

The Role of E-Government in Enabling Administrative Reform in the Public Sector "Case Study Of Kurdistan Region Government Iraq"

By

AHMED, Kovan Hamid

THESIS

Submitted to

KDI School of Public Policy and Management

In Partial Fulfillment of the Requirements

For the Degree of

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Committee in charge:

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LIST OF ABBREVIATIONS AND ACRONYMS

KRI	Kurdistan Region of Iraq
KRG	Kurdistan Region Government
ICT	Information Communication Technology
E-Government	Electronic Government
OECD	Organization for Economic Co-operation and Development
CPI	Corruption Perception index
UPN	Unique Personal Number
KRF	Kurdistan Region Finance
ID	Identify Card
HR	Human Resource
HRM	Human Resource Management
KRSO	Kurdistan Region Statistics Office

ABSTRACT

The advancement in technological innovations worldwide, along with the rising demand for better service delivery, pressures governments to promote new technologies for shifting from the "traditional" bureaucracy to a more efficient, modern one based on scientific analysis. In this sense, the information of communication technology -ICT- enables people to communicate across the country and helps reduce time-consuming and routine in the government.

However, challenges exist in knowing which ICT could function as a tool for government modernization. The purpose of this research is to study progress the role of e-government in enabling administrative reform in the Kurdistan Regional Government -KRG-. Also, identify the various obstacles and steps to help the improvement of government system processes. In addition, the research establishes a strategic plan which enhances the government projects, on the other hand, to understand the people in Kurdistan Region-Iraq (KRI's) needs and participation in reform to reduce the routine and increase transparency.

This research involves the use of secondary and primary data that includes the design of the questionnaires and random sampling to collect the data from responses in the ministries and departments in the KRG. Thus, it is stakeholders to experience the usage and impact of ICT in enabling administrative reform in the KRG.

Based on the outcome from the analysis of this research, it could summarize that e-government has an important role in enabling administrative reform, reduce corruption and lead in the quality of work to do promotion of good governance in the public sector in KRG. However, does not guarantee to enable administrative reform and end of the corruption, if the environment of establishment e-government project is not applicable.

Keywords: modernization, government, services, ICT, reforms, Kurdistan.

CHAPTER 1

INTRODUCTION

The Kurdistan Region of Iraq -hereafter KRI- is located in the northern part of Iraq and it's acknowledged as a semiautonomous territory. Similarly, the Kurdistan Regional Government hereafter -KRG-, in Erbil, has been accepted to apply legislative, executive, and judicial powers according to the Iraq 2005 constitution. In this sense, the Iraqi constitution determines the Kurdistan Region as a federal entity region of the country. Thus, the KRG has a parliamentary democracy with a regional assembly occupied by 111 politicians (World Bank Group), 2015.

It is known that Iraq is a developing country in the Middle East with insufficient Information and Communication Technology (ICT) infrastructure and utilization. Also, it is known for its high level of corruption. The Kurdistan regional government (KRG) got its autonomy from Baghdad in 1991. The government system was changed in 2003 to a federal and parliament system. After that change of government system, Kurdistan Region has been recognized internationally as an autonomous region of Iraq.

The primary income of the Iraqi government depended on natural resources. That started the first step of corruption because of not being able to manage huge income properly and equally. After the regime had gone in 2003, violence increased in the south of Iraq. Also, the new system under the name of democracy was new for the citizen. It was not clear to them how democracy can be used truly in the parliament system. It opened the doors for some leaders to use that time and their position in an illegal way. It caused corruption to grow, and even at this current time, it does exist.

Neither the Iraqi central government nor the KRG has a good ICT information Technology communication infrastructure which is a fundamental point to establish E-

government, and that is another factor that caused corruption in the country. According to Transparency International, 2012 and 2020, Iraq was ranked 169 out of 175 countries, and in 2020 it was reported at 160, and both Central and Kurdistan governments were reported to have poor administrative management in the public sector. The Central government and the KRG function on the traditional system that depends on the paper-based method of administration.

Furthermore, the KRG nine cabins strategy was announced on July 15, 2019, and it was approved by Kurdistan's parliaments in the same year. It has reformed and established e-government in the KRG hierarchy structure and all other sectors to provide better service for citizens, and it has increased transparency and equality.

Additionally, nowadays, people in the Kurdistan region use 24/7 internet and advance mobile technology to increase communication between citizens and reduce distance. According to the research topic, nowadays, technology has been making humans life easier, and this obviously has an impact on the governments' system globally. In this modern century, e-government has become much of a fundamental way of reform and delivering better services to the citizens. The present research will try to find out how the role of e-government which enables administrative reforms in the public sector. In this sense, the following research questions is proposed, what are the key issues and problems related to the e-government in the Kurdistan Region Government/Iraq (KRG)?

1.1 Problem Statement

According to the Transparency Organization 2020 Report, in the worldwide Iraq including in ranked 160 countries in the Middle East, suffer from corruption (2020 - CPI). The Kurdistan Region of Iraq is not impeccable, and the KRG government is accused of many corruption cases. Therefore, the government implemented a long-term reform plan that will bring modernization, improve the quality of the presented services, and eventually establishes an E-government system. The OECD (2020) explains that explores how governments can best

use information and communication technologies -ICT- to include better government principles and achieve goals. KRG is expected to carry out the reform plan through the transition of the old paper-based and time-consuming public sector services to a robust and digital service. The reform plan is still an ongoing process, and because of the years of public suffering and resentment from the provided services, there isn't a collective trust that the reform plan will be as promising as the government is promoting it.

1.2 Purpose of the Research

In 2019, The Kurdistan Regional Government/Iraq implemented the reform in a long-term plan by changing the old system of administrative work to a more efficient and advanced system under the E-government name. Because my country is at the beginning of development, I want to find out how E-government has an influence on the reform plan that can eventually eliminate corruption, increase transparency, and provide better service. Also, what are the obstacles and factors that affect the implementation process of establishing e-government in the Kurdistan region/Iraq, especially in the infrastructure of Information communication technology? How do we evaluate the feedback from the stakeholders? In addition, the aim of my thesis project is to discover advanced methods to improve the reform process of the administration aspect by using modern technology in the public sector. By doing a literature review, I can focus on the successful cases and methods that some developed countries have been embracing regarding e-government.

1.3 Research questions

The goal of this thesis is to find out the role of e-government in the public sector services to enable reform, and I want to focus on how e-government has an influence on the reform process to eliminate corruption and increase transparency. Therefore, by the end of this thesis, we will be informed of the findings. The following questions are the problems that this research addresses and which will be answered throughout the paper:

RQ1-Does E-government has a role in the administrative reform process?

RQ2- Does the transformation of traditional government's work system to e-government lead to better service, eliminate corruption, and increasing transparency?

1.4 Research Model

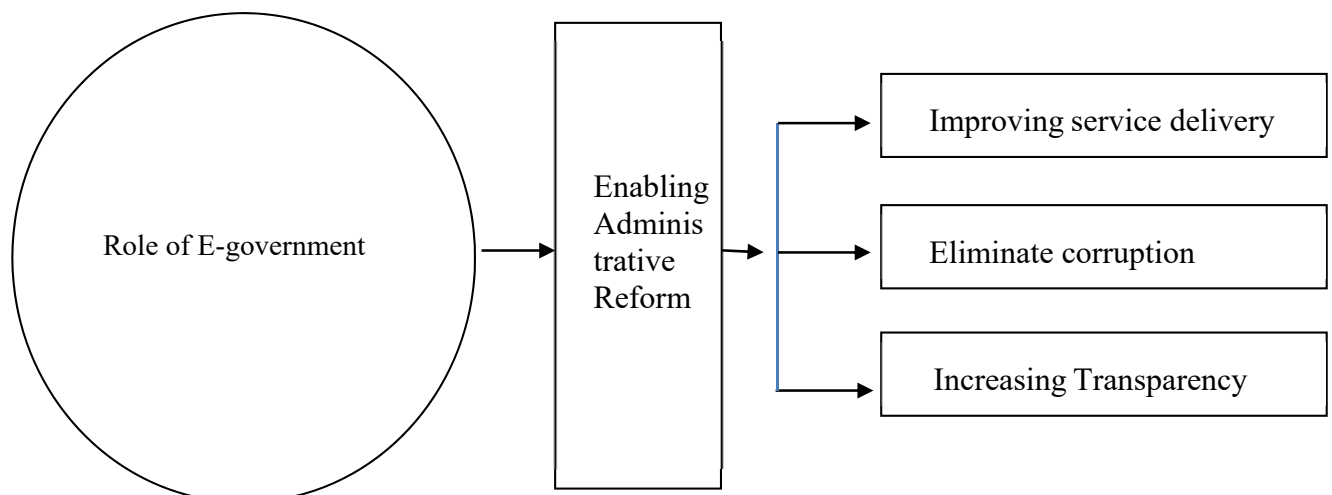
Figure 1 A research model of the relationship between the role of E-Government and reform

Independent variable

Dependent variables

Role of E-government

enabling administrative reform



1.5 Limitation of the Study

This research contains several limitations, as it is common in all research papers. Data

was collected from the perspective of public sector employees who work full time in the ministries and departments of the public sector. Additionally, this research is focused on the role of e-government in the administrative reform of the public sector in the KRG.

Besides, this research took place just in the government structure in Erbil that is the capital of KRI. Additionally, the time limit for this research was during 2021.

1.6 Research Organization

This research contains five chapters that have been organized as follows:

Chapter one is the introductory chapter which focuses on the overall background of the research area, purpose, and direction. Additionally, research limitation and the research problem are discussed.

Chapter two highlights the key research and conceptualizations in the e-government, ICT infrastructure in the study area, how it has a role in administrative reforms, and discusses some relevant kinds of literature for the study. Moreover, law and the constitution in Iraq are discussed, and how it deals with ICT as a new concept of using technology. Then chapter three discusses the research methodology that has been chosen, which includes research design, sampling design, questionnaire, data analysis that were used in the study. Next, chapter four includes the findings and analysis of the results, which are related to the research questions and problem. Finally, Chapter five provides a summary of the main findings, recommendations of the research, as well as provides suggestions for future research.

CHAPTER 2

LITERATURE REVIEW AND BACKGROUND

2.1 The concept of E-government

There is no official explanation of e-government that clearly defines what it really and exactly means. In the existing literature review, there are a number of definitions that explain the main concepts of e-government according to their research perspectives.

E is related to the electronic, it is relevant to the digital preparation of government that provides services via the Internet. Electronic government is also known as government use of Information Communication Technology as a tool of technology, especially web-based implementation, to increase access to delivery of public service information to better provide services to people, civil servants, business private partners, and other agencies

According to the United Nation (2020), "e-government has the capacity and will of the public sector to develop the use of information and communication technology in order to upgrade rendering of public services to the citizens". Along with the development of technology and communication, e-government cannot be achieved without democracy, transparency, and social acceptance. A good government can use the internet and technology to achieve the standard services in the public sector to the citizens. The concept and basic model of the role of e-government is an essential part of universal public administration reform that redefined the role of modern government as a concept of New Public Management.

For instance, the key part of reform in the public administration in Serbia was establishing e-government (Lilic, S., & Stojanovic, 2008.). The government of Serbia has implemented a strategic plan for the reform in the public administration with the aim of public administration modernization which was based on three stages: to analyze the current state of

the existing infrastructure; the second stage deals with the implementation of international standards and forming of communication infrastructure. The third stage consists of introducing e-services to citizens.

2.2 Principle of E-government

In this section, more theoretical parts of e-government will be mentioned. These explanations begin with the difficulties faced by modern governments. The E-government application approach in public administration means, overcoming the difficulties with technology. On the other hand, technology and government-related issues are addressed. Afterward, the vision of e-government is reviewed on the basis of elements such as broadband networks, information sharing, electronic document systems, e-government components, and then it is discussed how e-government progresses step by step. Finally, information sharing, and government portals were chosen as the key elements of e-government to express the principles of e-government and to identify the policy problems that arise in practice.

2.2.1 Ultimate effects of Technology on E-government

Given the complexity of technological change; It is not easy to determine the ultimate effects of new technologies on society and the state. Today, In an age of spam, viruses, vulnerabilities, and crashes, people are re-evaluating the social months of technology. The Internet has become the focus of behavior and actions that violate personal privacy, rather than being a means of freedom and self-empowerment. Considering the effects of e-government on the public sector, there are many factors that need to be assessed: the validity of information, online service provision, democratic responsibility, democracy enhancement of interactive processes, and citizens' trust in the state. The most fundamental question is the validity of the information and the ease of accessing the information. Service delivery is the most important expectation for many citizens in terms of accessibility of services. If the performance of governments in the context of information and communication technologies has improved, this

will positively change the way people view the public sector and the state. (WEST, 2005)

Advancing technology has provided public sector leaders with unique opportunities that redefine the relationship between citizens and government. The e-government rhetoric is becoming a reality. Developing countries, as well as developed countries, are seen to embrace technology impatiently. E-democracy includes or even encompasses electronic communication between the elected and the electors, states, and their citizens. The development stages of public websites generally follow an evolutionary process²¹. (PANAGOPOULOS, C.2004)

Furthermore, the social, moral, cultural, and economic dimensions of information technologies affect productivity in terms of the human element. These effects contribute to the productivity of the organization even when the organization prefers to raise its barriers against "external cultural bombardment" or when it wants to keep itself in balance. Most importantly, when technological change is not managed well, financial savings and productivity increases cannot be achieved. Considering the effects of technological innovations on daily life, and how to overcome the dilemma of managers trying to establish and support new structures to behave ethically, to protect their integrity, or to adapt to new technology with its good and bad aspects, is another point that needs to be discussed. In this section, we will talk about the theoretical and technical parts of technologies in order to see the degree of technological change and the effective use of technology as a whole.

2.2.2 General stages in the development of e-government

According to West (2005), there are four general stages in the development of e-government:

1- "**Billboard**" stage.

In this stage, there are public websites that consist of static mechanisms that provide simple information access. There is little interaction with the citizen; there is no two-way communication between citizen and civil servant. Visitors can read government reports, view legal regulations, and monitor who work in the relevant public units.

2- Partial service delivery phase.

In the second stage, more organized information is available, and partial service offerings are available. At this stage (phase), citizens can access data, classify them, and search databases. Again, communication with public officials is limited.

3- The "portal" (door) stage that provides fully functioning and integrated services.

The third Stage; It is a "portal" or "gateway" consisting of a single interface, with fully operable and integrated online services. This phase provides considerable convenience to visitors; websites are more dynamic and interactive. Visitors can update their registration and information. However, the general characteristic in this phase is related to service delivery rather than democratic transformation. There is no talk of the performance of democratic institutions and the reflection of the virtues of democracy on citizens.

4- Interactive democracy that is advanced and ensures accountability.

The fourth stage is an "interactive democracy" that reflects the developed public sector, includes accountability measures, and highlights public websites that serve political transformation. At this stage, besides fully working online services, systems that can be customized according to the personal needs of citizens emerge. However, citizens could not fully adapt to these systems. This is related to the development and evolution of democratic culture.

These four stages are the main headings that show us the degree of technological change and the effective use of technology. The movement process from "Billboard" to "interactive

democracy" is the clearest evidence of change and transformation. The transition from the "Billboard" stage to the "portal" stage is more secular and evolutionary, and not revolutionary or dramatic. On the other hand, the transition from the "billboard" stage to "partial service delivery" can only provide minor changes.

2.2.3 ICT as a Public Policy Tool

In today's world, where technology is handled in terms of management, the concept of "information technology" refers to various tools and methods used to create, store and distribute information. Today, the coordination and strategic development of information and communication technologies in the process of public administration and political decision-making, expressed as e-management, is formulated as a national e-management strategy in many developing countries and OECD countries (Von Haldenwang, 2004: 418)

Information and communication technologies incorporate strategic tools that enable individuals to express their opinions, transfer their ideas to others, take part in political and democratic processes, and increase citizens' participation in democratic processes. Public policies for information and communication technologies should be established due to the transformation of information and communication technologies in the management approach, the organizational structures of public institutions and the provision of public services. In this context, in order for the rapid change in information and communication technologies to shape public services based on information and communication technologies, and for the process to proceed in a healthy way, the approach in the previous periods should be changed.

2.3 Public administration reform

Public administration reform could be a very inclusive process for change in the public sector, such as hierarchy organizational structures, personnel management, time management, regulatory reform, human resource, etc. Also, It can be referred to as targeted reforms such as

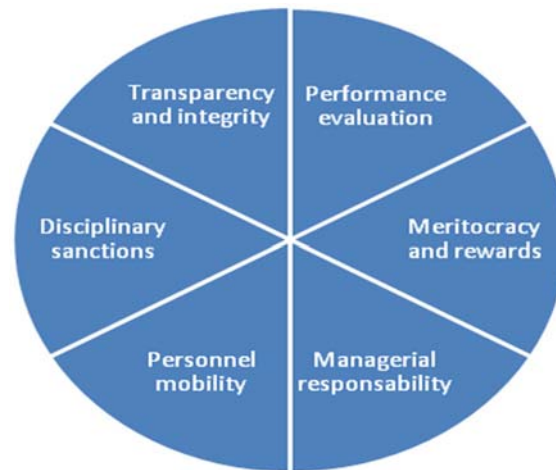
developing the civil services Statute. As known, Iraq, and KRG, as a part of Iraq, use the traditional system in the public administration. Mainly, it works based on paper exchanging. Nowadays, it causes many disadvantage points for the government in the public service delivery to the citizen, such as more routine, time-wasting, corruption, not modernization, etc.

Due to the time-limited and study limitations, the research will focus on the reform in the administration sector in the public sector. In the KRG Public administration reform aims to guarantee the essential level of government's responsibility towards its citizens.

The immediate goal of the reform is to increase the efficiency and effectiveness of public sector service by raising the quality of public service delivery by developing and productivity in all sections of the public administration. Hence, KRG has been implementing a strategic plan for reform in all sectors around the country. The approach for public management reform was fundamentally a response to the decreasing dissatisfaction, routine, with government performance in maintaining economic and social development.

According to the OECD (Modernizing the public administration a study on Italy, 2010) explained the principles and tools of Italian reform "The reform aims to foster more transparency, faster and more reliable responses, less absenteeism, less queuing, more courtesy, the better quality of services, and more efficient offices serving citizens and enterprises."

Figure 2 Principles and tools of Italian reform



Note. From Italian Ministry for Public Administration and Innovation (2010)

This study explained the reform strategy rests on three main pillars: i) "modernization of the public administration, ii) innovation and digitalization within the public administration and the country more broadly, and iii) the relationship between the public administration and citizens and businesses" OECD (Modernizing the public administration a study on Italy, 2010).

2.4 The legal framework in Iraq and KRI for the use of E-government

The Kurdistan Regional Government -KRG- is a federal region and does not have its own independent constitution. Therefore, KRG is bounded to the Iraqi constitution and laws. Iraq lacks national legislation to outline the legal procedures for government departments and ministries to transform to e-government. Lack of national legislation is a problem for provinces and federal regions in Iraq to step forward and draft regional laws:

First, most Iraqi laws and regulations are passed and approved by agreements with various Iraqi and Kurdistan Region political parties. Moreover, the Iraqi constitution restricted KRG to abide by national laws and not pass laws that contradict national laws such as protection of the border, international relations, and global agreements.

Second, KRG has a regional parliament system with 110 seats which drafts and amends

legislation that KRG enforces since 1991. The laws approved and amended by Kurdistan Region Parliament will be enforced and implemented to the Kurdistan Region territories, but all types of laws that the Kurdistan region passes or amends should not violate the Iraqi constitution.

Finally, using technology and e-government is a new phenomenon to our legislations, society, and government, especially after the topple down of Saddam Hussein's regime by the United States of America and coalition partners in 2003 and the economic boom in 2006.

All legislation passed by the Kurdistan parliament will be enacted and implemented by KRG as an executive branch of power but after the announcement of the newly passed law in the official journal.

Main legal issues with transferring to e-government:

- There are no national and local laws to outline legal procedures and strategies to use technology.
- Iraqi government and Kurdistan Region issued executive orders to transfer to e-government, especially some certain services.
- At the administrative level, KRG entirely depended on the administrative law of the central government.
- In each KRG agency, ministries, departments, there is one department under the name of justice office which works in the justice sector.
- The administrative court is responsible for the legal decision about the administrative issues in the region.

There is no doubt that the application of e-government and the provision of services through the communications and information network requires special legislation and provides it with the appropriate legal regulation that ensures the achievement of its objectives in the best possible way. Because of the novelty of this system (the electronic government system), it is

advisable to study the legislation of the countries that preceded us in this field, taking into account the circumstances of the country. It is also necessary to review the study of the law issued by the United Nations on e-government, which some countries have taken as a model. Regarding the existence of a general law on e-government at the state level, that does not prevent the issuance of special legislations for some state agencies that are consistent with their conditions and achieve adequate protection for their electronic system.

Some countries have realized the importance of this and have passed various legislations to secure the transition from traditional government to secure the legal basis for that. These laws took many forms, including those that obligated government institutions to convert compulsorily and gave a maximum period for that (such as the United Kingdom - where the law gave five years ending in 2005) and made it the Emirate of Dubai for a year and a half, which ended in 2002. It is noted that the e-government system in the Emirate of Dubai is based on the link between the various government departments and its multiple branches, as one entity is dealt with in one step even if there are various departments involved in it. This does not happen in other countries where services are provided by multiple government agencies in separate operations, which means that the Emirate of Dubai has the advantage of being ahead in that. At a time when we see that the United States of America took a different approach to seek electronic government without explicit compulsion or a specific date, using legislation to encourage electronic transactions and in it for instance :

1- Making bids or retirement offers with the administration via the Internet and pushes those who want the administration to deal via the Internet.

2- Making obtaining services through the information network easier than obtaining them through the traditional way prompts service applicants to use electronic information networks.

2.5 E-government and Reform in the Public Management

In this century, E-government is internationally regarded as fundamental to reform in the public sector, modernization, and improvement of government. The OECD (2005) defines e-government as “the use of information and communication technologies (ICTs), and particularly the Internet, as a tool to achieve better government.” (p.)

As Asgarkhani (2005) mentioned that efficiency and rule of electronic governing systems are equipment for managing government reforms. As it appears in recent years, using ICT in different parts of governmental sectors which names E-Government is more popular. Also, it widely appears that traditional forms of governing are replaced by digit based and technological equipment and nowadays mostly administrative and managing are using E-technology tools. Addition to using e-government tools, most privet companies and organizations are changed to operate their works electronically. The advance of e-government pushed back the tradition paper-based works. Huge amounts of data and information are transacted within short time. He also pointed that the main spot of an effective of e-government system is using large amounts of data and information to set a strategical public plan and government administrative reform and integrity. However, he explained that using ICT system in governments and public affairs is not always an option to good government and not reflects on some strategic projects such as using more hand workers and reduce unemployment. Moreover, Asgarkhani showed that the e-government would not automatically change the government to better adoptions. For make sure success in the program should answering some fundamental points such: have as along strategic plan, and based on citizen requirement.

Alaany (2016) argued that a lot of developed countries spend a lot of effort and money in the e-government and ICT sector in order to find the best solution to solve efficiency problems. For instance, In Korea, Information technology affords made the road to innovation in e-government since the late 1980s.

2.6 Strategic Plan for E-government in Enabling Reform

The KRG had autonomy in Iraq in 1991. The regime fell by the United States of America in 2003. After Iraq changed to a federal government, Kurdistan Regional has been accepted internationally as a region in part of Iraq. It has opened the door for KRG to make international relations with globalization that are pushing the government to use the modernization system. In this regard, the central government of Iraq and even the KRG has a poor information technology communication infrastructure that is fundamental points to establish E-government in the XXI century. The lack of technology might explain the high level of corruption in the country. In addition, as a base of service delivery, ICT is an essential tool that can combat corruption and increase the efficiency of public service delivery.

According to Transparency International Reports, Iraq was ranked 169 out of 175 countries, and in 2020 it was allocated at 160. Due to this fact, the KRG in a nine government cabinet announced reforms by July 15, 2019, and validate them till July 2023_(Kurdistan Regional Government Agenda, n.d). The government started to make a strategic plan to establish e-government as a fundamental tool to reduce corruption, increase transparency and equality.

The following are the main reform agenda points of the KRG government cabinet for e-government:

- KRG will enhance the circumstance and instruction of the public sector, including the regulation of civil servants, retirement conditions, and official working hours. In addition, the KRG will take legal action against any violations in the public sector, and the KRG will do so by establishing law enforcement, service committee, and reforming regulations.

By combining efforts in case of financial and administrative corruption, they will avert

guilty of mismanagement of public wealth and corruption in the Kurdistan region.

- To bring out unnecessary bureaucracy and to advance the services provided by public institutions to citizens and to ensure that institutions serve the public good; especially, develop digital services for better delivery of public service
- To work to ensure transparency in all economic areas of the Kurdistan region, mainly in the management process and financial accounting of oil and domestic revenues.
- Reform to meet international standards in the health, medical and food sectors, judge violations that occur in any quarter.
- Reform the tax system to ensure neutral implementation, take legal action, and set up a new enforcement mechanism to stop embezzlement.
- Work to prevent monopoly formation and to provide and encourage a framework for credible trade competition.

2.7 ICT Organization Infrastructures

KRG is among the developing countries because the KRG government has a clear vision of digital transformation.

2.7.1 Established Data Center

The decision to have a well-established data center is directly supported by the Prime minister, so currently the government data center is almost ready, which is Tier 3 standard Datacenter. All Government ministries can have their digital projects hosted in this modern and well-managed data center. It will be a central repository for all digitized government services, which are up to 300 services. It helps to connect different government services together that help minimize the time, reduce routine, better service delivery, and effort needs from citizens when they access any of the services. The data center will be available 24/7 managed and monitored directly by a very professional team from KRG-IT.

2.7.2 Generating UPN (Unique Personal Number)

The core system of the new KRG ICT plan is generating UPN for the entire KRG citizen; this project is in operation status now and has generated over 1 million UPN, which will be printed on a Secure KRG ID card for the KRG salary beneficiaries as the first step. The unique identification is based on Biometric registration for the salary beneficiaries that have all registered in 2017; for each person, ten fingerprints plus 2 IRIS templates were taken. The next step is to record all citizens in this system, where all the KRG will have a digital identity as preparation for digitizing all government services.

2.7.3 Spend Control System

Based on that, the digital payment system is currently on the implementation status, and the digital spending system for the KRG is implemented, and gradually it covers all the spending's of the KRG, with that the Government will have a clear view of how much has spent for each month and what sector spends more.

Spend control system is one of the KRG governments solutions to digitalize the process of the official expenditures in order to control and measure the spending's of the government projects. Spend control system will reduce bureaucracy and increase transparency in the government and helps decision makings to be based on more realistic measurements. Spend control is part of the government's strategy toward digitalization and it is developed locally by the department of information technology staff.

The aim of this system is to reduce waste, increase transparency in government financial administration and highlight the sectors where unnecessary spending's can be eliminated or reduced; thus, it allows the KRF government to plan its budget based on visible data.

2.7.4 Government Income System

The next step will be implementing a system for the government income allowing KRG to clearly understand how much income they have and how much they spend to make a clear

plan based on that.

2.8 Human Resource

Managing human resources -hereafter HR- has always remained a remarkable concern for managers. In the current era, human resources are being the main freshet section in global businesses. Human resources are responsible for managing the human capacity and distribute its resource in a proper manner. To understand HR, it is necessary to look back on history.

2.8.1 An overview of the History of HR

HR has a deep root in the history since the human being exists on this planet, and HRM was born from industrial relation activities. From 2000B.C to 1500 B.C, The Chinese used employee checking technique, and Greeks used a trainee system (Lamond, & Zheng, 2010). From the late 1700 and early 1800 with rapped of Industrial revolution Great Britain and the United States of America have evolved the technique of producing products and agriculture, and then Labor Unions were established (Byars & Rue, 2010).

According to Obedgiu (2017) in early of the twenty century Fredrick Taylor has explored the scientific technique of management that leads to enhance economic efficiency in manufacturing jobs, and then it became the principle of manufacturing labor setting inquiry into the productivity of the workforce with the aim of productive quality of HRM. Ferris, & Perrewé (2007) mentioned that the personnel management set a priority on the workers; but before taylorian system management aimed to "...mold the worker to the needs of the job rather than designing jobs to workers" (Kaufman, 1993, pag. 24).

2.8.2 Human Resource Management (HRM)

Human Resource management -hereafter HRM- is defined "as policies and practices that involved in carrying out human resource aspect of management that influence employees" (Guha, 2012 pag.54). Therefore, the main purpose of human resource management is to make

sure that the organization is able to achieve success through people, and also it aims to increase organizational effectiveness and capability (Armstrong, 2009). In this regard, Human Resource concerns itself with planning, Recruitment, selection, placement, training, development, compensation and Industrial relations among others.

Although Graham (1978) cited in Senyucel (2009) confirmed the importance and purpose of Human Resource Management, which is to assure that the civil servants and workers of an institution are used in such a way that the employer receives the greatest possible advantage from their abilities, experience, and the civil servants obtain both material and psychological bonuses from their job. Similarly, Ferris, & Perrewé (2007) argued that HR practices must “fit” with the firm goals and organization culture according to a set of strategies. By getting these goals of firms or organizations, HRM and HR practices should support and develop employee’s skills, encouragement and academic knowledge or practical knowledge and enhance employee behaviors according to the nature of the organizations and firms.

2.8.3 Human Capital in KRG

Human capital has a huge role in developing the economy, organization behavior, public service providing, in each organization, etc. The OECD has defined human capital "as the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being." Hence, In the KRG after 2003, particularly after 2007, due to the flourishing of the economy, the number of employees in the public sector sustainably increased.

According to the World Bank (2015), "Between 2007 and 2012 the share of the public

sector jobs in KRG increased from 41.9 percent to 44.2 percent (above the national average)". Moreover, Public sector jobs apply to work fewer hours relevant to the private sector. Also, according to the world bank document about the KRG explained, this gap increased from "2007 to 2012—from 22 percent fewer hours relative to the median hours worked in the private sector to 27 percent fewer hours".

Table 1 below shows evidence of a slowdown in job creation between 2012 and 2014, except in the financial, insurance, and other services sectors

Table 1 Employment by Sectors

	2007				2012				2014			
	Dohuk	Slemani	Erbil	KRG Total	Dohuk	Slemani	Erbil	KRG Total	Dohuk	Slemani	Erbil	KRG Total
Agriculture & mining	9,091	75,376	18,375	102,842	24,856	72,029	22,846	119,731	17,065	62,111	43,956	123,132
Manufacturing & construction	27,513	88,685	71,337	187,535	43,676	113,327	90,368	247,371	42,392	91,372	60,079	193,844
Commerce & transport & others	39,801	174,097	89,645	303,543	85,506	168,671	125,822	379,999	65,880	163,927	122,494	352,300
Financial, insurance & professional	17,474	33,999	15,743	67,216	42,449	105,922	92,932	241,303	24,725	101,841	128,294	254,860
Public administration, health & education	60,293	56,499	120,109	236,902	65,268	91,555	86,925	243,747	94,287	122,037	66,684	283,008

Total	154,173	428,655	315,209	898,037	261,755	551,503	418,892	1,232,150	244,349	541,288	421,507	1,207,143
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Notes. The data shows evidence of a slowdown in job creation between 2012 and 2014, except in the financial, insurance, and other services sectors. From documents1.worldbank.org

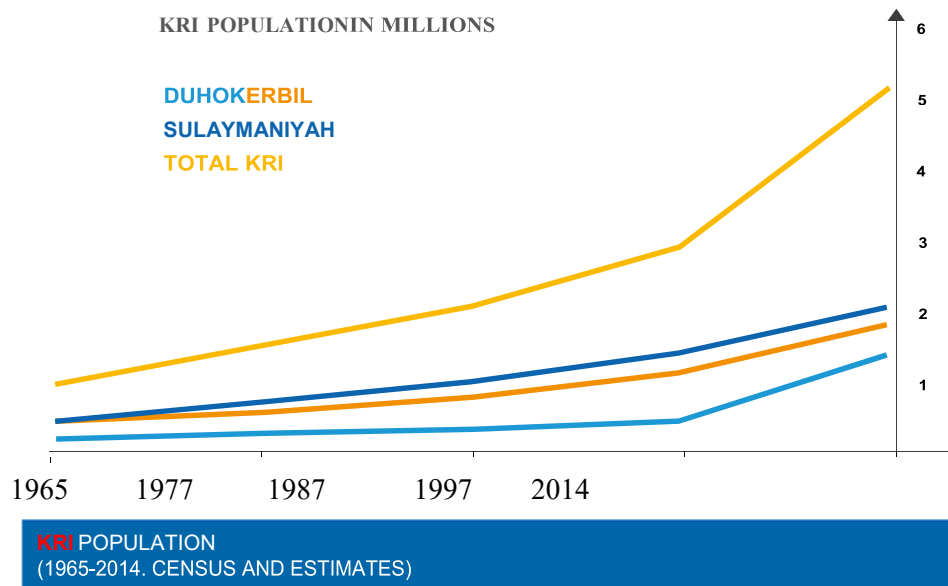
2.9 Financial and Economic Infrastructure

The financial and economic infrastructure is one of the fundamental pillars of the government. It is defined as a system that is including the information, ministry, department, technologies, international standards which enable all financial activities. It has a huge role in developing countries and for international business. The KRG financial and economics works under the Iraqi constitution of 2005. The KRG's main income depended on natural resources. This region that is located in the north of Iraq is famous as a natural resource. The KRG send oil to the international markets through the Jaihan's port in Turkey. Moreover, the Iraq government and including KRG, is a developing country; hence, the financial and economic infrastructure system is also under development. In order to the limited variety of income, and the old financial system, in some situations, KRG involve with economic problems. However, KRG made a strategic plan for making a variety of incomes especially, in the agriculture and tourist sector, and it is sustainable continuing so far.

2.10 Population and use the Internet

Kurdistan has a semi-autonomous region in Northern Iraq. The maximum common religion among Kurds is Sunni Islam which is practiced by 98% of Kurds that living in Iraqi Kurdistan. Kurdish people in the Kurdistan region have their own distinctive language and culture. The largest part of the Kurdish people is located in Turkey, Iran, Syria, and Armenia. The Kurdistan regional statistical office (KRSO) reported (Kurdistan Region Statistics Office, 2020) the estimated population in 2014, the Kurdistan region of Iraq (KRI) population at 6.171.0.83(2020) individuals and the overall Iraqi population at 36,004,552 individuals.

Figure 3 KRI population



Notes Census and estimates from <http://krso.net/>

Figure 3 explains the 1965-2014 census and estimate of population.

After economic booms, KRI opened the door for international relationships. The Kurdish people in KRI welcome the usage of new technology and the internet. The KRG has encouraged the private sector under the Region's 2006 Investment Law to involvement in the development of the Region's data networks. The communication technology, the telecom sector, is growing in the Kurdistan Region and is one of the important continuing developments of the country. In addition, increasing investment in the internet leads to the rise of the internet access rate in Kurdistan. The younger generation is the large percentage using the internet, particularly for social media and daily communication. They spend the most time using internet. Also, they are aware of globalization by using up-to-date technology. Additionally, this generation's demand for ICT services will continue to grow, which cause to encourage increase investment in the sector. The quality of the internet becomes better day after day because of the increasing demand for it.

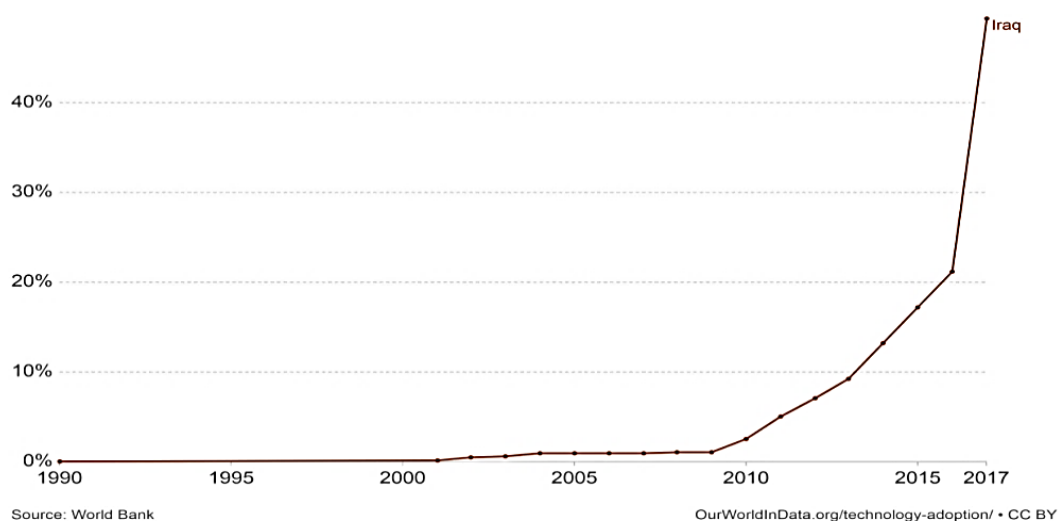
According to Ritchie & Roser (2017) who used sources from World Bank – World Development Indicators showed that in Iraq, individual's percentage using the internet in the

period from 1990 to 2017 grow up from zero to 49.3. The internet can be used via a computer, mobile phone, personal digital assistant, game machine, digital TV etc. The statistics about the use of internet is shown in the table 2 below:

Table 2 % of individuals used the internet, 1990 to 2017

Entity Iraq- Code IRQ		
No.	Year	Individuals using the Internet (% of population)
1	1990	0
2	2001	0.1
3	2002	0.5
4	2003	0.6
5	2004	0.9
6	2005	0.9
7	2006	0.952344244
8	2007	0.93
9	2008	1
10	2009	1.06
11	2010	2.5
12	2011	5
13	2012	7.1
14	2013	9.2
15	2014	13.21
16	2015	17.22
17	2016	21.23
18	2017	49.35999889

Figure 4 share of the population used the internet, 1990 to 2017



Notes: Data from the World Bank

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a way to regularly solve a problem. It may be known as a science of studying how research is conducted out accurately. This chapter explains in detail the methodological approach and techniques used to examine the research questions and respondent's data. In selecting a method to conduct a descriptive study (quantitative), a survey method will be chosen to collect data from respondents, which is considered a common and popular strategy in business and management research, in which data of the study will be gathered and collected from a population through sampling.

3.2 Research Design

The Kurdistan Regional Government -KRG- cabinet 9 of Erbil that includes a council of ministries, 19 ministries, and 5 departments were chosen to develop the questionnaire. They are included in Government Entities 75 employees were selected, three employees in the three different divisions for each ministry and department and 19 extra employees were replied, and total respondents were 94. By using systematic sampling (Saunders et al., 2012). The best method for collecting information is the strength of descriptive research (quantitative) to describe relationships between variables. In the view of Bell & Bryman (2011) the main advantages of using a questionnaire are: it's cheap and quick to administer, no one can influence the respondents. Also, it includes many aspects of information to find data,

information, and characteristics about the population. It gives the researchers the opportunity to use quantitative data, which can include investigation and survey. The main weakness of the descriptive approach is usually that participants may refuse to answer questions they view to be too personal. Sometimes the respondents face difficulty in answering the questions and you do not know who answers a lower response rate.

3.3 Target Population

As defined by Zikmund (2003, p. 66), the “target population is the complete group of specific population elements relevant to the research project”. The population in this research is employees in the public sector institutions, which were carefully chosen for this research based on the extent of the diversity of government division practices. The organizations that have been chosen are as follows: Ministry of Justice, Ministry of Peshmerga Affairs, Ministry of Interior, Ministry of Finance and Economic, Ministry of Natural Resources, Ministry of Health, Ministry of Education, Ministry of Construction and Housing, Ministry of Municipalities and Tourism, Ministry of Higher Education and Scientific Research, Ministry of Planning, Ministry of Labor and Social Affairs, Ministry of Culture and Youth, Ministry of Martyrs and Anfal Affairs, Ministry of Agriculture and Water Resources, Ministry of Trade and Industry, Ministry of Transport and Communications, Ministry of Endowment and Religious Affairs, Ministry of Electricity and 5 departments Department of Media and Information, Department of Coordination and Follow-Up, Department of Information Technology, Department of Non-Governmental Organization and Department of foreign Relations.

3.4 Sampling

For any research to be handled there is a need to choose a method that is appropriate for the gathering of data and answering the research questions. For this research, sampling

will be used as a process that allows researchers to gather information about a population, without having to investigate every individual.

According to the Allhammadi & Alhadramy (2018) that cited from Bryman and Cramer (1990, pag.99) argued that "(...) researchers should strive to create as accurate as possible a representative sample of the general population or case of study, and that such sample if planned precisely will highly increase the external validity of the research ". A Quantitative method will be using it by asking close-ended questionnaires for collecting data from respondents, also at the same time, an open-end questions approach will be asked for policy recommendation data. In brief, the researcher uses the descriptive approach to answer twelve research questions and two open questions for policy recommendations.

3.5 Data Collection Instrument

Data can be collected in a variety of ways, in different settings - the field, population, public sector organization, and from different sources. Collection methods might include a face-to-face interview, sent through the mail, or other online applications, telephone interviews; and questionnaires that are personally administered.

The researcher chose a survey method for collecting data. In fact, the term survey is often used to mean 'collect information.

The data for this research was collected basically from primary and secondary sources. Primary data usually is collected through the questionnaire, and secondary data commonly collected from the published book, official statistic, in a journal article.

The researcher investigates the history of e-government in the Kurdistan Regional Government and its role in administrative reform from secondary sources. The questionnaire was used to investigate the impact of information communication technology and how e-government plays in enabling administrative reform, and also to examine how it is effective to increase their performance in terms of public service delivery, eliminate corruption and

increase transparency. The questionnaire greatly helped the researcher in obtaining data, and a copy of the questionnaire is attached as the Appendix.

3.6 The Process of Preparing the Questionnaire

The steps to prepare a questionnaire are developed according to research literature. Also, recently, it is based on IT and digital data and information. The network is easing using information technology to adopt research to the proper administrative reform plan.

Furthermore, a questionnaire can be copied from a foreign language into local. But it should be suitable for the local language and culture. In addition to the above-mentioned points, it should be made sure about the privacy of local respondents.

The questionnaire has different parts to be easy for respondents. The answers can be completed as short, simple, and easy as possible. Also, it should inform the respondents clearly about the aim and clearance of research.

The front page of the questionnaire was written clearly, in proper language to give insurance to respondents to answer confidently and avoid their privacy.

The questionnaire was designed into six sections and first page. The first page is a cover that is explained in brief about the topic which used in this research in both language, and explained in a brief of purpose of collection data. Moreover, it is included six sections that were (A, B, C, D, E, and F).

First, Section (A) was asked about their background information of respondents that was contained six multiple choice sub-questions that related to the respondent's background information and workplace in the public sector. Second Section (B) employee access and knowledge about ICT. This section included four questions. They asked respondents about the access to Internet, available ICT equipment and applications, and modern network of technology, communications and information. Also, asked about use ICT to exchange data

between the organization in which they work and other government institutions. Third, Section (C): impact of e-government in administrative reform, Its contains three questions that were required to answer about E-government can reduce routine, time wasting, and better service delivery, speed up in completing transactions, and restrict employee's intervention in the work processing, and is it effect reduces personal relationships in public service delivery and eliminates accept gifts and bribery? Forth, Section (D): impact of e-government in conflict of middleman's intervention, Sought the answer to E-government helps citizens to reduce meditations, helps to speed up in completing transactions, and restrict employee's intervention in the work processing and effect reduces personal relationships in public service delivery. Six, Section (E): the effectiveness of e-government on corruption, and increasing transparency. It covered three questions that were asked about E-government helps to detect corruption, increase the principle of transparency and integrity in financial procedures, and e-government can reduce individual's ability to use their position in public office to achieve personal interests in the government. Seven part and the last one, Section (F): open questions for policy recommendations contained two questions that were asked about their recommendation for the role of e-government in enabling administrative reform and suggested about any recommendations for the implementation of the e-government in eliminating corruption, better service delivery, and increasing transparency.

3.7 Administration of the Questionnaire

In the first step, initial questionnaires have been distributed online through the council of ministries, nineteen Ministries and five departments of the Erbil government's hierarchy. To support the data that have been collected through these, questionnaires were administered to the various divisions of employees in the government's institutions.

The questionnaires were administered personally to employees in the various departments, selecting every 3th employees. Employees were given time to carefully fill out the questionnaires and submitted.

While the questionnaires were filled and submitted to the database, by STATA software (version IC14.1) quantitative data analysis should be done. This technique of data analysis gives appropriate distributing and percentages.

3.8 Data Collection

All data in this research was collected from primary and secondary sources. As usual, primary information was obtained by using questionnaires and secondary data were collected from the published journals, official statistics, documents, books, and articles to view the analysis of the impact of electronic government in enabling administrative reform in the government's institutions. The researcher traces the history of e-government in the public sector in the Kurdistan Regional Government and its role in enabling reform.

The questionnaire was used to investigate the awareness of the use of ICT and the role that the plays in the administrative reform, the effectiveness of transparency, and also to examine how e-government projects have increased better public service performance. There are advantages and disadvantages in using questionnaires for data collection. In the view of Bell & Bryman (2011) the main advantages of using a questionnaire are; it's cheap and quick to administer, no one can influence the respondents in answering the questions, and it is more convenient for respondents. There are also some disadvantages of the questionnaire; you can't collect additional data compared to other techniques of data collection, do not know who answers, lower response rate, and sometimes the respondents face difficulty in answering the questions. The questionnaire is attached as the Appendix.

3.9 Pilot Study

As it is explained in this report, the structure of a questionnaire needs to be easy to collect appropriate information. It is absolutely necessary to make sure that the final form of the questionnaire to as easy as possible for filling. At first, it is better to have a pilot form of

questionnaire to make sure about each possible note among an appropriate number of target groups.

This pilot questionnaire helps the researcher to find out that questions are answered to the needs of the study. Also, it can help to find out the time of filling the questionnaire and other requirements for responding to the study population. The required numbers were fifteen questionnaires for the pilot project for each target group in a different division in the government's institutions in the Erbil governorate. By doing the pilot study, it was clear that all the questions and questionnaires all were appropriate, and were correctly answered by target respondents.

3.10 Data Analysis

Data Analysis is the method of systematically implementing statistical and logical techniques to describe and illustrate, summarize and evaluate data.

Data Analysis is the method of systematically implementing statistical and logical techniques to describe and illustrate, summarize and evaluate data.

After the questionnaires have been completed and returned, descriptive approach (quantitative) data were analyzed using (STATA) software. The analysis technique is used to get the appropriate necessary information. After collecting the filed questionnaires and data analyzed from the target group, some tests were required for more validation and reality of results. The variables of research were described by analyzing statistics and diagrams. These statistical analyses were variables, standards, and means. As a result, the relationship of different variables defined the strengthen between both dependent and independent variables. All falls' values were mentioned as irrelevant and inefficient and out of range. Figures and tables were prepared for more explanation and more understanding of the results.

CHAPTER 4

FINDING AND DATA ANALYSIS

4.1 Introduction

The researcher's goal of this study is to confirm the role of establishing an electronic government in enabling administrative reform, and its influence on government performance, better public service delivery in (KRG). This chapter deals with data analysis and a discussion of the achieved results. The findings and analysis of data are done in a sequential order to enhance the reader's understating of the results.

The findings are divided into three main sections. The first section presents, data demonstration, and data coding. The second section presents the findings and analysis of the obtained data through the questionnaire. The final section presents the correlation analysis.

4.1.1 Data Demonstration

A total of 94 questionnaires were collected from the samples that have been distributed in the KRG hierarchy government in Erbil. These procedures are data coding, data entry, and data editing. The data was coded, entered, edited, and analyzed by STATA program version IC.14.1 with the assistance of specialized Statistician.

4.1.2 Data Coding

At the beginning of data analysis process, arrangement of the data is the step of data

coding, which includes defining numbers to the variables and to the responses of the respondents before entry to the database.

The first part of the questionnaire which is section (B) comprised a total of 4 items in a four-point measuring except the first one was three-point measuring and four variables which is the access to the internet, available ICT equipment, application, modern network of technology, communications, and use of ICT to exchange data.

In addition, it included six demographic variables about the personal information of the organizations, as shown in Appendix (A).

The second part of the questionnaire which is a section (C) comprised a total of 3 items in a four-point measuring three variables which is the e-government project for better service delivery, automate work process and simplify the administrative system, and gives citizens equal opportunities in the transaction, as shown in Appendix (A).

The third part of the questionnaire which is section (D) comprised a total of 3 items in a four-point measuring three variables which is the e-government causes reducing meditation, speed up in completing transactions, and restrict employee's intervention, and Its effect reduces personal relationships and eliminate bribery, as shown in Appendix (A).

The four parts of the questionnaire which is section (E) comprised a total of 3 items in a four-point measuring three variables which is the e-government to detect corruption, increase the principle of transparency and integrity, and reduce individual's ability to use their position, as shown in Appendix (A).

The five and last part of the questionnaire which is section (F) comprised a total of 2 items in open question two variables which is a recommendation for the role of e-government in enabling administrative reform and implementation of the e-government in eliminating corruption, increasing transparency, as shown in Appendix (A). Each single response for all items of all sections of the questionnaire was coded via the actual number chosen by the

respondents (1, 2, 3, 4,) with 1= a) highly adequate, 2= b) adequate, 3= b) inadequate, and 4= Not at all. For the demographic variables, Gender was coded as 1 for male and 2 for female. The rest demographic variables were coded categorically from 1 to 5.

4.2 Presenting the Findings

Firstly, we must present the data which have been collected through the questionnaire and analyzed using STATA software. In the first step, the obtained data to each question will be presented separately, as shown below:

Section (A) in the Questionnaire

4.2.1 Place of Work

The aim of this question was to find out the perspective of respondents in KRG ministries and departments. Frequencies showed that out of 94 respondents, approximately 80.9% was working in in the ministries (n=76) and 19.1% of the sample was working in Departments (n=18), as presented in Table 3.

Table 3 Frequency of Place of the Respondents

Place of Work		
Response	Frequency	Percent
Ministry	76	80.9%
Department	18	19.1%
Total	94	100%

4.2.2 Position

The aim of the position collected data was to find out information in the different working level. This research investigated the civil servant in the public sector; Based on the sample profile, the frequency distribution showed that 9.6% (n=9) of the respondents was head of department position, 4.3% (n=4) belonged to director general position, finally, 86.1% (n=81)

belonged to management level position. As presented in Table 4.

Table 4 Frequency of Position of the Respondents

Position		
Response	Frequency	Percent
Deputy minister	0	0
Head of Department	9	9.6
Director General	4	4.3
Management Level	81	86.1
Other, please specify	0	0
Total	94	100%

Note. Field data July 2021

4.2.3 Experience

The highest percentage of length experience was 35.1% (n=33) belonged to the group between 11-15 years, second frequency of 21.3% (n=20) came from 16-20 years of experience, then the category of 16-10 years with 18.1% (n=17). The category of less than 5 years was 7.4% (n=7), finally, 18.1% (n=17) form group of more than 21 years. As showed by Table 5.

Table 5 Frequency of Experiences of the Respondents

Experience		
Response (in years)	Frequency	Percent
less than 5	7	7.4
6-10	17	18.1
11-15	33	35.1
16-20	20	21.3
21-24	0	0
21 and over	17	18.1
Total	94	100%

Note. Field data July 2021

4.2.4 Gender

Frequencies showed that out of 94 respondents, approximately 69.1% was male (n=65) and 30.9% of the sample was Female (n=29) as shown below in Table 6.

Table 6 Frequency of Male and Female of the Respondents

Gender		
Response	Frequency	Percent
Male	65	69.1
Female	29	30.9
Total	94	100%

Note. Field data July 2021

4.2.5 Age

The aim of this question was to find out how many years of service respondents have worked in the public sector. A total number of 94 responded to this question and the breakdown of those responses is shown below in Table 7.

It can be seen that those respondents who have served for 36-45 years formed the majority 43.6% of the respondents with a frequency of (n=41), and frequency analysis of the age indicated that 29.8% (n=28) of respondents belonging to the group in the age of 26-35 years, 23.4% (n=22) to 46-55 age group, 2.1% (n=2) in the age of less than 25 years old, and finally, only 1.1 % (n=1) belonged to the group of 56 years old and above. As presented in Table 7.

Table 7 Frequency of Age of the Respondents

Age		
Response (in years)	Frequency	Percent
less than 25	2	2.1
26-35	28	29.8
36-45	41	43.6

46-55	22	23.4
56 and above	1	1.1
Total	94	100%

Note. Field data July 2021

4.2.6 Academic Qualification

As table 8 has shown, frequency results for the academic qualification noticed that 60.7 % of the respondents (n=57) has Bachelor Degree, 22.3% (n=21) having Master Degree, 12.8% (n=12) with Diploma or Institute Degree, 2.1 % of the sample (n=2) having secondary school, and finally, only 2.1 % (n=2) earning PHD Degree. The academic Qualification profile is illustrated in Table 8.

Table 8 Frequency of Academic Qualification of the Respondents

Academic Qualification		
Response	Frequency	Percent
PHD	2	2.1
Master's Degree	21	22.3
Bachelor's degree	57	60.7
Diploma or Institute	12	12.8
Secondary school	2	2.1
Total	94	100%

Note. Field data July 2021

4.2.7 Questions from Section (B) Employee Access and Knowledge about ICT

a. Do you have access to the Internet in your office?

The aim of this question was to find out the respondent's usage of the internet in their office. A total number of 94 responded to this question, and the breakdown of those responses is shown below in Table 9 Frequency results for access to the Internet noticed that 71.3 % of the respondents (n=67) have access to the internet in their offices. 17.0% (n=16) of

respondents sometimes has access to the internet, and finally, only 11.7 % (n=11) did not have access to the internet that as illustrated in Table 9.

Table 9 Frequency of employee access to Internet

Employee Access to Internet		
Response	Frequency	Percent
Yes	67	71.3
Sometimes	16	17.0
No	11	11.7
Total	94	100%

Note. Field data July 2021

b. In your opinion, do you think in your organization there is available ICT equipment and applications?

This question has been asked to participators of the survey to find out the equipment ICT available and usage applications in their office, among 94 participators that 10.6 % of the respondents (n=10) believed that they have highly adequate available ICT and applications. The majority 31.9% of the respondents with a frequency of (n=30) they have adequate, and frequency analysis of the inadequate indicated that 30.9% (n=29) of respondents, finally, 26.6% (n=25) of respondents they believe that they do not have Available ICT Equipment and Application that as illustrated in Table 10.

Table 10 Frequency of employee opinion about available ICT equipment and application

Available ICT Equipment and Application		
Response	Frequency	Percent
Highly Adequate	10	10.6
Adequate	30	31.9

Inadequate	29	30.9
Not at all	25	26.6
Total	94	100%

Note. Field data July 2021

c. Do you have a modern network of technology, communications and information that has the ability to transmit information in your organization?

The aim of this question was to find out the workable of modern network and the ability of transmit information in the office. A total number of 94 participators that 12.8 % of the respondents (n=12) believed that they have highly adequate of available modern network of technology, communications and have the ability to transmit information. The majority 37.2% of the respondents with a frequency of (n=35) they have adequate, and frequency analysis of the inadequate indicated that 35.1% (n=33) of respondents, finally, 14.9% (n=14) of respondents they believe that they do not have modern network of technology, communications and the ability to transmit information as shown in Table 11.

Table 11 Frequency of organization ability to transmit information

Organization's ability to transmit information		
Response	Frequency	Percent
Highly Adequate	12	12.8
Adequate	35	37.2
Inadequate	33	35.1
Not at all	14	14.9
Total	94	100%

Note. Field data July 2021

d. For better public service delivery, do you use ICT to exchange data between the

organization in which you work and other government institutions?

The aim of this question was to find out do they use of ICT in the office for exchanging data between the institutions in term of better public service delivery to the citizen in the public sector. A total number of 94 participators that 10.6 % of the respondents (n=10) they have highly adequate of use ICT to exchange data between their organization and other government institutions. The majority 37.3% of the respondents with a frequency of (n=35) they believed they have inadequate, and frequency analysis of the adequate indicated that 22.3% (n=21) of respondents, finally, 29.8% (n=28) of respondents they believed that they do not use ICT to exchange data between their organization and other government institutions as shown in Table 12.

Table 12 Frequency of use ICT to exchange data

Use ICT to exchange data		
Response	Frequency	Percent
Highly Adequate	10	10.6
Adequate	21	22.3
Inadequate	35	37.3
Not at all	28	29.8
Total	94	100%

Note. Field data July 2021

4.2.8 Questions from the Section (C): Impact of E-Government in Administrative Reform

e. In your opinion, do you think E-government project can reduce routine, time wasting, and better service delivery?

The aim of this question was to determine whether E-government project can reduce routine, time wasting, and better service delivery or not. A total number of 94 participators,

the majority 61.7 % of the respondents (n=58) that responded of highly adequate, they believed that E-government project can reduce routine, time wasting, and better service delivery .The amount of 33.0% of the respondents with a frequency of (n=31) they believed they have adequate influence, and frequency analysis of the inadequate indicated that 5.3% (n=5) of respondents, finally, none of respondents replied to not at all that illustrated in Table 13.

Table 13 Frequency of E-government project

E-government project		
Response	Frequency	Percent
Highly Adequate	58	61.7
Adequate	31	33.0
Inadequate	5	5.3
Not at all	0	0
Total	94	100%

Note. Field data July 2021

f. Do you think E-government helps to automate work processes and simplify administrative systems in the government?

The aim of this question was to find out. E-government helps automate work processes and make an easy administrative system in the public sector. A total number of 94 participators, the majority 64.9 % of the respondents (n=61) that responded of highly adequate, they believed that E-government helps automate work process and make easy administrative system. The amount of 29.8% of the respondents with a frequency of (n=28) they believed It has adequate influence, and frequency analysis of the inadequate indicated that 5.3% (n=5) of respondents, finally, none of respondents replied to not at all that illustrated in Table 14.

Table 14 Frequency of E-government helps to automate work process

E-government helps to automate work process		
Response	Frequency	Percent
Highly Adequate	61	64.9

Adequate	28	29.8
Inadequate	5	5.3
Not at all	0	0
Total	94	100%

Note. Field data July 2021

g. To what extent, E-government gives citizens equal opportunities to compete by placing all government transactions on the Internet.

The aim of this question was to find out E-government can give citizens equal opportunities to compete by placing all government transactions on the Internet. A total number of 94 participants, the frequency distribution showed that 44.7 % of the respondents (n=42) that responded of highly adequate, they believed that E-government could give citizens equal opportunities to compete by placing all government transactions on the Internet. The majority of 47.9% of the respondents with a frequency of (n=45) they believed it has adequate influence, and frequency analysis of the inadequate indicated that 7.4% (n=7) of respondents, finally, none of the respondents replied to not at all that illustrated in Table 15.

Table 15 Frequency of E-government gives citizens equal opportunities

E-government gives citizens equal opportunities		
Response	Frequency	Percent
Highly Adequate	42	44.7
Adequate	45	47.9
Inadequate	7	7.4
Not at all	0	0
Total	94	100%

Note. Field data July 2021

4.2.9 Questions from the Section (D): Impact of E-Government in Conflict of Middleman's Intervention

h. Do you think, E-government helps citizens to use government service through the internet that causes reduce meditations?

The aim of this question was to find out E-government helps citizens to use government service through the internet that causes reduce meditations. A total number of 94 participators, the majority of 60.6 % of the respondents (n=57) that responded of highly adequate, they believed that E- E-government helps citizens to use government service through the internet that causes reduce meditations. The frequency distribution showed that of 33.0% of the respondents with a frequency of (n=31) they responded in adequate, and frequency analysis of the inadequate indicated that 6.4% (n=6) of respondents, finally, none of respondents replied to not at all that illustrated in Table 16.

Table 16 Frequency of E-government causes reduce meditations

E-government causes reduce meditations		
Response	Frequency	Percent
Highly Adequate	57	60.6
Adequate	31	33.0
Inadequate	6	6.4
Not at all	0	0
Total	94	100%

Note. Field data July 2021

i. In your point of view, E-government helps to speed up in completing transactions, and restrict employee's intervention in the work processing.

The aim of this question was to find out E-government helps to accelerate the

government's work transaction, and it causes restricting employee's intervention during the work process. A total number of 94 participators, the majority of 48.9 % of the respondents (n=46) that responded highly adequate. They believed E- E-government helps to speed up the government's work transaction, and it causes restricting employee's intervention during the work process. The frequency distribution showed that of 38.4% of the respondents with a frequency of (n=36) they responded adequately, and frequency analysis of the inadequate indicated that 10.6% (n=10) of respondents, finally, 2.1% (n=2) the respondents believed that not at all that illustrated in Table 17.

Table 17 Frequency of E-government in transactions, and restrict employee's intervention

completing transactions, and restrict employee's intervention		
Response	Frequency	Percent
Highly Adequate	46	48.9
Adequate	36	38.4
Inadequate	10	10.6
Not at all	2	2.1
Total	94	100%

Note. Field data July 2021

j. From your perspective, the e-government effect reduces personal relationships in public service delivery and eliminates accept gifts and bribery.

The aim of this question was to find out the perspective of respondents about the effect of E-government in reduce personal relationships in public service delivery and eliminates bribery. A total number of 94 participators, the majority of 54.3 % of the respondents (n=51) that responded highly adequate. They believed effect of E-government in reduce personal relationships in public service delivery and eliminates bribery. The frequency distribution showed that of 34.0% of the respondents with a frequency of (n=32) they responded

adequately, and frequency analysis of the inadequate indicated that 10.6% (n=10) of respondents, finally, 1.1% (n=1) of respondents believed that not at all that illustrated in Table 18.

Table 18 Frequency of e-government effect reduces personal relationships

e-government effect reduces personal relationships		
Response	Frequency	Percent
Highly Adequate	51	54.3
Adequate	32	34.0
Inadequate	10	10.6
Not at all	1	1.1
Total	94	100%

Note. Field data July 2021

4.2.10 Questions from the Section (E): The Effectiveness of E-Government on Corruption and Increasing Transparency

k. In your opinion, do you think E-government helps to detect corruption?

The aim of this question was to find out E-government helps to detect corruption. A total number of 94 participators, the majority of 57.4 % of the respondents (n=54) that responded adequate. They believed the effect of E-government helps to detect corruption. The frequency distribution showed that of 31.9% of the respondents with a frequency of (n=30) they responded highly adequately, and frequency analysis of the inadequate indicated that 9.6% (n=9) of respondents, finally, 1.1% (n=1) of respondents believed that not at all that illustrated in Table 19.

Table 19 Frequency of E-government helps to detect corruption

E-government helps to detect corruption		
Response	Frequency	Percent
Highly Adequate	30	31.9
Adequate	54	57.4
Inadequate	9	9.6
Not at all	1	1.1

Total	94	100%
--------------	----	------

Note. Field data July 2021

i. Does E-government increases the principle of transparency and integrity in financial procedures and government transactions?

The aim of this question was to find out how E-government has effect in increase the principle of transparency and integrity. A total number of 94 participators, the majority of 48.9 % of the respondents (n=46) that responded adequately. They believed E-government has an effect in increase the principle of transparency and integrity. The frequency distribution showed that of 42.6% of the respondents with a frequency of (n=40) they responded highly adequately, and frequency analysis of the inadequate indicated that 8.5% (n=8) of respondents, finally, none of the respondents replied to not at all that showed in table 20

Table 20 Frequency of E-government increase transparency and integrity in financial procedures

Transparency and integrity in financial procedures		
Response	Frequency	Percent
Highly Adequate	40	42.6
Adequate	46	48.9
Inadequate	8	8.5
Not at all	0	0
Total	94	100%

Note. Field data July 2021

m. In your point of view, do you think e-government can reduce individual's ability to use their position in public office to achieve personal interests in the government?

The aim of this question was to find out E-government can decrease individual's ability to use their position to achieve personal interests in the government. A total number of 94 participators, the majority of 47.9 % of the respondents (n=45) that responded adequately.

They believed E-government could decrease individual's ability to use their position to achieve personal interests in the government. The frequency distribution showed that of 33.0% of the respondents with a frequency of (n=31) they responded highly adequately, and frequency analysis of the inadequate indicated that 13.8% (n=13) of respondents, finally, 5.3% (n=5) of respondents believed that not at all that illustrated in Table 21

Table 21 Frequency of E-government that can reduce individual's ability to achieve personal interests

Reduce individual's ability to achieve personal interests		
Response	Frequency	Percent
Highly Adequate	31	33.0
Adequate	45	47.9
Inadequate	13	13.8
Not at all	5	5.3
Total	94	100%

Note. Field data July 2021

4.2.11 Questions from the Section (F): Open Questions for Policy Recommendations

These two questions (n and o) have been written as open questions for the respondents, for someone who wants to demonstrate extra information beyond the questionnaires. It was given to the researcher another opportunity to collect extra opinions from the target population. It was helped to develop this study for decision-making and policy recommendations about the role of e-government in enabling administrative reform and how its effect to eliminate corruption and causes better service delivery to citizens.

n. In your perspective, what is your recommendation for the role of e-government in enabling administrative reform?

1-

2-

3-

o. According to your knowledge, do you have any recommendations for the implementation of the e-government in eliminating corruption, better service delivery, and increasing transparency?

1-

2-

3-

4.3 Analysis of Findings

$$Y_i = \beta_1 + \beta_2 ICT_i + \beta_3 X_i + U_i$$

Y_i : Dependent variables: measure individual perception of corruption, better service delivery and transparency.

ICT_i : Main independent variable: measure individual access to ICT.

X_i : Control variables: individual's age, gender, work experience, education level.

U_i : Error term.

Table 22 Ordered logit regression

VARIABLES	(1) Corruption	(2) Better Service	(3) Transparency
ICT use	0.394 (0.387)	0.542* (0.312)	0.235 (0.650)
Device availability	-0.829** (0.350)	-0.0441 (0.315)	-0.234 (0.481)
Work experience	0.427 (0.277)	0.210 (0.245)	-0.309 (0.715)
Gender	1.741*** (0.588)	0.672 (0.516)	-1.942* (1.019)
Age	-0.0212 (0.344)	-0.222 (0.393)	0.866 (1.019)
Education level	-0.559 (0.477)	0.160 (0.368)	-0.593 (0.512)
Observations	94	94	94

Notes

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Interpretation:

Given the nature of our dependent variables (ordinal value from (1 to 4)), It was used an ordered logit method to conduct the analysis.

After the regression, it can be seen that in column (1) that there is a positive relationship between ICT and corruption detection in government agencies. Moreover, in column (2) we can perceive that ICT help also improves service delivery. And finally, column (3) result highlights that ICT availability help improves transparency. However, all these coefficients are not significant due to the limited number of observations.

CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

The reform consists of planned changes to the structures and system work processes of the public sector with the aim of making them run better, deliver better services to the citizens, and eliminate corruption through the increase of transparency. In addition, administrative reform is a responsive change in a public sector organization or system for the purpose of improving the structure, operation, or quality of its work. Moreover, structural change may include integrating or splitting public sector organizations. At the same time, process change may include redesigning work systems, establishing quality standards, and focusing on reducing routine and wasting time.

In addition, corruption is the main problem all over the world that cannot be ignored, especially in developing countries. Administrative reforms to eliminate corruption have been confirmed difficult to develop. E-government has shown promise in this regard since it allows at least reduce corruption, and it impacts to generate better service in public services delivery.

Furthermore, the focus of e-government in enabling administrative reform is timely in the current global context where there is an increased interest to lead in the quality of work.

However, E-government, does not guarantee to enable administrative reform for ending corruption if the environment of establishment e-government project is not applicable. In such circumstances, the development of administrative structure and combating corruption should be part of the e-government vision in the agenda's government. Also, awareness is important; the public should be aware of all the government policies agenda, projects that want to use in

online services. The media, in general, social, and the public also would play a great role.

There are many studies on the completion of e-government as enabling administrative reform in many developed countries across the globe, but few studies confirm whether this tool can be successful in developing countries or not.

The present research highlights an important gap in the literature review in regards of linking e-government with administrative reforms by illustrating how e-government has a role in enabling administrative reform as well as eliminate corruption, increasing transparency within the public sector in the Kurdistan Regional Government.

Based on the outcome from the analysis of this research, it is concluded that e-government has an important role in enabling administrative reform and reduce corruption in the public sector in KRG. Also, this research informs public administrators, and politicians regarding the usefulness of online public services and their impact on saving time, financial resources, and reducing unusual routines in the government's regulation through practices in public institutions.

Moreover, the findings also showed that the use of ICT in the form of e-government provides the power for developing countries to do efficiently administrative reform, to stay at least moderate corruption, and keep offering transparency. This research documents a positive impact of e-government in enabling administrative reform, increasing the levels of fighting corruption, and better service to citizens.

It is obvious that the conditions for successful e-government as administrative reform tools in the KRG are the responsibility of higher leader's decisions, the legal environment, the ICT infrastructure, and human resource capacity. Without these factors, it would be impossible to complete e-government services.

Although most participants in the questionnaire believe that their organizations have an adequate modern network of communications and information of technology (ICT), there is a

weakness in the use of it.

Also, in the Iraq constitution and KRG as a part of Iraq, there are no legislations and regulations to explain and protect the processes for implement e-governance and to provide the requirements of electronic work through Internet networks in the public sector. Although, the KRG has made efforts to reform in all sectors, including administrative, to fight corruption and better service delivery through e-government practices.

The researcher assumed that there are actually challenges that need to be faced as follows:

- Commitment of decision-makers because they change during government cabinet change in each four years
- Lack of providing legal support for the use of electronic work
- Centralization of administrative
- Shortness of ICT infrastructure in KRG institutions
- Adequate financial resources allocation
- Shortage of electricity, internet connection
- Lack of data related to the usage of the internet and ICT

5.2 Recommendations

It is an undeniable fact that in recent times, the government and many organizations have come to the realization of the importance of the role of ICT as the use of e-government to increases work efficiency, and performance. By studying the factors that are related or lead to enabling administrative reform, this research provides evidence of how they can implement e-government as an administrative reform for better service, increase transparency, and anti-corruption tools. Building upon the results achieved, for the government to reach its objectives, I recommend the following:

5.2.1 Recommendations for Government

- Writing new and updating the law of the right of access to information and use of technology because of its role of using e-government in administrative reform and combating corruption at various government units.
- Securing the ICT system is important to prevent the citizen's information by those who know how to manage the ICT system. I strongly recommended working closely with ICT specialists to ensure that the design of the ICT system for administrative reform. Sometimes, ICT may even provide an opportunity for more corruption.
- Government should publish government information online, especially in revenue and expenditure; provide documentation to citizens to confirm their complaints against corrupt practices.
- Bridging the digital divide gap in KRI. Even if the government information is available on all government sites, and the citizen does not have access to technology or field to use the same capabilities. Ways of use of e-government will be ineffective. Therefore, the government should give citizens convenient access to government information and services from everywhere, at any time.
- Having a short-medium-long plan and approved by KRI parliament to establish e-government continuing.
- Transferring the current traditional work system completely to e-government and reducing paperwork. This will help to reduce the efforts and time used to accomplish a transaction, helps to track the transaction's procedure, and reduce individual involvement in processing the transaction. Hence, it's reducing bribery and corruption.

5.2.2 Further Research Recommendation

- Successful implementation of e-government programs needs continual supporting by

policymakers and matching the right technologies with capable and progressive reformers.

- Use experience from the countries that have the same environmental work and succeeded in using e-government, such as United Emirates.
- Each ministry should establish a complaint and handling management through the ministry's websites that are provided its required and public needs. It should be clearly displayed to both the public and staff; it may result in a reduction of corruption and enabling administrative reform.
- Organizations should put instructions through the organization's website to help citizens how the system works. Therefore, it becomes harder for employees because the processes of the systems were available online.
- Organizations should provide the needed support to their employees by training courses, the necessary resources and apply a rewards and punishment system

5.3 General Recommendations

The researcher recognizes the limitations of the present research, and these limitations can be viewed as opportunities for future study.

First, this research was limited to a public sector in Kurdistan Region Government. Future studies should attempt to reduplicate this research in the private sector in KRG, also to replicate this research in different sitting; the researcher only collected data from the institutions in Erbil governorate that is the capital of KRG.

Second, the financial and investment reform was not addressed, Future studies would be more beneficial if financial and investment could be addressed too. Additionally, the researcher suggests the following extra research:

- Recognized as a high level of corruption in Iraq and KRG as a part of Iraq, strongly people demand to reduce corruption, KRG should point out the potential priority areas that need to be

automated as a global tool to reducing corruption and better service delivery.

- Exploring the factors that would play a key role in e-government in enabling administrative reform.

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APPENDIX

QUESTIONNAIRE

The advancement in technological innovations worldwide, along with the rising demand for better service delivery, the governments impose new technologies to ensure a change from the "traditional work" manual method of running government business to modernization based on scientific analysis.

The information collected here is going to be used for academic purposes only to help the researcher fulfill part of a study on:

THE ROLE OF E-GOVERNMENT IN ENABLING ADMINISTRATIVE REFORM
IN THE PUBLIC SECTOR
CASE STUDY OF KURDISTAN REGION GOVERNMENT/ IRAQ

Your assistance and response to the following questions to facilitate the success of the research work would be very much appreciated.

Please tick where appropriate:

Thank you

له گه ل پيشقه چون له داهنانه ته كنه لوجيهه كان له سه ر ناستى جيهاندا ، بو باشتر گه ياندن و پيشكesh كردنى خزمه تگوزاريه كان، حكومه ت، پيوستى به به كارهيئانى ته كنه لوجياى نوئ هه يه بو دلنيابون له گوړينى شيوازى كوونى كارى ده ستى و ته قليدى به ره و شيوازى نوئ و مؤدپرنى زانستى به ريوه بردنى كاروبارى حكومه ت.

ئه و زانياريانه ي كه لپره وه ره ده گيرين ته نها بو مه به ستى تويزينه وه ي ناكاديمي به كار ده هينرين بو يارمه تيدانى تويزهر له به شيك له تويزينه وه كه ي له سه ر:

رولى حكومه تى ئېلېكترونى له به يز كردنى چاكسازى كارگيرى له كه رتى گشتيدا
حكومه تى هه ريمى كوردستان / ئىراق وه ك نمونه ي تويزينه وه كه

هاوكارى ئيوه له وه لامدانه وه ي ئه م پرسيارنامه يه بو سه ركه وتنى ئه م تويزينه وه به زور به رز
ده نرخينريت.

تكايه ئه و ولامانه ي كه پيت گونجاوه هه لپزيره (كليك بكه).

زور سوپاس

Section (A): BACKGROUND INFORMATION OF RESPONDENTS

بهشی (A): زانیاری پښینهی فرمانبر

A:

Name of the ministry	ناوی وهزارهت
Name of the department	ناوی فرمانگه

B:

Position	ناویشنانی فرمانبرایهتی
a) Deputy minister	(ا) چيگری وهزیر
b) Head of Department	(ب) سهروکی فرمانگه
c) Director General	(ج) بهریوه بهری گشتی
d) Management Level	(د) ئاستی پلهی بهریوه بهر
e) Other, please specify	(ه) هی تر، تکایه دیار بکه

C:

Number of years of Work Experience	نهمونی کار
a) Less than 5 years	(ا) که متر له ۵ سال
b) 6-10 years	(ب) ۶-۱۰ سال
c) 11-15 years	(ج) ۱۱-۱۵ سال
d) 16-20 years	(د) ۱۶-۲۰ سال
e) 21 years and over	(ه) ۲۱ سال و سهروهه
D: Gender	پره گهز
a) Male	(ا) زیر
b) Female	(ب) می

E: Age

Age	نهمون
a) Less than 25 years	(ا) که متر له ۲۵ سال
b) 26-35 years	(ب) ۲۵-۳۵ سال
c) 36-45 years	(ج) ۳۶-۴۵ سال
d) 46-55 years	(د) ۴۶-۵۵ سال
e) 56 years and above	(ه) ۵۶ سال و سهروهه

F:

Educational level	ئاستی خویندن
a) PHD	(ا) دکتورا
b) Master's Degree	(ب) پلهی ماستر
c) Bachelor's Degree	(پ) به کالوریوس
d) Diploma or institute	(ت) دیپلوم یا پهیمانگا

e) Secondary school	ج) قوتابخانه‌ی ناوه‌ندی
f) Others, please specify	چ) هی تر، تکاپه دیار بکه

Section (B): EMPLOYEE ACCESS AND KNOWLEDGE ABOUT ICT

به‌شی (B): ده‌ستیره‌سیی فه‌رمانه‌ر به داتا و زانیاری له سه‌ر ته‌کنه‌لۆجیای په‌یوه‌ندی و زانیاری

1.

Do you have access to Internet in your office?	نایا ده‌ستیره‌سیی ئینتیرنیت له شوینیی کارکردن هه‌یه؟
a) Yes	ا) به‌لی
b) Sometimes	ب) جاروبار
c) No	پ) نه‌خیر

2.

In your opinion, do you think in your organization there is available ICT equipment and applications?	نایا، به پیی بوچونی تو، لهو دامه‌زراوه‌ی که کار ده‌که‌ی، نامیر و ناپلیکیشنن ICT له به‌ر ده‌ست هه‌یه؟
a) Highly Adequate	ا) به‌راده‌یه‌کی زور
b) Adequate	ب) به‌راده‌یه‌کی پیویست
c) Inadequate	پ) نه‌وه‌کو پیویست
d) Not at all	ت) نه

3.

Do you have a modern network of technology, communications and information that has the ability to transmit information in your organization?	تۆرکی پیشکه‌وتووی ته‌کنه‌لۆجیای په‌یوه‌ندی و زانیاری له فه‌رمانگه‌که‌ت هه‌یه که توانای گواستنه‌وه‌ی زانیاری هه‌یه‌ت؟
a) Highly Adequate	ا) به‌راده‌یه‌کی زور
b) Adequate	ب) به‌راده‌یه‌کی پیویست
c) Inadequate	ج) نه‌وه‌کو پیویست
d) Not at all	د) نه

4.

For better public service delivery, do you use ICT to exchange data between the organization in which you work and other government institutions?	نایا بو ئالۆگۆر کردنی داتا و زانیاری، به‌مه‌به‌ستی پیشکه‌ش کردنی خزمه‌تگوزاری به‌شیوه‌یه‌کی باشت، ICT به‌کار دینیت له زیوان نه‌و فه‌رمانگه‌ی کاری تپدا ده‌که‌ی و له‌گه‌ل داموده‌زگاکانی تری حکومه‌ت؟
a) Highly Adequate	ا) به‌راده‌یه‌کی زور
b) Adequate	ب) به‌راده‌یه‌کی پیویست
c) Inadequate	ج) نه‌وه‌کو پیویست
d) Not at all	د) نه

Section (C): IMPACT OF E-GOVERNMENT IN ADMINISTRATIVE REFORM

به‌شى (C): كارىگه‌رىى حكومه‌تى ئېلېكترونى له چاكسازىى كارگىرى

5.

In your opinion, do you think E-government project can reduce routine, time wasting, and better service delivery?	به بۆچوونى تو پروزه‌ى حكومه‌تى ئېلېكترونى ده‌بېته هو‌ى باشتر كوردنى خزمه‌تگوزارىيه‌كان وكه‌م كوردنه‌وه‌ى روتىن و به‌هه‌ده‌ردانى كات؟
a) Highly Adequate b) Adequate c) Inadequate d) Not at all	(ا) به‌راديه‌كى زور (ب) به‌راديه‌كى پيويست (ج) نه‌وه‌كو پيويست (د) نيه

6.

Do you think E-government helps to automate work process and simplify administrative system in the government?	ئايا پېت وايه كه حكومه‌تى ئېلېكترونى يارمه‌تيدهر ده‌پېت بو خوكار كوردنى پروسه كارگىرىيه‌كان و ئاسان كوردنى به‌رئوه‌بردنى كاروبارى حكومه‌ت؟
a) Highly Adequate b) Adequate c) Inadequate d) Not at all	(ا) به‌راديه‌كى زور (ب) به‌راديه‌كى پيويست (ج) نه‌وه‌كو پيويست (د) نيه

7.

To what extent, E-government gives citizens equal opportunities to compete by placing all government transactions on the Internet.	تا چه‌راديه‌كه، حكومه‌تى ئېلېكترونى ده‌رفه‌تى يه‌كسان به‌هاولاتيان ده‌دات به‌مه‌به‌ستى ته‌واو كوردنى مامه‌له‌كانيان له‌سه‌رتورى ئېنته‌رنېت؟
a) Highly Adequate b) Adequate c) Inadequate d) Not at all	(ا) به‌راديه‌كى زور (ب) به‌راديه‌كى پيويست (ج) نه‌وه‌كو پيويست (د) نيه

Section (D): IMPACT OF E-GOVERNMENT IN CONFLICT OF MIDDLEMAN'S INTERVENTION

به‌شى (D): كارىگه‌رىى حكومه‌تى ئېلېكترونى بۇ رېنگرىى له ده‌ستوه‌ردانى ده‌ره‌كى (واسته)

8.

Do you think, E-government helps citizens to use government service through the internet that causes reduce meditations?	ئایا پیت وایه که حکومتی ئیلکترونی یارمه تیدره بو هاوالتیان که له ریگه ی ئینتیزبته وه له خزمه تگوزاریه کان سودمه ند بن و بیته هوی که مکردنه وه ی سه ره دانکردنی فه زمانگه کان؟
a) Highly Adequate b) Adequate c) Inadequate d) Not at all	ا) به راده یه کی زور ب) به راده یه کی پیویست ج) نه وه کو پیویست د) نه

9.

In your point of view, E-government helps to speed up in completing transactions, and restrict employee's intervention in the work processing.	ئایا به بۆچوونی تو حکومتی ئیلکترونی یارمه تیدره ده پیت بو ته واو کرنی خیرای کاره کان و سنوردارکردنی ده ستیوه ردانی فه زمانبه ران له پرۆسه ی کار؟
a) Highly Adequate b) Adequate c) Inadequate d) Not at all	ا) به راده یه کی زور ب) به راده یه کی پیویست ج) نه وه کو پیویست د) نه

10.

From your perspective, e-government effect reduces personal relationships in public service delivery and eliminates accept gifts and bribery.	ئایا، به بۆچوونی تو، حکومتی ئیلکترونی کاریگه ری هه یه له سه ر که م کردنه وه ی په بوه ندیبه که سه یه کان له که رتی گشتی و نه هیشتنی وه رگرتنی به رتیل و دیاری؟
a) Highly Adequate b) Adequate c) Inadequate d) Not at all	ا) به راده یه کی زور ب) به راده یه کی پیویست ج) نه وه کو پیویست د) نه

Section (E): THE EFFECTIVENESS OF E-GOVERNMENT ON CORRUPTION, AND INCREASING TRANSPARENCY

به شی (E): کاریگه ری حکومتی ئیلکترونی له سه ر گه نده لی و، زیادکردنی شه فافیه ت

11.

In your opinion, do you think E-government helps to detect corruption?	ئایا، به بۆچوونی تو، حکومتی ئیلکترونی یارمه تیدره ده پیت بو دیاری کردنی گه نده لی له داموده زگانانی حکومت؟
a) Highly Adequate b) Adequate c) Inadequate d) Not at all	ا) به راده یه کی زور ب) به راده یه کی پیویست ج) نه وه کو پیویست د) نه

12.

Does E-government increase the principle of transparency and integrity in financial procedures and government transactions?	ئایا حکومتی ئیلکترونی ده پیت هوی زیادکردنی بنه ماکانی شه فافیه ت و ده ستپاکی له کار و پرۆسه داراییه کان؟
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a) Highly Adequate b) Adequate c) Inadequate d) Not at all	(ا) به راده په کی زور (ب) به راده په کی پښوېست (ج) نه وه کو پښوېست (د) نيه
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13.

In your point of view, do you think e-government can reduce individual's ability to use their position in public office to achieve personal interests in the government?	له روانگه ی ټیوه وه، پټواپه حکومتی ټلیکټرونی کاریگری ده پټ له سهر که مکړنده وهی به کاره پټانی پله و پوټ بو مه بهستی به رزه وهندی که سی له که رتی گشتی دا
a) Highly Adequate b) Adequate c) Inadequate d) Not at all	(ا) به راده په کی زور (ب) به راده په کی پښوېست (ج) نه وه کو پښوېست (د) نيه

Section (F): OPEN QUESTIONS FOR POLICY RECOMMENDATIONS

به شی (F): پرسپاری کراوه بو وه رگرتنی را و پټشنیار

14.

In your perspective, what is your recommendation for the role of e-government in enabling administrative reform?	له روانگه ی ټیوه وه، راسپارده کانت بو رولی حکومتی ټلیکټرونی له کارا کردنی چاکسازیی کارگری دا چیه؟
1. _____	۱. _____
2. _____	۲. _____
3. _____	۳. _____
4. _____	۴. _____

15.

According to your knowledge, do you have any recommendations for the implementation of the e-government in eliminating corruption, better service delivery, and increasing transparency?	به پټی زانیاریه کانت، هیچ راسپارده په کت هه په بو چیه چیکردنی حکومتی ټلیکټرونی له نه هیشتنی گنده لی و باستر گه یاندنی خزمه تگوزاری و زیاد کردنی شه فافیه ت؟
1. _____	۱. _____
2. _____	۲. _____
3. _____	۳. _____
4. _____	۴. _____