4%	8 16.7%	15 31.3%	17 35.4%	3 6.3%
3	The top management is ready to allocate adequate finance and other resources for the implementation of e-filing system.	7 14.6%	8 16.7%	19 39.6%	9 18.8%	5 10.4%
4	The top management has sufficient experience in the implementation of different information systems project	7 8.3%	8 29.2%	19 39.6%	6 12.5%	5 10.4%
Total Score		11.45%	20.35%	34.92%	24.5%	8.85%
Sum Score		31.8%		34.92%	33.35%	
Final Responses Result		Total Percent Disagree		Neutral	Total Percent Agree	

Table 4.9 Top management support (Frequency and Percentage)

In general **33.35%** of the respondents strongly agreed/agreed that top management can support the implementation of EFS based on the 4 evaluation items, however majority 34.92% of the respondents are neutral and 31.8% were strongly/disagreed.

4.4.3 Effective Communication

Under the factor effective communication there are five items as shown in table 4.10. The responses indicate that 19(39.8%) respondents strongly agreed/agreed on the statement ‘There is good communication among different departments of the court’, whereas 14 (29.2%) are neutral 15 (31.3%) respondents strongly/disagreed to the statement. 19(40.4%) respondents strongly agreed/agreed that the existing communication among departments can help them to be informed about the system, whereas 12(25.5%) are neutral 16 (34.1%) respondents strongly/disagreed. 16(36.4%) respondents strongly agreed/agreed that there is good communication between the court and vendors, whereas 14(31.8%) are neutral 14 (31.8%) respondents strongly/disagreed.

18(37.5%) respondents strongly agreed/agreed that there is good communication between the top management vs. ICT and ICT vs. other departments in the court, whereas 14(29.2%) are neutral and 16 (33.4%) respondents strongly/disagreed. Similarly, 18(37.5%) respondents strongly agreed/agreed that there is sufficient understanding in the court that effective communication can build a common perception within employees about the system, whereas 14 (29.2%) are neutral and 16 (33.3%) respondents strongly/disagreed.

S.N	Items under Effective Communication	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	There is good communication among different departments of the court	6 12.5%	9 18.8%	14 29.2%	14 29.2%	5 10.4%
2	The existing communication among departments can help them to be informed about the system	6 12.8%	10 21.3%	12 25.5%	14 29.8%	5 10.6%
3	There is good communication between the court and vendors	3 6.8%	11 25%	14 31.8%	12 27.3%	4 9.1%

S.N	Items under Effective Communication	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4	There is good communication between the top management vs. ICT and ICT vs. other departments in the court.	3 6.3%	13 27.1%	14 29.2%	11 22.9%	7 14.6%
5	There is sufficient understanding in the court that effective communication can build a common perception within employees about the system	4 8.3%	12 25%	14 29.2%	13 27.1%	5 10.4%
Total Score		9.34%	23.44%	28.98%	27.2%	11.02%
Sum Score		32.78%		28.98%	38.28%	
Final Responses Result		Total Percent Disagree		Neutral	Total Percent Agree	

Table 4.10 Effective communication (Frequency and Percentage)

In general **38.28%** of the respondents strongly agreed/agreed that there is effective communication with in the court that can facilitate the implementation of EFS based on the 5 evaluation items, however 28.98% of the respondents are neutral and 32.78% were strongly/disagreed.

4.4.4 Project management

Under project management there are five questions are asked as shown in table 4.11. Results indicate that 8(17.3%) respondents strongly agreed/agreed on the statement ‘the court has sufficient experience in monitoring IS projects actively against milestones and targets’, whereas 19(41.3%) are neutral and 9 (41.3%) respondents strongly/disagreed to the statement. Eleven (23.9%) respondents strongly agreed/agreed that the court has sufficient experience monitoring IS projects in delivering project objectives within time, resource and budget constraints. whereas 17(37%) are neutral and 18 (39.2%) respondents strongly/disagreed. Ten (21.8%) respondents strongly agreed/agreed that the court has sufficient experience with reporting project progress time, whereas 20 (43.5%) are neutral 16 (34.8%) respondents strongly/disagreed.

Twelve (26.7%) respondents strongly agreed/agreed that the court has experience monitoring projects against completion dates, costs and quality, whereas 15 (33.3%) are neutral and 18 (40%) respondents strongly/disagreed. Similarly, 11 (23.9%) respondents strongly

agreed/agreed that the court has sufficient experience identifying and clear project issues whereas 20 (43.5%) are neutral and 15 (32.6%) respondents strongly/disagreed

S.N	Items Under Project Management	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The court has sufficient experience in monitoring IS projects actively against milestones and targets	1 2.2%	18 39.1%	19 41.3%	6 13%	2 4.3%
2	The court has sufficient experience monitoring IS projects in delivering project objectives within time, resource and budget constraints.	1 2.2%	17 37%	17 37%	10 21.7%	1 2.2%
3	The court has sufficient experience with reporting project progress time	4 8.7%	12 26.1%	20 43.5%	5 10.9%	5 10.9%
4	The court has experience monitoring projects against completion dates, costs and quality	3 6.7%	15 33.3%	15 33.3%	7 15.6%	5 11.1%
5	The court has sufficient experience identifying and clear project issues.	3 6.5%	12 26.1%	20 43.5%	7 15.2%	4 8.7%
Total Score		5.26%	32.32%	39.72%	15.28%	7.44%
Sum Score		37.58%		39.72%	22.72%	
Final Responses Result		Total Percent Disagree		Neutral	Total Percent Agree	

Table 4.11 Project Management (Frequency and Percentage)

In general 22.72% of the respondents strongly agreed/agreed that there is good project management with in the court that can facilitate the implementation of EFS based on the 5 evaluation items, however majority 39.72% of the respondents are neutral and **37.58%** were strongly/disagreed with availability of good project management.

4.4.5 Business Process Re-engineering (BPR)

Below the factor Business Process Re-engineering (BPR) four questions are asked as show in table 4.12. The result for each question is discussed as follows:-

Fifteen (32.6%) respondents strongly agreed/agreed on the statement ‘Business Process Re-engineering (BPR) was implemented within the court’, whereas 10(21.7%) are neutral and 21(45.6%) respondents strongly/disagreed to the statement. 17 (38.8%) respondents strongly agreed/agreed that business processes of the court properly identified and designed service delivery strategy, whereas 8 (17.8%) are neutral and 20 (44.5%) respondents strongly/disagreed.

18 (38.3%) respondents strongly agreed/agreed that business process of the court is suitable to implement EFS, whereas 13 (27.7%) are neutral and 16 (34%) respondents strongly/disagreed. Similarly, 14 (31.1%) respondents strongly agreed/agreed that the court has sufficient experience identifying and clear project issues whereas 11 (24.4%) are neutral 20 (44.4%) respondents strongly/disagreed.

S.N	Items Under Business Process Re-engineering (BPR)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Business Process Re-engineering (BPR) was implemented within the court	3 6.5%	18 39.1%	10 21.7%	13 28.3%	2 4.3%
2	Business processes of the court properly identified and designed service delivery strategy	3 6.7%	17 37.8%	8 17.8%	16 35.6%	1 2.2%
3	Business process of the court is suitable to implement EFS	4 8.5%	12 25.5%	13 27.7%	13 27.7%	5 10.6%
4	Standards were prepared for every business process activities	5 11.1%	15 33.3%	11 24.4%	13 28.9%	1 2.2%
Total Score		8.2%	33.92%	22.9%	30.1%	4.82%
Sum Score		41.12%		22.9%	34.95%	
Final Responses Result		Total Percent Disagree		Neutral	Total Percent Agree	

Table 4.12 Business process re-engineering (Frequency and Percentage)

In general **34.95%** of the respondents strongly agreed/agreed that there is properly designed business process re-engineering with in the court that can facilitate the implementation of EFS based on the 4 evaluation items, however 22.9% of the respondents are neutral and 41.12% were strongly/disagreed.

4.4.6 Pearson's Correlation Analysis of Organizational Factors

Pearson's correlation analysis was applied to assess the relationships among the factors belong to the organizational factors. Table 4.13 indicates the correlation result of organizational plan and vision, top management support, effective communication, project management and BPR.

Correlations Among Organizational Factors						
		Organizational Plan and Vision	Top Management Support	Effective Communication	Project Management	Business Process Re-engineering(BPR)
Organizational Plan and Vision	Pearson Correlation	1	.569**	.661**	.597**	.185
	Sig. (2-tailed)		.000	.000	.000	.214
	N	48	48	48	46	47
Top Management Support	Pearson Correlation	.569**	1	.593**	.452**	.525**
	Sig. (2-tailed)	.000		.000	.002	.000
	N	48	48	48	46	47
Effective Communication	Pearson Correlation	.661**	.593**	1	.807**	.421**
	Sig. (2-tailed)	.000	.000		.000	.003
	N	48	48	48	46	47
Project Management	Pearson Correlation	.597**	.452**	.807**	1	.590**
	Sig. (2-tailed)	.000	.002	.000		.000
	N	46	46	46	46	45
Business Process Re-engineering(BPR)	Pearson Correlation	.185	.525**	.421**	.590**	1
	Sig. (2-tailed)	.214	.000	.003	.000	
	N	47	47	47	45	47

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4.13 correlation of organizational factors

According to the result, effective communication is positively correlated with project management with $r = .807^{**}$, effective communication is positively correlated with organizational plan and vision with $r = .661^{**}$ and organizational plan and vision is also positively correlated with job position with $r = .597^{**}$.

4.5 People Factors

In relation to people/individual factors, there are five independent variables. User education and training, user involvement, change management program, teamwork and composition and IT Expertise. Each of the people factors are discussed below

4.5.1 User Education and Training

Under user education and training there are five items as show in the table 4.14 below the result for each item show as follows:-

Thirteen 13 (27.7%) respondents strongly agreed/agreed on the statement ' The court has clear strategic plan on user education and training', whereas 13(27.7%) are neutral 21(44.7%) respondents strongly/disagreed to the statement. 37 (78.8%) respondents strongly agreed/agreed that training and education increases ease of use of the system, whereas 6 (12.8%) are neutral and 4(8.5%) respondents strongly/disagreed. Thirty-three (68.8%) respondents strongly agreed/agreed that training and education reduces user resistance on use of the system during implementation, whereas 8 (16.7%) are neutral 7(14.6%) respondents strongly/disagreed.

Thirty-five (72.9%) respondents strongly agreed/agreed that user training and education enhance the users' level of knowledge on the system during implementation, whereas 8 (16.7%) are neutral and 5(10.7%) respondents strongly/disagreed. Similarly, 35(72.9%) respondents strongly agreed/agreed that training and education increasing individual performance, whereas 7 (14.9%) are neutral and 5(10.7%) respondents strongly/disagreed.

S.N	Items Under User Education and Training	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The court has clear strategic plan on user education and training	7 14.9%	14 29.8%	13 27.7%	11 23.4%	2 4.3%
2	Training and education increases ease of use of the system	1 2.1%	3 6.4%	6 12.8%	24 51.1%	13 27.7%
3	Training and education reduces user resistance on use of the system during implementation	2 4.2%	5 10.4%	8 16.7%	20 41.7%	13 27.1%

S.N	Items Under User Education and Training	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4	Training and education enhance the users' level of knowledge on system	2 4.2%	3 6.3%	8 16.7%	17 35.4%	18 37.5%
5	Training and education increasing individual performance	3 6.4%	2 4.3%	7 14.9%	17 36.2%	18 38.3%
Total Score		6.36%	11.44%	17.76%	37.56%	26.98%
Sum Score		17.8%		17.76%	64.54%	
Final Responses Result		Total Percent Disagree		Neutral	Total Percent Agree	

Table 4.14 User education and training (Frequency and Percentage)

In general **64.54%** of the respondents strongly agreed/agreed that there is user education and training can facilitate the implementation of EFS based on the 5 evaluation items, however 17.76% of the respondents are neutral and 17.8 % were strongly/disagreed.

4.5.2 User Involvement

Under user involvement there are five items as show in table 4.15. The result for each item is discussed show as follows:-

Nine (27.7%) respondents strongly agreed/agreed on the statement 'the court has sufficient experience of involving users in the development of information system projects, whereas majority 23(48.9%) are neutral and 15(32%) respondents strongly/disagreed to the statement. 33 (70.2%) respondents strongly agreed/agreed users involvement during the system development increases user acceptance, whereas 9 (19.1%) are neutral and 5(10.6%) respondents strongly/disagreed. 30 (62.5%) respondents strongly agreed/agreed that users participation in the development process can reduce resistance to the implementation of the system, whereas 14 (29.2%) are neutral and 4 (8.4%) respondents strongly/disagreed.

37 (77.1%) respondents strongly agreed/agreed that user involvement can improves their satisfaction during system implementation, whereas 7 (14.6%) are neutral 4 (8.4%) respondents strongly/disagreed. Similarly, 35 (74.5%) respondents strongly agreed/agreed that user involvement can improves their satisfaction during system implementation, whereas 8 (17%) are neutral 4 (8.6%) respondents strongly/disagreed.

S.N	Items Under Users' Involvement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The court has sufficient experience of involving users in the development of information system projects.	2 4.3%	13 27.7%	23 48.9%	8 17%	1 2.1%
2	Users involvement during the system development increases user acceptance	1 2.1%	4 8.5%	9 19.1%	28 59.6%	5 10.6%
3	Users participation in the development process can reduce resistance to the implementation of the system	1 2.1%	3 6.3%	14 29.2%	17 35.4%	13 27.1%
4	User involvement can improves their satisfaction during system implementation	1 2.1%	3 6.3%	7 14.6%	28 58.3%	9 18.8%
5	Users involvement can increases sense of ownership on the system during implementation	2 4.3%	2 4.3%	8 17%	24 51.1%	11 23.4%
Total Score		2.98	10.62	25.76	44.28	16.4
Sum Score		13.6%		25.76%	60.68%	
Final Responses Result		Total Percent Disagree		Neutral	Total Percent Agree	

Table 4.15 User Involvement (Frequency and Percentage)

In general **60.68%** of the respondents strongly agreed/agreed that there is user involvement can facilitate the implementation of EFS based on the 5 evaluation items, however 25.76% of the respondents are neutral and 13.6 % were strongly/disagreed.

4.5.3 Change Management Program

Under change management program four questions are asked shown in table 4.16. Results show that 16 (34.8%) respondents strongly agreed/agreed on the statement 'the organizational structure of the court is suitable to adopt change.', whereas 16(34.8%) are neutral and 14(30.4%) respondents strongly/disagreed to the statement. 26 (56.6%) respondents strongly agreed/agreed that the court has separate department/directorate that manage changes, whereas 13 (28.3%) are neutral and 7(15.2%) respondents strongly/disagreed. Thirteen (29.6%) respondents strongly agreed/agreed that the court has sufficient experience managing changes specially changes related

to IS, whereas 16(36.4%) are neutral and 15(34%) respondents strongly/disagreed. Similarly, 17 (36.9%) respondents strongly agreed/agreed that change management programs are supervised and supported by the top management of the court, whereas 19(41.3%) are neutral 10(21.7%) respondents strongly/disagreed.

S.N	Items Under Change Management Program	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The organizational structure of the court is suitable to adopt change.	3 6.5%	11 23.9%	16 34.8%	14 30.4%	2 4.3%
2	The court has separate department/directorate that manage changes	4 8.7%	3 6.5%	13 28.3%	21 45.7%	5 10.9%
3	The court has sufficient experience managing changes specially changes related to IS	2 4.5%	13 29.5%	16 36.4%	12 27.3%	1 2.3%
4	Change management programs are supervised and supported by the top management of the court	4 8.7%	6 13%	19 41.3%	15 32.6%	2 4.3%
Total Score		7.1%	18.22%	35.2%	34%	5.45%
Sum Score		25.32%		35.2%	39.45%	
Final Responses Result		Total Percent Disagree		Neutral	Total Percent Agree	

Table 4.16 Change management program (Frequency and Percentage)

In general **39.45%** of the respondents strongly agreed/agreed that there is change management program that can facilitate the implementation process of EFS based on the four evaluation items, however 35.2% of the respondents are neutral and 25.32 % were strongly/disagreed.

4.5.4 Teamwork and Composition

Under teamwork and composition there are four items as shown in table 4.17. The result for each item is in detailed below

Eleven (25%) respondents strongly agreed/agreed on the statement ‘The court has sufficient experience in the past organizing team by selecting best people for the implementation of systems.’, whereas 20 (45.5%) are neutral and 13(29.6%) respondents strongly/disagreed to the

statement. 10 (22.7%) respondents strongly agreed/agreed that the court has sufficient experience organizing team members from very relevant departments'/directorates' which own technical as well as business knowledge, whereas 20 (45%) are neutral and 14 (31.8%) respondents strongly/disagreed.

Twenty-three (52.3%) respondents strongly agreed/agreed that the management believes the role of team members is very important to the success of the system, whereas 12 (27.3%) are neutral and 9(20.4%) respondents strongly/disagreed.

S.N	Items Under Teamwork and Composition	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The court has sufficient experience in the past organizing team by selecting best people for the implementation of systems	4 9.1%	9 20.5%	20 45.5%	9 20.5%	2 4.5%
2	The court has sufficient experience organizing team members from very relevant departments'/directorates' which own technical as well as business knowledge.	2 4.5%	12 27.3%	20 45.5%	7 15.9%	3 6.8%
3	Management believes the role of team members is very important to the success of the system	2 4.5%	7 15.9%	12 27.3%	20 45.5%	3 6.8%
4	The court has a culture of recognizing team members and their contribution for the success of the system	6 13.6%	7 15.9%	19 43.2%	9 20.5%	3 6.8%
Total Score		7.92%	19.9%	40.37%	25.6%	6.22%
Sum Score		27.82		40.37%	31.82%	
Final Responses Result		Total Percent Disagree		Neutral	Total Percent Agree	

Table 4.17 Teamwork and composition (Frequency and Percentage)

In general **31.82%** of the respondents strongly agreed/agreed that there is teamwork and their composition that can facilitate the implementation of EFS based on the four evaluation items, however 40.37% of the respondents are neutral and 27.82 % were strongly/disagreed.

4.5.5 IT Expertise

Under the factor IT Expertise there are five items as show in the table 4.18. The result for each item is discussed below

Thirty two (69.6%) respondents strongly agreed/agreed on the statement ‘The IT expertise are generally aware of the functions of advanced technology and methodology in IS (e.g., Internet, telecommunications)’, whereas 12 (26.1%) are neutral and 2(4.4%) respondents strongly/disagreed to the statement. Sixteen (36.3%) respondents strongly agreed/agreed that there exists many IS experts on advanced technology and methodology, whereas 21 (47.7%) are neutral and 7(15.9%) respondents strongly/disagreed. Fifteen (34.1%) respondents strongly agreed/agreed that the IS employees are well trained in advanced technology and methodology, whereas 17 (38.6%) are neutral and 12(27.3%) respondents strongly/disagreed.

Twenty three (53.5%) respondents strongly agreed/agreed that the IT expertise has sufficient experience with network based systems, whereas 13 (30.2%) are neutral and 7 (16.3%) respondents strongly/disagreed. Similarly, 20 (46.5%) respondents strongly agreed/agreed that there are sufficient technical expertise to implement the system, whereas 17 (39.5%) are neutral and 6(14%) respondents strongly/disagreed.

S.N	Items Under IT Expertise	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The IT expertise are generally aware of the functions of advanced technology and methodology in IS (e.g., Internet, telecommunications)	1 2.2%	1 2.2%	12 26.1%	23 50%	9 19.6%
2	There exists many IS experts on advanced technology and methodology	5 11.4%	2 4.5%	21 47.7%	13 29.5%	3 6.8%
3	The IS employees are well trained in advanced technology and methodology.	4 9.1%	8 18.2%	17 38.6	12 27.3%	3 6.8%
4	The IT expertise has sufficient experience with network based systems	4 9.3%	3 7%	13 30.2	19 44.2%	4 9.3%

S.N	Items Under IT Expertise	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5	There are sufficient technical expertise to implement the system	2 4.7%	4 9.3%	17 39.5	15 34.9%	5 11.6%
Total Score		7.34%	8.24%	36.42%	37.18%	10.82%
Sum Score		15.58%		36.42%	48%	
Final Responses Result		Total Percent Disagree		Neutral	Total Percent Agree	

Table 4.18 IT Expertise (Frequency and Percentage)

In general **48%** of the total respondents strongly agreed/agreed that there exist IT expertise that can facilitate the implementation of EFS based on the five items, however 36.42% of the respondents are neutral and 15.58 % were strongly/disagreed.

4.5.6 Correlation Analysis of Individual/People factors

Pearson’s correlation analysis was used to indicate the relationship among the individual/people factors: user education and training, change management program, user involvement teamwork and composition, and IT expertise. The results is as shown as follows (Table 4.19)

Correlations of Individual/People Factors						
		User education and training	Change Management Program	User involvement	Teamwork and Composition	IT Expertise
	Pearson Correlation	1	.156	.558**	.159	.069
	Sig. (2-tailed)		.300	.000	.303	.648
	N	48	46	48	44	46
Change Management Program	Pearson Correlation	.156	1	.516**	.767**	.592**
	Sig. (2-tailed)	.300		.000	.000	.000
	N	46	46	46	44	46
User involvement	Pearson Correlation	.558**	.516**	1	.560**	.496**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	48	46	48	44	46
Teamwork and Composition	Pearson Correlation	.159	.767**	.560**	1	.640**
	Sig. (2-tailed)	.303	.000	.000		.000
	N	44	44	44	44	44
IT Expertise	Pearson Correlation	.069	.592**	.496**	.640**	1
	Sig. (2-tailed)	.648	.000	.000	.000	
	N	46	46	46	44	46

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4.19 correlation of technological factors

According to the result, teamwork and composition are positively correlated with change management program with $r = .767^{**}$, teamwork and composition is also positively correlated with IT expertise with $r = .640^{**}$ and change management program is also positively correlated with IT expertise with $r = .592^{**}$ and etc.

4.6 Technological Factors

In relation to technological factors as indicated on the research framework, there are four independent variables. These are IT Infrastructure, IT standard, IT Security, software testing and troubleshooting. Each of the technological factors are discussed below.

4.6.1 IT Infrastructure

Under the factor IT Infrastructure four questions asked as shown in table 4.20. The result for each question is shown as follows:-

Seventeen (37.8%) respondents strongly agreed/agreed on the statement ‘the telecommunication infrastructure of the court is reliable and efficient, whereas 14 (31.1%) are neutral and 14(31.1%) respondents strongly/disagreed to the statement. 18 (40.9%) respondents strongly agreed/agreed that there is optimum bandwidth connectivity to the internet in the court, whereas 16 (36.4%) are neutral 10(22.7%) respondents strongly/disagreed.

Thirteen (28.3%) respondents strongly agreed/agreed that the technology infrastructure of the court fully supports e-filing system transactions, whereas majority 19 (41.3%) are neutral and 14(30.4%) respondents strongly/disagreed. Similarly, 15 (32.6%) respondents strongly agreed/agreed that the existing technology infrastructure of the court is compatible to the implementation of e-filing system. Whereas 14 (30.4%) are neutral and 17(37%) respondents strongly/disagreed.

S.N	Items Under IT Infrastructure	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The telecommunication infrastructure of the court is reliable and efficient	2 4.4%	12 26.7%	14 31.1%	13 28.9%	4 8.9%
2	There is optimum bandwidth connectivity to the internet in the court	3 6.8%	7 15.9%	16 36.4%	14 31.8%	4 9.1%
3	The technology infrastructure of the court fully supports e-filing system transactions	2 4.3%	12 26.1%	19 41.3%	8 17.4%	5 10.9%

S.N	Items Under IT Infrastructure	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4	The existing technology infrastructure of the court is compatible to the implementation of e-filing system.	4 8.7%	13 28.3%	14 30.4%	10 21.7%	5 10.9%
Total Score		6.05%	24.25%	34.8%	24.95%	9.95%
Sum Score		34.9%		34.8%	30.3%	
Final Responses Result		Total Percent Disagree		Neutral	Total Percent Agree	

Table 4.20 IT Infrastructure (Frequency and Percentage)

In general **34.9%** of the total respondents strongly disagreed/disagreed that there exist IT infrastructure that can hinder the implementation of EFS based on the four items, however 34.8% of the respondents are neutral and 30.3% were strongly/disagreed.

4.6.2 IT Standard

Under the factor IT standard there are four items as shown in table 4.21. The result for each item shows that 18 (39.1%) respondents strongly agreed/agreed on the statement ‘the IS directorate of the court has sufficient knowledge about international IT standards, whereas majority 24 (52.2%) are neutral and 4(8.6%) respondents strongly/disagreed to the statement. Only 3 (6.8%) respondents strongly agreed/agreed that the court has all-inclusive ICT policy, whereas majority 23 (36.4%) are neutral and 18(41%) respondents strongly/disagreed.

Only 6 (14%) respondents strongly agreed/agreed that the court has ICT standard which guides the development and implementation of IS projects, whereas majority 25 (58.1%) are neutral, and 12 (27.9%) respondents strongly/disagreed. Similarly, 9 (21%) respondents strongly agreed/agreed that the court has prepared standardized hardware specifications whereas majority 20 (46.5%) are neutral and 14(32.6%) respondents strongly/disagreed

S.N	Items Under IT Standards	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The IS directorate of the court has sufficient knowledge about international IT standards	2 4.3%	2 4.3%	24 52.2%	11 23.9%	7 15.2%
2	The court has all-inclusive ICT policy	9 20.5%	9 20.5%	23 52.3%	2 4.5%	1 2.3%
3	The court has ICT standard which guides the development and implementation of IS projects	3 7%	9 20.9%	25 58.1%	4 9.3%	2 4.7%
4	The court has prepared standardized hardware specifications	3 7%	11 25.6%	20 46.5%	6 14%	3 7%
Total Score		9.7%	17.82%	52.27%	12.92%	7.3%
Sum Score		27.52%		52.27%	20.22%	
Final Responses Result		Total Percent Disagree		Neutral	Total Percent Agree	

Table 4.21 IT Standard (Frequency and Percentage)

In general only 20.22 % of the total respondents strongly agreed/agreed that there exist IT standard that can facilitate the implementation of EFS based on the four items, however majority 52.27% of the respondents are neutral and **27.52%** were strongly/disagreed.

4.6.3 IT Security

Under the factor IT standard four questions asked as shown in table 4.22. Result show that majority 21 (44.6%) respondents strongly agreed/agreed on the statement ‘the court is aware of the importance IS security and its responsibility as it affects the organizational performance.’, whereas 18 (38.3%) are neutral and 8(17.1%) respondents strongly/disagreed to the statement. Majority 26 (57.8%) respondents strongly agreed/agreed that the court believe that incidents of security violations greatly affected loyalty of litigants, whereas, 13(28.9%) are neutral and 6 (13.3%) respondents strongly/disagreed.

Ten (22.2%) respondents strongly agreed/agreed that the court has established security-related infrastructures, whereas, majority 20(44.4%) are neutral and 15 (33.3%) respondents strongly/disagreed. Similarly, 20 (46.6%) respondents strongly agreed/agreed that security control procedures of the court should be applied strictly for overall system performance, whereas, 15(34.9%) are neutral and 8 (18.6%) respondents strongly/disagreed.

S.N	Items Under IT Security	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The court is aware of the importance IS security and its responsibility as it affects the organizational performance.	2 4.3%	6 12.8%	18 38.3%	16 34%	5 10.6%
2	The court believe that incidents of security violations greatly affected loyalty of litigants	2 4.4%	4 8.9%	13 28.9%	21 46.7%	5 11.1%
3	The court has established security-related infrastructures	4 8.9%	11 24.4%	20 44.4%	8 17.8%	2 4.4%
4	Security control procedures of the court should be applied strictly for overall system performance.	5 11.6%	3 7%	15 34.9%	14 32.6%	6 14%
Total Score		7.3%	13.27%	36.62%	32.77%	10.02%
Sum Score		20.57%		36.62%	42.79%	
Final Responses Result		Total Percent Disagree		Neutral	Total Percent Agree	

Table 4.22 IT Security (Frequency and Percentage)

In general **42.79 %** of the total respondents strongly agreed/agreed that there exist IT security of the court can facilitate the implementation of EFS based on the four items, however majority 36.62% of the respondents are neutral and 20.57% were strongly/disagreed.

4.6.4 Software Testing and Troubleshooting

Under the factor software testing and troubleshooting three questions are asked as shown in table 4.23. The result for each question is discussed show as follows: -

Thirteen (28.8%) respondents strongly agreed/agreed on the statement ‘The court has sufficient experience in software testing and troubleshooting in the development process of systems’, whereas majority 22 (48.9%) are neutral and 10(22.2%) respondents strongly/disagreed to the statement. 16 (35.6%) respondents strongly agreed/agreed that the court has sufficient experience working with vendors and consultants to resolve software problems, whereas, 18 (40%) are neutral and 11 (24.4%) respondents strongly/disagreed.

Similarly, 19 (42.3%) respondents strongly agreed/agreed that the court has sufficient experience working with vendors and consultants to resolve software problems, whereas, 19 (42.2%) are neutral and 7 (15.5%) respondents strongly/disagreed

S.N	Items Under Software testing and troubleshooting	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The court has sufficient experience in software testing and troubleshooting in the development process of systems.	5 11.1%	5 11.1%	22 48.9%	11 24.4%	2 4.4%
2	The court has sufficient experience working with vendors and consultants to resolve software problems	2 4.4%	9 20%	18 40%	16 35.6%	0 0%
3	The court believes quick response for troubleshooting errors is critical	1 2.2%	6 13.3%	19 42.2%	16 35.6%	3 6.7%
Total Score		5.9%	14.8%	43.7%	31.86%	3.7%
Sum Score		20.7%		43.7%	35.56%	
Final Responses Result		Total Percent Disagree		Neutral	Total Percent Agree	

Table 4.23 Software testing and troubleshooting (Frequency and Percentage)

In general **35.56 %** of the total respondents strongly agreed/agreed that there exist software testing and troubleshooting experience that can facilitate the implementation of EFS based on the three items, however majority 43.7% of the respondents are neutral and 20.7% were strongly/disagreed.

4.4.6 Pearson's Correlation Analysis of Technological Factors

The summary result of the correlation of the technological factors shown using Pearson's correlation analysis to indicate the relationship among the technological: IT Infrastructure, IT Standard, IT security, and software testing and troubleshooting. The results is as shown as follows in table 4.24

Correlations Among Technological Factors					
		IT Infrastructure	IT Standard	IT security	Software Testing and Troubleshooting
IT Infrastructure	Pearson Correlation	1	.573**	.530**	.760**
	Sig. (2-tailed)		.000	.000	.000
	N	46	44	45	43
IT Standard	Pearson Correlation	.573**	1	.491**	.798**
	Sig. (2-tailed)	.000		.001	.000
	N	44	46	46	44
IT security	Pearson Correlation	.530**	.491**	1	.608**
	Sig. (2-tailed)	.000	.001		.000
	N	45	46	47	45
Software Testing and Troubleshooting	Pearson Correlation	.760**	.798**	.608**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	43	44	45	45

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4.24 correlation analysis of technological factors

According to the result, software testing and troubleshooting is positively correlated with IT standard with $r = .798^{**}$, IT infrastructure is also positively correlated with software testing and troubleshooting with $r = .760^{**}$ and, IT security is also positively correlated software testing and troubleshooting with $r = .608^{**}$ and etc.

4.7 Summary of Quantitative Analysis

As we can see from table 4.25, a summary shows the average level of agreement, neutral and disagreement in percentage for each factors. The correlation matrix's (Appendix D) shows that the relationship among the factors.

Category of Factors	Factors	Total Percent Disagree	Percent Neutral	Total Percent Agree
Organizational	Organizational Plan and Vision	29.22%	29.32%	41.47%
	Top management support	31.8%	34.92%	33.35%
	Effective communication	32.78%	28.98%	38.28%
	Project Management	37.58%	39.72%	22.72%
	Business process Re-engineering (BPR)	41.12%	22.9%	34.95%
People/ Individual	User education and training	17.8%	17.76%	64.54%
	User involvement	13.6%	25.76%	60.68%
	Change management program	25.32%	35.2%	39.45%
	Teamwork and composition	27.82%	40.37%	31.82%
	IT Expertise	15.58%	36.42%	48%
Technological	IT infrastructure	34.9%	34.8%	30.3%
	IT Standards	27.52%	52.27%	20.22%
	IT security	20.57%	36.62%	42.79%
	Software Testing and Troubleshooting	20.7%	43.7%	35.56%

Table 4.25 Summery quantitative Analysis Result

4.8 Discussion of the Findings

In this section the findings from quantitative research was summarized as follows.

Availability of general understanding about using EFS is very important. The finding showed that 78.19% (Table 4.7) of the respondents have strongly agreed/agreed based on the 15 importance evaluation items. This shows that respondents have the understanding about the EFS which can

benefit a lot to the court this is good opportunity which can facilitate the implementation of the system in the future.

H1: Having clear organizational plan and vision has influence in the implementation process EFS.

Having clear organizational plan and vision was one of a factor that has a positive effect on the implementation process EFS. It contains clear organizational strategic plan, clear ICT strategic policy, having clear vision on the implementation of e-filing system and E-filing system fits well with the beliefs and practices of the court. The finding showed majority of the respondents 41.47 % (Table 4.8) of the respondents agree. However 29.32% of the respondents are neutral this implies the court lacked to communicate its organizational plan and vision to the employees of and 29.22% were disagreed which implies that there is no approved ICT policy which need attention the management of the court.

H2: Top management support has influence in the implementation process of EFS.

Top management support is one of the organization factors that influence the implementation process of EFS. The finding showed majority of the respondents 33.35% (Table 4.9) of the respondents agreed that the management is aware of the strategic importance of the system and has sufficient experience in the implementation of different information systems project which can facilitate the implementation of the system.

H3: Effective communication has influence in the implementation process of EFS.

Existing effective communication is one of the organization factors that impact the implementation process of EFS. The finding showed majority of the respondents 38.28% (Table 4.10) of the respondents agreed that there is effective communication among different departments of the court, vendors, and top management of the court that can facilitate the implementation of EFS

H4: Project management has influence in the implementation process of EFS.

Project management is one of the organization factors that impact the implementation process of EFS. The finding showed majority of the respondents 37.58% (Table 4.11) of the respondents disagreed. This implies that the court lacked experience in monitoring IS projects in delivering project objectives within time, resource and budget constraints. This implies that FSC should take into consideration and work on this **critical** factor for successful implementation of the system.

H5: Business process reengineering has influence in the implementation process of EFS.

Business Process Reengineering (BPR) is one of the organization factors that impact the implementation process of EFS. The finding showed majority of the respondents 34.95% (Table 4.12) of the respondents disagreed. This implies that Business Process Re-engineering (BPR) was not successfully implemented within the court. In addition, business processes was not properly identified and designed service delivery strategy that can hinder during the implementation of the system. This implies that FSC should take into consideration and work on this **critical** factor for successful implementation of the system.

H6: User education and training has positive influence in the implementation process of EFS.

User education and training is one of the people/individual factors the influence the implementation process of EFS. The finding showed majority 64.54 % (Table 4.14) of the respondents agreed. This indicates respondents are aware of user education and training increases ease of use of the system, reduces user resistance on use of the system, increasing individual performance, enhance the users' level of knowledge on the system during implementation which can facilitate the process of implementation. However, the court do not have clear strategic plan (policy) on user education and training which require the attention of the management.

H7: User involvement has positive influence in the implementation process of EFS.

User involvement is one of the people/individual factors the influence the implementation process of EFS. The finding showed majority 60.68 % (Table 4.15) of the respondents agreed that the court has sufficient experience of involving users in the development of information system projects. Users' involvement during the system development increases user acceptance, reduce resistance to the implementation of the system, improves their satisfaction and also increases sense of ownership on the system during implementation which can facilitate the implementation process.

H8: Change management program has influence in the implementation process of EFS.

Change management program is one of the people/individual factors the influence the implementation process of EFS. The finding showed majority 39.45 % (Table 4.16) of the

respondents agreed that the court has sufficient experience managing changes specially changes related to IS, supervised and supported by the top management of the court which can facilitate the implementation process of EFS. However, change management program need to be handle by separate department/directorate for better result.

H9: Teamwork and composition has influence in the implementation process of EFS.

Teamwork members and composition is one of the people/individual factors the influence the implementation process of EFS. The finding showed majority 31.82 % (Table 4.17) of the respondents agreed that the court has sufficient experience organizing team by selecting best people from very relevant departments'/directorates'. In addition the court has sufficient experience organizing team members which own technical as well as business knowledge which can facilitate the implementation process of EFS. However, the court do not have the culture of recognizing team members and their contribution for the success of the system which demand the attention of top management.

H10: IT expertise has influence in the implementation process of EFS.

Availability of IT expertise is one of the people/individual factors the influence the implementation process of EFS. The finding showed majority 48 % (Table 4.18) of the respondents agreed that there exists sufficient technical expertise, well trained in advanced technology and methodology. In addition, The IT expertise has sufficient experience with network based systems which can facilitate the implementation process of the system.

H11: IT infrastructure has influence in the implementation process of EFS.

The Existing IT infrastructure is one of the technological factors the influence the implementation process of EFS. The finding showed majority 34.9 % (Table 4.20) of respondents disagree that the telecommunication infrastructure of the court is not reliable, not efficient and the internet connectivity of the court is not optimum to supports the e-filing system transactions. The existing technology infrastructure of the court is need to be upgraded that can handle the system. In addition there is interruption of service due to internet connectivity and power interrupt which can hinder the implementation of the system. This implies that FSC should take into consideration and work on this **critical** factor for successful implementation of the system.

H12: IT standard has influence in the implementation process of EFS.

Availability of IT standard is one of the technological factors that influence the implementation process of EFS. The finding showed majority 27.52% (Table 4.21) of respondents disagree. This implies that the court does not have all-inclusive ICT policy, ICT standard which guides the development and implementation of IS projects. Even though the IS directorate of the court has sufficient knowledge about international IT standards but needs to have approved ICT policy, FSC should take into consideration this factor for successful implementation of the system.

H13: IT security has influence in the implementation process of EFS.

IT Security is one of the technological factors that influence the implementation process of EFS. The finding showed majority 42.79 % (Table 4.22) of respondents agreed that the court is aware of the importance of IS security and its responsibility as it affects the organizational performance, security violations greatly affect the loyalty of litigants. In addition, the court has established security-related infrastructures and applied strictly for overall system performance which can facilitate the implementation process of the system. Making the system more secure should be the day-to-day activity of the court. Therefore, FSC should take into consideration this factor for successful implementation of the system.

H14: The extent of software testing and troubleshooting errors has influence in the implementation process of EFS.

Software testing and troubleshooting errors are one of the technological factors that influence the implementation process of EFS. The finding showed majority 35.56 % (Table 4.23) of respondents agreed that the court has sufficient experience working with vendors in software testing and troubleshooting in the development process of IS projects.

4.9 EFS implementation framework

The researcher finally proposed EFS implementation framework. In this research, factors that are relevant to the implementation of the system are categorized in three dimensions as depicted in Figure 4.4

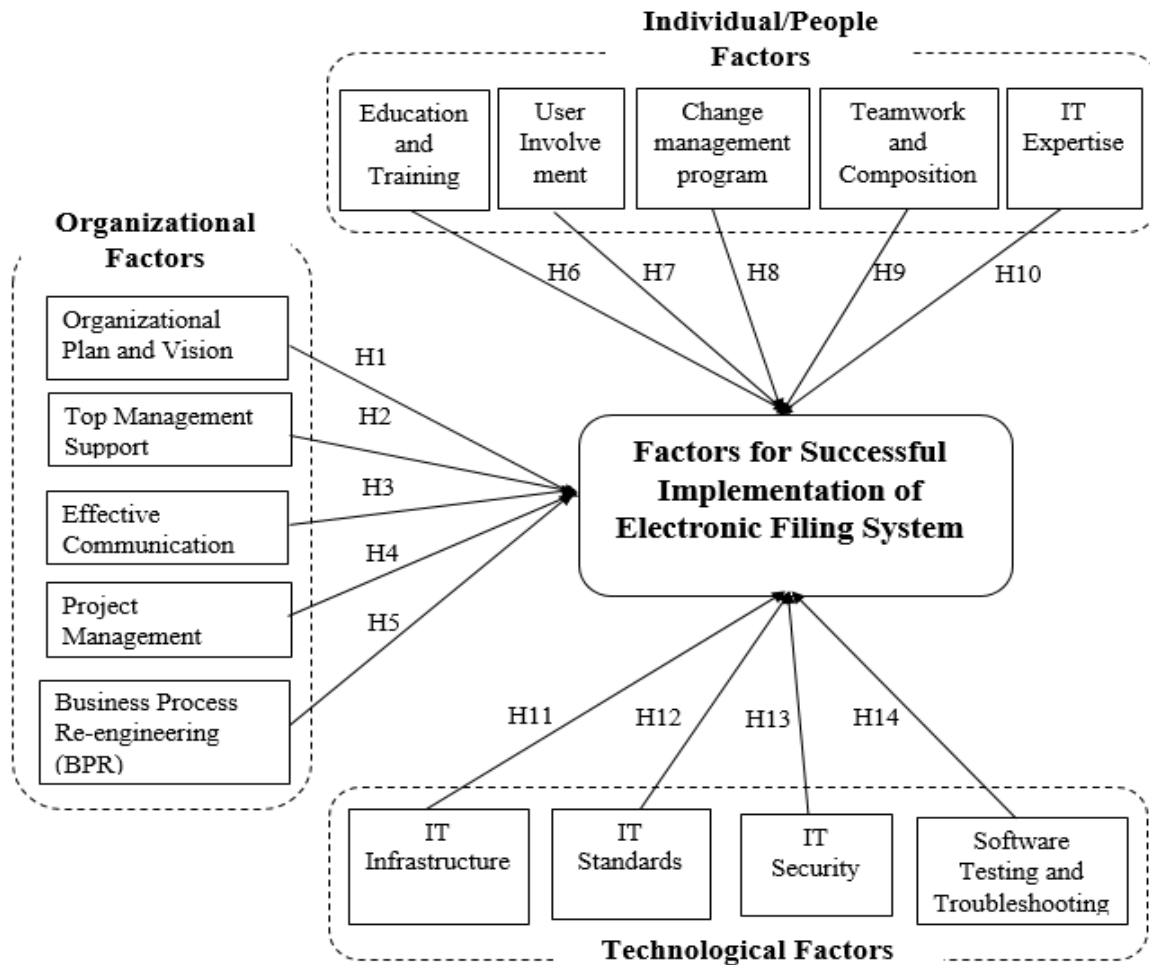


Figure 4.4 EFS implementation proposed framework

EFS implementation dimensions are organization, individual/people and technological Factors. The first one is organizational dimensions, which include organizational plan and vision, top management support, effective communication, project management and business process reengineering, The second dimension is individual/people factors, which include users' education and training ,user involvement, change management program, teamwork and composition and IT expertise. The third dimension is technological factors, which include IT infrastructure, IT standard, IT Security and software testing and troubleshooting

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This research, on factors affecting the implementation of electronic filing system in the Federal Supreme Court of Ethiopia was aimed to identify and investigate the factors that affect the implementation of EFS. We have used a survey questionnaire, observation and participation and document analysis methods to collect data based on related literatures conducted on EFS implementations.

This section presents overall conclusion of the study, recommendations, and finally the limitations of the study. .

5.2. Conclusions

The following conclusions are drawn from the research

- Assessing before implementing the factors that affect the implementation of and sharing experience is found very important for the success of the system.
- The study found that the implementation of EFS success depends on the 14 different factors of the court categorized under three themes (organizational, people/individual and technological).
- The triangulation of data obtained through questionnaire, observation and participation, and document analysis made the output to be more comprehensive and get better output
- The study analyzed the 14 factors and their influence in the implementation of the system against the existing situation of the court.
- Study's findings on these concepts are summarized as follow. According to the research framework we chosen, the major factors are organizational, individual/people and technological factors.
- This research result found that there is good general understanding about using EFS
- Under the organizational theme found five factors affect EFS implementation as we identified from literature analysis and survey questionnaire of the study discussed. These are; organizational plan and vision, top management support, effective communication, project management and business process reengineering (BPR).

- Under the theme individual/people five factors affect EFS implementation identified. These are users' education and training, user involvement, change management program, teamwork and composition and availability of IT expertise.
- Under the technological theme found four factors identified that affect the implementation EFS. These are; IT infrastructure, availability of IT standards, and availability of IT security, software testing and troubleshooting.
- In general, factors organizational plan and vision, user education and training, user involvement, change management program, IT expertise, IT security and software testing and troubleshooting are found in a healthier state which can facilitate the implementation of the EFS. However, top management support, effective communication and teamwork and composition are found in the warning state which need attention of the court. But project management, IT standards, BPR and IT infrastructure are found critical factors for the implementation EFS in the FSC which mean without considering and working on those factors implementation of the system will not be successful.

5.3. Recommendations

As we have discussed earlier, the objective of the study is to identify and analyze the organizational, technological, and individual factors and their influence in the implementation of EFS. Depending on the finding, the researcher recommend the following

1. FSC can use this study to implement EFS successfully in the future by considering the identified factors that affecting the implementation process of the system.
2. FSC should work on having good project management without having good project management team and composition implementing of EFS might result to failure.
3. The ICT directorate of the court should work on having IT standards and ICT policy.
4. The business process of the court need redesigning research that can handle the implementation of the system.
5. FSC need to work on having reliable IT infrastructure without having reliable and efficient telecommunication infrastructure implementing the system is impossible or might result to implementation failure.
6. FSC should work on setting effective communication specially communicating its organizational plan and vision to the employees. Because it enables employees' to be

informed what the court plan to accomplish its vision which can lead to system acceptance rather than resistance.

7. User education and training should be considered as very important factor and should work on having policy because it can bring positive outcome reduce employees' resistance, increase ease of use, and enhance the users' level of knowledge on system during implementation. Consequently increasing individual performance of employees.
8. Since courts in Ethiopia use similar administration of cases, other courts those have planned to implement EFS can use this study by consider these s factors and taking possible action for the success EFS implementation.
9. Finally for information system researchers: This study can be a reference to other researchers mainly who have interest on system implementation factors in Ethiopian governmental organizations which remains very limited in the number of publication.

5.4. Limitation of the Study

These research findings will be able to contribute to the existing literature on factors affecting EFS implementation in the FSC. However, the study has some limitations. The first is the sample size considered in this study. The sample size is limited selected only from FSC but taking from stakeholders which work closely may give deep understanding of the concepts on the system implementation. Nevertheless, this research is still valid having analyzed the available sample size with the survey questionnaire. Secondly, the time required to complete the research was very small and this had an influence on the researchers' decision to pick a small number of participants. So the short time did not allow an in-depth search for more information.

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Appendixes

Appendix A: Letter of Cooperation

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የተፈጥሮ ሳይንስ ኮሌጅ
የኢንፎርሜሽን ሳይንስ ት/ቤት



ADDIS ABABA UNIVERSITY
College of Natural Science
School of Information
Science

Date March 7, 2018
Ref:-SIS/13/2010

To:- Federal Supreme Court
Addis Ababa

Dear Sir / Madam

Student Hagos Girmay (ID. No. GSE/0359/08) is a graduate student at the School of Information Science, Addis Ababa University. He is currently conducting a MSc thesis research under the title “Factors affecting the Implementation of electronic filing System in the Federal Supreme Court”

I would like to thank you in advance for all the assistance that you would provide to the student.

With Regards,



Martha Yifru (PhD)
Head, School of Information Science

Appendix B: Survey Questionnaire

Dear Participant,

My name is Hagos Girmay, a postgraduate student at Addis Ababa University, School of Information Science. As part of the program requirement, I am doing research entitled "*factors affecting the implementation of Electronic Filing System in the Federal Supreme Court of Ethiopia.*", I am inviting you to participate in this research by completing the attached survey questions. Therefore, I appreciate if you spend few minutes from your valuable time according to the instruction for each part.

This survey is anonymous. No one, including the researcher, will associate your responses with your identity. Your participation is voluntary. You may choose not to take the survey, to stop responding at any time, or to skip any question that you do not want to answer. Your response is extremely important and valuable for the success of the research to achieve the objective of the study by indicating possible factors that can affect the implementation of Electronic Filing System (EFS), and possible solutions that need to be taken by concerned parties.

If you have decided to participate in this research, please answer all questions as honestly as possible and return the completed questionnaire promptly. If you have any question, please don't hesitate to contact me with the addresses given below.

Email: hagos97@gmail.com

Thank you for your willingness and allotting me your valuable time.

Sincerely,

Hagos Girmay

Instructions:

This questionnaire has three sections. In the first section you are kindly requested to tick (✓) or to put (X) in the box next to the choice that best describes you. For the remaining two sections please use the below rating scale given to indicate your agreement with the listed set of questions.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Section 1: General Information

Gender

Male | Female

Age

20-30 | 31-40 | 41-50 | 51-65

Education Status

Diploma | Bachelor Degree | Master | PhD

Job Position

Expert | Team Leader | Registrar | Director | Judge

Work Experience

1-5 years | 6-10 years | 11-15 years | More than 15 years

Section 2: The following questions are about your general understanding of electronic filing system. What is your general perception about **using electronic filing system (EFS)**?

S.N	General understanding related questions	Responses				
		1	2	3	4	5
	Using electronic filing system . . .					
1	enables the court to accomplish its task more quickly					
2	improves job performance of employees					
3	helps litigants to open files easily					
4	Makes my job to do easier					

S.N	General understanding related questions	Responses				
		1	2	3	4	5
5	shorten the retrieval time of files					
6	enables the court to be more accessible to litigants in different areas					
7	provides stakeholders better access to the court information					
8	Improves efficiency of judges					
9	Improves communication with stakeholders					
10	Helps managers to make strategic decisions					
11	Reduces storage area cost					
12	Increases the security of files					
13	Increases availability of the court					
14	Allows multiple access to files					
15	Improves transfer of files easily					

Section 3: The following questions are about the factors that can **affect** the implementation Electronic Filing System (EFS) in the Federal Supreme Court?

S.N	Questions	Responses				
		1	2	3	4	5
1	Organizational plan and vision related questions					
1a	The court has a clear organizational strategic plan					
1b	The court has a clear ICT strategic policy					
1c	The court has a clear vision on the implementation of e-filing system.					
1d	E-filing system fits well with the beliefs and practices of the court.					
2	Top management support related questions					
2a	The top management is aware about strategic importance of EFS.					
2b	The top management is interested to implement e-filing system .					
2c	The top management is ready to allocate adequate finance and other resources for the implementation of e-filing system.					
2d	The top management has sufficient experience in the implementation of different information systems project					
3	Effective communication related questions					

S.N	Questions	Responses				
		1	2	3	4	5
3a	There is good communication among different departments of the court					
3b	The existing communication among departments can help them to be informed about the system					
3c	There is good communication between the court and vendors					
3d	There is good communication between the top management vs. ICT and ICT vs. other departments in the court.					
3e	There is sufficient understanding in the court that effective communication can build a common perception within employees about the system					
4	Project management related questions					
4a	The court has sufficient experience in monitoring IS projects actively against milestones and targets					
4b	The court has sufficient experience monitoring IS projects in delivering project objectives within time, resource and budget constraints.					
4c	The court has sufficient experience with reporting project progress time					
4d	The court has experience monitoring projects against completion dates, costs and quality					
4e	The court has sufficient experience identifying and clear project issues.					
5	Business Process Re-engineering (BPR) related questions					
5a	Business Process Re-engineering (BPR) was implemented within the court					
5b	Business processes of the court properly identified and designed service delivery strategy					
5c	Business process of the court is suitable to implement EFS					
5d	Standards were prepared for every business process activities					
6	User's education and training influence related questions					

S.N	Questions	Responses				
		1	2	3	4	5
6a	The court has clear strategic plan on user education and training					
6b	Training and education increases ease of use of the system					
6c	Training and education reduces user resistance on use of the system during implementation					
6d	Training and education enhance the users' level of knowledge on system					
6e	Training and education increasing individual performance					
7	Users' Involvement related questions					
7a	The court has sufficient experience of involving users in the development of information system projects.					
7b	Users involvement during the system development increases user acceptance					
7c	Users participation in the development process can reduce resistance to the implementation of the system					
7d	User involvement can improves their satisfaction during system implementation					
7e	Users involvement can increases sense of ownership on the system during implementation					
8	Change management program related questions					
8a	The organizational structure of the court is suitable to adopt change.					
8b	The court has separate department/directorate that manage changes					
8c	The court has sufficient experience managing changes specially changes related to IS					
8d	Change management programs are supervised and supported by the top management of the court					
9	Teamwork and composition related questions					

S.N	Questions	Responses				
		1	2	3	4	5
9a	The court has sufficient experience in the past organizing team by selecting best people for the implementation of systems					
9b	The court has sufficient experience organizing team members from very relevant departments'/directorates' which own technical as well as business knowledge.					
9c	Management believes the role of team members is very important to the success of the system					
9d	The court has a culture of recognizing team members and their contribution for the success of the system					
10	IT expertise related questions					
10a	The IT expertise are generally aware of the functions of advanced technology and methodology in IS (e.g., Internet, telecommunications)					
10b	There exists many IS experts on advanced technology and methodology					
10c	The IS employees are well trained in advanced technology and methodology.					
10d	The IT expertise has sufficient experience with network based systems					
10e	There are sufficient technical expertise to implement the system					
11	IT infrastructure related questions					
11a	The telecommunication infrastructure of the court is reliable and efficient					
11b	There is optimum bandwidth connectivity to the internet in the court					
11c	The technology infrastructure of the court fully supports e-filing system transactions					
11d	The existing technology infrastructure of the court is compatible to the implementation of e-filing system.					
12	IT Standards related questions					

S.N	Questions	Responses				
		1	2	3	4	5
12a	The IS directorate of the court has sufficient knowledge about international IT standards					
12b	The court has all-inclusive ICT policy					
12c	The court has ICT standard which guides the development and implementation of IS projects					
12d	The court has prepared standardized hardware specifications					
13	IT security related questions					
13a	The court is aware of the importance IS security and its responsibility as it affects the organizational performance.					
13b	The court believe that incidents of security violations greatly affected loyalty of litigants					
13c	The court has established security-related infrastructures					
13d	Security control procedures of the court should be applied strictly for overall system performance.					
14	Software testing and troubleshooting related questions					
14a	The court has sufficient experience in software testing and troubleshooting in the development process of systems.					
14b	The court has sufficient experience working with vendors and consultants to resolve software problems					
14c	The court believes quick response for troubleshooting errors is critical					

THANK YOU FOR YOUR TIME!

Appendix C: Correlation Matrix's of all the factors

Correlations Among All the Factors Affecting The Implementation of EFS															
		OP&V	TMS	EFC	PM	BPR	URE&T	USIN	CMP	TW&C	ITEX	ITINF	ITST	ITSEC	SWT&T
OP&V	Pearson Correlation	1	.569**	.661**	.597**	.185	.219	.323*	.356*	.530**	.476**	.403**	.479**	.469**	.558**
	Sig. (2-tailed)		.000	.000	.000	.214	.134	.025	.015	.000	.001	.006	.001	.001	.000
	N	48	48	48	46	47	48	48	46	44	46	46	46	47	45
TMS	Pearson Correlation	.569**	1	.593**	.452**	.525**	.228	.236	.500**	.599**	.383**	.337*	.424**	.313*	.460**
	Sig. (2-tailed)	.000		.000	.002	.000	.118	.106	.000	.000	.009	.022	.003	.032	.001
	N	48	48	48	46	47	48	48	46	44	46	46	46	47	45
EFC	Pearson Correlation	.661**	.593**	1	.807**	.421**	.203	.330*	.552**	.675**	.746**	.630**	.528**	.440**	.574**
	Sig. (2-tailed)	.000	.000		.000	.003	.167	.022	.000	.000	.000	.000	.000	.002	.000
	N	48	48	48	46	47	48	48	46	44	46	46	46	47	45
PM	Pearson Correlation	.597**	.452**	.807**	1	.590**	.228	.450**	.618**	.762**	.656**	.635**	.641**	.381**	.626**
	Sig. (2-tailed)	.000	.002	.000		.000	.127	.002	.000	.000	.000	.000	.000	.010	.000
	N	46	46	46	46	45	46	46	44	43	44	44	44	45	43
BPR	Pearson Correlation	.185	.525**	.421**	.590**	1	.228	.325*	.568**	.546**	.435**	.390**	.410**	.188	.341*
	Sig. (2-tailed)	.214	.000	.003	.000		.123	.026	.000	.000	.003	.008	.005	.211	.023
	N	47	47	47	45	47	47	47	45	44	45	45	46	46	44
URE&T	Pearson Correlation	.219	.228	.203	.228	.228	1	.558**	.156	.159	.069	.072	-.084	.101	-.104
	Sig. (2-tailed)	.134	.118	.167	.127	.123		.000	.300	.303	.648	.637	.579	.497	.498
	N	48	48	48	46	47	48	48	46	44	46	46	46	47	45

Correlations Among All the Factors Affecting The Implementation of EFS

		OP&V	TMS	EFC	PM	BPR	URE&T	USIN	CMP	TW&C	ITEX	ITINF	ITST	ITSEC	SWT&T
USIN	Pearson Correlation	.323*	.236	.330*	.450**	.325*	.558**	1	.516**	.560**	.496**	.422**	.407**	.558**	.359*
	Sig. (2-tailed)	.025	.106	.022	.002	.026	.000		.000	.000	.000	.003	.005	.000	.015
	N	48	48	48	46	47	48	48	46	44	46	46	46	47	45
CMP	Pearson Correlation	.356*	.500**	.552**	.618**	.568**	.156	.516**	1	.767**	.592**	.601**	.558**	.477**	.565**
	Sig. (2-tailed)	.015	.000	.000	.000	.000	.300	.000		.000	.000	.000	.000	.001	.000
	N	46	46	46	44	45	46	46	46	44	46	46	44	45	43
TW&C	Pearson Correlation	.530**	.599**	.675**	.762**	.546**	.159	.560**	.767**	1	.640**	.656**	.655**	.434**	.716**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.303	.000	.000		.000	.000	.000	.004	.000
	N	44	44	44	43	44	44	44	44	44	44	44	43	43	41
ITEX	Pearson Correlation	.476**	.383**	.746**	.656**	.435**	.069	.496**	.592**	.640**	1	.642**	.652**	.636**	.674**
	Sig. (2-tailed)	.001	.009	.000	.000	.003	.648	.000	.000	.000		.000	.000	.000	.000
	N	46	46	46	44	45	46	46	46	44	46	46	44	45	43
ITINF	Pearson Correlation	.403**	.337*	.630**	.635**	.390**	.072	.422**	.601**	.656**	.642**	1	.573**	.530**	.760**
	Sig. (2-tailed)	.006	.022	.000	.000	.008	.637	.003	.000	.000	.000		.000	.000	.000
	N	46	46	46	44	45	46	46	46	44	46	46	44	45	43
ITST	Pearson Correlation	.479**	.424**	.528**	.641**	.410**	-.084	.407**	.558**	.655**	.652**	.573**	1	.491**	.798**
	Sig. (2-tailed)	.001	.003	.000	.000	.005	.579	.005	.000	.000	.000	.000		.001	.000
	N	46	46	46	44	46	46	46	44	43	44	44	46	46	44
ITSEC	Pearson Correlation	.469**	.313*	.440**	.381**	.188	.101	.558**	.477**	.434**	.636**	.530**	.491**	1	.608**

Correlations Among All the Factors Affecting The Implementation of EFS

		OP&V	TMS	EFC	PM	BPR	URE&T	USIN	CMP	TW&C	ITEX	ITINF	ITST	ITSEC	SWT&T
	Sig. (2-tailed)	.001	.032	.002	.010	.211	.497	.000	.001	.004	.000	.000	.001		.000
	N	47	47	47	45	46	47	47	45	43	45	45	46	47	45
SWT&T	Pearson Correlation	.558**	.460**	.574**	.626**	.341*	-.104	.359*	.565**	.716**	.674**	.760**	.798**	.608**	1
	Sig. (2-tailed)	.000	.001	.000	.000	.023	.498	.015	.000	.000	.000	.000	.000	.000	
	N	45	45	45	43	44	45	45	43	41	43	43	44	45	45

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Note:-

- OP&V: Organizational Plan and vision
- TMS: Top Management Support
- EFC: Effective Communication
- PM: Project Management
- BPR : Business Process Reengineering
- URE&T: User Education and Training
- USIN : User Involvement
- CMP : Change Management Program
- TW&C : Teamwork and Composition
- ITEX : IT Expertise
- ITINF : IT Infrastructure
- ITST : IT Standard
- ITSEC : IT Security
- SWT&T : Software Testing and Troubleshooting