



# **The Role of E-government in Enhancing Performances of Public Service Qualities and Promoting Good Governance: With Special Reference of Document Authentication and Registration Agency**

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**A Thesis Submitted to the School of Graduate Studies of Addis Ababa University in Partial Fulfillment of the Requirments for the Master's Degree of Public Managemnet and Policy (Policy Studies Specialization) in the Department of Public Administration and Development Management**

**Department of Public Administration and Development Management**  
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## DECLARATION

I hereby declared that this thesis entitled “*The Role of E-governmnet in Enhancing Performances of Public Service Qualities and Promoting Good Governance*” is my original work and that all sources of materials have used for this thesis have been duly acknowledged. This has been submitted in partial fulfillment of the requirments for the master’s degree at Addia Ababa University. I solemnly declared that the paper has not previously published or written by another person nor material which has been accepted for the awared of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgment has been made in the text. Brief quotations from this study are not allowed without special permission provided that accurate acknowldgment of source is made.

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## Advisor’s Approval

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## Acronyms

**ADF-** African Development Forum  
**CEO-** Chief Executive Officer  
**CIRM-** Citizen Relationship Management  
**CRM-** Customer Relationship Management  
**CSOs** – Civil Society Organizations  
**DARA-** Document Authentications and Registrations Agency  
**E-governance-** Electronic governance  
**E-government** – Electronic Government  
**EQMS-** Electronic Queue Management System  
**ERP-** Enterprise Resource Planning  
**E-Services-** Electronic Services  
**ETB-** Ethiopian Birr  
**FDRE** – Federal Democratic Republic of Ethiopia  
**FQAs-** Frequently Asked Questions and Answers  
**G2B** – Government to Business  
**G2C-** Government to Citizen  
**G2E-** Government to Employees  
**G2G-** Government to Government  
**GB-** Giga Byte  
**GTP-** Growth and Transformational Plan  
**ICT** - Information Communication Technology  
**IMF-** International Monetary Fund  
**IPA** - Importance-Performance Analysis  
**IT-** Information Technology  
**ITU-** International Telecommunication Union  
**MCIT** - Ministry of Communication and Information Technology  
**MoFED-** Ministry of Finance and Economic Development  
**NGO-** Non Governmental Organization  
**NPM** - New Public Management  
**OTRLS-** Online Trade Registration and Licensing System

**PESTEC** – Politics Economy Social Technology Environment Culture

**PPP**- Public Private Partnership

**PhD**– Doctor of Philosophy

**SERVQUAL**- Service Qualities

**SMS** – Short Message Services

**SPSS**- Statistical Package for Social Sciences

**SSA** - Sub-Saharan Africa

**UK**- United Kingdom

**UN**- United Nations

**WB**- World Bank

## Abstracts

This research has emphasized on “*The Role of E-governmnet in Enhancing Performances of Public Service Qualities and Promoting Good Governance*”. The research has used explantory research type and both quantitative and qualitative data. Quantitative data were analyzed using multiple linear regression model, one way annova and correlations coefficients to test hypothesis and quanlitative data were anlyzed using five steps (Compiling, disassembling, reassembling, interpreting and concluding) of data. All data were gained from questionnaire, key informants interview, structured observation and secondary data to achieved its objective.

The advancements in the field of Public administration and ICT have opened up huge opportunities for government to transform their operation and services delivery system. E-government is a paradigm shift over traditional public administration aimed at rendering of governmnet services and information to the public using electronic channels. While, government organizations have faced great levels of uncertainty in deploying and providing E-government services because of the complexity of technology, deeply entrenched organizational routines, and great diversity in the acceptance of technology by individuals.

This study has explored that; successful E-government implementation has very posetive effects on improving public service qailities and promoting good governance in public sectors. Again the findings reveaved that botleneckes for succesful implemnetations were (poor leadership commitement and knowledge gap, poor IT skills and Customers awareness gap, public sectors preffere to stayed with traditional service delivery mechanisms, poor websirte, design, features and contents, unaligned sectorial E-service platform implemntations). This study has forwarded as recommendations (public sectors have transform traditional service delivery to interoperability systems using ERP, build up leadership commitments, increase customers’/citizens awaremness level and IT skill, improve website feature, dessign and contents

# Chapter One

## 1. Introduction

### 1.1. Background of the Study

Governments around the world are under the pressure from citizens and business to be more open and transparent in managing public funds, deliver quality public services as per needs of citizens and business not as their internal structure, to engage citizens in developing policies to reflect their interest and expectations. These pressures create a demand for continuous improvements and reformation in governments and the use of different Information Communication Technology (ICT) packages and/or contents across the whole public sectors becomes highly desirable (Estevez et al, 2007; Huang et al, 2013). The advancements in the field of public administration and ICT have opened up huge opportunities for governments to transform their operations and service delivery systems. Thus, information becomes a new form of wealth and technology is a new vehicle for creating this wealth (Siddiquee, 2005; Brown, 2009).

ICT evolution has dramatically changed how citizens interact with government, E-government<sup>1</sup> becoming the next generation of reformation in the public sector as a means of reducing costs, promoting good governance, improving services quality, speed, and timing for citizens and increasing effectiveness and efficiency. The weaknesses and limitations of traditional public administration (inefficiency, inflexibility, ineffective, red tapes, corruptions and dissatisfaction of citizens and lacks of good governance) have forced to undertake this recent initiatives for providing time bound, quick and pro-people services (Naz, 2009; Karim, 2015; Alshehr and Drew, 2010).

E-governance<sup>2</sup> is a paradigm shift over traditional Public Administration and emerging after the introduction of the New Public Management (NPM), in the mid-1990s aimed at rendering of

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<sup>1</sup>E-government: is a generic term for web-based services from agencies of local, state and federal governments. By using ICTs to support government operations, engage citizens, and provide government services in the form of obtaining information, filings, or making payments and a host of other activities via the World Wide Web (Palvia et al, 2006).

<sup>2</sup>E-governance: is using ICTs and digital service/product delivery at various levels of the government, civil society organizations, private sectors NGOs and beyond, for the purpose of enhancing good governance (Palvia et al, 2006).

governments' services and information to the public using electronic channels. This has brought a revolution in quality of public service, ushered transparency in the governments process, saving time due provision of services through single window, simplification of procedures, improvement of documentation and record keeping, reduction of corruption, and improved attitudes (Grace and Mirandilla; 2010; Nkwe, 2012).

E-government<sup>3</sup> is rapidly becoming the centerfold of the emerging development paradigm in public administration. The roots of this enveloping environment are embedded in two related phenomena. **First**, potential of new technologies in transferring hitherto unimaginable amounts of information and knowledge at speed that reduces costs, enhance effectiveness and efficiency, **second**, positive linkages between these technologies, knowledge, citizen involvement in policy formulation and implementation, improving qualities of service delivery. Nowadays technology driven service delivery are promoting a paradigm of intelligent social transformation, more sustainable and resilient for governments, citizens and businesses and ensuring good governance (UN, 2004 and 2008; Perucca and Sonntagbauer, 2014).

E-governance can improve effectiveness and efficiencies by providing answers to the most common questions known as Frequently Asked Questions (FAQs) (Otiye and Ntulo 2013). In Greece the public sector organizations those implementing E-governance platforms able to achieving 98% of providing quality public services (E-health and E-education) and ensuring efficiency and effectiveness than other organizations those have not E-government platforms (Iles et al, 2005). From cost reduction significance it putting services online substantially decreases the processing costs of many activities compared with the manual way of handling operations. For example, it costs the US inland revenue service **\$1.60** to process a paper tax form, but costs only **\$0.40** to process an electronic form. Kenyan public sector commission introducing online recruitment and selection system of E-government platform in replacing of paper based recruitment & selection processes it can save very high amount of operational cost (it costs more than 300 million shillings previously in using manual process while, online recruitment and selection systems costs only 31 million shillings (Ndou, 2004; Siambi, 2008).

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<sup>3</sup>Even though, different authors tried to differentiating and argue on the difference of E-government and E-governance according to their areas of emphasis, scope and their viewpoints of argument, this paper has used these terms synonymously and interchangeably.

E-government platforms in Bahia, Brazil citizen assistance service centers have been created offering over 500 separate services via interoperability. These centers are placed in shopping malls or other public places, and people going to shop can simultaneously apply for different public services such as getting an identification card, looking for a new job, getting a passport, and checking on their retirement eligibility. Thus, the quality of services is ensured by the reduced time that users spend on getting official documents, waiting and queuing to get documents, traveling, as well as more customized products and services, error free documents, and 24/7 accessibility. Sao Paulo, in Brazil, multiple services in a single location, anyone requiring a service, on reaching the appropriate agency, can register in the computerized tracking system and receive an electronic ticket, which indicates the services desired and the estimated waiting time. They can receive at the same time different services that traditionally were separated such as vehicle registration, driver's license, identification card, unemployment insurance (Rinne et al., 2001; Ndou, 2004).

E-governance being flagship to offer varieties of possibilities for more efficient and effective service delivery & maximized user satisfaction, improve inter-sectorial collaborations (interoperability) service delivery mechanisms. Electronic interconnection & service delivery putting in place application that wouldn't only enable citizen participate through feedback, but would also allowed transactions between citizens and government(Bwoma and Huang, 2003; Asgarkhani, 2004;Nkwe, 2012; Guma, 2013).

Ethiopia has establishing integrated electronic services by partnership model with Kifya financial technology which has introduced a unified billing system for (water, electricity and fixed line telephone) user charges bills through one-stop window shop services. Using these platform customers can pay the service charges wherever they want to pay, instead of going to each service's provider organizations separately (resulted save time, money, and energy) of customers wasted before. E-education system is providing some services with G2C model for informing results of secondary school leaving examinations results and higher education entrance examinations as well as placement. The platform has become accessible for students via mobile short text message and online using ministry of education website. Again national call center of **(888)** free of any service charge that every citizens can made a call to this number and can access services from respective federal or regional government organizations that will help to get preparing with necessary document arrangements, requirements, and procedures of

any specific services before going to any public sectors. This platform has saved money, time and energy of citizens', removed procedural complexity, avoided frequent visits of government departments/ministries due to lack of information, and resolving undefined specific service provider address for citizens' (MCIT, 2014).

Services rendered by Document Authentication and Registration Office (DARA) for citizens, customers, visitors and residents are; general power of attorney, sales or bestowal agreements of the vehicles, memorandum and article of associations of businesses organizations, minutes of associations, translations, declaration of consent, affidavit, authentication of documents of ministry of foreign affairs, authentication of copies, revocation of power of attorney or terminations of contracts, joint venture of partnership agreement, loan, security and guarantee agreements, will, application for recognition of fatherhood, documents to be authenticated by reference to specimens of signatures, registration and of injunction or restriction order. Among the aforementioned services (***general attorney services***) are available online that the service users could finished the form at anytime and anywhere then it will be submitted to the office with the reference number to service users. This study was conducted to explaining effects of E-governance platforms implementation on effectiveness, efficiency, cost reduction, customer satisfaction and its potential to promoting good governance in Ethiopia DARA as the case study.

## **1.2.Statement of the Problem**

Public sectors across the world are attempting a transition from closed, top-down, bureaucratic, and paper-based transactional models towards online, digital offerings that encourage a new kind of interaction between citizens and state. This journey towards electronic public service delivery appears to be reaching a critical point where the confluence of citizen demand for greater speed and transparency in service delivery is manifested (**Brown et al, 2014**).While, governments' organizations face great levels of uncertainty in deploying and providing E-government services because of the complexity of the technology, deeply entrenched organizational routines, and great diversity in the acceptance of technology by individuals. It require more than technical wizardry for developing and operating successful online services; includes assembling tangible resources (computers and networks) and intangible resources (attitude, skill and knowledge) (ITU, 2008).This will be raised a matrix of paradox on governments in introducing and

implementing E-governance platforms (*how when and where*) it will implement and the questions of priorities.

Many previous studies of E-government particularly, developing countries researchers (Matthias and Gaëlle, 2003; Okot-Uma and Rogers, 2004; UN, 2005 and 2006) are emphasized on digitization the existing government businesses and public services simply on the webpage and portal mechanisms thereby substituting the traditional operations, infrastructural buildings, E-readiness and E-governance projects status. **However**, no research or lack of studies has been made on E-governance is meant to beyond computerizing/digitalizing and reengineering government processes, systems and structures like; the way services are being delivered (online bidding for public contracts, online tracking of permits, online registration and submission of forms for services, online financial transactions with all security issues granted, and inclusion of E-consultation and E-decision making) which play an underpinning role for service qualities and promote good governance. Again (Heeks and Bailur, 2007; Schuppan, 2009; Otike and Ntulo 2013; Eshetu, 2015) studies largely emphasized E-government as information system discipline related, portal development & straightforward matters. But hardly attempting in developing countries like Ethiopia to study and explaining the effects of E-government on public sectors service deliver (effectiveness, efficiencies, and service quality, reductions of operational costs, combatting corruptions) in public sector organizations what this paper has been fascinated to study.

Ethiopian government has launched electronic trade portal that would serve the business community's need for information and services such as business registration, licensing, loans, and penalties. Also investment related regulations and processes are facilitated through G2B model. Online Trade Registration and Licensing System (OTRLS) platform was developed for ministry of trade. When this system becomes functional customers can access any trade related (registration, licensing, penalties, loans and changing business licenses) activities online (MoT, 2014). However, the platform doesn't take into account the main E-government strategy directions and doesn't support the entire business licensing process where it only records applicants' presentation of required competency certificates. The portal does not support and is propelled by central website where business people can determine their licensing and permitting requirements as well as identify the steps and documentation as identified by (IFC-WBG, N.D)

which shows that there is great lack of sectorial policy integration (Interoperability) with national E-governance policy directions.

The previous E-government (2011-2015) strategy document envisaged the improvement of government network and the implementation of E-governance shared service infrastructures which allows for interoperability to utilize common elements of the E-government architecture (national payments portal, single identity management approach, common government data centers) (WBG, 2013). It reveals that there were 219 E-services identified and prioritized for implementation using different platforms (29 E-agricultural, 18 E-trade, 14 E-health, 13 E-education, 25 E-court, 11 E-passport, 62 E-municipality...) generally 79 informational and 140 transactional systems. Totally 219 E-services were designed by different platforms. From these services only five institutions (Ministry of foreign affairs, ministry of urban development & construction, ministry of agriculture, public servants' social security agency and private servants' social security agency) are active in implementation of E-service platforms.

The report has identified barriers that hindered successful E-governance platforms implementation (the strategy did not focus on the uptake aspect of the public services, citizens' limited usage of computers, low internet penetration and lack of affordable internet services as roadblock in the uptake on E-governance services, limited web hosting applications data centers, Lack of awareness of initiatives regarding platforms cause of low uptake of the services, projects implemented without an integrated approach across ministries and they executing projects based on their individual priorities without alignment to strategic goals, unavailable services usable across ministries/departments, and MCIT as a co-ordination agency between ministries but has no oversight on integrated proposals (MCIT, 2015).

However, still numerous problems were unaddressed for implementing E-governance platforms (absence of directives/roadmaps to solve the existing technological illiteracy of citizens as well as lack of training qualified public servants of public organizations personnel, citizens' and civil servant attitudes towards deploying such service delivery, unable to look at it from efficiency, effectiveness, service quality, limited PPPs, reducing transactional cost, importantly very limited stakeholders' analysis trends, uncoordinated ministerial/departamental integrated implementation across public organizations, lack of technical supports for both service providers and service consumers in line with strategic goals, poor E-governance infrastructural building, lack of

looking from perspective minimizing corruption and maladministration practices as engine of good governance are motivation to this study was worth to be conducting).

Thus, Ethiopia as a country and public organizations' in particular have missed to being efficient and effective in its operations, being transparent and accountable, fail to reach for their customers easily, lost vehicles for appropriate inclusive/participatory decision making, unseen interoperability of different public organization in single window, missing in saving transaction/operational costs, processing speedily and accessibility, reducing customers' time spent travelling to government offices, making interaction with less bureaucratic government procedures, convenience and availability 24/7 of services.

Hence, conducted this study would filled the gap of theoretical knowledge and reveal operational significance, that government and concerned bodies and/or stakeholders have to aware the effects of E-governance was much beyond digitalizing and computerizing existing operations. *Alongside, there was no research has been undertaken previously in the issue understudy, the researcher was impressed and motivated to conducted this study.*

### **1.3.Basic Research Questions**

This study has enquired the contribution of E-governance, considering as an independent variable; Service qualities (effectiveness, efficiencies and cost reduction and customers' satisfactions) and good governance (Transparency & accountability, participation, combating corruptions and fairness and equality) as dependent variables of the study. It has proposed the observation of cases from DARA<sup>4</sup> of Ethiopia. The specific research questions of this study were;

1. What were the direct effects of E-governance achieving and ensuring on good governance?
2. How E-governance platforms positively influenced effectiveness & efficiencies of service delivery?
3. What were the effects of E-governance on reducing operational and transactional cost of service delivery?
4. What were the effects of E-government on increased customers/citizens satisfactions level?

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<sup>4</sup>DARA engaged in reforms & came up with interesting organizational, systems & staff level results, service deliver, and motivated achievements. These results are currently based on partial digitalizing its services and office integrated portal system that was why DARA is selected as the case study.

## **1.4.Objective of the Study**

### **1.4.1 General Objective**

The study was mainly aimed at exploring the role of E-governance on quality public service delivery and good governance in public organizations; from the experiences of DARA.

### **1.4.2 Specific Objectives of the Study**

Alongside the main objective, the study is aimed at achieving the following specific objectives. The specific objectives were;

1. To examine the effects of E-governance to achieving effective public services delivery
2. To assess the effects of E-governance to ensuring and promoting good governance
3. To analyze the effects of E-governance on efficiencies of service delivery
4. To explain the effects of E-governance on reducing operational and transactional costs of service delivery in public sectors
5. To identify the effects of E-governance on customers' satisfactions level

## **1.5.Conceptual Framework**

Hardware configurations and software customizations are the forefront determinants of E-governance platforms, all informatics and telematics hardware must be interconnecting into suitable software to produce manageable system. Capacity, inboxes/outboxes storage space have to be compatible with hardware/software, Internet connections band-rate, and documents byte-limit on their size should be standardized. Electronic technologies are playing a large role in shaping the mind-set of citizens, and the mind-set reflected in governance. Governance software should also be standardized. Other aspect of software design that needs standardization to accomplish controllership is the use of Extensible Markup Language (XML) for file formats and document layouts. It is used on the Internet, and can be incorporated into each and every software application (Pearlson, 2001).

Therefore, ICT hardware would be measured via availability of personal desktop computers, server functionality (used by many people at one time), IT infrastructures (disaster recovery for backup options and networking), and central storage device availability as the proxies to measure hardware. On the other hand, ICT software will be measured by the operating system compatibility

with hardware, computer running program instructions, database management system (how data are centrally stored, managed, retrieving and sharing functionality of data across units), Internet access for each personal desktop, software development and roll out trends. ICT usage proxies of this study are; to what extent ICT hardware and Software are functional to deliver services, the degree of utilizations of ICT, how these hardware and software components are delivering services, what services are delivered using those components, the degree in which what services are available on the ICT support systems.

PPP and Interoperability measurement of E-governance platforms will be measured in partners' agreement in software development and roll out, project planning and administrations, to what extent non-state actors are engaged in consultancy/in selecting appropriate technologies, providing training related to E-governance platform implementations, funding to programmes/projects externally. Interoperability will be assessed by services availabilities via one-stop single window shop delivery, how interrelated services are regulated and delivered cross units at one time visit, the extent of inter-organizational collaboration, efforts to constructing fast and accurate public sectors integration working environments, and sectorial commitments for collaboration among the agencies.

Governance implies the processes and institutions, both formal and informal, that guide and restrain the collective activities of a group. Government is the subset that acts with authority and creates formal obligations. Governance need not necessarily be conducted exclusively by governments. Private firms, NGOs, and other non-state actors all engage in it, often in association with governmental bodies, to create governance (Nye, 2000). While the many existing definitions of good governance cover a broad range of issues where many organizations are share most elements as a common principles, we can deduced that there is still lack of definitional consensus on it. Most definitions of good governance agree on the importance of a capable state operating under commonly specified principles as per the above table summarized that, and they underlining their own principles of good governance according to their operational ecologies. The following table provides the summary of what is good governance mean for different institutions and how they defined it.

Table 1(1.1) Good Governance Conceptualizations

| <b>Institutions/Organizations</b>                                        | <b>Views and Definitions of Good Governance</b>                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| United Nations Development Programme's(UNDP, 1997)                       | <i>Transparency, accountability, Equity, Efficiency &amp; Effectiveness, Consensus orientation, Responsiveness, Strategic Vision, rule of law, participation</i>                                                                                                                                                            |
| United Nations Education Science and Culture Organization (UNESCO, 2008) | <i>Participatory, consensus oriented, accountable, and transparent responsive, effective and efficient, equitable and inclusive and follows the rule of law.</i>                                                                                                                                                            |
| International Federations of Accountant (IFAC, 2014)                     | <i>Integrity, respecting the rule of law, ensuring openness &amp;comprehensive stakeholder engagement, managing risks and performance through robust internal control and strong public financial management and implementing good practices in transparency, reporting, and audit, to deliver effective accountability</i> |
| The African Development Bank (AfDB, 1999)                                | <i>Accountability, transparency, Combating corruptions, participation and Legal and judicial reforms</i>                                                                                                                                                                                                                    |
| World bank (WB, 1994)                                                    | <i>Public-sector management, Legal framework for development, Transparency and information, and Accountability</i>                                                                                                                                                                                                          |
| International Development Association (IDA, 1998)                        | <i>Accountability, Transparency, The rule of law and Participation</i>                                                                                                                                                                                                                                                      |
| The Asian Development Bank (AsDB, 1995)                                  | <i>Accountability, Transparency, Participation and Predictability</i>                                                                                                                                                                                                                                                       |
| United Nations (UN, 2008)                                                | <i>Decency (the degree to which the formation and stewardship of the rules is undertaken without harming or causing grievance to people), Fairness, Efficiency, Accountability, Transparency, and participation.</i>                                                                                                        |

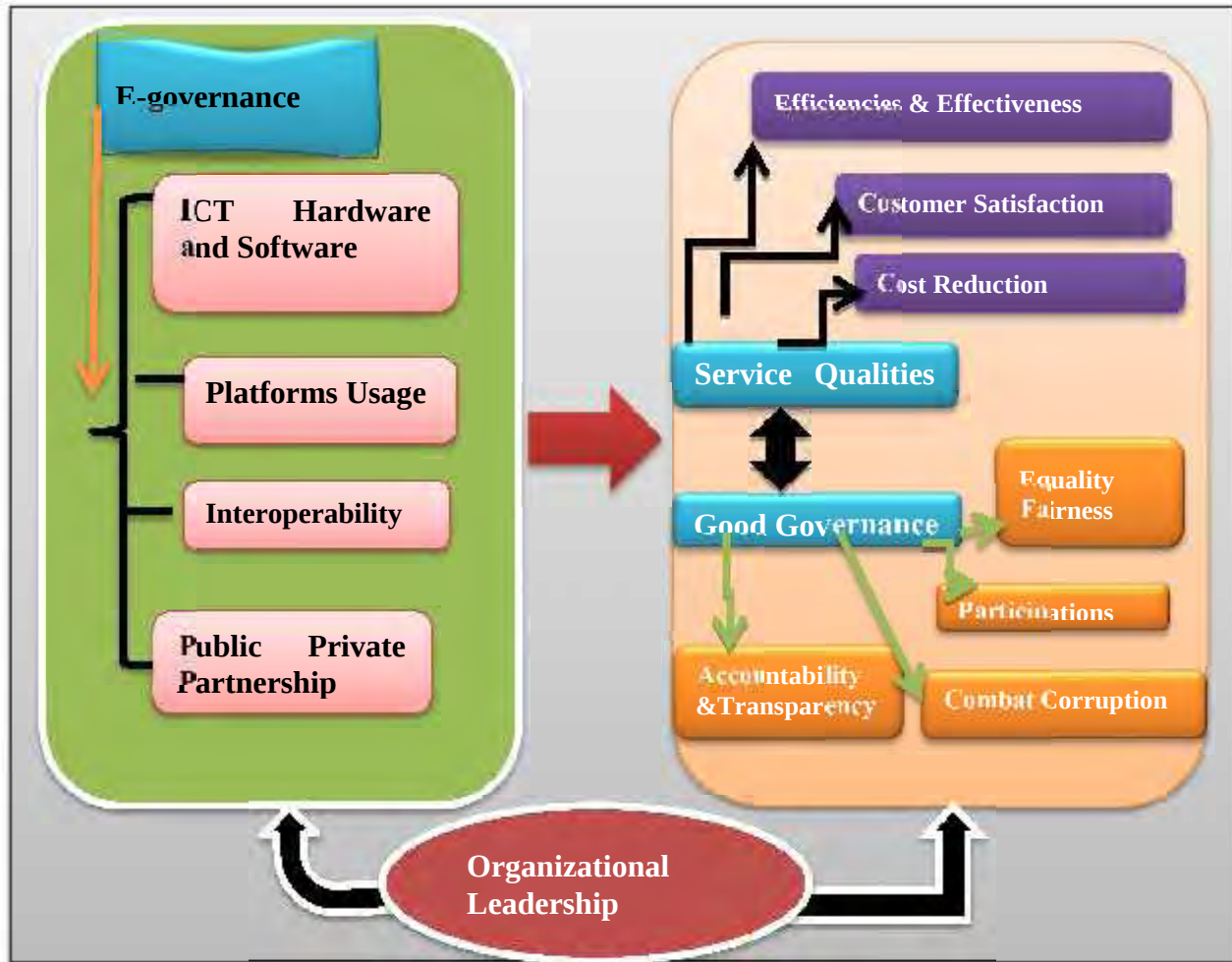
**Compiled by: Researcher 2016**

Therefore, good governance according to this paper is referred as means (Accountability and Transparency, Combating Corruptions, Equality, and Participations) i.e. good governance in this paper will measuring by those four elements and principles. Accountability and transparency will be measured by proxies of; the extent to which decisions and information are clearly articulated on the web page, how officials are answerable for their decisions and actions, to what extent E-

governance makes organization is answerable to its actions and decisions to the stakeholders/citizens, how E-governance facilitates DARA in addressing the inquiries by citizens, what extents E-government makes organization apparent in its actions and decisions towards citizens and what extent E-governance makes its accessible information to the citizens/stakeholders. Participation's measuring tools are; How E-governance facilitate in bringing the participation of citizens in organizational decision making process, how interests and preferences of stakeholders articulated, how E-governance platforms improving getting feedbacks & opinions from citizens'/customers', to what extent stockholders' grievances and administrative problems solve using it, how stakeholders interest represent in decision making processes on laws, rule and regulations, policies, charter formulation and is there any online discussion forum as a means of innovative participatory mechanism. Combating corruption will measure by how E-governance platform fight malpractices, to what extent it detects corrupt actions, how it will serve as middleman & watchdog to control corruption's opportunities. Fairness and equality on the other hand will be measured by; how the platform provide service irrespective of different social, cultural, and racial backgrounds of service users, to what extents are social inclusion issues are addressed, how impartiality and avoiding discrimination are maintained and how the organization treats equally technologically illiterate with literate of its customers.

In similar vein, service qualities (Efficiency & Effectiveness, Cost reduction and Customer Satisfaction) will be measured in this study as follows. Efficiency and effectiveness measurement proxies are; how much service delivery procedure is simple, easy and accessible will less bureaucratic, to what extent E-governance is targeted to avoiding service redundancies, how different departments are convenient for delivering services, to what extent it decreasing face-to-face-interaction to access services, how it is friendly using, what extent it is easy to find relevant information and how privacy is maintained. Cost reduction customer satisfaction will be measured through; How E-governance platforms delivering dependable and reliable services, how it saving different transactional costs; to what extent it processing transactions speedily and timely, how it avoiding citizens'/customers' time spent travelling to office, how distance matters are being forgotten in accessing certain services, how services are deliver in line with standards. How it provides a quicker response to queries and to what extent up-to-dated information is available for citizens/users and over all to what extents service users are satisfied in service delivery of DARA.

Figure 1(1.1) Conceptual Framework of the Paper



Source: Literatures and own conceptualizations (2016)

Depending upon the above conceptual framework, and different empirical studies by various researchers, the following research hypotheses are developed to investigate the relationships and impacts of E-governance on service qualities (Efficiency & effectiveness, Customers' satisfaction, Cost reduction) and its promising potential to ensuring good governance (Participation, Accountability and Responsibility, Equality, Combating corruption). Considering that E-governance as an independent variable and good governance and service qualities as dependent variables of the study.

The holistic approach (Haq et al, 2009; OECD, 2010; Jared and B. Zachary, 2015) of the E-government development can increase its impact as key enabler for public sector

modernization and effectiveness. E-governance as a pattern of shifting from the traditional to use of modern information and communication technologies by the governments to support public services, government administration, democratic processes, and relationships amongst the citizens, civil society, the private sector, and the state that ultimately facilitating an effective, speedy and transparent service delivery and citizen can access better, cheaper, faster and more accessible public services. Therefore, hypothesis is;

**H1. Using E-governance platforms is positively with improving effectiveness of service delivery.**

According to (Haldenwang, 2003; Siddiquee, 2005) E-government has a potential of increase the efficiency of public administration and improve quality of public service delivery. One of the most important arguments in favor of e-government reform is that it raises the **internal or production efficiency** of public institutions, thus saving taxpayer's money. There are, in theory, two basic ways to achieve this. One is, to raise labor productivity and cut employment by means of the automation of administrative procedures and the simplification of processes. The other one is, to lower the costs of public procurement by means of better information on prices, promotion of market competition and more transparent and market friendly purchasing procedures. E-governance in the public sector perceives and applies technology in order to bring about transformations in service provisions as well as in their relations with service users. Since it is seen as a means to promote efficiency in government operations and improve the delivery of public services, typically it focuses on seeking to bring major changes in the quality of services, nature of interactions and governmental relations with relevant stakeholders. Therefore hypothesis is;

**H2. E-governance has a positive impact in achieving efficiency of service delivery.**

As (Field et al. 2004) argued that E-governance can play a critical role in improving the services quality delivered to its customers as it can achieve survival, increase satisfaction and trust and then generate the competitive success for organizations. It can play a critical role in achieving quality; increase satisfaction by cost reduction, time saving, and reducing frequent travels to office in a competitive success for public sector organizations and where it accepted as an engine and effective wheel tool quality public services both in developed countries and developing countries (Field et al. 2004; Salam, 2013).. Therefore, hypothesis is;

**H3. E-governance has positive effects on reducing service delivery costs.**

According to (Harris, 2000; Heeks, 2001; Kamar and Ongo'ndo, 2007; Kumar et al, 2008) the effect of new ICT can make a significant contribution to the achievement of good governance goals and E-governance platforms are the key instruments that ensuring good governance by increasing transparency, accountability, reducing corruptions and eventually helping to reduce the cost of government business operations. E-government in a developing country has potential to improving good governance though increasing transparency and accountability of government functions, convenient and faster access to government services, improved democracy, equal opportunity is given to all to access information irrespective of the person's physical location or disability and the elimination of the bureaucracy experienced in government offices and reduction in corruption as of accountability and transparency assured. Therefore, hypothesis is;

**H4. E-governance platforms have direct impacts in promoting good governance.**

The citizens get connected to the government more easily using electronic means of communication that improve open and direct interaction to articulating their interest and preferences which result to increasing their satisfactions in public service delivery through faster dissemination of government information to a larger audience. The interdepartmental exchange of information and merger of related services between government agencies (Interoperability) with an accompanying reduction of transaction costs, time, space and manpower lower costs of administrative services and these benefits can be realizing service qualities (**Kamar and Ongondo, 2007; Alshehri and Drew, 2012; Saeed, 2012**). Therefore, hypothesis is;

**H5. E-government is positively correlated with increasing customers' satisfaction.**

## **1.6. Research Methodology**

### **1.6.1 Research Design & Type**

This study has employed explanatory research type and interpretive methods of an inductive approach that started with data and tried to derive conclusions of the issue under study from collecting data by using both quantitative and qualitative types of data (quantitative data involved numeric scores/and metrics and qualitative data were included interviews and observations). The research was explained of observed phenomena, problems, or behaviors, sought answers to why and how by identifying causal factors and outcomes of the E-governance on service delivery effectiveness, efficiency, and quality of understanding the reasons behind and predict what would be happened in future. The research relied heavily on qualitative data, but it was much benefited from quantitative data. Jointly used both of qualitative and quantitative data were helped the study to generate unique insight into a phenomenon under study that is not available from either type of data alone. Thus, the reasons behind using combined data were highly desirable to this study. In using this, the study was explained relationship between the existence or non-existence of E-governments in the improvement of service qualities (effectiveness and efficiency, cost reduction, customers' satisfaction) and promoting good governance.

### **1.6.2 Sources of Data and Data Collection Instruments**

This study was employed both primary and secondary sources of data. Primary data were collected through questionnaires, interviews, and observations. The natures of the questionnaires were close ended with likert scales. Two different questionnaires formats were designed (one format were distributed for DARA's employees and the other one for DARA customers). The interviews were one of the qualitative methods that were valuable for collected complicated and complex data. Semi-structured interview method would be used in this research, because it is neither a free discussion nor a very structured questionnaire, which suits the situation under investigation. The researcher was begun with a set of issues that must be covered, but allows the interview subjects to lead the conversation in whatever direction makes the most sense to get pertinent information & data for issues under study." Interviews were conducted with DARA's CEO and other four different concerned officials.

Secondary sources of data were obtained from scholars' articles, internet sources, reports, books, magazine, newspapers, organization's manuals, published and unpublished materials, document, organizational archives, and other relevant materials pertinent for the issue under study.

### 1.6.3 Sampling Technique and Sample Size

The study was focused on E-governance and its effects on service qualities and promoting good governance in public sectors; the researcher was employed stratified and systematic random sampling techniques of probability sampling method. The researcher has stratified the study population into different strata (customers/ and employees of DARA based on branches and location). DARA has one head office and 10 branches totally 11 working office. Thus, the researcher was considered these branches as stratum. From these strata the head branch and the other two branches were being a part of this study. Then the researcher has visited these strata for five consecutive working days and recording the total number of customers of each day from DARA's database and taking the average of service users of these days. After determining the sample size from service users the researcher was collected data from them by every 3<sup>rd</sup> or 4<sup>th</sup> of service users in times of their service inquiry from DARA until the average number equals to of service users. Again data related to assessed E-governance platforms effects in service delivery (effectiveness, efficiencies cost reduction) and promoting good governance data were collected from DARA employees. The sampling techniques for employees is also stratified sampling three branches (Head office, Branch 4 and Branch 10) were strata of this study and employees from these branches were sample unit of this study.

**Table 2 (1.2) Sample Size Summaries**

| Customers           |                         | Employees             |              |                                 |
|---------------------|-------------------------|-----------------------|--------------|---------------------------------|
| Branches (Strata)   | Sample population taken | Branches (Strata)     | Sample taken | % of taken from po <sup>n</sup> |
| Branch10 (Stratum1) | 105                     | Main Branch(Stratum1) | 44           | 30                              |
| Branch8 (Stratum2)  | 83                      | Branch10 (Stratum2)   | 13           | 20                              |
| Branch4 (stratum3)  | 67                      | Branch4(stratum3)     | 5            | 10                              |
| Total               | 255                     | Total                 | 62           | 60                              |

#### 1.6.4 Data Preparation and Analysis

Data were prepared for analysis by coding, organizing, chart, tabularization, and figuring according to necessary. The study would be used separated frameworks of analysis for quantitative and qualitative data. The framework of analysis for quantitative data of this study was examining the relationships between (independent and dependent) variables to answering quest of the study and test hypotheses. Therefore, all recorded data were transcribed into Statistical Package for Social Studies (SPSS) version23 window editor texts to ease the data analysis and then data were further interpreted by descriptive statistics and multiple linear regression model, one way anova and correlation method. The data were analyzed by using simple and suitable mathematical and statistical tools like tabulation, frequency, percentage and regression coefficients. A relationship between the dependent and independent variables were analyzed through Pearson Correlation and Multiple Regression Analysis by using SPSS (Version23) program. Results were presented through graphs, tables, narrative text, simple computations and logical reasoning. Analysis was carried out in relation to the research objectives and questions which lead to conclude testing hypothesizes.

On the other hand, qualitative data analysis method of the study would have five steps; ***compiling, disassembling, reassembling, interpreting and concluding*** of data. *Compiling* was sorting of field notes amass from the fieldwork and relevant data sources then data were refined these notes nightly immediately as soon. After compiling the data would broke down into smaller fragments or pieces which may be considered *disassembling* procedure accompanied by assigning new labels, or codes to the fragments or pieces, for preparing analysis. The rearrangements and recombination were facilitated by depicted the data graphically or by arraying them in lists and other forms for clear analysis. The next phase involves using the reassembled material to create a new narrative, with accompanying tables and graphics where relevant, that will become the key analytic portion of draft manuscripts/raw data. This is considered as of *interpreting* the reassembled data. Initial interpretations may lead to the desire to recompile the data in afresh way. The final phase of qualitative analysis is of *Concluding*. It calls for drawing the conclusions from the entire study. Such conclusions should be related to the interpretation in the fourth phase and through it to all of the other phases of the cycle. Again content analysis will be employed by analyzing **Web Content Analysis** (Availability of full text of organizational documents (acts, bills, annual reports, policy documents, citizen charter, and research reports) on websites, availability of different registration forms on websites , Frequently Asked

Questions (FAQs) that makes the web easy to use with a list of frequently asked questions that could be updated timely, availability of vacancies, call for tenders, organization's calendar and upcoming events, speeches by prominent officials on the web, information and language proximity with interests of citizens, feedback facilities; citizens should be provided with the mechanism for providing comments on various issues and the service they inquiring's, search facility (which can enable the user to search though the page using keywords or phrase), government contact details (imperative for people in needs of contact DARA, contact details available including clear location and map directions)). In return, this analysis helps to articulate and answering the research questions by triangulating service delivery and E-governance effects.

### **1.7. Significance of the Study**

This study has done to signifies the role of E-governance platforms implementation on quality service delivery and promoting good governance of public sector organizations and it would be well organized document of studies about the issue under study that might one foot to alleviates future shortage of data for research that faced during this research was worked. It would explain effects of E-governance implementation on service qualities and promoting good governance with determining the fate of platforms and service delivery scenarios of public sector organization in future based on empirical data. Workable recommendation that emanated from finding and conclusions would have lots of importance for concerning bodies (DARA, government and/or policy makers, stakeholders and public sector organizations' managers regarding with E-services & public service delivery policy/program formulations along-with know the promising potential of E-government implementation and E-services public service delivery of public sector organizations. Finally, but not least the finding of this research would serve springboard for interested researchers/scholars to undertaking in-depth studies on the same related issues.

### **1.8. Delimitation of the Study**

This research has being conducted in FDRE DARA under the issues of E-governance on delivering quality public service and promoting good governance in public organizations. Thus, the focus of this study was conducted only the thematic of E-governance and service delivery and good governance. The organization might be under by different issues, but the researcher didn't pays any attention to those issues that are not related with the topics of the under study. The researcher

was also compiled and collects data from DARA at Addis Ababa. The target populations of the study were both employees and customers of DARA using those populations, the study would come up analysis of effects of E-government on service qualities& good governance in public service delivery vis-à-vis filling gaps of knowledge. Interviews were conducted with concerned DARA's officials and used direct observations. It also used different source which have paramount data contributions for the study therefore different annual E-government reports of the MICT were used.

### **1.9.Limitations of the Study**

The limitation of this study has started from its conception. When it was thought to conducted the researcher has faced lack of organized comprehensive empirical data/reports about the success/failure of Ethiopia public sectors sectorial E-government platforms implementation due to the poor documentation and unorganized database, previous research gaps hasn't been done on and country contexts, very difficult to get sufficient secondary data from local sources. Respondents (both employees and customers) were very much reluctant to filled the questionnaire, some customers were couldn't easily understand the concepts in English Language especially citizens/customers and this also exposed the researcher for extra cost and the researcher managed this problem by translating the questionnaire into Amharic language. Financial constraints were also other stumbles of budget during data collection process and inaccessibility of responsible officials for interviews. Some informants were very skeptical when they provided information. When somebody approaches them for research, after evaluating the researcher's position and/or political affiliation, they would tend to give out what he perceives the researcher would like to hear and not what actually was on the mind. Passing security guards and secretaries was difficult to accessed potential sources of appropriate data. The headache limitations where some respondents were refused to filled the questionnaire as the reason they stated that the value of research would be simply narrowed the shelf so why we killed our precious time to this. This situation was very difficult and paved the way for the researcher strived to do real findings to change these attitudes. To overcome these limitations the researcher has used different strategies; collected flyers and conference proceeding/meeting minutes and brushers/and annual reports. Persuaded respondents by gave deep values for their cooperation for successful completion and finding of the study. Made earlier appointments and giving reminder for officials before going to there. Approaching

smoothly and friendly any sources of original data via clarifying objectives of the study and make sure that the confidentiality of their information they would give and having ethical consideration of research. Redistributing the questionnaire again was done.

#### **1.10. Organization of the Paper**

This study has divided into four chapters. The first chapter was deal with introductory parts of the study (background of the study, statement of the problem, basic research questions, research objectives, research methodology, significance of the study, scope of the study, limitation of the study, and organization of the paper). The second chapter would-be focused on related literature review, scholars' perspectives and theoretical background and empirical studies of the issue under study. The third chapter has mainly concerned on data collection, analysis, interpretation, and presentation of major findings of the study. The fourth chapter has come up with, summary of major findings, conclusion, and workable recommendation based on the study, which helped to resolved problems and use recommendation for future. At the end, references and annexes have been attached.

## Chapter Two

### 2 Literature Review

#### 2.1 Conceptualization of E-Government and E-governance

Despite the fact that many people use the term e-government, there is no clear consensus about what electronic government means (Gil Garcia, 2012). Many studies and/or organizations have defined e-government in different ways; “E-government is the government owned or operated systems of ICTs that transform relations with citizens, the private sector and/or other government agencies so as to promote citizens’ empowerment, improve service delivery, strengthen accountability, increase transparency, or improve government efficiency” (WB, 2001). E-government would include myriad tools and applications from fax machines and mainframe computing to social media and open government strategies for online services and it does not refer to technological artifacts only, but also to the social and organizational aspects and elements around those artifacts (Gil Garcia, 2012). “E-government is the transformation of public sector internal and external relationships through net-enabled operations, IT and communications, in order to improve: government service delivery, constituency participation, and Society transformations” (Fraga, 2001; Nkwe, 2012).

“E-government is defined as utilizing the Internet and the world-wide-web for delivering government information and services to citizens” (UN, 2003). Gartner Group’s definition: “the continuous optimization of service delivery, constituency participation, and governance by transforming internal and external relationships through technology, the Internet and new media” etc.

While definitions of E-government by various sources may vary widely, there is a common theme. E-government involves using information technology, and especially the Internet, to improve the delivery of government services to citizens, businesses, NGOs and other government agencies. E-government enables citizens to interact and receive services from the federal, state or local governments twenty four hours a day, seven days a week (Nkwe, 2012).

E-governance.... “Governance implies the processes and institutions, both formal and informal, that guide and restrain the collective activities of a group. Government is the subset that acts with authority and creates formal obligations. Governance need not necessarily be conducted exclusively by governments. Private firms, associations of firms, NGOs, and associations of NGOs

all engage in it, often in association with governmental bodies, to create governance; sometimes without governmental authority.” Clearly, this definition suggests that e-governance need not be limited to the public sector. It implies managing and administering policies and procedures in the private sector as well. “E-governance is the public sector’s use of ICTs with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective. E-governance involves new styles of leadership, new ways of debating and deciding policy and investment, new ways of accessing education, new ways of listening to citizens and new ways of organizing and delivering information and services. E-governance is generally considered as a wider concept than e-government, since it can bring about a change in the way citizens relate to governments and to each other. E-governance can bring forth new concepts of citizenship, both in terms of citizen needs and responsibilities. Its objective is to engage, enable and empower the citizen”. *Some authors contend that E-government constitutes only a subset (though a major one) of E-governance. Thus, E-governance is a broader concept and includes the use of ICT by government, business, NGOs, political parties and civil society to promote greater participation of citizens in the governance* (Gil Garcia, 2012; Nkwe, 2012).

The above definitions encompass three critical transformation areas of E-governance

1.     **Internal** which refers to the use of E-governance platforms to improve the efficiency and effectiveness of internal functions and processes of government by interrelating different departments and agencies. Thus, information can flow much faster and more easily among different governmental departments, reducing processing time, paperwork bottlenecks, and eliminating long, bureaucratic and inefficient approval procedures.
2.     **External** - it opens up new possibilities for governments to be more transparent to citizens and businesses, giving access to a greater range of information collected and generated by government. ICT creates also opportunities for partnership and collaboration among different governmental institutions, private sectors and other third parties in system of governance.
3.     **Relational** – ICT and E-governance platform adoption may enable fundamental changes in the relationships between the citizens and the state, and between nation states, with implications for the democratic process and structures of government. Vertical and

horizontal integration of services can be realized, enabling the integration of information and services from various government agencies to help citizens and other stakeholders get seamless services. **Fountain (2001)** uses the concept of the “virtual state” that is a governmental entity organized with “virtual agencies, cross agencies, public- private networks whose structures and capacity depend on the Internet and web”

## **2.2 Stakeholders’ Oriented Approaches of E-Government Models**

This approach relies fundamentally on a commerce-like model and, therefore, concentrates on the use of the Internet as a tool that improves and aids how government functions in its relations with citizens (UN, 2003; Palvia and Sharma, 2008; Alshehri and Drew, 2010 and Gil Garcia, 2012). According to many scholars E-government offers services to those within its authority to transact electronically with the government. These services differ according to users’ needs, and this diversity has given rise to the development of different type of E-government. E-government functions can be classified into four main categories/models.

### **1. Government-to-Citizen (G2C)**

The majority of government services come under this application, towards providing citizens and others with comprehensive electronic resources to respond to individuals’ routine concerns and government transactions. The use of government websites to make public information accessible, to provide services online, and to facilitate the interaction between the citizen and the government are examples of this type of relationship (**Gil Garcia, 2012**).

In applying the idea of G2C, customers have instant and convenient access to government information and services from everywhere anytime, via the use of multiple channels. In addition to making certain transactions, such as certifications, paying governmental fees, and applying for benefits, the ability of G2C initiatives to overcome possible time and geographic barriers may connect citizens who may not otherwise come into contact with one another and may in turn facilitate and increase citizen participation in government

### **2. Government-to-Business (G2B)**

G2B is the second major type of E-government category. It can bring significant efficiencies to both governments and businesses. G2B include various services exchanged between government and the business sectors, including distribution of policies, memos, rules and regulations. Business services offered include obtaining current business information, new regulations, downloading

application forms, lodging taxes, renewing licenses, registering businesses, obtaining permits, and many others. The services offered through G2B transactions also play a significant role in business development, specifically the development of small and medium enterprises (Pascual, 2003). G2B applications actively drive e-transaction initiatives such as e-procurement and the development of an electronic marketplace for government purchases; and carry out government procurement tenders through electronic means for exchange of information and goods. This system benefits government from business' online experiences in areas such as E-marketing strategies.

### **3. Government-to-Government (G2G)**

This refers to the online communications between government organizations, departments and agencies based on a super-government database. Moreover, it refers to the relationship between government and its employees. The efficiency and efficacy of processes are enhanced by the use of online communication and cooperation which allows for the sharing of databases and resources and the fusion of skills and capabilities of agencies and reducing tiredness/tediousness of service users. It renders information regarding compensation and benefit policies, training and learning opportunities, and civil rights laws in a readily accessible manner (Ndou, 2004; Gregory, 2007). Often the activities of government require sharing different types of information, products, or services across agencies or jurisdictions. Intergovernmental collaboration is frequently used to provide certain services that require a broad territorial base and detailed processes for the selection of clients (Gil Garcia, 2012). The vital aim of G2G development is to enhance and improve inter-government organizational processes by streamlining cooperation and coordination and providing services of different organizations through integral delivery model. On another G2G front, the use of information technologies by different governmental agencies to share or centralize information, or to automate and streamline intergovernmental business processes such as regulatory compliance, has produced numerous instances of time and cost savings and service enhancements. The ***Time Saver Centre in Sao Paulo, Brazil***, brings together multiple services in a single location. Its objective is to deliver services more quickly and to increase the satisfaction level of its citizens. A person requiring a service, on reaching the appropriate agency, can register in the computerized tracking system and receive an electronic ticket, which indicates the services desired and the estimated waiting time. They can receive at the same time different services that traditionally were separated such as vehicle registration, driver's license, identification card, unemployment insurance (Rinne et al., 2001).

#### 4. Government-to-Employee (G2E)

Government to employee is the least sector of E-government in much E-government research. Some researchers consider it as an internal part of G2G sector and others deal with it as a separate sector of E-government (Riley, 2001). G2E is a successful way to provide E-learning, bring employees together and to encourage knowledge sharing among them. It gives employees the possibility of accessing relevant information regarding compensation and benefit policies, training and learning opportunities, and allowing them access to manage their benefits online with an easy and fast communication model. G2E also includes strategic and tactical mechanisms for encouraging the implementation of government goals and programs as well as human resource management, budgeting and dealing with citizens.

### 2.3 Stages of E-Government Evolutions

The overarching themes of e-government is to fully realize the capabilities of available information technology in an effort to transform government from an agency-centric, limited service operation into an automated, citizen-centric operation capable of delivering government services to citizens, businesses, and other government agencies 24 hours a day, seven days a week. However, for a variety of technical, economic, and political reasons, it will take time for these initiatives to evolve into their full potential. For that reason, some observers use a common schema for classifying the stages of evolution of e-government projects. **There are Five Phases of E-Government Model.** The schema is based on the degree to which the properties of information technology have been utilized to enable the delivery of services electronically. Using this schema, there are four stages of evolution; *presence, interaction, transaction, transformation* and *Networked presence stages*. It is important to note that an e-government initiative does not necessarily have to start at the first stage and work its way through all of the stages. Instead a project can skip levels, either from its inception or as it develops (Baum and Di Maio, 2000; Seifert, 2003; UN, 2003; 2004; 2005; Palvia and Sharma, 2008).

#### 1. Emerging Presence

Stage I E-government presents information which is limited and basic. The e-government online presence comprises a web page and /or an official website; links to ministries/departments of education, health, social welfare, labor and finance may/may not exist; links to regional/local government may/may not exist. It is the establishment of a placeholder for delivering information

in the future. It represents the simplest and least expensive entrance into e-government, but it also offers the fewest options for citizens. A typical example is a basic Web site that lists cursory information about an agency, such as hours of operation, mailing address, and/or phone numbers, but has no interactive capabilities. It is a passive presentation of general information. Some observers refer to these types of sites as brochure ware, suggesting they are the electronic equivalent of a paper brochure.

## **2. Interaction/Enhanced Presence**

The second stage is interaction. Although interactive Web-based initiatives offer enhanced capabilities, efforts in this group are still limited in their ability to streamline and automate government functions. Interactions are relatively simple and generally revolve around information provision. These types of initiatives are designed to help the customer avoid a trip to an office or make a phone call by making commonly requested information and forms available around the clock. Public policy documents governance sources of current and archived information such as policies, laws and regulation, reports, newsletters, and downloadable databases. The user can search for a document and there is a help feature and a site map provided. A larger selection of public policy documents such as an e-government strategy, policy briefs on specific education or health issues. Though more sophisticated, the interaction is still primarily unidirectional with information flowing essentially from government to the citizen.

## **3. Transaction Presence**

The third stage in the evolution of e-government initiatives is transaction. These initiatives are more complex than simple information provision and embody the types of activities popularly associated with e-government. They enable clients to complete entire tasks electronically at any time of the day or night. These initiatives effectively create self-service operations for tasks such as license renewals, paying taxes and fees, and submitting bids for procurement contracts. Although the level of interactivity is of a higher magnitude than second stage initiatives, the activities still involve a flow of information that is primarily one-way (either to government or to the client, depending on the activity). The electronic responses are generally highly regularized and create predictable outcomes (e.g., approving a license renewal, creating a receipt, acknowledging a bid). Audio and video capability is provided for relevant public information. The government officials can be contacted via email, fax, telephone and post. The site is updated with greater regularity to keep the information current and up to date for the public.

#### **4. Transformation Presence**

The highest order of evolution for e-government initiatives is transformation. Initiatives at this level utilize the full capabilities of the technology to transform how government functions are conceived, organized, and executed. Such initiatives would have the robust customer relationship management capabilities required to handle a full range of questions, problems, and needs. Currently, there are very few examples of this type of initiative, in part due to administrative, technical, and fiscal constraints. One of the distinctions of these initiatives is that they facilitate the seamless flow of information and collaborative decision making between federal, state, local, public, and private partners. Allow online two-way interaction/communications between the citizen and government. It includes options for paying taxes; applying for ID cards, birth certificates/passports, license renewals and other similar C2G interactions by allowing him/her to submit these online 24/7.

#### **5. Networked Presence**

Stage V represents the most sophisticated level in the online e-government initiatives. It can be characterized by an integration of G2G, G2C, and C2G (and reverse) interactions most of the time refer as seamless E-governance stage. The government encourages participatory deliberative decision making and is willing and able to involve the society in a two-way open dialogue. Through interactive features such as web comment forms and innovative online consultation mechanisms, the government actively solicits citizen views on public policy, law making, and democratic participatory decision making. Implicit in this stage of the model is the integration of the public sector agencies with full cooperation and understanding of the concept of collective decision making, participatory democracy and citizen empowerment as a democratic right.

## **2.4 Objectives, Opportunities and Potential Benefits of E-Governance**

### **2.4.1 Objectives of E-governance**

The objective of E-governance is not just to computerize government offices; it is to gradually transform the way the government operates. But the process will take time and significant amount of re-engineering of processes. Hence, E-government is not just another way of doing existing activities; it is a transformation on a scale that will fundamentally alter the way public services are delivered. It does not have a time-line; rather it is evolutionary. The relationship is no longer just

a one-way, government versus them citizens' proposition; rather it is about building a partnership between governments, and their citizens (Adeyemo, 2010).

The most important anticipated benefits of E-governance in developing countries are improved efficiency (citizens get connected to the government more easily using electronic means of communication. This results in better efficiency in public service delivery through faster dissemination of government information to a larger audience), increase in transparency and accountability of government functions, convenient and faster access to government services, improved democracy (Equal opportunity is given to all to access information irrespective of the person's physical location or disability and the elimination of the bureaucracy experienced in government offices), and lower costs of administrative services (interdepartmental exchange of information and merger of related services is enhanced among government agencies with an accompanying reduction of transaction costs, time, space and manpower) (Adeyemo, 2010). Through transformation/ re-engineering of processes using E-governance platforms, government should achieve the following (Breen, 2000; Seifert, 2003; Al-Mushayt et al, 2009).

### **1. Efficiency**

As with many information technology-related projects, one of the anticipated benefits is improved efficiency. In e-government projects, this efficiency can take many forms. Some projects seek to reduce errors and improve consistency of outcomes by automating standardized tasks. Similarly, some e-government advocates suggest that reducing the amount of time spent on repetitive tasks will give those federal employees an opportunity to develop new skills and advance their careers.

### **2. New and Improved Services**

This objective promoted by e-government supporters is the potential to improve the quality, range, and accessibility of services. Some observers suggest that, in addition to enhanced efficiency, the quality of services may be improved through quicker transactions, improved accountability, and better processes. The evolution of e-government also creates the potential for new services.

### **3. Increased Citizen Participation**

A third objective anticipated by some e-government advocates is increased citizen participation in government. One way this could occur is by connecting people who live in remote areas of the country so that they can send and receive information more easily. A second way suggested by

some observers is through increased participation in government by younger adults. Some advocates believe that the generation of citizens about to come of political ages, which have grown up with the Internet and digital communications technologies in their everyday lives, will be more likely to become participant citizens if the means to do so are similar to the ones they use for personal and professional activities.

#### **4. Targeting Corruption**

Open government can also support the fight against corruption, as electronic channels are easily inspected and controlled compared with personal interactions between citizens and officials. Many governments have chosen to go online in departments such as customs, income tax, sales tax, and property tax which have a large interface with citizens or businesses and are perceived to be more corrupt. Procurement by government is also seen to be an area where corruption thrives. This reduces the discretion and opportunity for arbitrary action available to the civil servants in dealing with every applicant on a case by case basis (Bhatnagar, 2003).

-  Better delivery of government services to citizens
-  Improved interactions with businesses and industry
-  Empowering citizens through access to information or more efficient government management
-  Increased transparency and greater convenience and reduce corruptions, and cost

#### **2.4.2 Opportunities of E-governance for Developing Countries**

Electronic delivery of public services by the government not only results in efficiency, better quality but above all facilitates the equitable access. Once the services are available through Internet, Kiosks, Integrated Service Centers, Mobile devices, it becomes very convenient for people in urban as well as rural part of the country to avail these services, as governments in many of the countries, as well as private sectors are in the process of making a lot of investments in extending the communication infrastructure to the remotest parts of the country to reach the unreached. It also is benefiting public sectors in achieving higher productivity, efficiency, enhanced transparency, accountability, responsiveness lead to an overall improvement in the image of the government in the minds of the citizens. Raised trust levels lead to improved relationship between government & citizen as well as government & business, one of the major objectives of *good governance* (UNESCO, 2005).

Benefits assured by use and application of E-governance in developing countries are the same as those in developed countries. The differences between these two regions could result from the fact that many potential benefits of E-governance are not reaped by developing countries as consequence of their limited use of E-governance in developing world (Ndou, 2004).

The often cited opportunities of E-governance in a developing countries; include improved efficiency, increase in transparency and accountability of government functions, convenient and faster access to government services, and improved democracy, and lower costs for administrative services finally ensuring good governance. These benefits are realized in the following service quality dimensions (Gathungu and Mugnai, 2012)

1. Citizens get connected to the government more easily using electronic means of communication. In turn, efficiency in public service delivery is achieved through faster dissemination government information to a larger audience.
2. Corruption will be reduced alarmingly as accountability and transparency is increased. This results from the fact that the physical contacts of the citizens and government service providers are limited and their activities are easily monitored through central data base administration on national portal easily.
3. Equal opportunity to access to information is provided regardless of one's physical location and physical disability. The barrier of distance is overcome with diversified service points.

As Nadou (2004), has identified by her research the following are major opportunities that developing countries will gain from applications of E-governance;

1. **Cost reduction and efficiency gains;** The appropriate application of E-governance may possibly reduce the number of inefficiencies in processes by allowing file and data sharing across government ministries/departments, thereby contributing to the elimination of mistakes from manual procedures, reducing the required time for transactions. Efficiency is also attained by streamlining internal processes by enabling faster and more informed decision making, and by speeding up transaction processing.
2. **Quality of service delivery to businesses and citizens** in the traditional model of public service delivery, the procedures are long, time consuming and lack transparency. A business that wishes to obtain a license or a permit has to fill out a number of application forms, has to visit a number of different offices and spend considerable amount of time. If a citizen wishes to be issued with a certificate or any other official document, s/he will have

to travel to the central government office, go to different offices and spend a lot of time for a simple service. An E-government initiative, on the other hand, which puts government services online, thereby reducing the bureaucracy, offers round the clock accessibility, fast and convenient transactions, and obviously enhances the quality of services, in terms of time, content and accessibility

3. **Transparency, anticorruption, accountability** E-governance helps to increase the transparency of decision-making processes. In many cases E-governance offers opportunities for citizens to directly participate in decision-making, by allowing them to provide their own ideas and suggestions in forums and online. If web sites are designed carefully and openly, they can be valuable resources for transparency as citizens, businesses and other stakeholders shall be able to see political and governmental information, rules and policies. Previously it was often necessary to go directly to governmental offices to obtain information, but now this information should be available on the web.
4. **Increase the capacity of government** the use of E-governance platforms for the reorganization of internal administration transactions, communications, and interrelationships and for easy information flow and transfer offers considerable opportunity to increase government capacity. Intranets allow different departments to share databases of common customers and to pool skills and capacities of their members for problem solving. These facilities in turn will pledge faster information flow and transfer, quicker and cheaper provision of goods and services, faster and better decision making processes, and unplugged paper bottlenecks. Knowledge based or expert systems help to create a more responsive and guideline based process. It also assures benefits to the government itself through reduced costs and spending, which could require lower taxes to finance.
5. **Network and community creation** E-governance creates both pressures and opportunities for network creation and community building. As argued before, an E-governance initiative requires a complex web of interrelationships among government, citizens, NGOs, CSOs, customers, businesses, employees and governmental agencies. Moreover, the very nature and function of E-governance requires a network approach to put together skills, technologies, information and knowledge that span the boundaries of different

governmental agencies. It is generally impossible to find all of them in one single governmental agency. The need for learning and training, for example, requires a partnership between government agencies/departments and universities or research institutions, private sectors and NGOs.

6. **Improve the quality of decision making** E-governance has a potential of linked community creation, forums, continuous interaction and communication between government and its citizens and other stakeholders contribute to the decision making process. By means of active participation in political and government discussions, citizens can contribute their own ideas, and share their knowledge and information. This will in turn lead to building trust in government and improving the relationships between the government and the governed.
7. **Promote use of ICT in other sectors of the society** Continuous interaction and communication between government and its stakeholders contributes to the creation of awareness about the potential contribution of ICT to local community activities. In this way, E-governance plays a vital role, not only in facilitating market- led initiatives but also in initiating the process of capability building and in coordinating the actions of a large number of interested stakeholders. For G2B electronic transaction to occur, the business itself needs to make use of electronic equipment.

### 2.4.3 Potential Benefits of E-governance

The Tangible Benefits of E-government (Al-Mushayt et al, 2009).

1. **Helps increase investor confidence:** Improvements in the transparency of government also raises investor confidence, which in turn contributes to increased foreign direct investment in the long run.
2. **Helps boost the private sector:** E-government helps provide boost to the private sector, particularly SMEs, by reducing the time and expense required for businesses to interact with the government. Furthermore, through simplification of government processes and services such as online procurement, the government can reduce barrier to entry for new businesses and also increase competition.

**3. Allows for decentralization of governance:** E-government makes decentralization of government easier since data stored in digital format can be updated and accessed from virtually any office within a networked environment.

**4. Allows greater scope for integration:** Digital storage of data and software applications allow greater scope of integration of activities of different government offices as data can be shared easily and efficiently.

**5. Allows learning from the past:** Since E-government allows data to be stored and from past projects can be easily used for new retrieved easily, experiences and statistics similar projects.

The E-government benefits can be categorically broken into two categories: citizen direct benefits (tangible) and citizen indirect benefits (intangible) (**George et al, 2011**)

**A)** Citizen Direct benefits are categorically tangible benefits and can be measured in value such as;

- ✓ Saving transaction costs and Processing transactions speedily and High speed accessibility and Reducing customers' time spent travelling to government offices
- ✓ Decreased customer queuing time and Decreased face-to face-interaction

**B)** Citizen indirect benefits are benefits that are difficult to observe, but nevertheless can be realized. Examples of *citizen indirect benefits* are:

- Being user friendly with service provider and easy to use of services
- Easy to find information and Convenience and availability (24 hour/day, 7 days/week)
- Keeping customers' personal and financial information protected etc.

## **2.5 Challenges for a Successful Implementation of E-governance Platforms**

In spite of it is evident that E-governance and ICTs are powerful drivers for quality public service delivery there remains many challenges which hamper the exploration and exploitation of its opportunities. The multidimensionality and complexity of E-governance initiatives implies the

existence of a wide variety of challenges and barriers to its implementation of different platforms and packages. Practically, these barriers can have a significant effect on the development of government organizations' capabilities to provide online services and transactions. According to the findings, these challenge (poor ICT infrastructure, security and privacy issues (Alshehri and Drew, 2010). Security and privacy of information is another serious technical challenge identified in this research and is a well-documented issue for e-government implementation all around the world (Layton, 2007).

***Lack of institutional framework supporting e-government:*** Creating an institutional framework supporting E-government initiatives. This includes setting up a high-level steering committee, monitoring implementation activities, ensuring e-government investment reviews, and establishing clear mandates and responsibilities for implementing e-government. It is important to define a clear mandates and responsibilities plan to allow effectively for E-government development and ensure proper co-ordination across government agencies (UNDP, 2006).

***Digital divide:*** The digital divide is always described in terms of the difference in the number of telephones, internet users or computers per head between rich and poor countries. Ownership of personal computers and disparities in internet access are among the most important challenges faced today in implementing e-government (Kenny and Fink, 2004).The digital divide in developing countries in general and Africa in particular, is closely tied to the contextual economic environment of countries. Countries with thriving economies are by and large associated with increased access to ICTs compared to those whose economies are doing badly (Nua, 2002).It is chronic barrier to adopting E-governance platform services from the demand side is the problem of **social exclusion** caused by the problem of unequal access to the Internet per users. Even while Internet penetration continues to rise across all social groups, the '**digital divide**' between those with Internet access along rich and poor, young and old, well-educated and poorly educated, urban and rural, public and private services and has widened significantly during the last five years(NAO, 2002).

***Privacy and security concerns:*** Security and privacy of information is another serious technical challenge. Participants feel that using websites to transfer their personal information (critical document uploading, inputting name, picture, and date of birth, ID number, and credit card details), sharing information with public agencies online or electronically is not safe. They are afraid that e-services websites are not secure enough to protect their private information from being misused

or distorted by hackers. For e-government activities, service continuity is critical not only for the availability and delivery of services, but also to build citizen confidence and trust (US-GAO Report, 2002)

**Limited IT skills and training:** this includes lack of computer literacy among the citizens, businesses, and government sectors themselves. A lot of training has to be done in terms of ICT training. In developing countries, people who have skills in ICT are very limited. The majority of those who have them are young citizens thus the elders will be left out in adopting e-government. The other major problem is that even the government employees or those who are supposed to make the e-government to run smooth do not have the skills.

**Culture and Attitudes:** Overcoming cultural inertia is one of the main challenges to e-government implementation in developing countries (Ndou, 2004). Heeks (2003) reported that, major reason behind e-government projects failure in most, if not all, developing countries is the gap experienced between the design and reality of information systems implementation. Usually moving from paper based to E-service, or any change in society is usually met by some form of resistance.

As different authors stated that the impediment factors for E-governance platform implementations are;

1. Government agencies do not taking into considerations of engaging citizens in the development of their E-government services and resources. Rather, many applications are internally driven to meet cost savings and other government mandates regarding efficiency. In fact, though many agencies do have a **“contact us”** form of feedback on their address bar, but they do not have a formal process for handling suggestions for their improvement (Jaeger, 2006).

**As Bertot et al, 2008** forwarding mechanisms to overcoming the failure of E-governance platforms implementation by taking to consideration of citizens; to engage users/citizens successfully in E-government requires a range of iterative and integrated planning and design processes such as conducting an information and service needs assessment, technology needs assessment, determining the availability of appropriate content and services to meet user needs, the ability of citizens to engage in E-government services due to information and technology literacy, the knowledge of government in order to determine which agency or level of government provides the needed service or resource, usability and functionality testing, accessibility testing,

and others. These considerations are essential to the development, implementation, and continual improvement of user-centered E-government services. These are not onetime issues; they are iterative and essential part of the continuing process of developing and refining E-government platforms.

1. Government agencies do not systematically solicit service quality, outcome, or other evaluations of data. Essentially, once a service is rolling out and running, improvements come largely in the form of system updates and as responses to programmatic changes which force a change in an application (Bertot et al, 2008).
2. A lack of an integrated approach across E-government services and resources, which required them to essentially “start from scratch” for each service and resource accessed. The Inconsistency proved highly problematic for individuals who lacked computing skills (Bertot et al, 2008).
3. Problematic design issues that often served as barrier to accessing content and services. Technology requirements that forced an approach to accessing services and resources for example, some websites were only accessible with a certain browser, selected browser plugins, and technology configuration (Bertot et al, 2008).

Language barriers that served to make some content inaccessible and requirements to accessing services and resources such as forms of payment, documentation, the necessity for an e-mail address, and other items (Nkwe, 2012).

### **2.5.1 Chronic Challenges of Developing Countries of E-governance Platforms Implementations (Kamar and Ongo’ndo, 2007; Adeyemo, 2010)**

1. A reluctance to share information which has resulted in policies that deny access to information and the creation of “empty” government ministries websites with information of little value.
2. The government being faced with management challenges in the implementation of E-governance. The uncoordinated E-governance activities result from low level of public administration of E-Services as well as low quality and insufficient E-content information from grassroots levels of websites.

3. Low information technology literacy in a country which slows down the process of E-governance services consumptions.
4. The uneven distribution of Internet facilities, high cost of connection and in some cases low penetration of high speed connectivity to the Internet.
5. Digital Divide which is experienced between the urban rich and poor, the rural and urban citizens, the IT literate and the IT illiterate. This manifests also in the language in which web site content is delivered which can only be understood by a minority elite.
6. Insufficient allocation of financial resources due to financial constraints and mixed government policies which has slowed down the rate at which E-government is introduced.
7. E-government implementations failing due to a mismatch between the current and future systems resulting from the large gap between physical, social, cultural, large gap of planned and actual performances, economic and other contexts between the software designers and the place in which the system is being implemented.

## 2.6 Paradigm shift of Public Administration and Change of Patterns in Service Delivery

Table 3 (2.1) Paradigm Shift in PA

| Aspects                               | Bureaucratic Paradigm                                                      | E-government Paradigm                                                                          |
|---------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>Orientation</b>                    | Production cost-efficiency                                                 | User satisfaction, control and Flexibility led to efficiency                                   |
| <b>Leadership Style</b>               | Command and control                                                        | Facilitation and coordination, innovative entrepreneurship                                     |
| <b>Management Principle</b>           | Management by rule and Mandate                                             | Flexible management interdepartmental team work with central coordination                      |
| <b>Process Organization</b>           | Functional rationality, departmentalization, vertical hierarchy of control | Horizontal hierarchy, network organization, information sharing                                |
| <b>Internal Communication</b>         | Top down, Hierarchical                                                     | Multidirectional network with central coordination, direct communication and seamless channels |
| <b>External Communication</b>         | Centralized, formal, limited Channels                                      | Formal and informal direct and fast feedback, multiple channels                                |
| <b>Mode of Service Delivery</b>       | Documentary mode and interpersonal interaction                             | Electronic exchange, non-face to face interaction                                              |
| <b>Principles of Service Delivery</b> | Standardization, impartiality, equity                                      | User customization, Personalization and citizen oriented                                       |

*Source; Valentine (2004 and Karim, 2015)*

## 2.7 Ethiopian E-government Major Objectives

The E-government *strategy of Ethiopia* has four key objectives (MCIT, 2011).

- 1) **Bring the Government closer to the people:** The E-government strategy aims to increase the awareness levels of the people regarding the services offered by the Government and their rights as customers and also make it easier for the customers to influence and participate in design of government policies and schemes. This participation is expected to create a sense of ownership and a culture of higher compliance leading to closer ties between the government and the people.
- 2) **Effective governance:** The implementation of the e-Government strategy will lead to backend automation and adherence to a common set of policies and standards leading to better integration and information sharing amongst them and resulting in making the government

organizations more effective and efficient in discharging their services and duties. Furthermore, capacity building to impart training to public servants on skills that will enable them to serve the customers in a more effective manner is an integral part of the overall E-government strategy.

3) **Improved service delivery:** The *sine qua non* of the e-Government Strategy is the electronic enablement of 219 services to be delivered through alternate channels such as the internet, mobile, call center and the citizen facilitation centers. The introduction of these alternate channels will empower the people with the choice of how, when and where they interact with the government to facilitate a no-wrong door policy which will further improve the customer satisfaction levels with the government services. It is also envisaged that electronically enabled services would be not only faster, and easier to demand and avail but will also have pre-defined and published service levels thereby leading to a visible enhancement in quality of service delivery.

4) **Socio-Economic growth:** The implementation of the e-Government program will benefit through participation of the private sector and deployment of its resources, entrepreneurship and competence. At the same time, the private sector would also benefit through the e-Government program as government services will be delivered faster and at a lower cost to the customers thereby resulting in lower cost of doing business. This is likely to foster a symbiotic environment that would promote economic growth and sustainability of the e-Government initiatives.

## **2.8 Stakeholders of E-governance**

The adoption of E-governance in any country shall involve the active participation and contribution of a number of key players and stakeholders in the entire process. Some of the important stakeholders (UNESCO, 2005; UN, 2008; Otiye and Ntulo 2013) have including;

### **1. Political Leaders**

No E-government initiative, no matter how well strategized can bear fruit unless there is a will to do so by the political leadership in the country. This stands true for almost all nations and it is imperative that the top leadership in the country is sensitized enough towards the need for electronic governance.

### **2. Government Ministries/Departments/Agencies**

The government departments at all levels in a country need to ensure a perfect backend integration of systems and processes to ensure a smooth and seamless transformation of the government to a digital state. The E-awareness amongst the government employees and their willingness to embrace change shall play a key role in the whole process. Public sector ministries/agencies integration have pivotal role in providing their services in easily coordinated way and potentially reducing tediousness and tiredness of service users here to there in accessing services from different agencies and organizations.

### **3. Legislative Bodies**

Formulation and enactment of well-crafted IT laws and policies is a pre-requisite for the success of an e-government venture and the role of law making bodies assumes paramount importance in this regard.

### **4. Citizens**

Being the key beneficiaries of the entire process, the citizens play a crucial role as they are the ones to expect a fast and convenient delivery of online information and services from the government and would also contribute effectively to the process of policy making by voicing their opinion and views electronically.

### **5. Private Sectors**

A healthy collaboration and partnership between the government and the industry/ private sector entities shall lead to an easy fulfillment of E-government goals as both the parties can draw benefit out of the ventures. The private sector can be an investor for e-government initiatives and can also add value to the e-government initiatives through deployment of advanced technology and global expertise. Apart from the commercial aspect, they would in turn benefit from the increased efficiency, transparency and accountability of the government.

### **6. International Organizations and NGOs**

These can play an important role by being facilitators and motivators for the projects. Through an effective promotion of the e-government initiatives, these agencies can raise awareness amongst the common citizens and can also contribute by carrying out research in the area and exchanging best practices with countries that have already proved successful in some areas of E-governance platforms.

## **2.9 Need for Partnership in E-governance Platform Implementation**

E-governance projects are large in scale and magnitude of operations and require not only a huge amount of resources but also a multidisciplinary skill. Hence, it becomes difficult at times for the government to handle the projects completely with its own resources. It then necessitates/prompts the governments to get into partnerships to leverage on the strengths and resources of its partners. These collaborations or partnerships can be built up with the private sector as well as the other stakeholders in the process of e-government including the NGOs. Considering the fact that companies in the private sectors are exposed to greater competition and are subject to higher risk, they generally develop tools and techniques to manage their environment better than a government organization which does not face the same level of exposure and competition. The private companies generally operate in the corporate sector which is characteristically different from the public sectors. Public Private Partnerships (PPP) are significantly different than traditional procurement or privatization. Risk Sharing, Innovation, Competition & Efficiency brought by the private partners are the key features that work toward making PPP Viable & beneficial (UNESCO, 2005).

One of the main attributes of E-government projects is the '***citizen-orientation***' be it in software interfaces or online delivery of services. It is often expected that the entire process shall be tuned and geared towards the needs of the citizens. The private sectors have abundant experience in citizen/customer relationship and this experience can be used to the advantage of E-government initiatives. The private companies can share valuable lessons to the government in customer service, responsiveness and adaptability to the customer needs. E-government and its impact have to be extended to every corner of the country and all societies. Where, traditional governments have been working as superstructures and do not have much interaction with the community. On the other hand, private sectors and NGOs are closely associates with the community at the grassroots level. The citizens, therefore, at times have a much higher trust level in such institutions. Since one of the major requirements of the success of E-governance is its acceptance and usage by the people, the private sectors and NGOs can play a crucial role in the success of E-government projects by bridging this gap. NGOs can also facilitate the implementation of large scale projects and their roll out to the villages which are not so easily accessible. On the other hand, it is better the governments can concentrate more on the Planning, Design and coordinating of the projects. Thus, partnerships can be built up where each retains its core strength on one side and leverages

on the experience and strength of the other partners, thus accelerating the pace of E-governance (UNESCO, 2005).

### **2.9.1 The Possible Avenues for Partnership for E-governance**

The partnership with the various stakeholders for e-government initiatives can be in many areas such as the following:

- a) Financial Investment
- b) Infrastructure Setup
- c) Solution Architecture and Technology Selection
- d) Content Development and Management
- e) Rendering Front-end services to the citizens
- f) Citizen Relationship Management (CIRM)
- g) Roll-out of e-government projects (nationwide/region wide)
- h) Software Development
- i) Project Management and Assessment and
- j) Capacity Building

### **2.9.2 Public Private Partnership (PPP) and E-governance**

Public-Private Partnership (PPP) involves creating multiple “stakeholders” operating within a consortium. In this process, the critical ingredient for sustainability and success is the realization of direct benefits for each of the stakeholders. *E-government and ICT projects are natural candidates for PPP.* Collaboration among public and private are players the deepening role to building strategic alignments in service delivery and successful implementation of E-governance projects (Bennett and Howard, 2008). The introduction of PPP is seen as a solution to overcome many of the obstacles and challenges faced by governments in realizing the objectives of e-government projects. PPP model is expected to increase opportunities for both the public and private sectors to serve their customers more effectively and efficiently (Kaliannan et al, 2010). PPPs are much promising than outsourcing system where the contract is governed by a formal contract to address narrow, routine tasks. It provides a durable, responsible cooperation structures for the development and implementation of projects and programs of resourced, quality output and matching expectations. Service delivery by public authorities are accompanied by the high cost and low quality of service, the introduction of service standards and administrative regulations do not provide a significant improvement,

as concept of service state are not acceptable and understand for most civil servants. Only effective transparent competition of private campaigns with sufficient regulatory and legal framework will provide the appropriate quality and reduce the financial and social public expenditures (**Klymenko, 215**).

Table 4 (2.2) E-governance and PPP Model Importance

| <b>Benefits to Government</b>                                                                                                                                                                                                                   | <b>Benefits to Citizens/Users</b>                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Financial participation from outside sources<br>Better risk management<br>Government can concentrate on core business<br>Better feedback from the users<br>Eased technological hassle                                                           | Greater confidence in the service delivery<br>Time and cost savings<br>Empowerment of citizens<br>Better citizen/customer care<br>Best of the state-of-the-art of service delivery                                                                     |
| <b>Benefits to Private Partners</b>                                                                                                                                                                                                             | <b>Benefits to Society/Community</b>                                                                                                                                                                                                                   |
| Exposure and learning experiences<br>Knowing government-customers who are different<br>Serving wider community<br>Development of additional<br>Boost employment opportunities<br>Boost employment opportunities industry<br>International trade | Better utilization of government funds<br>Close relationship with government and community of users<br>Better quality of life<br>Development of a competitive IT<br>Improvement in e-readiness and Promotion of knowledge society through e-government |

Source; Kaliannan et al, 2010

The decision by government to pursue PPP service delivery is often based on analysis to determine that the PPP approach will deliver value to its public through one or more of the (Lower cost, higher levels of service and reduced risks)(UN, 2008).

Governments are also investing in external partnerships as tools to enhance their ability to deliver citizen-centered service. These partnerships enable access to best practices in the private sector and other parts of government and enhance their ability to deliver service (Duggan and Green,2008).

A cooperative venture between public and private sectors built upon the strengths of each partner that best meets clearly defined public needs through the appropriate allocation of resources, risks and awards.” A PPP is a contractual agreement between a public agency (federal, state or local) and a private company. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility. The public interests are fully assured through provisions in the contracts

that provide for on-going monitoring and oversight of the operation of a service or development of a facility. The concept of Public Private Partnerships existed much before the E-government. Many governments have already built up such partnerships particularly in the domain of civic infrastructure development. Department of Finance, Republic of South Africa has in fact issued detailed document titled Guidelines for Public Private Partnerships. These Guidelines contain asset of procedures to advise departmental accounting officers and project managers on sound practices when preparing, procuring and implementing PPP arrangements. PPP is emerging as an important paradigm in the parlance of E-government (Duggan and Green, 2008).

### **2.9.3 Partnerships with NGOs & Local Bodies**

Partnership with the international NGOs/Nonprofit organizations and/Local Bodies working in the interiors and remote parts of the country to facilitate a large scale roll out of the projects on a nationwide basis. NGOs and similar local organizations in villages, closely associate with the people at the grass root level and thus enjoy much higher trust levels vis-à-vis government. Since one of the major requirements of the success of e-governance is its acceptance and usage by the people, these agencies/organizations can play a crucial role in the success of E-government projects by bridging this gap which otherwise may result into another digital divide.

### **2.9.4 Important Considerations for Successful PPPs**

While there is not a set formula or an absolute foolproof technique in crafting a successful PPP, following aspects should be looked into while developing PPP, each of these keys is involved in varying degrees:

#### **1. Political Leadership**

A successful partnership can result only if there is commitment from “the top”. The most senior public officials must be willing to be actively involved in supporting the concept of PPPs and taking a leadership role in the development of each given partnership. A well-informed political leader can play a critical role in minimizing misperceptions about the value to the public of an effectively developed partnership. Equally important, there should be a statutory foundation for the implementation of each partnership.

#### **2. Public Sector Involvement**

Once a partnership has been established, the public-sector must remain actively involved in the project or program. Ongoing monitoring of the performance of the partnership is important in assuring its success. This monitoring should be done on a daily, weekly, monthly or quarterly basis for different aspects of each partnership (the frequency is often defined in the business plan and/or contract).

### **3. Carefully Developed Plan**

You must know what you expect of the partnership beforehand. A carefully developed plan (often done with the assistance of an outside expert in this field) will substantially increase the probability of success of the partnership. This plan most often will take the form of an extensive, detailed contract, clearly describing the responsibilities of both the public and private partners. In addition to attempting to foresee areas of respective responsibilities, a good plan or contract will include a clearly defined method of dispute resolution (because not all contingencies can be foreseen).

### **4. Private Partner Commitment**

It must be a real partnership, with shared burdens and shared rewards for both the public and private participants. The private partner should not be viewed just an entity for outsourcing work, they should rather be involved in the project as genuine partners so that they can contribute to the long run success of the e-government initiative. The key lies in finding each partner's strength and leveraging upon it to make a winning team.

### **5. Communications with Stakeholders**

More people will be affected by a partnership than just the public officials and the private-sector partner. Affected employees, the portions of the public receiving the service, the press, appropriate labor unions and relevant interest groups will all have opinions, and frequently significant misconceptions about a partnership and its value to all the public. It is important to communicate openly and candidly with these stakeholders to minimize potential resistance to establishing a partnership.

### **6. Selecting the Right Partner**

The "lowest bid" is not always the best choice for selecting a partner. The "best value" in a partner is critical in a long-term relationship that is central to a successful partnership. A candidate's experience in the specific area of partnership being considered is an important factor in identifying the right partner.

### **7. Intellectual Property Resources**

An important consideration with regards to Public Private Partnership is the decision about who controls and how much. During the implementation of e-government projects, a lot of assets in the form of products, technologies, business models etc. in which intellectual property rights such as copyrighting, patenting and trademark rights could exist. Since government is in partnership with the private sector during such projects, it is very important to define a clear cut sharing mechanism and formulate policies with respect to returns on the use of these rights. The government must ensure that it owns IPRs individually or in partnership with the concerned private sector party wherever new processes, software etc. are being developed.

## **2.10 E-governance and Efficiency, Effectiveness and Service Qualities**

As the application of E-governance platforms in public organizations within developing nations becomes widespread, a progression through the various stages of E-government and/or E-service can be observed. In order say public services have high quality services it must be driven and shaped by five underlying factors (Gichoya, 2005).

- 1. Service Availability:** Citizens often derive benefits from the consumption of public services in much the same way as they derive benefits from the consumption of private sector services.
- 2. Satisfaction Levels with Services;** users' satisfaction can be as important as actual outcomes in determining perceptions of service quality and satisfaction is itself driven by factors such as quality of customer service, level of information available and the degree of choice in how to access and make use of a service, the better the customer care, the greater the quantity and quality of information available on a service, and the higher the degree of choice, the higher the satisfaction level with a service is likely to be.
- 3. Importance of Services Offered;** More widely there is thought to be a link between the perceived importance of a service and the satisfaction levels generated for that services
- 4. Fairness of Service Provision;** public value in fairness and in the progressive universal approach to deciding on the terms of access to services. A failure to keep this in mind when designing and delivering a portfolio of services might lead to the destruction rather than the creation of public value.

5. **Cost;** the issue of how much it costs to deliver services is obviously a key factor. Citizens implicitly make judgments on the cost of services as they experience them and it is important to perceptions of value added that costs are felt to be reasonable given the range and quality of services provided.

Basic internal functional efficiency and effectiveness improving through the application of it (Asgarkhani2003: Asgarkhani, 2005);

- a. Improving internal communications (through the application of electronic mail) and introducing workflow management systems for increased process efficiency.
- b. Improving providing access to information concerning services and the democratic process with in departments/units.
- c. Electronic Interconnection of Services - Putting in place applications that will not only enable citizen participation through feedback, but will also allow for transactions between citizens to government (C2G), businesses to government (B2G) and government-to-government (G2G) that improving service qualities and effectiveness.
- d. Electronic Democracy - Introducing digital democracy technological solutions that would enable participatory action and democratic processes and policy making processes
- e. Totals Electronic Service Integration - Introducing integrated electronic or digital governance services through one central E-service hub where citizens can access different organizations' services at one-stop single window shop.

A review of various case studies of E-government and E-Service (NIC 2000, Asgarkhani 2003, and Asgarkhani 2004) suggests that local government objectives in introducing E-service are likely to concentrate on:

- 1. Prompt accurate service as local governments potentially receive millions of calls per year, setting a target to resolve a high percentage of these calls the first time they occur (through establishing a customer contact center) can result in significant efficiency gains and cost savings.
- 2. Improved quality of service (by reducing redundancy in services); one client of a local government can potentially generate up to dozens of files in different locations. Local governments are seeking to convert these to one secure and accessible file helping to provide continuity and coordination of local government support.

3. Removing barriers and tackling social exclusion local governments are aware that many clients do not have the skills to use electronic services, yet seem keen on setting up networks of learning centers in libraries and community centers that teach people relevant Internet and Web technology skills.
4. Local access points; most of the time customers' queries cannot be addressed immediately. Clients often need to meet with a "professional." Local governments can benefit from setting up community access points to let clients meet 'professionals' through online video links.
5. Today, E-services appear in various shapes and forms. Typical applications (within both local and national governments) can include: providing access; connecting to a service or a process; facilitating consultation; and enabling active citizen participation.

## **2.11 E-governance and Good Governance**

E-government and the debate on good governance connect well to each other because both concepts share the same objectives, even though their respective focus may be different. Administrative efficiency, quality of public services and democratic participation are core principles of both, E-government and good governance. International actors have increasingly turned to **E-government** as a means to promote good governance World Bank has taken up a leading role with the creation in 1995 of the Information for Development Programme (INFODEV) promote the sharing of knowledge, experiences and best practices throughout the world in sound public policies, effective public administration and efficient civil services, through capacity-building and cooperation E-government being introduced as a vehicle for the promotion of good governance lies in its dualistic approach to state modernization where E-government combines an internal focus on administrative reform with an external focus on state citizen (state – customer) relations (Haldenwang, 2003). There is increasing evidence that if implemented strategically, E-governance can improve access to public services, increase the efficiency, transparency and accountability of government and political processes, as well as empower citizens by enabling them to participate in the decision making processes of governments (UNDP, 2007).

Now days, delivery of quality services are highly determine and influenced by interdependency and integration of government departments and agencies collaboration especially, in era of

technological driven service delivery to citizens using E-governance platforms. This builds citizens' trust to their government besides it reduces transactional cost of services delivery and access of different services using one-stop single window shops. In doing so, departments/agencies across public organizations will operate in a collaborative, connected manner, rather than in isolation from each other. This collaborations and public sector integrations will promote and establishing the well-crafted architecture of good governance in public administration arenas (Duggan and Green, 2008).

The **World Bank (2004)** recommends the following goals for E-government initiatives to achieving good governance;

1. Promoting civic engagement by enabling the public to interact with government officials and vice versa
2. Promoting accountable and transparent governments in which the opportunities for corruption are reduced
3. Promoting a greater access to government information and activities
4. Promoting development opportunities, especially the sorts that benefit rural and traditional underserved communities
5. Promoting citizens' participation in policy formulation, implementation, evaluations and decision makings without any restrictions.

E-government holds the potential to facilitate and ensuring good governance in use of information systems in government comprising both operational and strategic uses. It quest to successful implement of platforms are motivating in turn will of increased effectiveness, efficiency, and information quality, improved interaction mechanisms, and in turn better governance tools. Further, E-government uses ICT to promote more efficient and cost effective government and facilitates more convenient services. Most importantly, it allows greater access to information and makes government more responsible, transparent and accountable to their citizens that will reduce corruption, creating convenience, increasing revenue and cost reduction. It forces information sharing since services will be available online for all to access and provides easier and quicker access to organizational knowledge to all employees, thereby flattening hierarchy (Hart et al, 2011).

### 2.11.1 E-governance as a Triggering Force for Good Governance

E-governance and contemporary public administration arena calls for ensuring good governance through different forms and ways. The first priority requires of government agencies and public organizations are expected to collaborate in order to provide integrated services that better respond to citizen and business needs. This enable the governments to deliver different sectorial services coordinately using E-governance platforms across inter-organizational/agency relationships that minimizing costs, procedures and long last time waste to accessing services from the government, reducing corruptions and maladministration using one-stop window shop service delivery (Dawes and Eglene, 2008).

E-governance platforms has introducing bureaucratic paradigm has shifted to electronic exchange and none face-to-face interaction, Standardization, impartiality and equity principles are shifted by user customization and personalization that improving service qualities (Field et al, 2004;BSI, 2008). Information systems (IS) and claimed E-governance as the ICT-enabled route to achieving good governance. Administrative efficiency & effectiveness, quality of public services, cost reduction value for time and money, citizen centric service, combating corruptions and democratic participation are core objectives of E-governance and those are the same time thematic principles of good governance **(Salam, 2013)**. E-governance modernization decisions cannot be made any more by each particular institution in an isolated way. Local governments and public agencies have to respond to increasing co-operation and networking necessities by situating themselves in an organizational framework focused on the integral delivery of services (Haldenwang, 2003).

Governments around the world are spending more than 50% of annual public budgets for purchasing of goods and services from the private sectors, E-procurement project platforms are promising flagship that has launching with the objective of ensuring value for money as well as transparency and accountability in the public procurement process. The governments and suppliers are allowed to conduct procurement activities through electronically. It allows the suppliers to present their products on the internet, receive, manage, and process purchase orders and eventually receive the payment from government agencies *via* Internet. It allows the governments' agencies to approve and submit the purchase orders also select items to be purchased, initiate approval processing using electronically communications. Thus, E-procurement system supports the entire procurement cycle from submission of tender/contract to approval and payment including alert notifications to the potential bidders. For the governments,

it would lead to cost savings through shortened procurement cycle (electronic retrieval and submission and approval) and the creation of centralized national data center which is easy to detects any fraud and malpractices of transaction using databases across agencies, achieving efficiencies and effectiveness, time bounded and, enable the governments to be smart buyer as well as improve control and accuracy in ordering and billing process and finally improving good governance (Siddiquee, 2005).

## **2.12 E-governance and Public Sectors' Integration (Interoperability)**

Public sectors' integration, Collaboration and partnership play underpinning role in the contemporary periods for successful E-government platform implementations and providing quality services. As public organizations turn to outside partners, they must build internal and cross ministerial/departmental mechanisms that will allow information sharing, communication, collaboration in service delivery for citizens and coordination. The better this is done, the greater the chance that public organizations can develop high performing E-government systems by reducing the uncertainty of marrying new technologies with old technologies, revamping well entrenched business processes, and exploring innovate ways to integrate emerging technologies and practices in turn enable public organizations provide quality services (**Gant, 2003**).

Providing citizens with a *seamless service* often requires a high level of co-operation between public services. The multiplicity of public sector agencies and the large number of services they deliver call for better integration of administrative processes (**CIB, 2008**). The E-government Integration Model (EGI) model proposed by Wing Lam, (2005) posits that E-government Integration is not only a technical matter of getting IT Systems in place, but also calls for strategic planning and change management. The model is premised on the levels of government relationships and their respective barriers of integration. The three levels of government relationships are categorized as central government to government agencies (CG-2-GA), government agencies to other government agencies (GA-2-GA) and between government agencies and the end users i.e. the citizens(Gathungu and Mugnai, 2012).

The contextual factors that lead to the disparities in the integration of public organizations providing public services via coordinated E-governance platforms of government functions and processes is an indication that there lacks with uniformity in the E-government policy, sectorial projects, programme inconsistent and lacks of coherent implementation framework. Unable to

understand & envisage major theoretical domains of E-government which include the political, social and public policy domains effects into practical operations and organizational adaptability perspectives (Wastel, 2003, Gathungu and Mungai, 2012).

**Online Collaboration and Virtual Meetings** if public sectors are integrating they are not only providing quality services but also those organizations general managers can conduct their meeting being from their offices(Online discussion forums, conference, shared calendars, resource libraries, and group editing of documents etc.) can be used both during and between meetings to help complete their work i.e. ***“two birds by the single stone” (serving citizens at their office and conducting their meeting)***. When virtual meetings do occur, web conferencing, chat, and instant messaging can be used to help individuals interact more effectively, especially as online meetings often occur without the benefit of eye contact in turn that promoting good governance (Hart et al, 2011).

## **2.13 Empirical Studies on E-governance**

### **2.13.1 E-governance in Botswana**

Botswana has a dedicated agenda towards promoting E-government because the leaders have understood the importance of E-governance to appreciable extents. The potential of E-governance on improving the governance value chains and service delivery in Botswana is explicitly outlined (Bwalya and Healy, 2010). The Botswana E-government landscape presents a case where dedicated efforts have been authored in a view to encourage the proliferation of E-government implementation. Within this line, a dedicated E-government team has been mandated with the responsibility of encouraging the penetration of E-government projects to the doorsteps of the people; evaluate the value of appropriate ICT infrastructures. Botswana is investing heavily on E-government. There is an increasing interest in the use of E-services by the public. The government has a website which provides a lot of information on different aspects of Botswana; on the website one can download the requirements and application forms of services without being in physical contact with the government departments (Nkwe, 2011; 2012).

Botswana’s commitment towards harnessing E-governance platforms is imperatively stated by its president (Seretse Khama Ian Khama) direct speech like this, ***“For Botswana to flourish and prosper in the 21<sup>st</sup> century, we will need to become innovative users of ICTs and E-governance, and have a high performing government that is providing convenient and efficient electronic***

**services to all of our citizens,”** and Botswana will spend an estimated US\$76 million on which is an ambitious, but very achievable E-government endeavor for 2011-2016 E-governance platform implementations (Nkwe, 2012).

Their commitment towards E-governance platform implementation the government is not the sole actor rather they work mutually with private sectors and other third sectors. The private sectors shall have a strong role to play in the delivery of the Botswana E-governance initiatives programme, government as the coordinator of projects and programmes and private sectors are implementers of the platforms (Mmegi, 2011).

Botswana E-governance platforms such as Electronic Data Interchange (EDI), image processing, and Electronic File Transfer (EFT) will make traditional audit trails disappear. These technologies will greatly change the nature of the audit process, which traditionally has relied on source documents in paper form. To audit on-line systems, auditors will have to incorporate **online** audit software as their primary audit tool and gather evidence electronically. The use of such technology will free the auditor from many mundane audit tasks and allow the auditor to use this time for higher level tasks, such as understanding the client's business and assessing various risks in turn results reduction of high costs, improving efficiencies, ensuring effectiveness and more importantly reducing of corruption with high rate(Nkwe, 2011).

**E-Passport:** The introduction of the new passport with new technologically advanced features is one way of the government to try and bring Botswana up to par with other countries. The features found in the new passport will allow the department of Immigration to be effective and efficient.

**E-license:** vehicle license is another area the government is trying to improve. The public used to have a lot of grievances regarding the old paper passed licensing system. The problems spanned areas such as replacements and new registrations with the aid of computers, replacements and renewals are concluding online using websites that improved qualities of services, saving time, timely service accessing and cost reduction wasting frequently and long distance trips to governments departments (Nkwe, 2011; 2012).

The government of Botswana has started to partner with developed countries to get assistance on E-health. Projects on **E-health** require a lot of financial and human capital investments. In 2008 the government of India and Botswana got into partnership which resulted in Botswana receiving sophisticated E-health machines from India. The machines will enable doctors in India to consult and diagnose patients in Botswana without having to travel (BOPA, 2008). This platform effects

are numerous (patients can access well trained, increasing by more than half of being cured, saving costs of travelling and more importantly they treat at their home with their families).

E-government benefits, many ordinary citizens do not find the urge to engage in E-government. Given this scenario, it is fair to state that there is a lot of potential of E-government in Botswana as more and more people are having access to mobile phones which can further be used as platforms for internet access. This further allows citizens, government and businesses to interact constructively using interconnected technologies (Bwalya and Healy, 2010).

*Lack of citizen awareness and participation:* A lot of services have been provided via ICT in Botswana, The adoption rate of these services are way below expectation. The mobile banking service is one of the best facilities introduced by banks but Botswana still prefer to spend hours in a bank just to get an account balance or to transfer funds. E-government is faced with the same problem. ***Low level of the internet penetration and infrastructure constraints;*** Internet diffusion is still low due to the fact that local phone calls are expensive and the fact that PC's prices are expensive barriers impeding E-governance platform implementation (Alomar, 2006; Nkwe, 2012).

### **2.13.2 E-governance in Kenya**

The adoption of ICTs, Kenya has come a long way from the era of using mainframe computers to the modern world of wireless and mobile technology. Over the years as indicated in the diagram below, ICT has remained Kenya's top development agenda as evident in the country's National plans and other government initiatives such as the E-Government Strategy (2004-2009) which provide a road map on ICT implementation. In particular the e-government strategy outlines the objectives and process for the modernization of government that encompass the entire spectrum of government operations, impacting C2G, B2G and G2G as a means towards enhancement of transparency, accountability and good governance, hence making government more efficient, result oriented and citizen focused (Siambi, 2008).

The best practice of Kenyan public sector commission (responsible for recruiting and placing of public servant) in adoption of E-governance platforms which contributing in; saving time, cost, energy and improving efficiencies and effectiveness of the commission, reducing corruptions and timely responding for demand of human resources of public sectors.

The manual (paper-based) recruitment and selection processes workflow was purely completed and took nearly a year of entire processes starting from (receiving of requests from ministries and departments, keying in the information from the indents, verifying information against the

schemes of service, advertising in the local dailies, receiving applications, sorting and filling, listing applications, Screening of applications, writing guiding notes, carrying out pre-selection, inviting candidates for examination and interview, carrying out final interviews and seeking Commission's approval then placing them).

This trends and scenario was inefficient, exposed to corruptions, unable to responding immediate demand of human resources of public sectors, limited only few geographical locations, unable to handling huge volumes of applications, dealing with backlog arising from the previous advertisements and providing timely feedback to applicants on the status of their applications. In order to overcome these challenges the commission is rolling out E-governance platform (**Online Recruitment and Selection Database**) that enabling any of qualified candidates from any corner of country and abroad can apply for the job instead of geographical proximity can access jobs and their applications' status 24hrs/day and 7days/week services of (Siambi, 2008);

- Enables applicants to browse the advertised jobs
- Facilitates job application and submission online
- Creates a seamless interaction with the Commission's website world wide
- Promotes accessibility of the Commission jobs 24/7.
- Gives the Commission a competitive edge and first among equals
- Personalized application status tracking
- Provides clients the opportunity to track the status of advertised jobs
- Enables officers in the Public Service to register their bio-data online
- Enables the Commission to provide feedback to the applicants through the Commission Website, Mobile (SMS), email address, postal address andTelephony.

This platform brings lots of benefits for the commission, job applicants, and public sectors in capably to complete the whole process within short period of time and solving the previous (manual and paper based) recruitment workflow problems effectively and efficiently. The System has re-branded and transformed the Commission in different ways. It has enhanced efficiency and effectiveness in our operations, improved transparency and accountability of the process, improved customer and restored Public confidence by providing timely and personalized feedback, Increased employees satisfaction through introduction of new work methods and removal of tedious and redundant processes (**Siambi, 2008**).

Table 5 (2.3) Kenyan E-government

| Year | No. of applications | Maximum processing time (Months) | Number appointed |
|------|---------------------|----------------------------------|------------------|
| 2005 | 13,563              | 12                               | 1925             |
| 2006 | 53,617              | 5                                | 3,517            |
| 2007 | 47,747              | 2                                | 3,095            |

(Source Siambi, 2008)

The Kenyan experience is well articulated by Okong'o (2008) and IDRC (2008) where both studies show that the following factors are critical to the successful implementation of e-government project: **First**, senior Management Commitment and Leadership are essential for the participation of other government employees in the E-government objectives. The formation of a Cabinet Committee on ICT in Kenya is a case in point. The Cabinet Committee on ICT has shown commitment to key areas of e-government including government-wide ICT infrastructure, cross-ministry *cooperation and coordination, integration and sharing of systems*, and adherence to standards. **Secondly**, the government is poised to make adequate budgetary provisions and forge viable **PPP** will be useful for the implementation and roll-out and to invest in E-government projects. United Nations Development Programme (UNDP) and IDRC are among the first development partners to provide financial and technical support to the E-government directorate. **Thirdly**, the development of a regulatory framework for public-private partnerships in Kenya is ongoing. The fourth issue is the ICT Personnel: The recruitment, raining, re-training and retention of ICT professionals is critical to the success of any E-government strategy. The **Fifth** issue is in regard to management and process re-engineering. The implementation of e-government involves new ways of doing the same jobs and requires that some processes be re-engineered. The e-government directorate for Kenya is developing synergies with the relevant agencies in charge of human resource management and reforms to drive change management as an integral part of the e-government agenda. The **Sixth** issue touches on the need for an enabling legislation is required to achieve some of the objectives defined in the E-government strategy and **finally**, there is need for monitoring and evaluation (Gathungu and Mugnai, 2012).

### 2.13.3 E-governance in Bangladesh Government

Bangladesh government has taken numbers of E-governance initiatives in responding the traditional form of public administration service delivery which is encircled with paper based long

procedures that makes the citizen dissatisfied with the services because of delay in the service, inefficient, ineffective, distrust of citizens their government, corruption and offices are centrally located. In order to provide better services to the citizen their government introducing E-governance platforms to make services available through online. In this regard, government has established national web portal, combining and making all government official websites interactive. The people of Bangladesh now can submit their applications through online to get any public services(health service, education service, bill payment services, income tax payment, trade license, land records, agricultural issues and law and order) service are now easily enjoyed from the house through internet. Government breaks the rigid boundary between government offices and citizen and reaches to the people so that they can get public services from their houses. It minimizes time, costs, improves effectiveness and efficiency, corruption and omits middle man culture and ultimately makes people happy and ensuring good governance (Karim, 2015).

Bangladesh government treated E-governance as an effective mechanism to meet the citizen demand since it has the capacity to create new methods and avenues for participation in government, minimizing gaps, building together citizens through internet, hassle-free businesses, providing faster and better communication, increasing competition for service delivery forced to implement different platforms (Zhiyuan, 2002).

Now the whole Bangladesh is connected through internet with all sorts' information available online. All 7 divisions, 64 districts, 487 sub-districts, 4550 unions and 55 Ministries & divisions, 251 attached departments are inter and intra connected linking through the national web-portal of Bangladesh (<http://www.bangladesh.gov.bd/>). National web portal is the portal that is specially designed binding all necessary together in a uniform way so citizen can easily get any information about government services from one point. All government offices like ministries, departments and other subordinate offices have websites with available necessary information and interactive phases for providing services to the citizens. People can collect any necessary information from the website, can apply for intended services and can get reply though email, download different documents as well which eservices were beyond imagination few years back (GoB, 2009).

#### **2.13.3.1 E-governance Services provided to the Citizens of Bangladesh**

The Bangladesh E-services managed through national data base web portal of (<http://www.bangladesh.gov.bd/>). This web portal provides all necessary information about local government, health, education, social services, law and order, judiciary, local and national

development, contact persons for specific services, related forms and applications, related web addresses, fees etc. The national web-portal provides two types of functions, one is accumulation of information and hoisting all necessary information regarding public services, and second one is providing services through interactive websites (Ahsan, and Zaman, 2008; GoB, 2009; Karim, 2015) some of these services are;

### **1. Land Related Issues**

As Bangladesh has the agriculture based economy, people are mostly dependent on land. People used to go to land office for calculating tax, paying tax, mutation, getting records etc. Since paper based documents were then available or man-made calculation, there was a possibility of miscalculation, cheating, and harassment in terms of paying taxes. Now district offices came forward to calculate land tax through their interactive websites (<http://www.bangladesh.gov.bd/>) It minimizes costs and time of the service recipients.

### **2. Educational Services**

It was beyond imagination to get any kind of academic results sitting in their houses. All academic institutions, government education departments are now providing any services through mobile, internet by sending short message or email or putting the academic numbers which could take much time to get the required outputs. This system covers examination results, admission results, application for admission, knowing necessary documents, fees and other services. Some Universities combined their admission test so that students can easily sit for examination from their suitable places and can avail the services with the limited cost. Students can collect their provisional certificates from any point of internet providers including union information service center at the rural level.

### **3. Health Services Information**

Besides providing necessary information regarding health facility for citizens, it has become an important service to book doctors through online and meets according to the citizen's time. The citizen charter including necessary to be provided for the primary and secondary health care is exhibited either in front of any health complex across the country and hoisted in the websites of all health related decentralized and centralized government websites. This information is for both internal and external customers. Internal customers include all employees of health service who can utilize for their service records, career development, and training programs both in country

and abroad. External customer entails all citizens who can utilize this information for their purpose. Medical education information is also found and disseminated through health related websites.

#### **4. Employment Notices and Applications**

The published advertisement through print media and interaction with hard copies were the main source of getting information and submitting application for employment both in private and public jobs. Private Job advertisements were published both in print and electronic Medias and in their particular websites. However, it is recently added development in the public service delivery provided by the public agencies. From Advertisements to publishing the final appointments are being widely practiced in government sectors. It brings numerous benefits for job seekers. There are many privately maintained websites where employment notices are often posted (<http://www.bangladesh.gov.bd/>) Bangladesh government links thorough web portal and provides necessary services required for employment. This also connects the overseas employment and maintains regular updating in the websites as there are more than 8 million Bangladeshi expatriates are currently living and helping the country economy.

#### **2.13.4 E-governance in Malaysia**

Malaysian government has made concerted and sustained efforts towards ensuring the successful implementation of E-government. Apart from the implementation of various E-government platform flagships, it has developed and put in place institutional frameworks of integration and coordination mechanisms all these supported by necessary guidelines and ICT policies and legislations (Siddiquee, 2005). In line with the objective of providing efficient and quality services to the public electronically, various ministries and agencies within the government have introduced websites often allow the members of the public to express their views and opinions about the quality of services provided and lodge their complaints/grievances, these also serve as effective tools for public consultation and engagement which is signature of *Good governance* (Khalid, 2004), The Ministry of International Trade and Industry E-portal enhancing sharing of trade-related information and resources and processing approval of licenses and permits, renewal and E-consultations online. More importantly, this portal provides useful information and guidelines on how to start business for potential entrepreneurs besides registering online.

E-Services system, of Malaysians that the clients of several public and private agencies are able to access multiple services at one point (One-stop window shopping system). Moreover, the availability of services 24 hours a day and 7 days a week means that services are available without

any loss of time. In some case, long queue at service counters has now become a matter of the past. They can now focus on control and data integrity while leaving the onerous job of direct delivery of services to a network of providers (Siddiquee, 2005).

The Tele-health of Malaysia project marks a new bold chapter in country's healthcare system especially in rural and remote areas. Now available in 41 E-clinics, the programme offers remote diagnosis and consultation as well as continuous medical training through the use of virtual resources (The patients from these areas are no longer required to make expensive and often troublesome trips to major urban centers and even overseas to seek consultation and medication from specialist physicians; such facilities are now made available locally for their benefit (EPU, 2003).

E-government initiatives of Malaysian are also contributing significantly to enhance the efficiency of public agencies in terms of service delivery the benefits of which are enjoyed by citizens, businesses and the government alike. E-procurement by government ministries is not only reducing the government's procurement costs but also making the operations faster and steadier contributing to the satisfaction of all parties. For the private contractors, the introduction of E-procurement has meant a significant increase in overall efficiency since it has led to the reduction of the time taken for application for registration and approval of supplies from 36 days to 20 days; number of lost supplier registration documents has fallen from 5 to 1 percent that dramatically reducing wastage of public money and ensuring transparent, accountable public funds management (Karim, 2003).

### **2.13.5 Status of E-Government in Ethiopia**

The assessment of e-government readiness index that included 191 countries was undertaken by the United Nations in 2001, 2003, 2004, 2005, 2006, 2008, 2010, 2011, 2012 of Ethiopia. The consecutive studies used the premise that the state of e-government readiness is a function of the combined level of a country's state of readiness, economic, technological development and human resource development. Final products of their analysis were the construction of a synthetic indicator named the *e-Government Index* and *e-Government Readiness Index of Ethiopia* is composite measurement of the *capacity* and *willingness comparisons* of 191 countries to use e-government for ICT4D.

#### **1. The Web Measure Index**

Web Measure Index 2005 is based upon a five stage model of e-government framework. These five stages are; emerging, enhanced presence, interactive presence, transactional presence and networked presence. These stages are similar to those described in an earlier framework.

## **2. *Telecommunications Infrastructure Index***

The Telecommunication Infrastructure Index is a composite weighted average index of six primary measures of a country's ICT infrastructure capacity. These are: PCs/1000 persons; Internet users/1000 persons; Telephone Lines/1000 persons; online population; Mobile phones/1000 persons; and TV's/1000 persons.

## **3. *Human Capital Index***

The data for the Human Capital Index relies on the UNDP 'education index' which is a composite of the adult literacy rate and the combined primary, secondary and tertiary gross enrollment ratio with two third weight given to adult literacy and one third to gross enrollment ratio.

## **4. *E-Participation Index***

The E-Participation Indexes used to assess the quality and usefulness of information and services provided by a country's government for the purpose of engaging its citizens in public policy issues. This index is indicative of both the capacity and the willingness of the country's government in encouraging the citizens in promoting deliberative and participatory decision-making and of the reach of its own socially inclusive governance program.

Table 6 (2.4) Ethiopian E-government Status

| Year | Indices indicators | Rank of 191 Countries        |
|------|--------------------|------------------------------|
| 2003 | 0.128              | 166                          |
| 2004 | 0.1365             | 170                          |
| 2005 | 0.1360             | 171                          |
| 2008 | 0.1857             | 172                          |
| 2010 | 0.2033             | 172                          |
| 2012 | 0.2306             | 172                          |
| 2014 | 0.25 and above     | Middle E-Gov't Dev't Indexes |

**Source United Nations E-government Surveys (2003-2014)**

From the above table we can inferred that, Ethiopia is far reaching in use and apply internet which is pre request for interactive E-governance platforms, compere to its population and other African countries.

## **Chapter Three**

### **3 Data Analysis, Presentation and Discussions**

This chapter has attempted to answer basic research questions and test hypotheses raised in chapter one by thoroughly analyzing and discussing both quantitative and qualitative data after collecting data by questionnaire, interviews and observations from customers and employees of DARA. This chapter was composed of five major sections. Section 3.1 validity and reliability analysis, 3.2 discusses about profile of the respondents and descriptive statistics, section 3 discussions about the inferential statistics and quantitative data analysis (3.3 Customers data & 3.4 Employees data) and 3.5 discussions about qualitative data analysis.

The data were collected at three different DARA branches from both customers and employees. The pilot test was conducted that aimed to refine the questionnaire to ensure that respondents have no problems answering the questions. It assesses, also, the validity and reliability of the questionnaire. A pilot study was conducted prior to the beginning of the full study. The responses showed the general ease of completion of the questionnaire. There were some comments for improvement from the respondents. Then the researcher has distributed 255 for customers' and 62 for employees' questionnaires. But there were needed to redistribute questionnaire again for customers because of very low returning rate finally 210 and 52 questionnaires were collected respectively. Out of those collected questionnaires 202 from customers' and 52 of the employees' (with response rate of 83% & 87%) responses have entered into SPSS version 23 window for the statistical analysis.

#### **3.1 Validity and Reliability Analysis**

The questionnaire validity was evaluated early by different respondents (DARA customers and employees), PhD candidates, distinguished advisor and university lecturers under the same field of study. They responded that the contents included in the questionnaire were good and easy to understand implying that the instrument fulfills content validity besides they forwarded constructive suggestions for improvement.

Reliability analysis is to the extent to which a test measured consistently regardless of what it measured or whether or not a test produced the same results on different occasions. The measure was reliable when respondents gave the same answer in different situations. A question might be

unreliable because it contained words which could be misunderstood and, consequently, which might cause confusion. The Cronbach's alpha value ranges from *0(Observed items are not consistent) to 1 (Completely correlate and highly reliable)*. This means that internal consistency will be acceptable if Cronbach's alpha is high the reliability (accuracy, stability and robustness) of the instrument being used that higher value for reliability test, or the more items that are used to measure a factor, the more reliable it could be (Cohen, 2007; Hair et al. 2010) reported that Cronbach's alpha ought to be equal to or above **0.70 or 0.60** for valid investigation.

Therefore, the reliability analysis of the questionnaire for this study has discussed as follows;

#### **(A) Customers' Questionnaire Reliability Analysis**

**Table 7(3.1) Reliability Statistics**

| <b>Constructs</b>               | <b>No. of items proposed</b> | <b>No. of items dropped</b> | <b>No of Items Retained</b> | <b>Cronbach's Alpha</b> |
|---------------------------------|------------------------------|-----------------------------|-----------------------------|-------------------------|
| ICT hardware and Software       | 7                            | 3                           | 4                           | 0.804                   |
| E-governance platform usability | 10                           | -                           | 10                          | 0.839                   |
| Interoperability                | 7                            | 1                           | 6                           | 0.844                   |
| Effectiveness and Efficiencies  | 9                            | -                           | 9                           | 0.870                   |
| Cost Reductions                 | 8                            | -                           | 8                           | 0.857                   |
| Customer Satisfaction           | 10                           | -                           | 10                          | 0.850                   |
| Transparency & Accountability   | 5                            | -                           | 5                           | 0.760                   |
| Participation                   | 7                            | -                           | 7                           | 0.798                   |
| Reducing Corruptions            | 6                            | 1                           | 5                           | 0.741                   |
| Fairness and Equality           | 6                            | -                           | 6                           | 0.875                   |

**Source: Field Survey, (2016)**

As can be seen in Table 4.1 above in measuring the ICT hardware and software configurations were began with 7 items. Three items were dropped because its inter-item correlation matrix total correlation was 0.326 which is below 0.35 and chronbach alpha was below cut of point of 0.60. After dropping those three items the inter item correlation matrix become very significant and the alpha value been 0.804 which is very reliable(See annex; A).E-governance platforms usability was began with 10 items, and without dropping any item the reliability was 0.835 and its inter item correlation matrix value had above 0.35 (See annex; A). Interoperability as the same time has begun with 7 items and dropped one item it's inter item correlation with other items were above 0.35 resulting in Cronbach alpha of 0.844(See annex; A). Effectiveness and Efficiencies were begun with 9 items and its chronbach alpha was 0.870 and Cost reduction dropped 9 items & it

retained all 9 items with alpha value of 0.857 all of their items since its items satisfied all criteria as the same time customer satisfaction measurement was begun with 12 items and drooped 2 items to having significant inter item correlations and alpha value of 0.850 (**See annex; A**). Transparency & accountability were proposed with 5 items and retained all 5 items with alpha value of 0.760 whereas participation has proposed with 7 items and retained all 7 items with significant inter item correlation and alpha value of 0.798(**See annex; A**).On the other hand reducing corruptions was begun with 6 items and dropped 1 item to has alpha value of 0.741 and finally fairness and equality was begun with 6 items and without dropping any item it's correlated item total correlation was below 0.35 and to be equate its Cronbach alpha was 0.875 (**See annex; A**).

### (B) Employees Side Reliability Analysis

*Table 8(3.2) Reliability Statistics*

| <b>Constructs</b>               | <b>No. of items proposed</b> | <b>No. of items dropped</b> | <b>No. of Items Retained</b> | <b>Cronbach's Alpha</b> |
|---------------------------------|------------------------------|-----------------------------|------------------------------|-------------------------|
| ICT hardware and Software       | 9                            | 2                           | 7                            | 0.625                   |
| E-governance platform usability | 15                           | 1                           | 14                           | 0.825                   |
| Public Private Partnership      | 8                            | -                           | 8                            | 0.661                   |
| Interoperability                | 6                            | -                           | 6                            | 0.694                   |
| Effectiveness and Efficiencies  | 10                           | -                           | 10                           | 0.884                   |
| Cost Reductions                 | 10                           | 1                           | 9                            | 0.857                   |
| Transparency & Accountability   | 6                            | -                           | 6                            | 0.784                   |
| Participation                   | 6                            | -                           | 6                            | 0.741                   |
| Reducing Corruptions            | 5                            | 1                           | 4                            | 0.713                   |
| Fairness and Equality           | 7                            | 2                           | 5                            | 0.773                   |

**Source: Field Survey (2016)**

As can be seen in Table 4.1 above the measure of ICT hardware and software configurations were began with 9 items. Two Item were dropped because its inter-item correlation matrix total correlation was 0.326 which is below 0.35 and chronbach alpha was below cut of point of 0.60. Hence, using 7 items Cronbach alpha for 0.625(**See annex; B**). E-governance platforms usability began with 15 items, of which 1 was dropped because their correlated item total correlations were below 0.35 as a result; Cronbach alpha for E-governance platforms usability was 0.825(**See annex; B**). PPP was begun with 8 items and its Cronbachalpha was 0.661 without dropping any item(**See annex; B**). Interoperability as the same time without dropping any item it's inter item correlation with other items were above 0.35 resulting in Cronbach alpha of 0.694(**See annex; B**).

Effectiveness and Efficiencies were begun with 10 items and its cronbach alpha was 0.884 and Cost reduction dropped 1 item & retained 9 items from 10 items with alpha value of 0.825 all of their items since their items satisfied all criteria **(See annex; B)**. Transparency & accountability and participation were proposed 6 items and retained 6 items with alpha value of 0.784 and 0.741 respectively **(See annex; B)**. On the other hand reducing corruptions was begun with 5 items and dropped 1 item to has alpha value of 0.713 and finally fairness and equality has begun with 7 items and dropped 2 items because it's correlated item total correlation was below 0.35 and to be equate its Cronbach alpha was 0.773**(See annex; B)**.

### **3.2 Discussions about Respondents' Profiles**

#### **3.2.1 Analysis of DARA Employees Profiles and Descriptive Statistics**

As the following table depicts that there was half of respondents were males and half of them were females. Therefore, questionnaire distribution was successful in considering gender participation for the study. In similar vein, age distribution of the respondent has showed that those whose age category is grouped between 31 and 40 years old are (34.6%), 32.7 % of them are grouped between 18 and 30 years old and the remaining 25% & 7.7% of the respondents' age are between 41 & 50 and above 51 years old respectively. Again it revealed that nearly (59.6%) of DARA employees have possessed an undergraduate or equivalent degree, 23.1% of them have possessed MA/MSc or equivalents degree and the remaining (17.7%) of total respondents are having college diploma or equivalent educational qualifications.

**Table 9(3.2) Sex, Age and Educational qualification of the respondents' (Employees)**

|                     |                             | <b>Frequency</b> | <b>Percent</b> | <b>Valid Percent</b> |
|---------------------|-----------------------------|------------------|----------------|----------------------|
| <b>Gender</b>       | Male                        | 26               | 50.0           | 50                   |
|                     | Female                      | 26               | 50.0           | 50                   |
|                     | Total                       | 52               | 100            | 100                  |
| <b>Age category</b> | Between 18 & 30 years old   | 17               | 32.7           | 32.72                |
|                     | Between 31 & 40 years old   | 18               | 34.6           | 34.6                 |
|                     | Between 41 & 50 years old   | 13               | 25             | 25                   |
|                     | Above 51 years old          | 4                | 7.7            | 7.7                  |
|                     | Total                       | 52               | 100            | 100                  |
| <b>Education</b>    | MA/MSc Degree or Equivalent | 12               | 23.1           | 3.1                  |
|                     | BA/BSc Degree or Equivalent | 31               | 59.6           | 9.6                  |
|                     | Diploma or Equivalent       | 9                | 17.3           | 17.3                 |
|                     | Total                       | 52               | 100            | 100                  |

**Source: Own Field Survey (2016)**

The table (3.3) below showed that from total respondent 36.6% have less than five years working experiences, 30.8% of them have 5 to 10 years working experiences in DARA and the remaining 23.1% & 9.6% of them have more than 10 years and newly joined one respectively. It is possible to conclude that employees can give clear DARA's operations before and after implementing E-governance platforms. When we looking up employees' basic computer skills from the respondents 34.6% and 28.8% of them are good and very good in using basic computer skills and 23.2% of them are excellent while the remaining 9.6 & 3.8% of them are moderate and poor in using basic computer applications. On the other hand, Internet usage skills of employees 36.5 & 26.9% of respondents are very good and good, 21.2% are excellent and the rest 9.6 & 5.8% of employees are moderate and poor in browsing Internet with producing meaningful navigations. Thus, we could conclude that employees can explain the effects of electronic service delivery which is main theme of the study.

*Table 10(3.3) Working Experiences, Basic Computer Skills and Internet Usage Skills of Employees*

|                              |                   | Frequency | Percent |
|------------------------------|-------------------|-----------|---------|
| <b>Experiences</b>           | Above 10 years    | 12        | 23.1    |
|                              | 5 to 10 years     | 16        | 30.8    |
|                              | Less than 5 years | 19        | 36.5    |
|                              | Newly joined one  | 5         | 9.6     |
|                              | Total             | 52        | 100.0   |
| <b>Basic Computer Skills</b> | Excellent         | 12        | 23.2    |
|                              | Very Good         | 15        | 28.8    |
|                              | Good              | 18        | 34.6    |
|                              | Moderate          | 5         | 9.6     |
|                              | Poor              | 2         | 3.8     |
|                              | Total             | 52        | 100     |
| <b>Internet Usage Skills</b> | Excellent         | 11        | 21.2    |
|                              | Very Good         | 19        | 36.5    |
|                              | Good              | 14        | 26.9    |
|                              | Moderate          | 5         | 9.6     |
|                              | Poor              | 3         | 5.8     |
|                              | Total             | 52        | 100     |

**Source: Own Field Survey (2016)**

### **3.2.2 Analysis of Respondents' (Customers') Background Information**

The table (3.4) below showed that 56.9% of the respondents were male and 43.1% of them were female. When we look the age distributions of the respondents 47% & 24.4% of them are between 31 and 40 and 18 and 30 years old age categories. The remaining 19.3% & 9% of them are between 41 and 50, above 51 years old respectively. Again their current educational qualification is 89(44.1%) of them possessed first degree (BA/BSc) and equivalents, 51(25.2%) & 32(15.8) of the have possessed college diploma and second degree (MAMSc0 and equivalent educational status. The remaining of them; 21(10.4%0 and 7(3.5%) are possessed secondary school completed and TVET educational qualifications. Thus, the study inferred that the participants of the study were being able to understand and filled the questionnaire and give reliable data. The citizenship status of the participants were 190(94.1%) of them were Ethiopian and 12(5.9%) of them were possessed non-Ethiopian citizenship status. This might contributes for the study to gained data from other country experiences from non-Ethiopian.

Table 11 (3.4) DARA Customers' Sex, Age, Educational Qualification and Citizenship

|                                   |                               | Frequency | Percent |
|-----------------------------------|-------------------------------|-----------|---------|
| <b>Gender</b>                     | Male                          | 115       | 56.9    |
|                                   | Female                        | 87        | 43.1    |
|                                   | Total                         | 202       | 100     |
| <b>Age category</b>               | Between 18 & 30 years old     | 50        | 24.8    |
|                                   | Between 31 & 40 years old     | 95        | 47.0    |
|                                   | Between 41 & 50 years old     | 39        | 19.3    |
|                                   | Above 51 years old            | 18        | 8.9     |
|                                   | Total                         | 202       | 100     |
| <b>Educational Qualifications</b> | MA/MSc Degree or Equivalent   | 32        | 15.8    |
|                                   | BA/BSc Degree or Equivalent   | 89        | 44.1    |
|                                   | College Diploma or Equivalent | 51        | 25.2    |
|                                   | TVET and Equivalent           | 7         | 3.5     |
|                                   | Secondary School Completed    | 21        | 10.4    |
|                                   | Others                        | 2         | 1.0     |
|                                   | Total                         | 202       | 100     |
| <b>Customers Citizenship</b>      | Ethiopian                     | 190       | 94.1    |
|                                   | Non- Ethiopian                | 12        | 5.9     |
|                                   | Total                         | 202       | 100     |

**Source: Own Field Survey (2016)**

As the table (3.5), below has demonstrated that 74(36.6%) and 53(26.2%) of the total respondents occupational sectors were private ordinations and self-employed. 44(21.8%) of there are employed in government organizations. The remaining 26(12.9%) and 5(2.5%) of participants occupational sectors are NGOs and student respectively. When we looked up participants' experience in using DARA services 88(44%) of them had both experiencers of 6-10 years and 3-6 years, 39(19.3%) and 32(15.8%) of the participants had experiences of 1-3 years and above 10 years. The remaining 44(22.8%) of them as the same time had less than one year experiences. Hence, the study has inferred that almost all costumers could easily show the DARA services trends and its delivery mechanism improvement & comparing it from previous time with the then electronic service delivery mechanisms by revealing its effects on service qualities and promoting good governance.

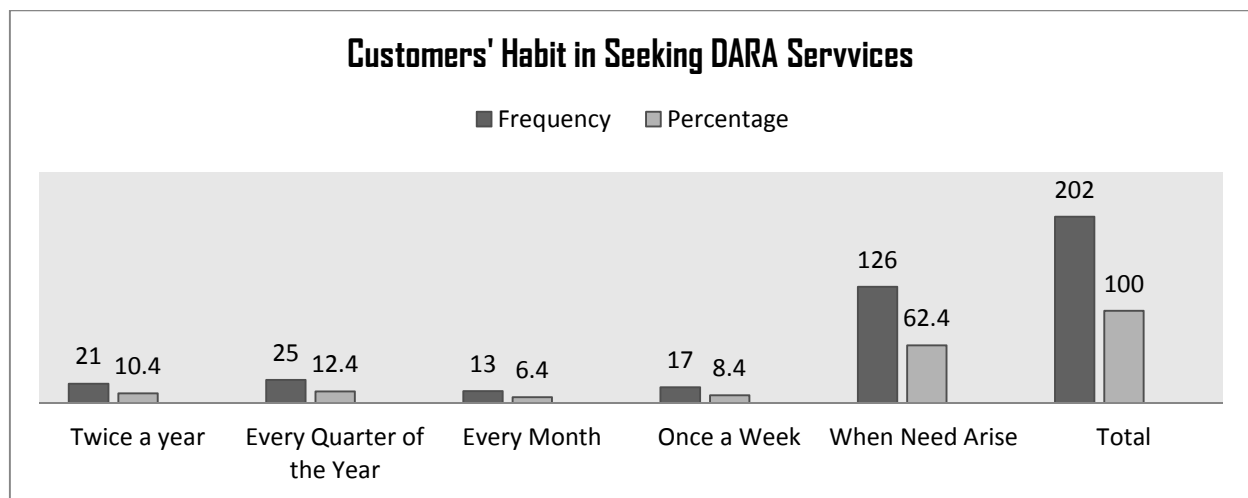
Table 12 (3.5) Customers' Employment Sectors, DARA Services Using Experiences, Basic Computer Skills and Internet Usage Skills

|                                           |                         | Frequency | Percent |
|-------------------------------------------|-------------------------|-----------|---------|
| <b>Employment Sectors</b>                 | Government Organization | 44        | 21.8    |
|                                           | Private Organization    | 74        | 36.6    |
|                                           | NGOs or Non-profit      | 26        | 12.9    |
|                                           | Self employed           | 53        | 26.2    |
|                                           | Student                 | 5         | 2.5     |
|                                           | Total                   | 202       | 100     |
| <b>Experiences in Using DARA Services</b> | Above 10 Years          | 32        | 15.8    |
|                                           | 6-10 Years              | 44        | 21.8    |
|                                           | 3-6 Years               | 43        | 21.3    |
|                                           | 1-3 Years               | 39        | 19.3    |
|                                           | Less than 1 Year        | 44        | 21.8    |
|                                           | Total                   | 202       | 100     |

**Source: Own Field Survey (2016)**

As the figure (3.1) below clearly demonstrated that; from the total respondents of 202; 126(62.4%) of them are seeking DARA service in time of necessary rather than frequently visits. 25(12.4%) and 21(10.4) of customers are using DARA services every quarter of the year and twice a year respectively. The remaining 17 (8.4%) and 13(6.4%) of DARA customers are visiting the office and use services once a week and every months respectively. Therefore, it is possible to conclude that customer can give genuine information about E-government service delivery trends of DARA.

**Figure 2(3.1): Customers Habits in Seeking DARA's Services**

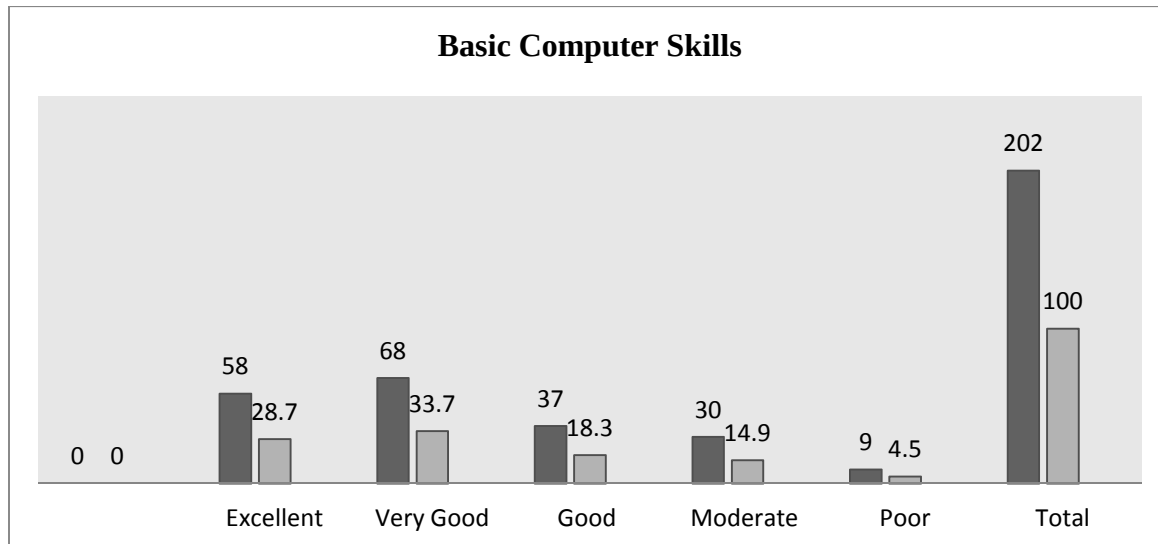


**Source: Own Field Survey (2016)**

The above figure (3.2) below; has demonstrated that from the total respondents; 69 (34%) & 58 (28.7%) of them have very good and excellent basic computer application skills respectively, 36 (17.8%) and 23 (11.4%) of the respondents have good and moderate basic computer skills while

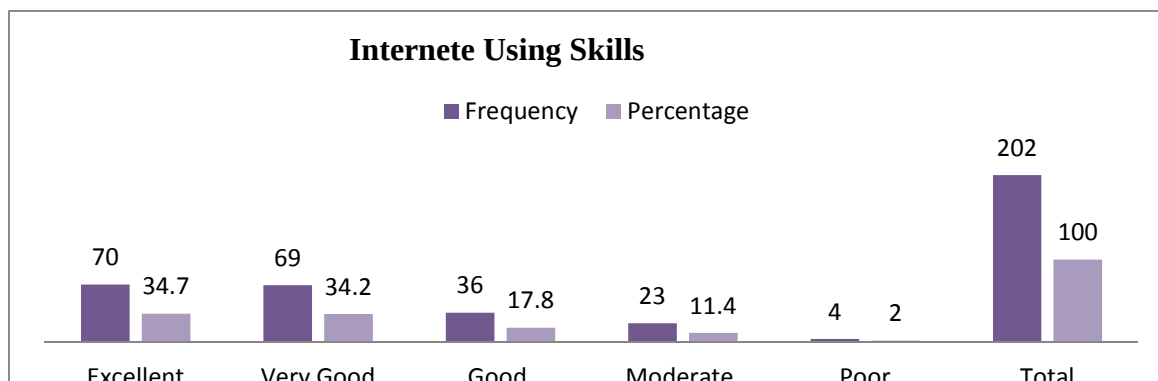
the remaining 4(2%) of the respondents have poor skills. Thus, it is possible to deduce that customers can be able to use electronic services in applying their basic computer skills when they seek services from DARA

**Figure 3(3.2): Customers Skills in Basis Computer Applications**



**Source: Own Field Survey (2016)**

**Figure 4(3.3): Customers Skills in Internet Using's**



**Source: Own Field Survey (2016)**

As revealed in figure (3.3) above; from the participants of the study 35% of them have excellent and very good internet using and browsing capacities. Again around 18% and 11.5% of the respondents have good and moderate internet browsing skills only 2% of the respondent is poor in browsing internet. From this the study inferred that customers are in the position using electronic

services (online E-services) by combinations of both their basic computer skills and internet using skills.

### **3.3 Inferential Statistics Discussions and Quantitative Data Analysis**

#### **3.3.1 Multiple Linear Regressions Result Analysis of the Effects of E-governance on Improving Service Qualities**

This section of the study has tried to analyzed, discussed and presented the data that were collected through questionnaires from DARA customers and employees by using multiple linear regression model. Multiple regression analysis is a statistical technique that allows to predicting dependent variables score through the independent variables (predictor variables) on the basis of their scores. It uses statistical technique when exploring linear relationships between the predictors and dependent variables that are when the relationship follows a straight-line (**Beaumon, 2010**).

##### **1. Beta (standardized regression $\beta$ coefficients)**

The  $\beta$  value is a measure of how strongly each predictor variables influences the dependent variables. The beta is measured in units of standard deviation. Where change in a unit of  $\beta$  indicates that a change of one standard deviation in the predictor variables will result in a change in a unit of standard deviations in the dependent variables linearly. Thus, the higher the beta  $\beta$ value the greater the impact of the predictor variables on the dependent variables (Cohen, et al, 2007;Beaumon, 2010).

##### **2. $R$ , $R^2$ , Adjusted $R^2$ in Multiple Linear Regressions Results**

$R$  is a measure of the correlation between the observed (dependent) values and the predicted (independent) values of variables.  $R^2$  is the square of the measure of correlation and indicates the proportion of the variance in the dependent variables which are accounted for by our model in the proportion of the variance in the dependent variables scores accounted for by set of predictor (independent) variables. In essence, this is a measure of how good a prediction of the dependent variables we can make by knowing the predictor variables. However,  $R^2$  tends to somewhat over-estimate the success of the model when applied to the real world, so an Adjusted  $R^2$  value is calculated which takes into account the number of variables in the model and the number of observations (participants) our model is based on. The Adjusted  $R^2$  value gives the most useful measure of the success of our model. For example we have an Adjusted  $R^2$  value of 0.75 we can say that the model has accounted contributions for 75% of the total variance in the dependent

variables by independent variable (Beaumont, 2010). Thus, this study has followed this fashion of data presentation to evaluate the exact relationships between variables.

Therefore, this study was conducted to predicting empirically how much public sectors service qualities (efficiencies & effectiveness, cost reductions, customer satisfactions) and good governance (accountability & transparency, combating corruptions, equality & fairness, and participations) as dependent variables are improving/promoting by implementations of E-governance (ICT hardware + software Configurations, E-governance platform usability, interoperability & PPP) as predictor (independent) variables took DARA as case study.

### 3.3.2 Multiple Linear Regressions Result Analysis of the Effects of E-governance on Improving Service Qualities and Good Governance (Customers' Sides)

Under this section the study has tried to discuss the effects of E-government implementations in DARA for improving service qualities (efficiencies & effectiveness, cost reductions, customers' satisfactions) and promoting good governance (accountability & transparency, combating corruptions, equality & fairness, and participations) based on the data collected from customers using inferential statistics and linear regression model.

#### 3.3.2.1 Pearson Correlation Analysis (E-governance on Service Qualities)

The Pearson Correlation was run to find out the relationship among the variables of E-governance (ICT hardware and software configurations, E-governance platform usability and interoperability) with service qualities (Efficiencies & effectiveness, cost reductions and customers satisfactions) as the correlation coefficients depicted below all variables of E-governance have showed significant relation with significant level (**See table 3.4**) below. The correlation results revealed that variables of E-governance were explained with high correlation coefficients on service qualities.

| <i>Table 13(3.6) Correlations among E-governance variables with Service Qualities variable</i> |     |           |    |    |    |    |
|------------------------------------------------------------------------------------------------|-----|-----------|----|----|----|----|
|                                                                                                | ICT | Usability | IO | EE | CR | CS |
| ICT Hardware & Software Configurations (ICT)                                                   | 1   |           |    |    |    |    |

|                                                                                                                                                                                                    |           |         |         |         |         |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------|---------|---------|---------|---------|
| E-government Usability                                                                                                                                                                             | Platforms | 0.738** | 1       |         |         |         |
| Public Sectors Interoperability (IO)                                                                                                                                                               |           | 0.308** | 0.356** | 1       |         |         |
| Efficiencies & Effectiveness (EE)                                                                                                                                                                  |           | 0.747** | 0.789** | 0.403** | 1       |         |
| Cost Reductions (CR)                                                                                                                                                                               |           | 0.705** | 0.779** | 0.444** | 0.807** | 1       |
| Customer Satisfaction (CS)                                                                                                                                                                         |           | 0.758** | 0.827** | 0.363** | 0.841** | 0.795** |
| **. Correlation is significant at the 0.01 level (2-tailed) where N=202 (This shows that dependent variables explained with significant levels by independent variables with strong correlations). |           |         |         |         |         |         |

### 3.3.2.2 Regression Coefficient Analysis (E-governance on Effectiveness & Efficiencies)

The regression coefficients (**table 3.7a**) below revealed that efficiencies and effectiveness were affected with highly positive and significant relationship with E-governance platform usability and ICT hardware and software configuration explained with the highest positive significance level of standardized  $\beta$  value of (49% and 35%) of total variance respectively. Public sectors collaborations (interoperability) are contributing for 12% of total variances for improving service delivery effectiveness and efficiencies where the statistical significance of both variables (**P-Value < 0.05**).

Table 14(3.7a) **Coefficients** <sup>(a)</sup> **Results of E-governance Variables on Effectiveness & Efficiencies**

| Model |                                        | Unstandardized Coefficients |            | Standardized Coefficients at 95% Confidence Interval for B | T     | Sig.  |
|-------|----------------------------------------|-----------------------------|------------|------------------------------------------------------------|-------|-------|
|       |                                        | B                           | Std. Error | Beta                                                       |       |       |
| 1     | (Constant)                             | 2.709                       | 1.402      |                                                            | 1.933 | 0.055 |
|       | ICT Hardware & Software configurations | 0.690                       | 0.115      | 0.350                                                      | 5.989 | 0.000 |
|       | E-government Platforms Usability       | 0.466                       | 0.057      | 0.488                                                      | 8.206 | 0.000 |
|       | Public Sectors Interoperability        | 0.157                       | 0.054      | 0.122                                                      | 2.886 | 0.004 |

a. Dependent Variable: Efficiencies & Effectiveness

The overall service delivery effectiveness and efficiencies (in automate services delivery & replacing paper files with electronic files, accelerates service delivery processes regardless of geographical proximity and distance location, avoiding customers' tiresome, keep customers been aware with up-to-dated information, and reducing the number of customers visits the office for all

services) were explained by E-government implementation with amounts of adjusted  $R^2$  values of 0.695 (69.5%) effects with (**P-Value < 0.05**) (See table 3.7b) below. This study was consistent with findings (Gil-Garcia, 20012; Nkwe, 2012; Alshehri and Drew, 2012 and Sakam, 2013) E-government can play indispensable role for public sector organizations service delivery in effectiveness & efficiency gains and achieved excellence in as far as it could create an ease ways of interacting with citizens/customers via simple and whereby it would facilitate effective communication.

| Table 15 (3.7b) Model Summary <sup>(b)</sup> for E-governance Variables on Effectiveness & Efficiencies                               |                    |       |                |                            |                   |          |     |     |               |
|---------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------|----------------|----------------------------|-------------------|----------|-----|-----|---------------|
| Model                                                                                                                                 | R                  | $R^2$ | Adjusted $R^2$ | Std. Error of the Estimate | Change Statistics |          |     |     |               |
|                                                                                                                                       |                    |       |                |                            | $R^2$ Change      | F Change | df1 | df2 | Sig. F Change |
| 1                                                                                                                                     | 0.833 <sup>a</sup> | .695  | .690           | .580                       | .695              | 50.186   | 3   | 98  | .000          |
| a. Predictors: (Constant), Public Sectors Interoperability, ICT Hardware & Software Configurations , E-government Platforms Usability |                    |       |                |                            |                   |          |     |     |               |
| b. Dependent Variable: Efficiencies & Effectiveness                                                                                   |                    |       |                |                            |                   |          |     |     |               |

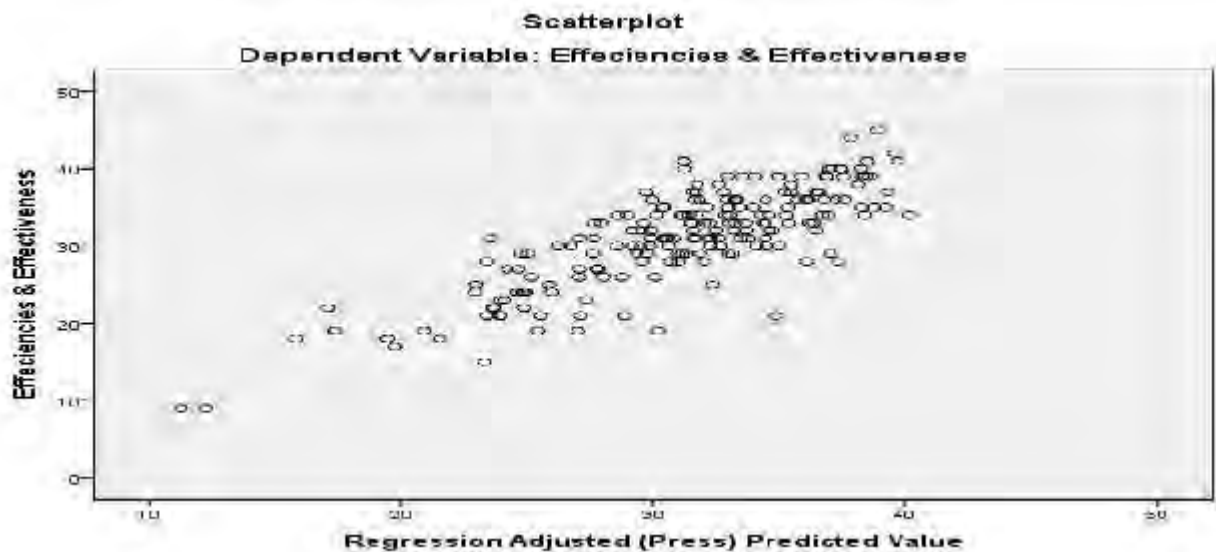


Figure 5(3.5): Scatterplot line of effectiveness & efficiencies affected by E-governance implementations.

The above figure (Figure 3.5) represents the regression line which drawn by the variables of E-governance on effectiveness and efficiencies. It shows that implementation of E-government has contributing with a very positive increasing line for achievements of effectiveness & efficiencies.

### 3.3.2.3 Regression Coefficient Analysis (E-governance on Cost Reductions)

The regression coefficients analysis below (table 3.8a) demonstrated that effects of E-government on cost reductions were affected by a positive and statistically significant relationships where E-governance platform usability and ICT hardware and software configurations were explained with the highest positive significance level (51.9% and 26.8%) of total variance consequently. Interoperability was contributing for 17% of total variances for to achieving cost reductions in service delivery of DARA where the statistical significance of both variables were (**P-Value is < 0.05**).

Table 16(3.8a) Coefficients <sup>(a)</sup>Results of E-governance Variables on Cost Reductions

| Model |                                        | Unstandardized Coefficients |            | Standardized Coefficients at 95% Confidence Interval for B | T     | Sig.  |
|-------|----------------------------------------|-----------------------------|------------|------------------------------------------------------------|-------|-------|
|       |                                        | B                           | Std. Error | Beta                                                       |       |       |
| 1     | (Constant)                             | .246                        | .294       |                                                            | 1.735 | 0.084 |
|       | ICT Hardware & Software configurations | .470                        | .106       | 0.268                                                      | 4.419 | 0.000 |
|       | E-government Platforms Usability       | .441                        | .052       | 0.519                                                      | 8.408 | 0.000 |
|       | Public Sectors Interoperability        | .203                        | .050       | 0.177                                                      | 4.048 | 0.000 |

a. Dependent Variable: Cost Reductions

Table 17(3.8b) Model Summary <sup>(b)</sup>Results of E-governance Variables on Cost Reductions

| Model | R | R <sup>2</sup> | Change Statistics |  |  |
|-------|---|----------------|-------------------|--|--|
|-------|---|----------------|-------------------|--|--|

|                                                                                                                                       |                    |       | Adjusted R <sup>2</sup> | Std. Error of the Estimate | R <sup>2</sup> Change | F Change | df1 | df2 | Sig. F Change |
|---------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------|-------------------------|----------------------------|-----------------------|----------|-----|-----|---------------|
| 1                                                                                                                                     | 0.819 <sup>a</sup> | 0.671 | 0.666                   | 3.306                      | 0.671                 | 134.725  | 3   | 198 | .000          |
| a. Predictors: (Constant), Public Sectors Interoperability, ICT Hardware & Software Configurations , E-government Platforms Usability |                    |       |                         |                            |                       |          |     |     |               |
| b. Dependent Variable: Cost Reductions                                                                                                |                    |       |                         |                            |                       |          |     |     |               |

The overall role of E-governance in reduction of costs (reducing different transactional & admin costs, enabled to provide services for large number of users at a time, E-services made less bureaucratically procedures of services inquiry, and enable integrated control value of service delivery, save time, money and energy of customers) were explained by E-government implementation with total amounts of adjusted R<sup>2</sup> values 0.666 (66.6%) effects with (**P-Value < 0.05**) (See table 3.8b) above. Previous studies (Ndou, 2004; Kumar et al. 2007; George et al, 2011; Nkwe, 2012 and Brown et al, 2013) had proved that E-governance implementations is the best ways of reducing cost of service delivery through interacting, and transacting with minimum costs where costs are reduced and efficiency gained, quality of service delivery to customers, increase the capacity of government and re-invent service supply chains to deliver services by faster & cheaper delivery processes. The same result was finding out by this study empirically.

#### 3.3.2.4 Regression Coefficient Analysis (E-governance on Customers Satisfaction)

The regression coefficients analysis below (table 3.9a) below depicted that the effects of E-governance on customers satisfactions were explained via statistically significance with positive relationships where E-governance platform usability 0.571 (57.1%) with **P-value less than 0.05** and ICT hardware and software configuration 0.317 (31.7%) with the same P-value. But interoperability was contributed for only 0.062 (6.2%) of total variances and the **P-value** is greater than **0.05** for to increasing customer satisfaction level in service delivery of DARA this shows that the interoperability level is still underdeveloped even though it lined in positive statistical significances.

Table 18(3.9a) Coefficients <sup>(a)</sup> Results of E-governance Variables on Cost Reductions

| Model                                               |                                        | Unstandardized Coefficients |            | Standardized Coefficients | T      | Sig. |
|-----------------------------------------------------|----------------------------------------|-----------------------------|------------|---------------------------|--------|------|
|                                                     |                                        | B                           | Std. Error | Beta                      |        |      |
| 1                                                   | (Constant)                             | .462                        | 1.333      |                           | 3.347  | .001 |
|                                                     | ICT Hardware & Software configurations | .639                        | .109       | .317                      | 5.841  | .000 |
|                                                     | E-governance Platforms Usability       | .558                        | .054       | .571                      | 10.322 | .000 |
|                                                     | Public Sectors Interoperability        | .082                        | .052       | .062                      | 1.581  | .115 |
| <b>a. Dependent Variable: Customer Satisfaction</b> |                                        |                             |            |                           |        |      |

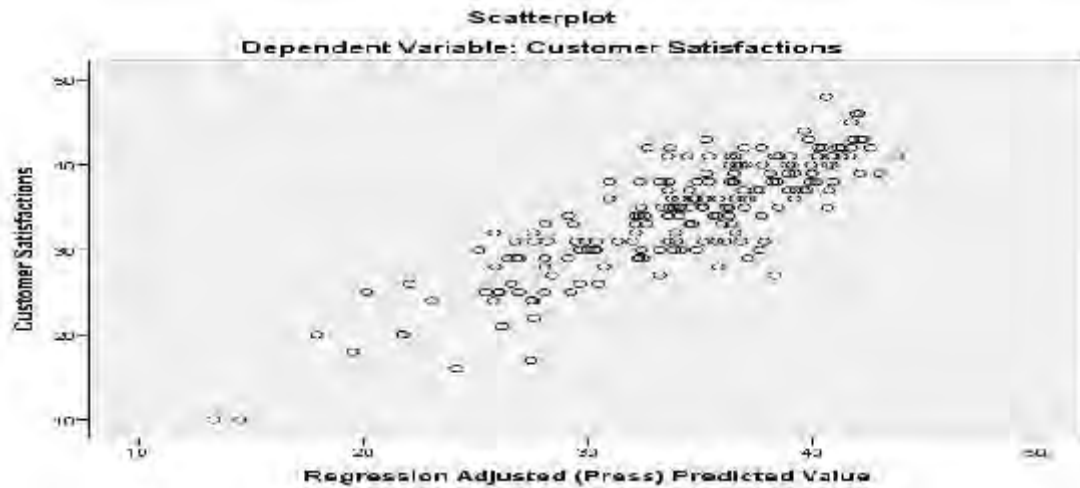
The total predicting values of E-governance implementation on customer satisfaction were explained with the amounts of adjusted  $R^2$  values of 0.731 (73.1%) (See table 3.9b) below. DARA customers satisfactions levels (in E-governance platforms services' reliability, accessibilities of online enquiries, online availability of forms & online form submission procedures, services requirements availabilities online with its amount of user charge and fees & information relevant to the services and email services, accuracy/reliability of the webpage services) were determined by implementation of E-governance platforms again with relevant statistical significances (P-Value <0.05). This finding also consistent and supported by (Drew et al, 2012 and Salam, 2013) public sectors organization E-government platform implementation positively affects for maximizing citizen satisfaction levels.

Table 19(3.9b) Model Summary <sup>(b)</sup> Results of E-governance Variables on Customers Satisfaction

| Model | R                 | $R^2$ | Adjusted $R^2$ | Std. Error of the Estimate | Change Statistics |          |     |     |               |
|-------|-------------------|-------|----------------|----------------------------|-------------------|----------|-----|-----|---------------|
|       |                   |       |                |                            | $R^2$ Change      | F Change | df1 | df2 | Sig. F Change |
| 1     | .858 <sup>a</sup> | .735  | .731           | 3.404                      | .735              | 183.465  | 3   | 198 | .000          |

a. Predictors: (Constant), Public Sectors Interoperability, ICT Hardware & Software Configurations , E-government Platforms Usability

b. Dependent Variable: Customer Satisfaction



*Figure 6(3.6): Scatterplot line of Customers' Satisfaction levels affected by E-governance implementations*

The above figure (**Figure 3.6**) represented the regression line which drawn by effects of E-governance variables on customers satisfactions level. It shows that implementation of e-government has contributed with a very positive increasing amount for maximizing customers satisfactions levels.

### **3.3.3 Multiple Linear Regressions Model Result Analysis of the Effects of E-governance on Promoting Good Governance**

#### **3.3.3.1 Pearson Correlation Analysis (E-governance on Good Governance)**

The Pearson Correlation was run to find out the relationship among the variables of E-governance (ICT hardware and software configurations, E-governance platform usability and interoperability) with Good governance (Transparency & accountability, Participations, Combating corruptions and ensuring equality & fairness) as the correlation coefficients depicted below all variables of E-governance have showed significant relationships with significant level with high correlation coefficients on promoting good governance (**See table 3.10**) below.

| Table 20(3.10) Correlations among E-governance variables with Good GovernanceVariables                                                                                                             |        |           |        |        |        |        |    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------|--------|--------|--------|--------|----|
|                                                                                                                                                                                                    | ICT    | Usability | IO     | TA     | P      | RC     | FE |
| ICT Hardware & Software configurations (ICT)                                                                                                                                                       | 1      |           |        |        |        |        |    |
| E-government Platforms Usability                                                                                                                                                                   | .738** | 1         |        |        |        |        |    |
| Public Sectors Interoperability (IO)                                                                                                                                                               | .308** | .356**    | 1      |        |        |        |    |
| Transparency & Accountability (TA)                                                                                                                                                                 | .641** | .686**    | .450** | 1      |        |        |    |
| Participations (P)                                                                                                                                                                                 | .560** | .638**    | .329** | .643** | 1      |        |    |
| Reducing Corruptions (RC)                                                                                                                                                                          | .508** | .653**    | .472** | .620** | .629** | 1      |    |
| Fairness & Equality (FE)                                                                                                                                                                           | .584** | .686**    | .331** | .590** | .539** | .687** | 1  |
| **. Correlation is significant at the 0.01 level (2-tailed) where N=202 (This shows that dependent variables explained with significant levels by independent variables with strong correlations). |        |           |        |        |        |        |    |

### 3.3.3.2 Regression Coefficient Analysis (E-governance on Transparency & Accountability)

The regression coefficients (**table 3.11a**)belowpresented that transparency & accountability were affected with a positive and significant relationship with E-governance platform usability and ICT hardware and software configuration explained with the highest positive significance level of standardized  $\beta$  coefficients at 95% confidence interval values of 0.405 & 0.274 (40.5 % and 27.4%) of total variance respectively. Public sectors collaborations (interoperability) were contributing for  $\beta$  coefficients values of 0.222 (22.7%) with all P-values were less than 0.05.

| Table 21(3.11a) Coefficients <sup>(a)</sup> Results of E-governance Variables on Transparency & Accountability |                                        |                             |            |                           |       |      |
|----------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------|------------|---------------------------|-------|------|
| Model                                                                                                          |                                        | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|                                                                                                                |                                        | B                           | Std. Error | Beta                      |       |      |
| 1                                                                                                              | (Constant)                             | 1.783                       | .956       |                           | 1.866 | .064 |
|                                                                                                                | ICT Hardware & Software configurations | .304                        | .078       | .274                      | 3.873 | .000 |
|                                                                                                                | E-government Platforms Usability       | .218                        | .039       | .405                      | 5.623 | .000 |
|                                                                                                                | Public Sectors Interoperability        | .161                        | .037       | .222                      | 4.344 | .000 |
| a. Dependent Variable: Transparency & Accountability                                                           |                                        |                             |            |                           |       |      |

The total predicting values of E-government implementation on ensuring transparency & accountability (clarify of specific services delivery procedure & simplification of complex processes, E-services led to officials are answerable to their actions and decisions, it breaks hierarchical communication into lateral/horizontal one, introduces fascinated administrative problem solving methods and increases the awareness levels of customers in accessing

information from DARA) were explained by amounts of adjusted  $R^2$  values of 0.546 (54.6%) accountability and transparency is ensuring through E-governance implementations. This finding was coherence with previous studies of (Salam, 2013; George et al, 2011 and Nkwe, 2012) that e-government platforms are the tool to easier to find information, increase transparency and made officials answerable for their decisions & improved the quality of decision making and providing prompt services helpful response to customer requests (See table 3.11b) below.

| Table 22(3.11b) Model Summary <sup>(b)</sup> Results of E-governance Variables on Transparency & Accountability                       |                   |       |                |                            |                   |          |     |     |               |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------|----------------|----------------------------|-------------------|----------|-----|-----|---------------|
| Model                                                                                                                                 | R                 | $R^2$ | Adjusted $R^2$ | Std. Error of the Estimate | Change Statistics |          |     |     |               |
|                                                                                                                                       |                   |       |                |                            | $R^2$ Change      | F Change | df1 | df2 | Sig. F Change |
| 1                                                                                                                                     | .743 <sup>a</sup> | .552  | .546           | .440                       | .552              | 81.446   | 3   | 198 | .000          |
| a. Predictors: (Constant), Public Sectors Interoperability, ICT Hardware & Software configurations , E-government Platforms Usability |                   |       |                |                            |                   |          |     |     |               |
| b. Dependent Variable: Transparency & Accountability                                                                                  |                   |       |                |                            |                   |          |     |     |               |

### 3.3.3.3 Regression Coefficient Analysis (E-governance on Enhancing Participations)

| Table 23(3.12a) Coefficients <sup>(a)</sup> Results of E-governance Variables on participations |                                        |                             |            |                           |       |      |
|-------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------|------------|---------------------------|-------|------|
| Model                                                                                           |                                        | Unstandardized Coefficients |            | Standardized Coefficients | T     | Sig. |
|                                                                                                 |                                        | B                           | Std. Error | Beta                      |       |      |
| 1                                                                                               | (Constant)                             | 4.243                       | 1.445      |                           | 2.936 | .004 |
|                                                                                                 | ICT Hardware & Software configurations | .275                        | .119       | .184                      | 2.315 | .022 |
|                                                                                                 | E-government Platforms Usability       | .336                        | .059       | .464                      | 5.741 | .000 |
|                                                                                                 | Public Sectors Interoperability        | .104                        | .056       | .107                      | 1.864 | .064 |
| a. Dependent Variable: Participations                                                           |                                        |                             |            |                           |       |      |

The regression coefficients (table 3.12a) above demonstrated that customers/citizens participations were affected with highly positive and significant relationship with E-governance platform usability and ICT hardware and software configurations where it has explained with standardized  $\beta$  coefficients at 95% confidence interval level by  $\beta$  values of 0.464 & 0.184 (46.4 % and 18.4%) of total variance respectively. Public sectors collaborations (interoperability) were contributing for less compare to other variables where its  $\beta$  coefficient values of was 0.107 (10.7%) and its statistical significance level (P-value >0.05)

| Table 24(3.12b) Model Summary <sup>(b)</sup> Results of E-governance Variables on participations                                      |                   |                |                         |                            |                       |          |     |     |               |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------|-------------------------|----------------------------|-----------------------|----------|-----|-----|---------------|
| Model                                                                                                                                 | R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | Std. Error of the Estimate | Change Statistics     |          |     |     |               |
|                                                                                                                                       |                   |                |                         |                            | R <sup>2</sup> Change | F Change | df1 | df2 | Sig. F Change |
| 1                                                                                                                                     | .659 <sup>a</sup> | .434           | .426                    | 3.691                      | .434                  | 50.686   | 3   | 198 | .000          |
| a. Predictors: (Constant), Public Sectors Interoperability, ICT Hardware & Software configurations , E-government Platforms Usability |                   |                |                         |                            |                       |          |     |     |               |
| b. Dependent Variable: Participations                                                                                                 |                   |                |                         |                            |                       |          |     |     |               |

Again the overall predicting values of E-government on enhancing customers participation (customers could forwarding their feedback, suggestion & opinions using electronic channels, enabled customers feedbacks considered in decision-making, newly organizational laws, directives are communicated with customers/publics via DARA website, and updated information are accessed from virtually from branch offices within networked communications) with the total adjusted R<sup>2</sup> values of 0.434 (43.4) of customers' participations in DARA was explained. This finding also supported by (Barrett, 2003; Kumar *et al.* 2007; George et al, 2011 and Alshehri and Drew, 2012) studies, E-government in public sector organizations enhancing participations through giving customers caring and individual attention, encouraging active participation from citizens/customers, greater knowledge in order to facilitate access to the governing process and encourage deeper citizen participation, considering public interest kept and pay attention for their preferences in service delivery processes (See table, 3.12b) above.

#### 3.3.3.4 Regression Coefficient Analysis (E-governance on Combating Corruptions)

The regression coefficients (Table 3.13a) below showed that combating corruptions were affected with a statistically significant relationship by E-governance platforms usability and public sectors collaborations (interoperability). Where it has explained with the highest positive significance level of standardized  $\beta$  coefficients at 95% confidence interval values of 0.534 & 0.273 (53.4 % and 27.3%) of total variance respectively. ICT hardware and software configuration were contributing for less in comparison to other variables in its  $\beta$  coefficients values of which is 0.030 (3.7%) and its statistical significance level (P-value > 0.05) which is 0.688. This is due to that the ICT hardware and software configurations were poor in sophisticated installations that enable to detect every transactions from the database.

Table 25(3.13a) Coefficients <sup>(a)</sup> Results of E-governance Variables on Combating Corruptions

| Model |                                        | Unstandardized Coefficients |            | Standardized Coefficients | T     | Sig. |
|-------|----------------------------------------|-----------------------------|------------|---------------------------|-------|------|
|       |                                        | B                           | Std. Error | Beta                      |       |      |
| 1     | (Constant)                             | 3.209                       | .993       |                           | 3.231 | .001 |
|       | ICT Hardware & Software configurations | .033                        | .082       | .030                      | .402  | .688 |
|       | E-government Platforms Usability       | .281                        | .040       | .534                      | 6.974 | .000 |
|       | Public Sectors Interoperability        | .193                        | .038       | .273                      | 5.022 | .000 |

a. Dependent Variable: Reducing Corruptions

While the overall predicting values of E-government on combating corruptions (that DARA E-services has improved combating malpractices, facilitation for reducing wastage of financial resources of organizations, tackling opportunities for corruption and it is best tools of easily inspection, retrieved & control conversations from database any information exchanged at any time between/among individuals) with the total adjusted  $R^2$  values of 0.485 (48.5%) reducing corruptions of DARA were explained. At the same time many empirical studies (Heeks, 2001; Ndou, 2004; Nkwe, 2012 and George et al, 2011) When public sectors are able to successfully developed an E-procurement system it allows an open and transparent bidding of government tenders aimed at preventing corruption, promoting transparency, add new thing on the effect of new ICT and how it could made a significant contribution to achieving good governance (anticorruption, accountability encourage deeper citizen participation, and saving to waste public money) through creating better communications between citizens and government.

| Table 26(3.13b) Model Summary <sup>(b)</sup> Results of E-governance Variables on Combating Corruptions                              |                   |       |                |                            |                   |          |     |     |               |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------|----------------|----------------------------|-------------------|----------|-----|-----|---------------|
| Model                                                                                                                                | R                 | $R^2$ | Adjusted $R^2$ | Std. Error of the Estimate | Change Statistics |          |     |     |               |
|                                                                                                                                      |                   |       |                |                            | $R^2$ Change      | F Change | df1 | df2 | Sig. F Change |
| 1                                                                                                                                    | .702 <sup>a</sup> | .493  | .485           | .537                       | .493              | 64.180   | 3   | 198 | .000          |
| a. Predictors: (Constant), Public Sectors Interoperability, ICT Hardware & Software configurations, E-government Platforms Usability |                   |       |                |                            |                   |          |     |     |               |
| b. Dependent Variable: Reducing Corruptions                                                                                          |                   |       |                |                            |                   |          |     |     |               |

### 3.3.3.5 Regression Coefficient Analysis (E-governance on Equality & Fairness)

The following regression coefficients (**table 3.14a**) below depicted that ensuring equal service delivery and maintained fairnesses' were explained with a statistically significant relationship by E-governance platforms usability and ICT hardware and software configuration. Where it has explained with the highest positive significance level of standardized  $\beta$  coefficients at 95% confidence interval values of 0.534 & 0.161 (53.4 % and 16.1%) of total variance respectively with (P-value of less than 0.01 and 0.33 respectively). Public sectors interoperability was contributing for less in comparison to other variables with its  $\beta$  coefficients values of was 0.091 (9.71%) and its statistical significance level (P-value >0.05) which is 0.95.

In similar expression the total prediction values of E-governance on ensuring equality and fairness of service delivery in DARA (E-government tackling the exclusion of clients to use services, it insured fairness access to services, allowed equal services for users regardless of personal status and background and online services are accessible for people with disabilities) those who have IT skills with the total adjusted  $R^2$  values of 0.483 (48.3%) ensuring equality and fairness of DARA services were explained (**See table 3.14b**) below.

This finding was supported by (NOIE, 2003; Mutula, 2008; UN, 2010; Hart et al, 2011; and George et al, 2011) studies; E-government services are improving the availability of services for everyone in convenience and available at any time 24/7, it provides different documents with downloadable or printed formats where files are needed for users, disabilities can access services, fostering inclusive leadership, it increasingly large segment of the community has seeking government services delivery all needed information and services in one place through one mechanism and in a manner that is sensitive to the individual's uses equally and in fair ways.

| Table 27(3.14a) Coefficients <sup>(a)</sup> Results of E-governance Variables on participations |                                        |                             |            |                           |       |      |
|-------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------|------------|---------------------------|-------|------|
| Model                                                                                           |                                        | Unstandardized Coefficients |            | Standardized Coefficients | T     | Sig. |
|                                                                                                 |                                        | B                           | Std. Error | Beta                      |       |      |
| 1                                                                                               | (Constant)                             | 2.253                       | 1.454      |                           | 1.549 | .123 |
|                                                                                                 | ICT Hardware & Software configurations | .256                        | .119       | .161                      | 2.142 | .033 |
|                                                                                                 | E-government Platforms Usability       | .410                        | .059       | .534                      | 6.966 | .000 |
|                                                                                                 | Public Sectors Interoperability        | .094                        | .056       | .091                      | 1.676 | .095 |
| a. Dependent Variable: Fairness & Equality                                                      |                                        |                             |            |                           |       |      |

| Table 28(3.14b) Model Summary (b) Results of E-governance Variables on Fairness & Equality                                            |                   |                |                         |                            |                       |          |     |     |               |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------|-------------------------|----------------------------|-----------------------|----------|-----|-----|---------------|
| Model                                                                                                                                 | R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | Std. Error of the Estimate | Change Statistics     |          |     |     |               |
|                                                                                                                                       |                   |                |                         |                            | R <sup>2</sup> Change | F Change | df1 | df2 | Sig. F Change |
| 1                                                                                                                                     | .701 <sup>a</sup> | .491           | .483                    | .713                       | .491                  | 63.686   | 3   | 198 | .000          |
| a. Predictors: (Constant), Public Sectors Interoperability, ICT Hardware & Software configurations , E-government Platforms Usability |                   |                |                         |                            |                       |          |     |     |               |
| b. Dependent Variable: Fairness & Equality                                                                                            |                   |                |                         |                            |                       |          |     |     |               |

### 3.4 Multiple Linear Regressions Result Analysis of the Effects of E-governance on Improving Service Qualities and Good Governance (Employees Sides)

This part of this study has discussed the effects of E-government implementations (ICT hardware and software configurations, PPP, interoperability, and E-governance platform usability) as measuring tools of E-governance in DARA to improving service qualities (efficiencies & effectiveness, cost reductions) and promoting good governance (accountability & transparency, combating corruptions, equality & fairness, and participations) based on the data collected from DARA employees using inferential statistics and linear regression model.

#### 3.4.1 Pearson Correlation Analysis (E-governance on Service Qualities)

The Pearson Correlation was run to find out the relationship among the variables of E-governance (ICT hardware and software configurations, E-governance platform usability, PPP and interoperability) with service qualities (Efficiencies & effectiveness, and cost reductions) as the correlation coefficients depicted below all variables of E-governance have shown significant relationships with significant level (**See table 3.15**) below. The correlation results revealed that variables of E-governance were explained with positive correlation coefficients on service qualities.

| Table 29(3.15) Correlations among E-governance variables with Service Quality Variables                                                                                                         |        |           |        |        |        |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------|--------|--------|--------|----|
|                                                                                                                                                                                                 | ICT    | Usability | PPP    | IO     | EE     | CR |
| ICT Hardware +Software (ICT)                                                                                                                                                                    | 1      |           |        |        |        |    |
| E-governance platform usability                                                                                                                                                                 | .665** | 1         |        |        |        |    |
| Public Private partnership (PPP)                                                                                                                                                                | .366** | .554**    | 1      |        |        |    |
| Interoperability (IO)                                                                                                                                                                           | .154   | .519**    | .713** | 1      |        |    |
| Efficiency & Effectiveness (EE)                                                                                                                                                                 | .519** | .680**    | .708** | .635** | 1      |    |
| Cost Reductions (CR)                                                                                                                                                                            | .521** | .735**    | .625** | .607** | .800** | 1  |
| **. Correlation is significant at the 0.01 level (2-tailed) where N=52 which shows that dependent variables explained with significant levels by independent variables with strong correlations |        |           |        |        |        |    |

### 3.4.2 Regression Coefficient Analysis (E-governance on Service Qualities)

The regression coefficients (**table 3.16a**) below has demonstrated that DARA service qualities were affected with positive and statistically significant relationship with E-governance platform usability and interoperability were explained with positive according to data collected from its employees where the significance level of standardized  $\beta$  coefficients at 95% confidence interval level  $\beta$  values were 0.339 & 0.266 (34% and 26.6%) of total variance respectively. On the other hand, PPP and ICT hardware and software configurations were explained by the same confidence interval with standardized  $\beta$  coefficients of 0.259 and 0.187 (26% & 18.7%) of total variances' consequently where ICT's P-value is greater than 0.05 we look it later under qualitative data analysis the rationale behind for this.

The overall effects of E-government implementations on service qualities with the adjusted  $R^2$  values of 0.686 (68.6%) of DARA service qualities were explained and predicted (**See table 3.16b**) below i.e. effectiveness & efficiencies (kept informed customers when where and how they access services, E-services has automated services delivery in replacements lots of paper files into electronic file folders, save customers' time/tiredness due to it provides services via one-room services from DARA, it facilitated effective efficient and timely customers'/citizens' grievance handling mechanisms, avoiding go here & there and speedily processing services, enhanced existing service delivery creates networked relationships with customers) and reducing costs (transactional & admin costs of services, improved service delivery intelligence, services accessibility with less bureaucratically procedures, introduced competitive service delivery

compared from the previous website enabled to provide services for large number of users at a time).

| Table 30(3.16a) Coefficients (a) Results of E-governance Variables on Service Qualities |                                 |                             |            |                           |        |      |
|-----------------------------------------------------------------------------------------|---------------------------------|-----------------------------|------------|---------------------------|--------|------|
| Model                                                                                   |                                 | Unstandardized Coefficients |            | Standardized Coefficients | T      | Sig. |
|                                                                                         |                                 | B                           | Std. Error | Beta                      |        |      |
| 1                                                                                       | (Constant)                      | -15.311                     | 8.900      |                           | -1.720 | .092 |
|                                                                                         | ICT Hardware +Software          | .690                        | .417       | .187                      | 1.655  | .105 |
|                                                                                         | E-governance platform usability | .558                        | .210       | .339                      | 2.656  | .011 |
|                                                                                         | Public Private partnership      | .773                        | .360       | .259                      | 2.146  | .037 |
|                                                                                         | Interoperability                | .893                        | .413       | .266                      | 2.161  | .036 |
| a. Dependent Variable: Service Qualities                                                |                                 |                             |            |                           |        |      |

Table 31(3.16b) Model Summary (b) Results of E-governance Variables on Service Qualities

| Model | R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | Std. Error of the Estimate | Change Statistics     |          |     |     |               |
|-------|-------------------|----------------|-------------------------|----------------------------|-----------------------|----------|-----|-----|---------------|
|       |                   |                |                         |                            | R <sup>2</sup> Change | F Change | df1 | df2 | Sig. F Change |
| 1     | .843 <sup>a</sup> | .711           | .686                    | 7.540                      | .711                  | 28.914   | 4   | 47  | .000          |

a. Predictors: (Constant), Interoperability, ICT Hardware +Software, Public Private partnership, E-governance platform usability

b. Dependent Variable: Service Qualities

Figure 7(3.7): Scatterplot line of Service Qualities explained by E-governance implementations



The figure (Figure 3.7) above has represented the regression line drawn by effects of E-governance variables on improving service qualities. It shows that implementation of e-government is contributing positively for improving service qualities.

This finding was strongly consistent with (Asgarkhani, 2005; Bertot et al, 2008; George et al, 2011 and Agangiba and Agangiba, 2013) empirical findings; E-government has accelerated business processes, reducing geographical and distance inhibitors/barriers to access services from the governments, improved quality of service (by reducing redundancy in service), use of ICT appear to be deepening and intensifying the socio-economic growth amongst people, businesses and nations, processing transactions speedily & high speed accessibility, providing prompt service, and helpful response to customer requests, and it enabled that governments will provide services and resources tailored to the actual service and resource needs of users, including citizens, residents, government employees and others.

### 3.4.3 Pearson Correlation Analysis (E-governance on Good Governance)

Under (table 3.17) below Pearson Correlation has showed the statistical relationships among the variables of E-governance (ICT hardware and software configurations, E-governance platform usability, PPP and interoperability) with good governance (Transparency & Accountability, Participations, compacting corruptions and ensuring fairness & equality) as the correlation coefficients depicted that all variables of E-governance have shown statistically significant relationships with good governance variables.

| Table 32 (3.17) Correlations among E-governance variables with Good Governance Variables |        |           |        |        |        |        |        |    |
|------------------------------------------------------------------------------------------|--------|-----------|--------|--------|--------|--------|--------|----|
|                                                                                          | ICT    | Usability | PPP    | IO     | TA     | P      | RC     | FE |
| ICT Hardware + Software (ICT)                                                            | 1      |           |        |        |        |        |        |    |
| E-governance platform usability                                                          | .665** | 1         |        |        |        |        |        |    |
| Public Private partnership (PPP)                                                         | .366** | .554**    | 1      |        |        |        |        |    |
| Interoperability (IO)                                                                    | .154   | .519**    | .713** | 1      |        |        |        |    |
| Transparency & Accountability (TA)                                                       | .515** | .729**    | .521** | .528** | 1      |        |        |    |
| Participations (P)                                                                       | .394** | .587**    | .528** | .573** | .578** | 1      |        |    |
| Reducing Corruptions (RC)                                                                | .364** | .343*     | .552** | .550** | .455** | .523** | 1      |    |
| Fairness & Equality (FE)                                                                 | .327*  | .520**    | .477** | .483** | .724** | .552** | .380** | 1  |
| **. Correlation is significant at the 0.01 level (2-tailed).                             |        |           |        |        |        |        |        |    |
| *. Correlation is significant at the 0.05 level (2-tailed).                              |        |           |        |        |        |        |        |    |

### 3.4.4 Regression Coefficient Analysis (E-governance on Good governance)

The regression coefficients (**table 3.18a**) below has represented that promoting good governance in DARA were predicted by positively and statistically significant relationship through interoperability were explained with the highest positive according to data collected from its employees the significance level of standardized  $\beta$  coefficients at 95% confidence interval values of  $\beta$  was 0.379 (37.9%) and E-governance platforms usability with 0.290 (29%) of total variance. On the other hand, ICT hardware and software configurations and PPP were explained by the same confidence interval with standardized  $\beta$  coefficients of 0.197 and 0.132 (19.7% & 13.2%) of total variances' consequently where ICT's P-value is a little bit greater than 0.05.

| Table 33(3.18a) Coefficients (a) Results of E-governance Variables on Good Governance |                                 |                             |            |                           |       |      |
|---------------------------------------------------------------------------------------|---------------------------------|-----------------------------|------------|---------------------------|-------|------|
| Model                                                                                 |                                 | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|                                                                                       |                                 | B                           | Std. Error | Beta                      |       |      |
| 1                                                                                     | (Constant)                      | -8.860                      | 10.196     |                           | -.869 | .389 |
|                                                                                       | ICT Hardware +Software          | .739                        | .478       | .197                      | 1.546 | .129 |
|                                                                                       | E-governance platform usability | .484                        | .241       | .290                      | 2.010 | .050 |
|                                                                                       | Public Private partnership      | .399                        | .413       | .132                      | .967  | .339 |
|                                                                                       | Interoperability                | 1.290                       | .474       | .379                      | 2.723 | .009 |
| a. Dependent Variable: Good Governance                                                |                                 |                             |            |                           |       |      |

The model summary (**table 3.18b**) hereunder; revealed that the overall roles of E-governance has predicted by adjusted  $R^2$  values of 0.599 (60%) of ensuring good governance in DARA were explained with the statistically significant levels (where, P-values is less than 0.01). That meant E-government (organizational policies are available/transparent to stakeholders, E-services made clarifications for the specific services delivery procedure and simplified complex process, it created a means of employees participate in different issues, increased the awareness levels of users regarding services, enhancing that anyone could forwards own feedback & opinion by using electronic channel of communications, managements and councils were welcoming for stakeholders feedbacks, and allows equal & fair access of services for customers regardless of personal status every service users' with impartiality).

| Table 34(3.18b) Model Summary (b) Results of E-governance Variables on Good Governance                                            |                   |                |                         |                            |                       |          |      |      |               |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------|-------------------------|----------------------------|-----------------------|----------|------|------|---------------|
| Model                                                                                                                             | R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | Std. Error of the Estimate | Change Statistics     |          |      |      |               |
|                                                                                                                                   |                   |                |                         |                            | R <sup>2</sup> Change | F Change | df 1 | df 2 | Sig. F Change |
| 1                                                                                                                                 | .794 <sup>a</sup> | .630           | .599                    | 8.637                      | .630                  | 20.026   | 4    | 47   | .000          |
| a. Predictors: (Constant), Interoperability, ICT Hardware +Software, Public Private partnership, E-governance platforms usability |                   |                |                         |                            |                       |          |      |      |               |
| b. Dependent Variable: Good Governance                                                                                            |                   |                |                         |                            |                       |          |      |      |               |

This finding has supported with (Hill, 2004; Ndou, 2004; Asgarkhan, 2005; UN, 2008; and Ademola, 2011) studies; E-government has a very positive relationship in ensuring governments' operation transparency. It is one of the potential components of strategies that aimed to fight corruptions, increase accountability of government function which derived from the limited physical contact between citizens and government service providers and their activities can be easily monitored. Equal opportunity is given to all irrespective of person's physical location or disability and the elimination of the bureaucracy experienced in government offices. Society's wellbeing would be deepening ensured that all members felt that they have a stake in and don't feel excluded and enabled citizens participated through feedback allow for transactions between C2G, B2G and G2G models.

### 3.5 Qualitative Data Analysis and Presentations

This section of this research has discussed and presented different data that were gathered through semi structured interviews from five different DARA officials including the CEO of the organization & other concerned officials, and data pertained by direct observations. These methods has helped to matched and triangulated the relationship between the quantitative data and qualitative data to identifying the difference where it occurred and carefully scrutinizing the rationales. Therefore, the value of this research finding became more reliable and the researcher has tried to go along with the research objectives and used those methods for meaningful findings.

#### 3.5.1 E-government Platforms and Service Qualities in DARA

Different E-governance platforms have implemented and contributed to delivering quality organizational services compared from previous service delivery mechanisms of DARA. Those

different platforms<sup>5</sup> (national call center which is free of any charge dial to #888 follow the instructions... press to #1 then #2 and #2 in the meantime anyone can access any information about DARA, Electronic Queue Management System (EQMS) which keep waiting periods of customers' accordingly their arrivals with their identified services type, office portal that each officers could get connected (DARIS)<sup>6</sup>, mail exchanges which installed for exchanging of information across branches and main branch, electronic time keeper /attendance/ installed for HRM of DARA electronically controlled, online registration form of three attorney services, and system based selling activities of (Car, Share, House, building,... See **annex, D**) by model documents developed and entered into system operated electronically selling agreements forms in replacement of previous paper based, and e-mail & office phone call availabilities for customer) and DARA has one-room shop services delivery instead of many rooms' services<sup>7</sup>.

Implementations of such platforms brought result the real differences on service qualities (automating existing service delivery methods & conditioning new service delivery mechanisms, enabled DARA get connected with customers and kept their interests, enabling customers access all attorney services at any time & anywhere 24/7<sup>8</sup> (See **annex, E**), enabled the organization close/near to customers' for immediate grievance handling, save different costs (transactional & admin), time, energy and so forth. DARA could deliver quality services (well processed and verified of documents, timely and speed up service delivery, gained efficiently, identifying fraud and deceived acts in using database systems easily, responsive for customers interests<sup>9</sup>). As informants<sup>10</sup> strongly expressed first and foremost rationales for DARA implemented those platforms were mainly targeted for speed up /increasing service delivery, improve efficiencies and being accessible of services for those who can't use services in person especially elders and disabilities who have skill of IT. Thus, it makes DARA's operations simpler easy, accessible and solves the previous complex procedures.

Onwards, DARA has implemented EQMS one-room shopping services to manage customers' waiting period instead of delivering those services in different rooms has enabled reducing customers' tiredness by up and down, and more importantly avoid confusing in search of an

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<sup>5</sup> Interview data from different DARA officials

<sup>6</sup> DARA reports and observations data

<sup>7</sup> Data gathered from researcher observations and interviews data

<sup>8</sup> See annex E, for DARA online services form

<sup>9</sup> Interviews data

<sup>10</sup> interviewees

appropriate windows or doors of services and minimizing complex procedure of services delivery<sup>11</sup>. Customers are being aware where they begin services, which window they are expected to go, where they are supposed to pay their user fee & charges, which officer is specifically concerned for their specific cases, where they would finishing though using only one-room shopping service delivery. This ends has great effects on service qualities and a clear roadmap for promoting good governance that customers could raise any complain<sup>12</sup>.

### **3.5.2 PPP and Interoperability of DARA**

Under the PPP platforms umbrella DARA has partnership agreements from private company (CUSTOR)<sup>13</sup> in areas of software development and rollout since from publishing its first website features publishing and services, EQMS installation and functionality, electronic attendance record, electronic display board screen installation currently installing for pilot implementation, and the website modification software development & rollout with new features are undertaking by different partners. The effects of those partnerships have clearly shown on the existing improvements of DARA service delivery, enabling improves effectiveness, increase efficiencies and speed of service delivery, the office remained connected with customers, and enable DARA accountable and responsive for service users. However, DARA has no partnership arrangements in areas of training and staff skills development area of IT and E-governance platforms. Most of the time DARA IT experts are expected to give training for skills development for organizational members<sup>14</sup>.

The internal IT experts tried to do some extra ordinary tasks with indispensable contributions but DARA never provide incentives and motivation for their efforts. This makes them stayed only on the corner of their daily responsibility rather tried to use their full potential for organizational best achievements. Not only this but also when different private partners are interested working with DARA in E-governance platforms area, but the organization remaining unresponsive and kept silent<sup>15</sup>.

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<sup>11</sup> Observations data

<sup>12</sup> Data gained from observations and interviews data

<sup>13</sup> Partner name

<sup>14</sup> Interview data

<sup>15</sup> Interviews data

DARA's interoperability efforts with different public sector organizations via database system mechanism which is called EXTRANET<sup>16</sup> data exchanges are poor& still infant stage. The Ethiopian public sector organizations which have interrelated services with DARA are (ministry of foreign affairs, ministry of justice with its different level courts, ministry of trade, investment commission, land management and development offices, ministry of transport and road authority, Ethiopian revenues and customs authority, both public & private commercial banks, insurance companies) and so forth are main stakeholders for DARA service delivery. From those organizations and ministries most of them are still using traditional and paper based file exchanges and almost all nonexistence of database data & information exchanges except (Ministry of transport and Ethiopian road authority with limited scope and)<sup>17</sup>. These conditions always led to delay of DARA service delivery, caused to customers' cumbersomeness and tiredness, disappointment and dissatisfactions. Those organizations preferred to stick with traditional systems<sup>18</sup>.

This wasn't due to problems of government budget allocations and policy directions for E-governance platforms implementation rather most of those organizations lacks with interest to domesticating IT and database information exchanges, human skills constraints, leadership ignorance & reluctances, problem of appropriate planning and execution of plan in alignment with national E-government policy, lacks of ownership and closed mindset up, poor commitments of leaderships, problems of paid equal attention for platforms contributions and lacks of leaderships motivation for realization the ambitious national E-government goals and objectives of EXTRANET database data and information exchanges across public sector organizations<sup>19</sup>.

### **3.5.3 DARA's Website Services and its Implications on Service Quality and Good Governance**

DARA has published its official website with partnership platform model for the first time in Ethiopian public sectors' history since from 2011. The website provides different services and

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<sup>16</sup>EXTRANET is the database communication systems that allow to share different resources and data at a time from different authorized public sector organizations and helps to any authorized organizations enabling to refer, verify and authenticating different documents from respected/concerned agencies, ministries or offices using authorized central and national database systems.

<sup>17</sup> Interviews data

<sup>18</sup> Interviews data

<sup>19</sup> Interviews data

information<sup>20</sup>. Website's content in terms (availability of full text of government documents acts, bills, annual reports, policy documents, and research publications), prerequisites and requirement of DARA services<sup>21</sup>. Therefore, it has very much helpful for customers being aware before starting to services. The availability of different government rules decrees, policy documents, are available with downloadable while (researches publications and organization's plan aren't available). The webpage resource features (aforementioned rules, decrees, policy documents and so forth) has 9 different resource keys/button's where each keys has 5 different document views with downloadable bases of documents at a time. However, some resource keys/buttons didn't displaying the required documents view<sup>22</sup>.

The webpage has contained short & brief history of the organization's, mission, vision, core values, service quality policy as per International Standard Organization (ISO) services standards, service quality objectives and notary of authorizations. Regards with services and its prerequisites availability all DARA services are explicitly listed with their specific requirements to get services from the organization's website. Not only these but there are also clearly stated and listed of every services type and its service charges, amounts of stamp charges services are available<sup>23</sup>. Webpage also contained CEO's speech and message, up-to date with vacancy posts and result announcements for applicants, it consists awards and appreciations for its successful achievements of its service delivery from different governmental, private, international organizations and institutions. The availability of such information on the webpage is one step for delivering quality services and promoting good governance<sup>24</sup>.

From 33 DARA services 3 of them (***general power of attorney, family power of attorney and power of advocacy service attorney***) have online registration forms with all necessary procedures with simple and easy steps that every customer in need of those services can apply at any time anywhere 24/7 day and can access services. Anyone who are using those online forms are benefited not only in time but also in cost, energy and service tiredness, the remaining services of those three services are verification and authenticated which finished in person from any branch with the registration form case number given in submission period. Customers could being served

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<sup>20</sup> Interviews and observations data

<sup>21</sup> Observations data

<sup>22</sup> Observations data

<sup>23</sup> Observations data

<sup>24</sup> Observations Data

without any waiting periods (not expected to use EQMS), they could save admin cost (typing costs) moreover they can finished it with a maximum of 10 minutes in saving of 50 - 60 minutes of previously service delivery mechanisms.<sup>25</sup>

As the table below depicted that DARA could deliver different service in using ICT for improving efficient and effective service delivery in turn to maximizing customers' satisfactions.<sup>26</sup>

Table 35(3.19) ICT supported Service Delivery across DARA Branches<sup>27</sup>

Source DARA Report (April, 2016)

| Branch offices | General attorney | Family power attorney of | power of advocacy service attorney | Cancellations | Car Sale    | House sale | Online    | Total       |
|----------------|------------------|--------------------------|------------------------------------|---------------|-------------|------------|-----------|-------------|
| Branch1        | 69               | 33                       | 9                                  | 45            |             | -          | 3         | 159         |
| Branch5        | -                | -                        | -                                  | -             | 1982        | 295        | -         | 2277        |
| Branch6        | 66               | 40                       |                                    | 10            | -           | -          | -         | 116         |
| Branch7        | 93               | 72                       | 9                                  | 48            | -           | -          | -         | 222         |
| Branch10       | 216              | 90                       | 60                                 | 72            | -           | -          | 12        | 450         |
| Dire Dawa      | 40               | 30                       | 10                                 | 20            | -           | -          | -         | 100         |
| <b>Total</b>   | <b>484</b>       | <b>265</b>               | <b>88</b>                          | <b>195</b>    | <b>1982</b> | <b>295</b> | <b>15</b> | <b>3324</b> |

The website services enabled customers are being aware about their responsibility/duties to use services more importantly it helped customers not be confused how they might pay and how much amount payment should be paid<sup>28</sup>(See annex, F).

The system based selling activities (House, share, car, building sales) are conditioned through selecting and computing from 200 model documents of the organization and feed it into database then simply filled as per customers' demand then accompanied by printed, sealed, stamped , scanned and filed into electronic forms which is also more reliable and accurate forms of documentation this platform has saved lots of customers admin costs (350 - 550 ETB)typing expenses per each single documents. ForDARAthis platform replaced costly document warehouse system and bulky documentations which was difficult to find out for referring easily in times of necessary <sup>29</sup>(See annex, G).

<sup>25</sup> Observations data and interview data

<sup>26</sup> DARA Repots

<sup>27</sup> DARA weekly reports

<sup>28</sup> Observations data

<sup>29</sup> Interviews data and observations

### 3.5.4 Problems and Challenges for Successful Implementations of E-government Platforms in DARA

The following bullets have presented main problems and challenges that are the stumbling factors for platforms implementations as per predetermined initiatives due to<sup>30</sup>;

1. Lacks of DARA's expert, specialists and even managerial level lacks with ICT usability and skills& poor basic computer skills to generating meaningful internet browsing<sup>31</sup>even the branch IT experts didn't aware that there were online services at DARA<sup>32</sup>.
2. Poor customers' awareness and refuse to use it, this is due to poor public relation works and DARA failed to getting connected with customers in advance with a continuous communications.
3. Some management's members have knowledge gap in using these platforms and even those who have know-how being ignored & lacked with commitments and even sometimes branch managers and line department managers refuse to send reports using e-mail, reluctances in full scale platforms usability<sup>33</sup>.
4. Lacks of ownership for platforms for instance electronic attendance and time keeper should be owned by HR unit but it kept silent for its operation and functionality as the problems of that line department's interoperability in usability of platforms<sup>34</sup>.
5. The webpage never post any bid/tender calling post records, absence of organizational calendar & upcoming events, poor in posting updated & timely news. These could be negatively affect service delivery and transparency elements of the webpage & especially the bid/tender<sup>35</sup>.
6. DARA as the organization and its staff members haven't used mail exchanges in sought of their annual leave, promotion, transfer and others related HR activities from their organizations still they used traditional system in contrast other DARA efforts<sup>36</sup>.

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<sup>30</sup> Interview and observations data

<sup>31</sup> Interviews and observations data

<sup>32</sup> Observations data

<sup>33</sup> Interviews data

<sup>34</sup> Interviews data

<sup>35</sup> Observations data

<sup>36</sup> Interviews and Observations data

7. The webpage lacks with customers'/stakeholders suggest boxes specifically on DARA policies and plans, absence of live chat options to responding services request & fixing customers complaints immediately<sup>37</sup>.
8. Unavailable of SMS service options using mobile platform, and very important but nonexistence of **online forum** with higher concerned government officials, or across all branch managers where they could attend any discussions/meetings being at their office instead of coming together by leaving their office looked<sup>38</sup>.
9. The data showed that the convenience of listing of basic FAQs and its immediate answer on the webpage is almost nonexistence and not up-to-dated. This might led unable to reach timely answer customers' most common questions at time<sup>39</sup>.
10. Branch location and direction of map, contact details and address, operational hours hasn't much detailed stated as main branch. This may be has negative impacts on service delivery as long as many of operation is being done at branch level than main branch<sup>40</sup>.

### 3.5.5 E-government and Good Governance in DARA

Electronic government for DARA has contributed much more for promoting good governance. It plays dual role for DARA's operations; first it improved our service qualities (increase efficiency, improve effectiveness, reducing different operational cost and maximizing customers' satisfaction) second enable to solved the previous service delivery complexities of customers complain of operations. Previously before EQMS has implemented customers were complained due to they were not getting services according to their arrivals rather those who have friends & relatives can get services no matter their arrivals (problems of partiality, fairness, equality and transparency). But after EQMS platform introduced completely this problem has resolved<sup>41</sup>. DARA's website service features specifically, online service plays a prominent role for promoting good governance. DARA has provided privileges for online service user anyone who apply through online service platform would be get services without any waiting periods as soon as we received the online

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<sup>37</sup> Observations

<sup>38</sup> Observations and interviews data

<sup>39</sup> Observations data

<sup>40</sup> Observations data

<sup>41</sup> Interviews and observations data

registration code reference numbers. Therefore, this enabled DARA being accountable, transparent, equitable service delivery<sup>42</sup>.

DARA has collected 789 feedbacks both electronically (888 free national call center, office telephone calling, e-mail, direct feedbacks on website and on the official DARA's Facebook page) and putting in suggestion boxes from customers of last 6<sup>th</sup> months; from these customers' feedback 67% was motivated and their satisfaction levels with our services has increased time to time and the remaining 33% was customers' complain, grievances and dissatisfaction. In the meantime DARA management & council have sited together for synchronizing exhaustively and decided on it to solve the problems that the customers raised as complain and improve the existing best achievements to kept customers being satisfied in DARA service delivery<sup>43</sup>. As the researcher's data revealed that DARA's official webpage has a different alternative for access (DARA official website address ([www.DARA.gov.et](http://www.DARA.gov.et)), Ethiopian government portal address ([www.ethiopia.gov.et](http://www.ethiopia.gov.et)), MCIT website ([www.mcit.gov.et](http://www.mcit.gov.et)) or using key words and phrases and so forth. Therefore, the functionality and validity of the webpage has proved and anyone could be producing a meaningful browsing on DARA website<sup>44</sup>.

As the researcher data depicted that the functionality of e-mail and phone calling of DARA were responsive. This observed through e-mailing for five different DARA official where (1 immediately replied, 2 little bit delayed responded, 1 lately replied and 1 never replied) and all phone calls were answering with respecting of any caller. DARA official were striving to be punctual and committed to their appointment schedules except an urgent situation might cause for cancelation or delayed for appointments but, almost all branch managers' e-mail address and other contact details are non-existence and unable to emailed for them<sup>45</sup>.

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<sup>42</sup> Interviews and Observation data

<sup>43</sup> Interviews data

<sup>44</sup> Observation and interviews data

<sup>45</sup> Observations data

## Chapter Four

### 4. Major Findings Conclusions and Recommendations

This was the last chapter of this study. It has tried to present the comprehensive summary/major finding of the research, summarized the outcome of hypotheses findings conclusions, workable recommendations derived from the data analysis as well as forwarded direction for further research agendas.

#### 4.1 Major Findings and Conclusions

The fundamental objective of this study was to explore the relationship between E-governance and improving public service qualities (Efficiencies & Effectiveness, Cost reductions and maximizing customer satisfactions) and promoting Good governance (Transparency & Accountability, Combating Corruptions, Empower Participation, and Ensuring fairness & equality). The study has followed mixed (quantitative and qualitative) research approaches.

In doing so, the finding of this study has explored numbers of interesting findings. First, it has confirmed that E-government platforms implementation has positive effects on improving public service qualities. As the finding clearly discussed in the earlier chapter and the data gained from employees and customers, interviews and observation all data confirmed that when public sectors successfully implement E-government platforms the efficiency & effectiveness of service delivery would be improved linearly. Empirically with adjusted  $R^2$  values of (0.70) and standardized  $\beta$  coefficient efficiency and effectiveness of service delivery would increase by 0.960 (where the P-value was  $<0.001$ ). Second, with respect to the relationship with cost reduction and E-government again it was contributed minimizing costs of service delivery where the total contribution adjusted  $R^2$  value of 0.964 with standardized  $\beta$  coefficient for cost reduction value of 0.670 (where the P-value was  $<0.05$ ) this was also supported by interviews and observations data. Third, the effect of E-government on customers' satisfaction was also significant DARA with explained statistically adjusted  $R^2$  value of 0.949 with standardized  $\beta$  coefficient for cost reduction value of 0.731 (where the P-value was  $<0.001$ ).

Again this study finding has come up with the relationships between E-governance and promoting good governance in DARA both have positive relation. When E-governance implemented successfully with standardized  $\beta$  coefficient of 0.901 would contributed to promote transparency

and accountability by adjusted  $R^2$  value of 0.546 where (where the P- value was < 0.05) which meant at 95% confidence interval. It was also investigated that E-government is a potential tool for government to achieve excellence in as far as interacting with different stakeholders for feedback & remained connected with citizens/customers for empowering participations.

**Table 36 (4.1) Summary of the Research Questions, Objectives and Hypotheses**

|                     |                                                                                                                             |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Research Question1  | How E-governance platforms positively influenced effectiveness of service delivery?                                         |
| Research Objective1 | Examined the effects of E-governance to achieving effective public services delivery                                        |
| Hypothesis 1        | Using E-governance platforms is positively with improving effectiveness of service delivery                                 |
| <b>Result1</b>      | <b>Supported</b>                                                                                                            |
| Research Question2  | How E-governance platforms positively influenced efficiencies of service delivery?                                          |
| Research Objective2 | Explored the effects of E-governance on public services delivery efficiency                                                 |
| Hypothesis2         | E-governance has a positive impact on achieving efficiency of service delivery                                              |
| <b>Result2</b>      | <b>Supported</b>                                                                                                            |
| Research Question3  | What were the effects of E-governance on reducing operational and transactional cost of service delivery?                   |
| Research Objective3 | Explained the effects of E-governance on reducing operational and transactional costs of service delivery in public sectors |
| Hypothesis3         | E-governance has positive effects on reducing service delivery costs                                                        |
| <b>Result3</b>      | <b>Supported</b>                                                                                                            |
| Research Question4  | What were the direct effects of E-governance achieving and ensuring on good governance?                                     |
| Research Objective4 | Assessed the effects of E-governance to ensuring and promoting good governance                                              |
| Hypothesis4         | E-governance platforms have direct impacts in promoting good governance                                                     |
| <b>Result4</b>      | <b>Supported</b>                                                                                                            |
| Research Question5  | What were the effects of E-government on increased customers/citizens satisfactions level?                                  |
| Research Objective5 | To identified the effects of E-governance on customer satisfactions levels                                                  |
| Hypothesis5         | E-government is positively correlated with increasing customer satisfaction                                                 |
| <b>Result5</b>      | <b>Supported</b>                                                                                                            |

For hypotheses testing the research has used mainly quantitative data through (Multiple linear regression model, one way anova and correlation coefficient) of statistical hypothesis testing tools. Qualitative data also used to triangulate the statistical testing tools correctness but both qualitative and quantitative data have found the same results.

Even though, the research finding came up with the above interesting contributions of E-governance on improving service qualities and promoting good governance. It has found that the following negative factors in implementing E-government.

First, this study has explored that; bottlenecks for successful E-government implementations were poor IT skills and knowledge gaps, low customers' awareness, leadership commitment problems (being reluctant and ignorance and even refused to use electronic platforms, very poor sectorial interoperability using E-government platforms, most public sector organization preferred to stayed with traditional systems, unaligned sectorial E-government platform implementation with national E-government policy and poor coordination and supervision from the government & it remained silent after crafting national E-government policy directions i.e. lacked with follow ups, leadership knowledge gap on its contribution and they considered it is simply government programme. Second, DARA webpage has lacked with availability of FAQs, absence of upcoming events and organizational calendar, filled with up-to-dated news, live chat options, absence of posts calling for bids and its result, absence of organizational strategic plan draft and lacked with requests comment from its stakeholders, absence of citizen charter with downloadable base, absence of branch offices' contact details. Third, DARA has never used E-services for internal HRM activities when its staff members still used to request annual leave, promotion, transfer and other services in using traditional application letter writing which resulted delayed, and staff members supposed unable to get immediate responses especially the branches which are far from main branch. Fourth, regards with customers usage DARA's official website, as the data collected from customers inferred that out of 255 customers those who were visited frequently [www.DARA.gov.et](http://www.DARA.gov.et) were accounted only 35 (17.5%), and 61 (30%) of them were visited sometimes while almost around 106 (52.5%) of them were never yet visited DARA's website. Thus, it was possible to conclude that customers' habit of using website services still underdeveloped and DARA has lots of assignments in creating awareness and promoting online and related its website services for customers.

## **4.2 Recommendations**

This study has forwarded the following recommendations depending on the empirical findings of the study that DARA and concerned government policy makers should be pay due attentions; The IT skills of employees' have to scale up and developed more in sophisticated manner with technical and tactical issues of the ever increasing IT arenas and existing day to day daynamnsim scenarios of the technology. Thus, DARA shouldn't limit its partnership with partners only in

software development and roll-out i.e. the partnership model should be also includes training and development model.

- i.** DARA should be transform from traditional systems and manual based internal HRM operations into staff request of; their annual leave, promotion, transfer, incentives and extra using electronic usability.
- ii.** DARA webpage have to improve for inclusiveness/availability of; live chat options for customers, FAQs with immediate answers, develop a culture of requesting stakeholders comment on strategic plan drafts, citizens' charter, up-to-dated news, calling for bids/tenders via website, policy documents and others with downloadable base, online discussion forum options and upcoming events with organizational calendar should be included on the website.
- iii.** DARA have to increase customers' awareness on using website and its online services continuously trough promoting using mass Medias, and distributing bullets/fliers.
- iv.** Policy makers and government should be pay due attentions for the role of E-government from service qualities and good governance perspectives instead of considering the global influence and see it as fashion of globalization in implementing different E-governance packages and platforms.
- v.** The government should be follow up, supervise, intervene and enhancing integrated public sector organizations E-government platforms implementation and much more works on developing leadership commitments instead of only giving policy directions and allocating budget.
- vi.** For interoperability and EXTRANET data exchanges Ethiopian government should use Enterprise Resource Planning (ERP) software applicable for all core functions of a business whether private and public sector organizations. ERP can functioned in integrated operations for public sectors in customer relationship management (CRM), purchase order processing, online services, financial transactions, human resources, and decision support system. ERP system can unite and link together multiple processes and parts government operations, run more efficiently, automating various operations, centralized data in one place and share along accordingly, eliminate the problem of synchronizing changes between multiple systems, and allows control & accurate view of all information at a time and lower the risk of losing sensitive data, when the organizations uses an appropriate data

security and authorization. But ERP needs to adequately invest in ongoing training for the involved both personnel's and organizational staff and there is often a lack of corporate policy to protect the integrity of the data in the ERP systems and the ways in which it is used. Business processes frequently have to be re-engineered to fit the new ERP system, if not this can lead to problems, also ERP systems are very expensive & mind that ERP systems centralized the data in one place without security authorizations can increase the risk of loss of sensitive information.

Some suppliers of ERP software products are; Microsoft Dynamics ERP, Oracle e-Business Suite, SAGE, SAP Business One, Infor Global Solutions, NetERP from NetSuite, Lawson Software.

### **4.3 Contributions of the Research**

The fundamental contribution of this study was showing the positive effects of E-governance on improving service qualities (Efficiencies & effectiveness, cost reduction and maximizing customers' satisfactions level) and promoting good governance (Transparency & accountability, empower citizens/customers participations, combating corruptions and ensuring equality and fieriness). The findings of the study would further contributed to filling the knowledge gaps on the issue understudy. Furthermore, the study has introduced this concept in Ethiopia public sector organizations for the first time to show the relationships between E-government and service quality vis-à-vis promoting good governance.

### **4.4 E-Governance and Areas for Further Research**

This study has faced certain limitations that could provide opportunities for further research. This paper has studied the role of E-governance on improving quality service delivery and promoting good governance. Therefore, interested academicians and professionals can be studies further research on E-governance and effective utilization of E-governance platforms, the role and impacts of PPP could be study intensively as per this study tried to viewed it at grasp and bird view. The changing of global governance scenarios are in demands of greater different partnership models among various players. Thus, E-governance implementations and operations should be in collaborative approach and its focus should be on results and effects not on process of making

digitalization of services or simply webpage presence of public sector organizations where its destiny have to beyond this.

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**Appendix A**  
**Addis Ababa University**  
**School of Graduate Studies**  
**College of Business and Economics**  
**Department of Public Administration and Development Management**  
**Questionnaire Filled by Citizens/Customers of Document Authentication & Registration Office (DARA)**

Dear Respondents,

This is KiflieWorku, who is a Master's student of Public Management and Policy (Public Policy Specialization) at Addis Ababa University, in Department of Public Administration and Development Management. Currently, am undertaking a research project entitled "***E-governance, Public Service Delivery and Good Governance in Public Organizations; the case of Document Authentication and Registration Agency (DARA)***". You are one of the accredited respondents selected to participate for this study. I understand that your time is valuable, while for the successful accomplishment of the study is rely on your honesty and kindness cooperation, genuine and loyal information response of this questionnaire. That have vital role being used as valuable input for the study. Therefore, I kindly request you to genuinely fill and return this questionnaire.

I assure you that your participation in this study is voluntary, all information you provide and results will be recorded anonymously, and confidentiality is maintained. It is for only academic purpose. At last, if you have face any problems in filling this questionnaire, you can reach and communicate me via the following addresses anytime.

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E-mail; [kiflie.worku@aaau.edu.et](mailto:kiflie.worku@aaau.edu.et)

**General Directions**

1. No need of writing your name and address on the questionnaire
2. For multiple choice questions, please encircle your responses from alternatives
3. For Likert scale type statement questions, indicate your answers with a symbol mark of **(X) or (√)** in the appropriate space
4. Feel free & attempt all questions please

I thank you in advance for your friendly and generous cooperation!

**Part I, Background Information of Respondents**

1. Sex

- A. Male                      B. Female
2. **Age category**
- A. Between 20-30                      C. Between 41-50  
B. Between 31- 40                      D. Above 51
3. **Educational qualification**
- A. MA/MSc Degree and above   C. Diploma  
B. BA/BSc Degree                      D. TVET certificated  
E. Secondary School complete   F. Others
4. **In which sector you are employed**
- A. Government sectors                      C. NGOs & Non-profit organizations  
B. Private sectors and or Self-employed   D. Student   E. Others
5. **How often do you visit DARA in seeking of its services?**
- A. Always                      C. Usually  
B. Frequently                      D. Sometimes                      E. Never
6. **How do you express your Computer knowledge**
- A. Very Good                      C. Moderate  
B. Good                      D. Poor
7. **How do you evaluate your Internet usage knowledge?**
- C. Very Good   C. Moderate  
D. Good   D. Poor
8. **How do you visit [www.dara.gov.et](http://www.dara.gov.et)**
- A. Frequently  
B. Sometimes  
C. Never yet visit

## **Part II; E-governance platforms and Services**

The following statements are mean to identify and measure the E-governance and its service attributes to DARA. Please use the following scale to describe your response most closely matches with E-governance and its service attributes of DARA; 1= **Strongly Disagree (SD)**, 2= **Disagree (D)**, 3= **Undecided (UD)**, 4= **Agree (A)** and 5= **Strongly Agree (SA)**.

| E-governance and Service Attributes of Document Authentication & Registration Office |                                                                                                                                                                                                                                                       |                      |   |    |   |    |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---|----|---|----|
| R. No                                                                                | Statements Used for Measurements                                                                                                                                                                                                                      | Scale of Measurement |   |    |   |    |
|                                                                                      |                                                                                                                                                                                                                                                       | SD                   | D | UD | A | SA |
| ICT Hardware & Software                                                              |                                                                                                                                                                                                                                                       |                      |   |    |   |    |
| 1                                                                                    | Do you think that DARA has enough Computers & IT infrastructures Use IT portal for lodging enquiries to DARA                                                                                                                                          |                      |   |    |   |    |
|                                                                                      | Use services DARA provide using IT                                                                                                                                                                                                                    |                      |   |    |   |    |
| 3                                                                                    | DARA’s webpage/portal is convenient to lodge enquiries than to visit DARA office                                                                                                                                                                      |                      |   |    |   |    |
| 4                                                                                    | I am satisfied with the one-stop window shop services provided by DARA                                                                                                                                                                                |                      |   |    |   |    |
| 5                                                                                    | DARA’s departments use IT and Internet supported system to deliver services as I visit the office                                                                                                                                                     |                      |   |    |   |    |
| Usage of E-governance Platforms                                                      |                                                                                                                                                                                                                                                       |                      |   |    |   |    |
| 6                                                                                    | DARA’s specific location (map), addresses (phone, e-mail), operation’s hours and all services’ information provided by organization are available on its webpage                                                                                      |                      |   |    |   |    |
| 7                                                                                    | Availability of all necessary requirements & prerequisites of each DARA’s services on the web page                                                                                                                                                    |                      |   |    |   |    |
| 8                                                                                    | Availability of Frequently Asked Questions (FAQs) with its immediate and accurate responses on webpage of DARA                                                                                                                                        |                      |   |    |   |    |
| 9                                                                                    | Customers/citizens able to communicate and arrange appointments using E-mail with concerned officials of DARA                                                                                                                                         |                      |   |    |   |    |
| 10                                                                                   | we can accessing DARA’s rule and regulations, decrees, citizen charter and/ policy documents, updated reports, and research publications with downloadable data base from DARA web page                                                               |                      |   |    |   |    |
| 11                                                                                   | Availability of key note speeches by top level managements with audio and video supported information about organization’s services, achievements, pitfalls and bottlenecks to accessing services, strategic directions and goals, on DARA’s web page |                      |   |    |   |    |
| 12                                                                                   | DARA web page allowing for customers/citizens to provide their feed backs and opinions online from anywhere & anytime                                                                                                                                 |                      |   |    |   |    |
| 13                                                                                   | DARA web page portals calls for vacancy, recruitment, selection, examinations and placements of its human resource using online data base management                                                                                                  |                      |   |    |   |    |
| 14                                                                                   | Availability of online DARA bids/tenders for procurement contracts on our web page portal                                                                                                                                                             |                      |   |    |   |    |
| 15                                                                                   | Customers/citizens able to access DARA’s services online 24hrs/7days regardless of geographical distances and waiting for office hours                                                                                                                |                      |   |    |   |    |
| 16                                                                                   | Customers/citizens can register and request DARA’s services using online submitting forms                                                                                                                                                             |                      |   |    |   |    |
| 17                                                                                   | DARA’s webpage distributes and exchanges various business laws, policies, rules & regulations and memos with private sectors in downloadable application forms                                                                                        |                      |   |    |   |    |
| 18                                                                                   | Customers/citizens can submit their grievances and problems they faced in service delivery processes and they can follow up it using DARA’s webpage/portal                                                                                            |                      |   |    |   |    |
| 19                                                                                   | DARA’s employees can offer online services of human resource related (applying for annual leave, renewing salary payment records,                                                                                                                     |                      |   |    |   |    |

|    |                                                                                                                                                                                   |  |  |  |  |  |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
|    | promotion/transfer and request for training and development) in replacing letter application                                                                                      |  |  |  |  |  |
| 20 | Citizens/customers can participate in DARA's planning, decision making processes, policy/strategy formulations and other relevant organizational affairs online using the webpage |  |  |  |  |  |
| 21 | We can pay our service charges and fees online using organization's webpage                                                                                                       |  |  |  |  |  |

### **Part III; E-governance, Public Private Partnership and Public Sectors Integration Efforts**

The following statements are used to measuring DARA's E-governance service delivery platforms and its Public Private Partnership (PPP) & Public sectors Integration efforts. Therefore, please use the following scale to express our response with closely matches by DARA's E-governance and its Efforts for Public Private Partnership (PPP) and Public sectors Integrations; **1= Strongly Disagree (SD), 2= Disagree (D), 3= Undecided (UD), 4= Agree (A) and 5= Strongly Agree (SA).**

| E-governance, Public Private Partnership and Public Sectors Integration Efforts of DARA |                                                                                                                                                                                                                                                                                                            |                      |   |    |   |        |
|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---|----|---|--------|
| R.<br>No                                                                                | Statements Used for Measurements                                                                                                                                                                                                                                                                           | Scale of Measurement |   |    |   |        |
|                                                                                         |                                                                                                                                                                                                                                                                                                            | SD                   | D | UD | A | S<br>A |
| Public Private Partnership                                                              |                                                                                                                                                                                                                                                                                                            |                      |   |    |   |        |
| 1                                                                                       | DARA has well-structured partnership agreements with privates companies, NGOs or other government’s agencies in areas of; software development, project management and assessments, financial investment/finding, infrastructural setups and solution for architecture of appropriate technology selection |                      |   |    |   |        |
| 2                                                                                       | DARA has an agreement with partners and public organizations/agencies to facilitate new ways of delivering information services in order to provide integrated services that better respond to citizen and business needs                                                                                  |                      |   |    |   |        |
| 3                                                                                       | DARA signs contractual agreement between a public agencies (federal, state or local) to deliver services                                                                                                                                                                                                   |                      |   |    |   |        |
| 4                                                                                       | DARA provides and gives training, awareness creations and workshops regards with E-governance platform implementations and its contributions, for its employees and customers’/customers’ in collaborate with private companies and institutes                                                             |                      |   |    |   |        |
| 5                                                                                       | Private companies can play prominent roles to improve the skills for using electronic service delivery                                                                                                                                                                                                     |                      |   |    |   |        |
| Public Sectors’ Integrations(Interoperability)                                          |                                                                                                                                                                                                                                                                                                            |                      |   |    |   |        |
| 6                                                                                       | Using portal/webpage, customers/citizens able to access interrelated services at a time from different government’s ministries/and departments instead of visiting each of those offices                                                                                                                   |                      |   |    |   |        |
| 7                                                                                       | DARA has Government-Government (Sectorial Communication) -2- Citizen/Business (G-G2CB) integrations and collaborations                                                                                                                                                                                     |                      |   |    |   |        |
| 8                                                                                       | The office has building internal and cross departmental communication & collaboration mechanisms that will allow information sharing in service delivery                                                                                                                                                   |                      |   |    |   |        |

|    |                                                                                                                                                                                               |  |  |  |  |  |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| 9  | Citizens/customers are not expected to visit other organizations to access our services because DARA has integrated webpage portal communication channels with those organizations            |  |  |  |  |  |
| 10 | DARA has established collaborative and cohesive consistence portal based communications with other government's ministries/departments and agencies to delivering coordinated public services |  |  |  |  |  |
| 11 | DARA has constructing smooth fast reliable and accurate online communication and bridges with other government organizations that facilitate and speedily processing of its services delivery |  |  |  |  |  |

#### **Part IV; E-governance & Services Qualities (Effectiveness, Efficiencies and Quality) attributes**

The following statements are used to measuring DARA's E-governance service delivery and service quality attributes (Effectiveness, Efficiencies and Quality). Therefore, please use the following scale to express your response most closely matches with E-governance and its impacts on service qualities; 1= **Strongly Disagree (SD)**, 2= **Disagree (D)**, 3= **Undecided (UD)**, 4= **Agree (A)** and 5= **Strongly Agree (SA)**.

| <b>E-governance &amp; Services Qualities (Efficiency, Effectiveness and Quality) of DARA</b> |                                                                                                                                                                                                                |                      |   |    |   |    |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---|----|---|----|
| R.No                                                                                         | Statements Used for Measurements                                                                                                                                                                               | Scale of Measurement |   |    |   |    |
|                                                                                              |                                                                                                                                                                                                                | SD                   | D | UD | A | SA |
|                                                                                              | <b>Efficiencies and Effectiveness</b>                                                                                                                                                                          |                      |   |    |   |    |
| 1                                                                                            | Saving time due to it providing services via one-stop single window in avoids waiting long queues, go here & there and time spent frequent travel to our office that speedily processing of transactions       |                      |   |    |   |    |
| 2                                                                                            | Customers/citizens are being informed when where and how services will deliver, it changes their attitude toward using electronic service delivery                                                             |                      |   |    |   |    |
| 3                                                                                            | DARA webpage provides technical supports for customers'/citizens' in times of their difficulty and it build their trust and credibility on our organization, reducing the number of their visits to our office |                      |   |    |   |    |
| 4                                                                                            | Protect customer confidentiality and privacy, automating services that replacing lots of paper files into electronic file folders                                                                              |                      |   |    |   |    |
| 5                                                                                            | It accelerates DARA service delivery processes regardless of geographical proximity and distance locations of customers'/citizens'                                                                             |                      |   |    |   |    |
| 6                                                                                            | Creating better channel of communication with stakeholders                                                                                                                                                     |                      |   |    |   |    |
| 7                                                                                            | It targeting to avoiding technological illiteracy, conditioning new ways of accessing learning by practice and new ways of listening to citizens'/customers' expectations/preferences of service delivery      |                      |   |    |   |    |
| 8                                                                                            | Provides up-to-dated information with helpful response to customers'/citizens' requests                                                                                                                        |                      |   |    |   |    |
| 9                                                                                            | E-governance platform has enhancing existing service delivery processes and replacing by new method of delivery that creates networked relationships                                                           |                      |   |    |   |    |

|                                            |                                                                                                                                                                                    |  |  |  |  |  |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| 10                                         | It facilitating effective efficient and timely customers'/citizens' grievance handling mechanisms                                                                                  |  |  |  |  |  |
| <b>Service Quality and Cost Reductions</b> |                                                                                                                                                                                    |  |  |  |  |  |
| 11                                         | It reducing (transactional, administrative, transportation, parking and fuel) costs, flexibility of service delivery, timely answers to inquiries                                  |  |  |  |  |  |
| 12                                         | Improving the flow of information and service delivery intelligence                                                                                                                |  |  |  |  |  |
| 13                                         | DARA's webpage portal services are enabling integrated control of supply, volume and value chain processes of service delivery                                                     |  |  |  |  |  |
| 14                                         | DARA webpage portal introducing alternative and modified service delivery that enhances competitive service delivery from the previous service delivery mechanisms                 |  |  |  |  |  |
| 15                                         | The webpage has improving communication with government, partners, citizens'/customers' and employees and enable to providing quality services for large number of users at a time |  |  |  |  |  |
| 16                                         | DARA's webpage makes less bureaucratically procedures of service                                                                                                                   |  |  |  |  |  |
| 17                                         | DARA is committed towards delivering standard and quality services                                                                                                                 |  |  |  |  |  |
| 18                                         | Inter-agencies interaction between ministries/departments, employees, and others relationships are best tool to delivering quality services                                        |  |  |  |  |  |
| 19                                         | The webpage provides faster online documents and registration forms, easy to find information and care customers'/citizens' to individual attention (referral to contact person)   |  |  |  |  |  |

#### **Part V; E-governance and its Contribution to Promoting Good Governance**

The following statements are designed to measuring DARA's E-governance service delivery platforms and its contributions for ensuring and promoting good governance. Therefore, please use the following scale to express your response most closely matches with DARA's E-governance and its potential impacts on achieving good governance in your organization; **1= Strongly Disagree (SD), 2= Disagree (D), 3= Undecided (UD), 4= Agree (A) and 5= Strongly Agree (SA).**

| E-governance and its Contribution to Promoting Good Governance in DARA |                                                                                                                                             |                      |   |        |   |    |
|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---|--------|---|----|
| R.<br>No                                                               | Statements Used for Measurements                                                                                                            | Scale of Measurement |   |        |   |    |
|                                                                        |                                                                                                                                             | S<br>D               | D | U<br>D | A | SA |
| Transparency and Accountability                                        |                                                                                                                                             |                      |   |        |   |    |
| 1                                                                      | The web page has ensuring transparency and accountability of DARA and makes answerable to actions and decision towards citizens             |                      |   |        |   |    |
| 2                                                                      | Open to service receivers about the specific services and minimizing to service delivery procedure and simplify complex processes           |                      |   |        |   |    |
| 3                                                                      | Breaking hierarchies into lateral & flat structures of communications                                                                       |                      |   |        |   |    |
| 4                                                                      | DARA web page portal has introducing fascinated administrative problem solution and customers’/citizens’ grievances handling mechanisms     |                      |   |        |   |    |
| 5                                                                      | Increase the awareness levels of the people regarding the services offered from DARA and their rights as customer/citizen                   |                      |   |        |   |    |
| Participatory                                                          |                                                                                                                                             |                      |   |        |   |    |
| 6                                                                      | It has established new ways of debating in deciding on organizational plan and policy & implementation, evaluations with customers/citizens |                      |   |        |   |    |

|                              |                                                                                                                                                                                                                                                                 |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| 7                            | It open for customers'/citizens' to forwarding their feedbacks & opinions, allowing participation during policy making processes                                                                                                                                |  |  |  |  |  |
| 8                            | It makes decentralization of DARA's governance, since data stored in digital format can be updated and accessed from virtually any office within a networked environment                                                                                        |  |  |  |  |  |
| 9                            | promoting participatory and extensive involvement decision-making process with its customers/citizens and employees                                                                                                                                             |  |  |  |  |  |
| 10                           | DARA's top level management have online discussion forums, conference, shared calendars, resource libraries, and group editing of documents within and external concerned organizations and individuals                                                         |  |  |  |  |  |
| 11                           | Availability of detail service procedures with understandable instructions of services' delivery, communicating newly enacted national/organizational policy, related laws, directives, charters, codes and so forth to the customers/publics via DARA web page |  |  |  |  |  |
| <b>Reducing Corruptions</b>  |                                                                                                                                                                                                                                                                 |  |  |  |  |  |
| 12                           | DARA web page increases combating malpractices                                                                                                                                                                                                                  |  |  |  |  |  |
| 13                           | Reducing corruptions and wastage of financial resources of organization's by introducing E-procurements and online bids/tenders contracts                                                                                                                       |  |  |  |  |  |
| 14                           | It tackling administrative corruption and Reducing the opportunities for corruption to infiltrate                                                                                                                                                               |  |  |  |  |  |
| 15                           | It cutback red tape and corruptions                                                                                                                                                                                                                             |  |  |  |  |  |
| 16                           | Easy to inspected, retrieved & control interactions from portal data base                                                                                                                                                                                       |  |  |  |  |  |
| <b>Equality and Fairness</b> |                                                                                                                                                                                                                                                                 |  |  |  |  |  |
| 17                           | Tackling social exclusion of clients those do not have the skills to use electronic services, insuring fairness access to services                                                                                                                              |  |  |  |  |  |
| 18                           | It allows equal, fair access of services for citizens'/customers'                                                                                                                                                                                               |  |  |  |  |  |
| 19                           | Equal/Fair access of each service for citizens/customers regardless of their different backgrounds                                                                                                                                                              |  |  |  |  |  |
| 20                           | Employees are treating every service users' impartiality across intra-organizational communication                                                                                                                                                              |  |  |  |  |  |

**Appendix B**  
**Addis Ababa University**  
**School of Graduate Studies**  
**College of Business and Economics**  
**Department of Public Administration and Development Management**  
**Masters' Programme of Public Management and Policy (Specialized by; Public Policy Studies)**  
**Questionnaire Filled by Employees of Document Authentication & Registration Office (DARA)**

Dear Respondents,

This is KiflieWorku, who is a Master's student of Public Management and Policy (Public Policy Specialization) at Addis Ababa University, in Department of Public Administration and Development Management. Currently, am undertaking a research project entitled "***E-governance, Public Service Delivery and Good Governance in Public Organizations; the case of Document Authentication and Registration Agency (DARA)***". You are one of the accredited respondents selected to participate for this study. I understand that your time is valuable, while for the successful accomplishment of the study is rely on your honesty and kindness cooperation, genuine and loyal information response of this questionnaire. That have vital role being used as valuable input for the study. Therefore, I kindly request you to genuinely fill and return this questionnaire.

I assure you that your participation in this study is voluntary, all information you provide and results will be recorded anonymously, and confidentiality is maintained. It is for only academic purpose. At last, if you have face any problems in filling this questionnaire, you can reach and communicate me via the following addresses anytime.

**KiflieWorku**  
Cell phone; +251 923420980  
E-mail; [kiflie.worku@aau.edu.et](mailto:kiflie.worku@aau.edu.et)

**General Directions**

5. No need of writing your name and address on the questionnaire
6. For multiple choice questions, please encircle your responses from alternatives
7. For Likert scale type statement questions, indicate your answers with a symbol of (X) or (✓)mark in the appropriate space
8. Feel free & attempt all questions please

I thank you in advance for your friendly and generous cooperation!

## **Part I, Background Information of Respondents**

9. Sex
  - B. Male
  - B. Female
10. Age category
  - C. Between 20-30
  - C. Between 41-50
  - D. Between 31- 40
  - D. Above 51
11. Educational qualification
  - C. PhD Degree
  - C. BA/BSc Degree
  - D. MA/MSc Degree
  - D. Diploma
  - E. Other
12. Years of experiences working in the organization
  - E. Above 10 Years
  - C. Less than 5 years
  - F. 5 to 10 Years
  - D. I am newly joined
13. How do you express your Computer knowledge
  - A. Very Good
  - C. Moderate
  - B. Good
  - D. Poor
14. How do you evaluate your Internet usage knowledge?
  - A. Very Good
  - C. Moderate
  - B. Good
  - D. Poor

## **Part II; E-governance platforms and Services**

The following statements are mean to identify and measure the E-governance and its service attributes to your organization. Please use the following scale to describe your response most closely matches with E-governance and its service attributes of DARA; 1= **Strongly Disagree (SD)**, 2= **Disagree (D)**, 3= **Undecided (UD)**, 4= **Agree (A)** and 5= **Strongly Agree (SA)**.

| E-governance and Service Attributes of Document Authentication & Registration Agency |                                                                                                                                                                               |                      |   |    |   |    |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---|----|---|----|
| R. No                                                                                | Statements Used for Measurements                                                                                                                                              | Scale of Measurement |   |    |   |    |
|                                                                                      |                                                                                                                                                                               | SD                   | D | UD | A | SA |
| ICT Hardware & Software                                                              |                                                                                                                                                                               |                      |   |    |   |    |
| 1                                                                                    | Our organization has enough Computers & IT infrastructures                                                                                                                    |                      |   |    |   |    |
| 2                                                                                    | DARA provide its services using IT & Electronic channels                                                                                                                      |                      |   |    |   |    |
| 3                                                                                    | Each departments are using IT system support and Internet to deliver services for citizens/customers                                                                          |                      |   |    |   |    |
| 4                                                                                    | Each employees have office personal computer and Internet access                                                                                                              |                      |   |    |   |    |
| 5                                                                                    | Our organization using one-stop window shop services delivery                                                                                                                 |                      |   |    |   |    |
| 6                                                                                    |                                                                                                                                                                               |                      |   |    |   |    |
| Usage of E-governance Platforms                                                      |                                                                                                                                                                               |                      |   |    |   |    |
| 7                                                                                    | Our organization's specific location (map), addresses (phone, e-mail), operation's hours and all services' information provided by organization are available on DARA webpage |                      |   |    |   |    |
| 8                                                                                    | Availability of all necessary requirements & prerequisites of each services on our webpage                                                                                    |                      |   |    |   |    |

|    |                                                                                                                                                                                                      |  |  |  |  |  |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| 9  | Availability of Frequently Asked Questions (FAQs) with its immediate and accurate responses                                                                                                          |  |  |  |  |  |
| 10 | Customers/citizens able to communicate and arrange appointments using E-mail with concerned DARA officials                                                                                           |  |  |  |  |  |
| 11 | Customers/citizens can accessing DARA's rule and regulations, decrees, citizen charter and/ policy documents, updated reports, and research publications with downloadable base                      |  |  |  |  |  |
| 12 | DARA webpage allowing to customers/citizens to provide their feed backs and opinions online from anywhere & anytime                                                                                  |  |  |  |  |  |
| 13 | Our webpage calls for vacancy, recruitment, selection, examinations and placements of its human resource using online database                                                                       |  |  |  |  |  |
| 14 | Availability of online DARA bids/tenders for procurement contracts                                                                                                                                   |  |  |  |  |  |
| 15 | Customers/citizens able to access DARA's services online 24hrs/7days regardless of geographical distances and waiting for office hours                                                               |  |  |  |  |  |
| 16 | Availability of key note speeches by top level managements with audio/video about organization's services, achievements/bottlenecks to accessing services, strategic directions and goals on webpage |  |  |  |  |  |
| 17 | Customers/citizens can register and request DARA's services using online submitting forms                                                                                                            |  |  |  |  |  |
| 18 | DARA's webpage distributes and exchanges various business laws, policies, rules & regulations and memos with private sectors in downloadable application forms                                       |  |  |  |  |  |
| 19 | Customers/citizens can submit their grievances and problems they faced in service delivery processes and they can follow up it using DARA's webpage/portal                                           |  |  |  |  |  |
| 20 | We can offer online services of human resource related (applying for annual leave, renewing salary payment records, promotion/transfer and request for training and development)                     |  |  |  |  |  |
| 21 | Citizens/customers can participate in DARA's planning, decision making processes, policy/strategy formulations and other relevant organizational affairs online using the webpage                    |  |  |  |  |  |
| 22 | Customers/citizens of DARA can pay their service charges and fees online using our organization's webpage                                                                                            |  |  |  |  |  |

### **Part III; E-governance, Public Private Partnership and Public Sectors Integration Efforts**

The following statements are used to measuring DARA's E-governance service delivery platforms and its Public Private Partnership (PPP) & Public sectors Integration efforts. Therefore, please use the following scale to express your response with closely matches by DARA's E-governance and its Efforts for Public Private Partnership (PPP) and Public sectors Integrations; **1= Strongly Disagree (SD), 2= Disagree (D), 3= Undecided (UD), 4= Agree (A) and 5= Strongly Agree (SA).**

#### **E-governance, Public Private Partnership and Public Sectors Integration Efforts of DARA**

| R.<br>No                                       | Statements Used for Measurements                                                                                                                                                                                          | Scale of Measurement |   |        |   |    |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---|--------|---|----|
|                                                |                                                                                                                                                                                                                           | S<br>D               | D | U<br>D | A | SA |
| Public Private Partnerships                    |                                                                                                                                                                                                                           |                      |   |        |   |    |
| 1                                              | DARA has well-structured partnership agreements with government’s agencies, privates companies, NGOs in areas of; software development, project management and assessments of E-governance platforms                      |                      |   |        |   |    |
| 2                                              | Our organization has an agreement with partners and public organizations/agencies to facilitate new ways of delivering information services in order to provide integrated services                                       |                      |   |        |   |    |
| 3                                              | DARA has established collaborative and cohesive consistence portal based communicationswith other government’s ministries/departments and agenciesto delivering coordinated public services                               |                      |   |        |   |    |
| 4                                              | DARA signs contractual agreement between a public agencies (federal, stateor local) to deliver services                                                                                                                   |                      |   |        |   |    |
| 5                                              | Private companies can play prominent roles to improve the skills for using electronic service delivery for our organization                                                                                               |                      |   |        |   |    |
| 6                                              | There are agreements with partners on financial investment/finding, infrastructural setups and solution for architecture of appropriate technology selection                                                              |                      |   |        |   |    |
| 7                                              | DARA gives training, awareness creations and workshops regards with E-governance platform and its contributions, for employees and customers’/customers’ collaborating with private companies and institutes              |                      |   |        |   |    |
| Public Sectors’ Integrations(Interoperability) |                                                                                                                                                                                                                           |                      |   |        |   |    |
| 8                                              | DARA has Government-Government (Sectorial Communication) -2-Citizen/Business (G-G2CB) integrations and collaborations                                                                                                     |                      |   |        |   |    |
| 9                                              | Using the DARA webpage, customers/citizens able to access interrelated services at a time from different DARA departments instead of visiting each of those offices                                                       |                      |   |        |   |    |
| 10                                             | DARA has an agreement with partners and public organizations/agencies to facilitate new ways of delivering information services in order to provide integrated services that better respond to citizen and business needs |                      |   |        |   |    |
| 11                                             | Inter-agencies interaction with ministries/departments and government’s organizations relationships to delivering quality services                                                                                        |                      |   |        |   |    |
| 12                                             | Our office has building internal and cross departmental communication & collaboration mechanisms that will allow information sharing in service delivery process                                                          |                      |   |        |   |    |
| 13                                             | Citizens/customers are not expected to visit other organizations to access our services because DARA has integrated webpage communication channels with those organizations                                               |                      |   |        |   |    |
| 14                                             | DARA has constructing smooth fast reliable and accurate online communication and bridges with other government organizations that facilitate and speedily processing of its services delivery                             |                      |   |        |   |    |

**Part IV; E-governance & Services Qualities (Effectiveness, Efficiencies and Quality) attributes**

The following statements are used to measuring DARA's E-governance service delivery and service quality attributes (Effectiveness, Efficiencies and Quality). Therefore, please use the following scale to express your response most closely matches with E-governance and its impacts on service qualities; 1= **Strongly Disagree (SD)**, 2= **Disagree (D)**, 3= **Undecided (UD)**, 4= **Agree (A)** and 5= **Strongly Agree (SA)**.

| E-governance & Services Qualities (Efficiency, Effectiveness and Quality) of DARA |                                                                                                                                                                                                                 |                      |   |    |   |    |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---|----|---|----|
| R.No                                                                              | Statements Used for Measurements                                                                                                                                                                                | Scale of Measurement |   |    |   |    |
|                                                                                   |                                                                                                                                                                                                                 | SD                   | D | UD | A | SA |
| Efficiencies and Effectiveness                                                    |                                                                                                                                                                                                                 |                      |   |    |   |    |
| 1                                                                                 | Customers/citizens are being informed when where and how services will deliver                                                                                                                                  |                      |   |    |   |    |
| 2                                                                                 | It changestheir attitude toward using electronic service delivery, protecttheir confidentiality and privacy, automating services that replacing lots of paper files into electronic file folders                |                      |   |    |   |    |
| 3                                                                                 | DARA web page provides technical supports for customers’/citizens’ in times of their difficulty and it build their trust and credibility on our organization, reducing the number of their visits to our office |                      |   |    |   |    |
| 4                                                                                 | Protecting customers confidentiality and privacy, automating services that replacing lots of paper files into electronic file folders                                                                           |                      |   |    |   |    |
| 5                                                                                 | Saving time due to it providing services via one-stop single window in avoids waiting long queues & go here & there and time spent frequent travel to our office that speedily processing of transactions       |                      |   |    |   |    |
| 6                                                                                 | It facilitating effective efficient and timely customers’/citizens’ grievance handling mechanisms                                                                                                               |                      |   |    |   |    |
| 7                                                                                 | E-governance platform has enhancing existing service delivery processes and replacing by new method of deliverythatcreates networked relationships                                                              |                      |   |    |   |    |
| 8                                                                                 | Provides up-to-dated information with helpful response to customers’/citizens’ requests                                                                                                                         |                      |   |    |   |    |
| 9                                                                                 | Targeting to avoiding technological illiteracy, conditioning new ways of accessing learning by practice and new ways of listening to citizens’/customers’ expectations/preferences of service delivery          |                      |   |    |   |    |
| 10                                                                                | Creating better channel of communication with stakeholders                                                                                                                                                      |                      |   |    |   |    |
| Service Quality and Cost Reductions                                               |                                                                                                                                                                                                                 |                      |   |    |   |    |
| 11                                                                                | It reducing (transactional, administrative, transportation, parking and fuel) costs, flexibility of service delivery, timely answers to inquiries                                                               |                      |   |    |   |    |
| 12                                                                                | Improving the flow of information and service delivery intelligence                                                                                                                                             |                      |   |    |   |    |
| 13                                                                                | DARA’s webpage portal services are enabling integrated control of supply, volume and value chain processes of service delivery                                                                                  |                      |   |    |   |    |
| 14                                                                                | It acceleratesDARA service delivery processes regardless of geographical proximity and distance locations of customers’/citizens’ and creating better channel of communication with stakeholders                |                      |   |    |   |    |
| 15                                                                                | DARA’s webpage makes less bureaucratically procedures of service                                                                                                                                                |                      |   |    |   |    |
| 16                                                                                | Improving the flow of information and service delivery intelligence throughout the supply and the value chain of decision making process                                                                        |                      |   |    |   |    |

|    |                                                                                                                                                                                  |  |  |  |  |  |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| 17 | DARA's webpage services enabling integrated control of supply, volume and value chain processes of service delivery                                                              |  |  |  |  |  |
| 18 | DARA webpage introducing alternative and modified service delivery that enhances competitive service delivery from the previous service delivery mechanisms                      |  |  |  |  |  |
| 19 | The webpage has improving communication with government, partners, citizens'/customers' and employees and enable to providing services for large number of users at a time       |  |  |  |  |  |
| 20 | DARA's webpage service are being accessible for people with disabilities, it increases its accountability to citizens/customers and                                              |  |  |  |  |  |
| 21 | Our webpage provides faster online documents and registration forms, easy to find information and care customers'/citizens' to individual attention (referral to contact person) |  |  |  |  |  |

### **Part V; E-governance and its Contribution to Promoting Good Governance**

The following statements are designed to measuring DARA's E-governance service delivery platforms and its contributions for ensuring and promoting good governance. Therefore, please use the following scale to express your response most closely matches with DARA's E-governance and its potential impacts on achieving good governance in your organization; **1= Strongly Disagree (SD), 2= Disagree (D), 3= Undecided (UD), 4= Agree (A) and 5= Strongly Agree (SA).**

| E-governance and its Contribution to Promoting Good Governance in DARA |                                                                                                                                                                                                              |                      |   |    |   |    |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---|----|---|----|
| R.<br>No                                                               | Statements Used for Measurements                                                                                                                                                                             | Scale of Measurement |   |    |   |    |
|                                                                        |                                                                                                                                                                                                              | SD                   | D | UD | A | SA |
| Transparency and Accountability                                        |                                                                                                                                                                                                              |                      |   |    |   |    |
| 1                                                                      | The web page has ensuring transparency and accountability of DARA and makes answerable to actions and decision towards citizens                                                                              |                      |   |    |   |    |
| 2                                                                      | Decisions and organizational polices are available on our webpage/portal                                                                                                                                     |                      |   |    |   |    |
| 3                                                                      | Open to service receivers about the specific services and minimizing to service delivery procedure and simplify complex processes                                                                            |                      |   |    |   |    |
| 4                                                                      | The webpage has ensuring transparency and accountability of DARA, it has established new ways of debating in deciding on organizational plan and policy &implementation, evaluations with customers/citizens |                      |   |    |   |    |
| 5                                                                      | Increase the awareness levels of users regarding services offering from DARA and their rights as customer/citizen                                                                                            |                      |   |    |   |    |
| 6                                                                      | Breaking hierarchies into lateral & flat structures of communication and Our webpage has simplifying complex procedures and process                                                                          |                      |   |    |   |    |
| Participatory                                                          |                                                                                                                                                                                                              |                      |   |    |   |    |
| 7                                                                      | It open for customers'/citizens' to forwarding their feedbacks& opinions, allowing participation during policy making processes                                                                              |                      |   |    |   |    |
| 8                                                                      | It makes decentralization of DARA's governance, since data stored in digital format can be updated and accessed from virtually any office via networked environment                                          |                      |   |    |   |    |
| 9                                                                      | The DARA web page has promoting good governance through participatory involvement decision-making process with its employees and customers/citizens                                                          |                      |   |    |   |    |

|                              |                                                                                                                                                                                                         |  |  |  |  |  |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| 10                           | DARA webpage/portal has introducing fascinated administrative problem solution and customers'/citizens' grievances handling mechanisms                                                                  |  |  |  |  |  |
| 11                           | DARA's top level management have online discussion forums, conference, shared calendars, resource libraries, and group editing of documents within and external concerned organizations and individuals |  |  |  |  |  |
| <b>Reducing Corruptions</b>  |                                                                                                                                                                                                         |  |  |  |  |  |
| 12                           | It cutback red tape and corruptions                                                                                                                                                                     |  |  |  |  |  |
| 13                           | DARA web page increases combating malpractices                                                                                                                                                          |  |  |  |  |  |
| 14                           | Reducing corruptions and wastage of financial resources of organization's by introducing E-procurements and online bids/tenders contracts                                                               |  |  |  |  |  |
| 15                           | It tackling administrative corruption and Reducing the opportunities for corruption to infiltrate                                                                                                       |  |  |  |  |  |
| 16                           | Every action can easily inspected, retrieved & control interactions from portal data base that minimize corrupt and maladministration practices                                                         |  |  |  |  |  |
| <b>Equality and Fairness</b> |                                                                                                                                                                                                         |  |  |  |  |  |
| 17                           | Tackling social exclusion of clients those do not have the skills to use electronic services, insuring fairness access to services                                                                      |  |  |  |  |  |
| 18                           | It allows equal, fair access of services for citizens'/customers' across intra-organizational relationships                                                                                             |  |  |  |  |  |
| 19                           | Equal/Fair access of each service for citizens/customers regardless of their different backgrounds                                                                                                      |  |  |  |  |  |
| 20                           | Employees are treating every service users' impartiality across intra-organizational communication                                                                                                      |  |  |  |  |  |
| 21                           | Newly enacted national/organizational policy, related laws, directives, charters, codes and so forth to the customers/publics are posted for all users                                                  |  |  |  |  |  |
| 22                           | DARAs webpage services are accessible for people with disabilities                                                                                                                                      |  |  |  |  |  |

**Appendix C**  
**Addis Ababa University**  
**School of Graduate Studies**  
**College of Business and Economics**  
**Department of Public Administration and Development Management**  
**Masters' Programme of Public Management and Policy (Specialized by; Public Policy Studies)**

**Dear Interviewee,**

This is KiflieWorku, who is a Master's student of Public Management and Policy (Public Policy Specialization) at Addis Ababa University, in Department of Public Administration and Development Management. Currently, am undertaking a research project entitled "***E-governance, Public Service Delivery and Good Governance in Public Organizations; the case of Document Authentication and Registration Office (DARO)***". You are one of the accredited interviewee for this study. I understand that your time is valuable, while for the successful accomplishment of the study is rely on your genuine and loyal information of this Interview. Therefore, I kindly request you to genuinely cooperating me in spending some minutes with me for this interview.

I assure you that your participation in this study is voluntary and all information you provide and results will be recorded anonymously, confidentiality is maintained and for only academic purpose.

**Semi-Structured Interview Guidelines**

1. In your opinion and in practice, in what ways rolling out E-governance platforms will ensure good governance for public organizations?
2. In your opinion and in practice, in what ways does implementing E-governance affects public service delivery (Efficiencies, effectiveness, service qualities and so forth) of public sectors?
3. In your opinion and in practice, in what ways PPP and public sectors collaborations and coordination arrangements in implementing E-governance platforms promoteas well as improve quality of good governance and service delivery?
4. In your opinion and in practice, how does delivering quality public service using E-governance platforms affects the promotion of good governance?
5. Do you think that service qualities have direct effects on ensuring good governance? If so, how?
6. Why did your organization introduce E-governance platforms? How does your organization enable users to use it including those who do not have skills to use electronic services among your customers?

**A**  
**Addis Ababa University**

**School of Graduate Studies**  
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**Masters' Programme of Public Management and Policy (Specialized by; Public Policy Studies)**

This is KiflieWorku, who is a Master's student of Public Management and Policy (Public Policy Specialization) at Addis Ababa University, in Department of Public Administration and Development Management. Currently, am undertaking a research project entitled ***“E-governance, Public Service Delivery and Good Governance in Public Organizations; the case of Document Authentication and Registration Office (DARO)”***. Your organization is being selected as valuable and accredited sources of data to completing this study.

**Field Observation Guidelines**

1. Observing effects of one-stop single window shop service delivery mechanisms and its effect on simplifying of procedures, process, improvement of documentation and record keeping & reduction of costs, by being personally there.
2. Observing DARO web page portal Content (Availability of full text of government documents (acts, bills, annual reports, policy documents, and research publications), prerequisites and requirement to accessing services from DARO on its website, through browsing it.
3. Observing the availability of different service registration forms on websites and its content validity to the needs of customers over the services provided by DARO, through visiting the web page.
4. Testing DARO's Frequently Asked Questions (FAQs) that makes the web easy to use with a list of frequently asked questions whether it respond immediately or not. Is it updated timely etc. By browsing the organization's portal.
5. Checking/visiting the web page; the availability of vacancies, call for tenders/bids of contracts, organizational scheduled calendar and upcoming events, speeches by prominent officials on the web page.
6. Observing the information and language proximity of the web page portal of DARO with interests of customers'/citizens',
7. Testing DARO's web page portal customers'/citizens 'feedback facilities and participation channels on organizational affairs and for providing comments on various issues and the service they inquiries, by navigating its portal.

8. Observing the user-friendliness (conveniences and validity) of DARO web page search facilities (which can enable the users to search through the page using keywords or phrase) and contact details available including clear location and map directions, office hours, addresses) via browsing its web page.
9. Observing the functionality and availability of E-mail and Phone calls appointment arrangements with officials and referral person for specific service inquiries, through personally I will book an appointment with them as customer/citizen instead being as of a researcher.