

**REPUBLIC OF TURKEY
ISTANBUL GELISIM UNIVERSITY
INSTITUTE OF GRADUATE STUDIES**

Department of Business Administration

**THE ROLE AND IMPACT OF E-GOVERNANCE IN
ENHANCING HUMAN RESOURCES MANAGEMENT:
STUDY CASE OF BABYLON UNIVERSITY**

Master Thesis

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Supervisor

Prof. Dr. Anton Abdulbasah KAMIL

Istanbul – 2022

Dedications

My beloved father

O my heart and the pulse of letters when hope touches them, who supported me in all circumstances, I was and still is the greatest father, may Allah protect you and take care of you. oh you who taught me patience and persistence, my first teacher, and I still am, how much I love you, my father. My beloved mother, I give you anything on this day. I dedicate to you my success, my angel, and everything. My mother, my success is under your feet, my dear mother. You are the most precious thing I have. With your prayers, we live in safety and stability. May Allah protect you and take care of you. My good brothers and sisters, Samer, Salam, Alaa writing is not enough to describe how I love you and life is short to write your love. I see you with my smile and I see the beauty of the days are my brothers. My dear wife, the companion of the path who supported me in everything, you were and still are strong and carry with me the sufferings of distance and travel. Thank you, Dr. Nora Abbas. Close friends dear brother Saad Mohamed and Mazin Imad.

To the respected supervisor Prof. Dr. Anton Abdulbasah Kamil, thank you for the constant support throughout the study period. I hope that you will be in the highest ranks. To the respected members of the jury, thank you.

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DECLARATION

I hereby declare that in the preparation of this thesis / project, scientific ethical rules have been followed, the works of other persons have been referenced in accordance with the scientific norms if used, there is no falsification in the used data, any part of the thesis /project has not been submitted to this university or any other university as another thesis/project.

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ÖZET

Elektronik yönetişimin insan kaynakları yönetimi üzerindeki etkisinin bilinmesi amaçlanmış, çalışmanın teorik ve uygulamalı bir boyutunun olduğu çalışmada betimsel yaklaşım esas alınmıştır. Araştırma problemi süreyi kısaltmak, hata oranını azaltmak ve idari yolsuzluğu azaltmakla ilgiliydi. Araştırma sorusu, elektronik yönetişimin insan kaynakları üzerinde bir etkisi olup olmadığıydı. Bu nedenle, çalışma, yaklaşık 200 katılımcı ile çalışma örneği olarak Babil Üniversitesi'ni seçti. Çalışma, verileri toplamak ve analiz etmek için bağımsız değişken (elektronik yönetişim) ve bağımlı değişken (insan kaynakları yönetimi) ile ilgili soruları içeren bir anket yaptı. Anketten veriler toplandıktan sonra SPSS programı ile basit doğrusal regresyon analizi kullanılarak analiz edilmiştir. Korelasyon analizinden elde edilen sonuçlar, eğitim ile E-yönetişimin (İletişim) benimsenmesi arasında pozitif ve istatistiksel olarak anlamlı bir korelasyon olduğunu ve burada ($r=,248^{**}$) ve eğitim ile eğitimin benimsenmesi arasında pozitif ve istatistiksel olarak anlamlı bir korelasyon olduğunu göstermiştir. E-yönetişim (hizmet sunumu) burada ($r=,269^{**}$).

Bu nedenle, Yüksek Öğrenim ve Bilimsel Araştırma Bakanlığı'nın mali kaynak yetersizliği nedeniyle Babylon Üniversitesi'nde e-yönetişim uygulamasını onaylamaması durumunda en önemlileri arasında yer alan bazı önerilerde bulunulmuştur. Babil Üniversitesi tarafından bu çalışmanın uygulanmasını tavsiye eder.

Anahtar Kelimeler: e-yönetişim, işe alım, insan kaynakları yönetimi, hizmet sunumu

SUMMARY

The study used a descriptive approach to learn about the impact of electronic governance on human resource management, and it included both a theoretical and an applied aspect. The research problem was about shortening time, reducing error rates, and reducing administrative corruption. The research question was, "Is there an impact of electronic governance on human resources or not?" Therefore, the study chose the University of Babylon as the study sample, with about 200 respondents. To collect and analyse the data, the study made a questionnaire that included questions about the independent variable (electronic governance) and questions about the dependent variable (human resource management). After collecting the data from the questionnaire, it was analyzed using simple linear regression analysis by the SPSS program. The results from the correlation analysis showed that there is a positive and statistically significant correlation between training and adoption of E-governance (communication) where $r = ,248^{**}$ and there is a positive and statistically significant correlation between training and adoption of E-governance (service delivery) where $r = ,269^{**}$.

Therefore, some recommendations were given, which were among the most important. In the event that the Ministry of Higher Education and Scientific Research does not approve of the application of e-governance at the University of Babylon due to a lack of financial allocation, the researcher recommends the implementation of this work by the University of Babylon.

Keywords: e-governance, recruitment, human resource management, service delivery

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CHAPTER ONE

INTRODUCTION

Iraq is known to be one of the countries where the use of information and communication technologies (ICT) is low. The current obstacle to the successful implementation of e-governance in Iraq is related to the weak ICT infrastructure. For this, the country must use an electronic system that would be mainly accessible to government agencies. The Iraqi government is in a special position to develop an e-governance project in an environment open to innovative ideas; these ideas will be catalysts for a positive and good future. (Sharief, 2007).

E-governance (e-governance) is a powerful tool for human development that is required to meet internationally accepted development goals, such as the Millennium Development Goals of the United Nations (2010). The public sector was confronted with a new set of expectations at the start of the 1990s; society had been transformed by the impact of new, evolving technology (Jeorg & Niehaves, 2006). Citizens are becoming more internet-aware and receiving strong e-services from the commercial and public sectors, and they are growing to expect the same high standards from government institutions as the globe becomes a small village (Weerakkody & El-Haddadeh, 2010). Governments have viewed e-governance as a lever to change outdated bureaucracies, bring about improvements in the efficiency and effectiveness of public services, enhance service to citizens, businesses, and government institutions, and promote participation and democracy, as they have realized the importance of making their services more efficient and available over the last ten years. E-governance has been regarded as a lever to transform outmoded bureaucracy, increase public service efficiency and effectiveness, improve service to residents, companies, and government institutions, and encourage participation and democracy (Rowley, 2011). (Heeks, 2006). E-governance is the use of information technology in the public sector to reach individuals in a timely and effective manner.

An e-governance strategy will have the best chance of success if the process moves forward with high-level support and sponsorship. The public sector provides integrated services and promotes community participation. However, there are several issues that exist in the development and implementation process. Generally, in this study, we

intend to identify the different problems that e-governance applications may face and assess their implications, especially for privacy. After attempts at governmental improvisation that accompanied this difficult process, the Iraqi government is more or less ready to enter the next phase of its democratic development. This implies increased government responsibility along the way. To achieve this, the range of services offered by the state had to become a huge bureaucratic giant. In today's world, the role of ICT is essential to the success of any public education program. In several jurisdictions, this catalogue of infrastructures has given rise to good governance, collectively called e-government. Thus, this study seeks to examine the real and perceived implications of this era for the experimental and improvised governance of Iraq and how this fits into its general development aspirations. However, the mere existence of these technologies does not guarantee their effective implementation and use, and much remains to be done if Iraq is to use the power of ICTs in a way that is efficient and meets its specific needs. and its range of governance. The new needs arising from industrialization and technological changes have made it compulsory for enterprises to renew themselves, to adopt new working and production techniques, and to apply modern business and personnel principles. As a result of technological and scientific developments and advances, the work that has undergone significant changes in terms of form, quality, and quantity has caused the emergence of new jobs and working areas and the need for different qualified personnel in these fields. In addition, enterprises have made great efforts to adapt their personnel to changing environmental conditions. Therefore, contemporary management and contemporary management concepts have gained great importance. Depending on the humanitarian relations trend, the tendency to consider and apply social and industrial psychology institutions has gradually increased. As a result, human resources management has been perceived as a comprehensive managerial activity area that gives importance to dynamic and creative aspects rather than mechanical and routine aspects, and shapes and shapes the lives of people in all segments of society. (Canman, 2000).

1.1. The scope of the research

The University of Babylon is one of the largest Iraqi public universities, located in the central province of Babylon on the banks of the Euphrates River. It consists of 21 colleges spread over three main complexes, located in the city of Babylon. Founded in 1991, and won for the fifth time in a row, as well as the first time in Iraq.16 Arab and international universities have been accredited for the year 2020, and they receive every year a large number of students who are distributed in various disciplines, faculties, and different departments. They use effort and time to conduct student transactions. In addition to technology and the Internet, the study used applied studies to link the rules of e-governance in the transition from paper to electronic, as well as reducing time and effort and accelerating procedures that take longer time in traditional administration.

1.2. Review of Literature

Massad (2014), The study aimed to identify the role of human resources management in enhancing the sustainability of business organizations in construction organizations in Jordan. As for the investigation of this study, the researcher designed a questionnaire that consisted of 55 items that included elements. The independent variable, human resource management activities (resource planning, such as supply and recruitment, such as training and development, as management. compensation, such as managing employee relations, safety, such as occupational health, talent management (as elements of the dependent variable, the economic sustainability of building materials organizations in spanning), earnings per share, as the exploitation of opportunities such as reducing risks, such as innovation, introducing new products to the market, as a guarantee of achieving the goal). There is a statistically significant relationship between human resource management activities and the return on shares.

Also, there is a statistically significant relationship between human resources management activities and risk reduction in business organizations.

Saleh & Basir (2017), Social audit is one of the modern topics of great importance as a matter of great effectiveness in improving the performance of organizations in light of intense discussion and the introduction of the concept of human resource management as a main source of competitive advantage for these organizations. So social auditing was a necessity to understand and measure the level of performance as a successful mechanism for similarity and transparency in the design of services and social development. Its aim is to effectively reach human resource governments.

Social auditing is a tool for dividing organizations in terms of representing social goals, as well as being a tool for social, economic, and environmental accountability. The extent of commitment to common values and goals and the adoption of the views of stakeholders

The aim of the study is to present a theoretical and field study for managers in the faculty research on social auditing and human resources management. Identify and analyze the relationships of correlation, influence, and disparity between social audit and human resources audit and show these relationships within the college.

The methods of collecting information and data are of two types. The first is the use of a lot of foreign and Arab sources and the Internet, which are linked to the topic of the research from the theoretical point of view. As for the others, the questionnaire is used as the only tool to obtain relevant data and information. There is a significant correlation between social auditing and the government of human resources, as well as a relationship that has significant significance after comparison and the dimensions of human resources government in the college. There is a significant correlation between complementarity, credibility, transparency, and the dimensions of human resources government. Also, there is a link to social auditing in the government of human resources in the aforementioned place. Benchmarking in government, human resources, transparency, complementarity, and credibility are all examples. The results of describing the diagnosis of individuals in the college resulted in a high degree of responsiveness and harmony to the variables of government and human resources.

Analysis of the correlation relationship between the two variables of the research and the existence of a positive significant relationship between auditing and human resources management

Al-Side and Abbas, 2019. Contemporary organizations, especially university ones, as it has become possible to provide most of the university services through IT tools represented by computers, the Internet, and other means of communication. The research dealt with two basic variables, namely information technology and university performance, as these are among the variables that can have a significant impact in improving the effectiveness of university performance, which increases the necessity for the university institution to provide the best scientific and educational services, thus attracting the largest possible number of students. Among the most important conclusions reached by the research is that the research problem crystallizes in determining the needs of the Iraqi University of Babylon in the field of information technology, in order to learn about the strengths and enhance them, and to reduce or eliminate weaknesses. The basic criteria for evaluating the quality of university performance focus on the general mission and objectives, program structure and content, and educational environment. Among the most prominent recommendations is to link the university with society by opening the various disciplines that feed the needs of society, and for the university to begin drawing a road map for entering the knowledge economy by holding a global forum to study international directives.

1.3. The research issue

In the current unstable environmental conditions of variable nature that surround the organizations of contemporary society, including universities, the matter needs to be addressed by the departments of research and development through creativity and more effectiveness, accuracy, and speed in order to provide new opportunities for adaptation to provide the best scientific services in educational institutions in Iraq.

As mentioned to us, Babylon University and all other Iraqi universities are facing changing circumstances.

Processions for the changing environment, including the political, economic, social, and technological transformation that our dear country is going through at the current stage. Since the university research on the use of electronic governance in various scientific and administrative fields, it is therefore important that the university administration play an important and prominent role in this field, in order to understand

the environmental variables and how to respond to them, to meet the needs and objectives of the beneficiaries' expectations of services.

1.4. The study's research questions

1-What is the importance of e-governance in strengthening human resources management by controlling the human and financial resources in the researched university?

2-Are there specific applications for managing e-governance that allow the researched university access to the information resources we need?

3-Is there a difference in the method of managing e-governance related to how human and material resources are used in the scientific, administrative, and educational fields of the researched university?

1.5. The research hypothesis

H0: There is no effect of (communication, problem solving, and service delivery) on the dependent variable human resource management dimensions (recruitment and performance).

Ha: there is an effect of variable electronic governance (communication and service delivery) on the dependent variable human resource management dimension (training).

1.6. Reasons for choosing the subject

E-governance is one of the important and modern ideas in its applications that are used by universities, educational institutions, companies, or e-government. Babylon State University in Iraq was chosen to design communication networks and the Internet and to use advanced technology to connect educational institutions with each other via the Internet. The great impact of using e-governance applications and rules is that they

lead to work with accuracy, speed, efficiency, and university performance, in addition to linking departments, reducing students' burden and time, completing student transactions, and reducing risks. It's better everywhere, anytime.

1.7. Objectives of research

The purpose of this research is to learn about the importance and impact of e-governance in improving human resource management by investigating the reality of e-governance at the university in question. well as by reviewing the obstacles facing the university administration, which are discussed in the field of e-governance. and to identify the impact of e-government applications in enhancing human resources. as well as identifying the methods adopted by university research in the field of developing capabilities and capabilities related to e-governance. Introducing the management of the research university to the training needs in the field of e-governance. Also, the research problem in front of the stakeholders in the researched university is the main reason for informing them about the work strengths, developing them, and reducing or eliminating weaknesses. thus obtaining positive results in increasing the efficiency of its institutions.

1.8. Importance of research

In light of the changes in the internal and external environment, we live in an era full of advanced information and modern technology. This tremendous development has provided many opportunities for investment and many measures, including restructuring the work of scientific institutions in order to integrate and develop them, which gives an impetus towards improving the performance of these scientific institutions. The higher education and scientific research sector is one of the most important scientific and educational sectors as it deals with groups of individuals and organizations. The research dealt with two main variables, namely, e-governance and human resource management, among the variables that can have a significant impact on enhancing human resource management. Therefore, this study gives the subject of research the tools to be invested in on the ground through government support and

make the necessary developments and improvements to raise efficiency and performance, in particular in the field of e-governance, in strengthening human resource management, and thus lead to an increase in providing the best scientific and educational services, which increases access to the largest possible number of students. and contribute to the development of solutions to the obstacles facing the management of e-governance in promoting e-governance.

1.9. Research concepts and definitions

In this section, the purpose and importance of the research, the research scope, the research problem, the research questions, the research hypothesis, reasons for choosing the subject, Research objectives, research importance, Methodology and approaches for research, research plan, research time and space periodThe research will be carried out in two parts: theoretical and practical. First, the theoretical infrastructure of the research will be attempted to be formed using secondary data; second, a field study (application) will be conducted using a later developed questionnaire. The application will be submitted at the University of Babylon and distributed to three complexes in the city of Babylon.

1.10. Research methodology and approaches

A quantitative research method will be used as a method in the research. Quantitative research is a type of research that presents facts and events in an observable, measurable, and numerically expressible way. The questionnaire will be used as a data collection method. A questionnaire is a data collection tool developed to answer questions about the topic to be researched and is a systematic method for collecting data and analysing the topic by making it possible only using this method. The primary data is collected by the researcher using various tools to obtain the original data that he needs for his work. There are four different methods of collecting data, and a survey is one of them. Through research on the use of the role and impact of e-governance in enhancing human resources (an applied study at the University of Babylon), a model for application in Iraqi universities was developed.

1.11 Methods for gathering research data

The researcher used several different sources in collecting data and information, including:

- A personal interview
- A Questionnaire form
- Access to reports, articles, and theses related to research.
- Seen inside the University of Babylon gathering some information.

1.12 Time and space of research

- Spatial boundaries: The University of Babylon was chosen as a research sample that represents Iraqi universities.
- Time limits: The period of data collection and analysis was between

1.13. Research strategy

The writing phase of the thesis takes around a year. All domestic and foreign sources are used in the writing phase. These include thesis, article, journal, blog, websites, and seminars, among others. No support or assistance will be obtained from any source throughout the thesis study.

CHAPTER TWO

THEORETICAL FRAMEWORK

Introduction

As a foundation for the chapter, which will teach us about e-government and its impact on human resource management, this chapter evaluates prior studies that dealt with themes connected to this study and the factors that the chapter will cover in e-government. In providing government services, exchanging information and communications, and integrating systems and services related to the changing and developing environment in the modern era associated with information technology, e-governance relies on information technology, and the most important characteristic of governance is the future of many countries. In both the public and private sectors, human resources play an important role. Human resources, on the other hand, are regarded as one of the most essential resources that contribute to the advancement of society. It is the management of an organization's workforce or human resources. Attracting personnel, choosing, training, evaluating, and rewarding staff, as well as monitoring the organization's leadership and organizational culture, and ensuring compliance with labor regulations are all part of the job. When employees agree to engage in collective bargaining, the HRM department will be the first point of contact for employee representatives.

2.1.1 The concept of electronic governance

Khaleq (2015), In many industrialized countries, the term "electronic governance" first arose in Malaysia, Japan, and Korea in 1997. If it hadn't been for the establishment of rules for electronic governance and controlling relationships within companies, which led to the development of capital that was adopted in the shift to private companies, which caused the diversification of businesses and the size of companies, most of the giant companies would have caused a major financial crisis.

AL-Sadi (2015), The use of modern information and communication technology by institutions has become increasingly important in light of the presence of a changing environment in harmony with rapid change and development in all government institutions that provide services to citizens as the most important segment, which leads to the vision of the government's home by developing its institutions and exploiting available opportunities.

On the other hand, there is no single definition of the term e-governance, which has been described by the International Finance Corporation (IFC) as follows: it is a system that is controlled and managed by management businesses or organizations.

It's mentioned in general (Khaleq, 2015); it refers to the existence of processes that regulate the relationships between the company's principal owners (members of the board of directors, the executive management, the shareholders, and the stakeholders). with the goal of promoting openness and justice, decreasing administrative corruption, allowing corporate management the right of accountability, safeguarding shareholders, and ensuring that the corporation works toward its long-term goals and strategy.

According to the study, organizations that use communications and information technology, such as the Internet and computers, can change citizen-government interaction. to provide better services and increase employee performance and impact, as well as to reduce administrative corruption, speed, accuracy, transparency, and time and cost inside institutions, enterprises, and organizations.

2.1.2 Electronic governance definition

Government e-governance is the use of information technology and information exchange, communication transactions, government service provision, government to business, the integration of various autonomous systems between citizens and government, government to employees, government to government, and back office operations and interactions within the entire government framework. (D.J. Garson, 2006). Government, citizens, and industry groups are the three main target groups that can be distinguished in governance concepts. There are no clear limits, support, or funding in e-government. Government responsibility for an effective e-governance development mechanism has become an important aspect of public administration.

One of the primary issues that the responsible public faces today is how to make e-governance accessible while also being participatory and accountable.

2.1.3 Characteristics of e-governance

The following are the most important characteristics:

- A compilation of all media activities and services on the government's official website,
- Improving the speed with which all government departments work together
- Constant communication with the general public Residents have a sense of security about their government because it meets all of their demands and requirements, increasing citizens' trust in it.
- The capacity to secure all of the citizens' information and service demands
- eliminating the use of paper in government transactions and replacing it with electronic transactions.
- The ability to deal with citizens with a degree of flexibility.

According to the report, there are a lot of flaws and issues with the government's implementation of e-governance, and we've listed them below:

- Unemployment as a result of the traditional practice of terminating positions and replacing technical skills is a danger to the work structure and administrative structure of institutions and businesses.
- Electronic communication security in the absence of comprehensive security procedures in the context of Arab institutions, whether public or private, at the expense of individual privacy and liberties.
- Legal issues that could occur in the context of financial transactions

- Documentation issues, as most countries suffer from a lack of an adequate documentation system that keeps all government work documents in the right place at the right time.

2.1.4. E-governance and e-government comparison

We hear a lot about which terms (e-governance and e-government) and possibly the overlap of these terms in terms of form and content, caused a lot of issues in the House of Commons, as well as among some researchers and professionals, about what e-government means. What is the definition of e-governance?

Many believe e-government and e-governance are related to governments providing services via the Internet, but the fact is that they use information and communication technology as a tool to develop good governance in all countries. There is always a belief that when we talk about the two terms, there is no difference between them.

Saugata (2007) E-governance is the use of information technology, data exchange, and communication transactions to deliver government services, as well as the integration of various autonomous systems between the government and citizens (G2C), the government-to-government (G2G), the government-to-business (G2B), and the government-to-employee (G2E), as well as back office operations and interactions within the entire government. The use of communication technology and information to offer government services, disseminate information, and communicate with people is referred to as e-governance (which is based on e-governance). The provision of government services to citizens is made possible by e-governance citizens in a way that is both convenient and effective.

The main distinction between e-government and e-governance is as follows:

1-By using e-government communications and information technology in government operations as a tool for improving government performance. E-governance, on the other hand, is the use of information and communication technology to support and modify the system's operations and structures.

2-E-governance is a function, whereas e-government is a system.

3-E-government is a protocol unit that directs communication. E-governance, on the other hand, is a two-way communication mechanism.

2.1.5. The characteristics of the quality of information

Through the study, it found the characteristics of information quality in three main dimensions (Al-Najjar & Al-Hour, 2007).

The first is the time dimension, which refers to the period in which the information is employed at the present time and is related to the amount and frequency of the information we receive.

- **Timeliness:** Making sure that information is provided in a timely way so that decisions may be made before opportunities are missed or a critical scenario arises. Information can be valuable in the moment but lose its utility over a short period of time.
- **Currently,** to exploit information, innovation plays a vital role in the quality of information, and the provision of information diminishes the value of information.
- **Repetition** refers to the user's repeated demand for available information and the ability to offer it in the form he requires.
- **Time period:** It refers to the recurrence of the need for available information, as well as its provision every time the user requires it in a manner that emphasizes the information's value.

Second, the content dimension Describe the field and content of the information as well as the answer to (what questions):

- **Accuracy:** The information is clear and error-free, ensuring the quality of the decision, avoiding incorrect decisions, and saving time and money. The precision of the selection and the information necessary is determined by the necessity for it and the nature of the problem to be solved, as well as the expected return on investment.

- **Validity and dependability:** The information gathered must be accurate, truthful, consistent, and explicit in relation to the data asked.
- **Actuality:** It symbolizes the truth of the information and is relevant to the user's demand, ensuring the correctness of the decision without deviation or falsification in order to arrive at accurate decisions that are related to the problem.
- **Relevancy** Developing a system to deal with the topic problem necessitates the display and presentation of document material that is relevant to the suitable topic.
- **Completeness** The ability of information to provide complete details about a problem or the facts of a particular phenomenon or the study's subject while also suggesting alternate solutions to the problem
- It is to offer the user the required information in proportion to his wants and requirements, as it is necessary to be succinct without getting into too much detail.
- The extent of the information is decided by its comprehensiveness through the scope, thus it should reflect the required extent with a low demand for it.

third shape dimension

It has to do with how information is displayed and whether or not it is available to people who wish to use it. It has to do with answering questions (how). It has to do with the following aspects:

- Presenting information in a clear and unambiguous manner that is easy to understand.
- presenting information in a unique and consistent manner within the required criteria with the goal of maximizing and benefiting from it.
- **Flexibility:** the ability of information to adapt to different users and applications; thus, data must be provided in a flexible manner so that beneficiaries can use it effectively.

- **Presentation:** organizing and presenting information in a clear and understandable manner, as well as improving and processing it to make it more valuable.
- **Specifications:** The information should be as specific as possible.
- **Media:** The means through which information can be conveyed. Therefore, it is vital to select the appropriate instrument to better present the information.

2.1.6 The significance of e-governance

We must discuss government as the largest institution in society, especially now that most governments have begun to move to cyberspace (the medium in which computer networks are located and through which electronic communication is carried out) via the Internet and provide their services using various advanced and modern technologies. Given the variety of e-services provided by the government, e-government is considered a fertile ground for consolidating the principles of e-governance. On the one hand, because of the diversity and dispersion of government departments that provide these services, e-government is considered a fertile ground for this.

Many e-government experiences have been marred by failed experiments that were, in most cases, extremely costly, and there was no one to hold accountable because there were essentially no measures of success and failure, and even if they did exist, most of those governments overlooked the importance of having one integrated vision of the government electronic body so that all ministries and public administrations adhere to its standards. Furthermore, the technical change to e-government was not accompanied by a corresponding administrative and organizational shift. As a result, governance in e-government is critical since it addresses new challenges that technology has caused that have previously gone unaddressed, such as:

- There is a structure and legislation in place that govern the design and launch of electronic services.

- The departments and ministries' commitment to the general guidelines provided by the authority in charge of e-government management.
- Standards and guidelines that government agencies must follow if they decide to establish electronic government systems.
- The service's quality and how to assess the extent to which the target audience uses it
- Roles and duties of organizations in the context of initiating e-government programs

As a result, the haphazard distribution of government electronic services may result in increased administrative weariness in the government rather than enhance its sheen of efficiency and openness. To solve this problem, e-government can be used as an effective tool to ensure that targeted e-government services revolve around the orbit of integration and homogeneity, allowing the government to perform better than it already does.

2.1.7. Iraqi E-Government

Al-Jubouri (2014), The rule of globalization and the continuation of the information revolution, which is one of the factors contributing to the spread of globalization faster than if things were normal, where she assisted the information revolution in the convergence of the world between countries on the one hand and individuals on the other hand, in various areas of life, whether economic, political, social, cultural, or other, as long as the path of globalization vector is maintained, and that e-governance is one of the factors contributing to the globalization of the national economy.

Most developed countries, including Arab and other developing countries, have implemented e-governance as a result of the information revolution, which has contributed to the spread of globalization, and most developed countries, including Arab and other developing countries, have implemented e-governance in order to keep up with what the developed, developing, and Arab countries have achieved, which certainly benefits those countries, particularly the developed ones. The use of e-government has numerous advantages because if you did not find a profit in it, you

would have abandoned it, and the rest of the world would have done the same. "There is a positive global trend towards higher levels of e-government development, as all regions are increasingly embracing innovation and benefiting from new information and communication technologies," he stated in the United Nations survey on e-government for the year 2016, entitled "E-government to support sustainable development."

As a direct consequence, it holds a significant place in life, and countries that have not adopted or implemented e-government, as well as those that have in a formal but ineffective manner, such as Iraq, must first learn what e-government is and then realize the magnitude of its importance when applying it, in order to generate a feeling for it. The critical importance of putting it into practice and reaping the benefits, as well as the development of measures to monitor and handle any negative consequences that may arise, External environmental influences, such as the globalization of the world, nevertheless, trade unions, state legal requirements, new management approaches, and technological advancements should all be considered. Technology has begun to play an increasingly essential role in staff recruitment and selection. Among the most important uses include computer-adaptable examinations; constructing technology-based evaluations; computer-applied multivariate feedback; designing behavioral descriptive interviews for the internet; and using technology in recruiting and screening applicants. Interpersonal decision-making scales, situational decision-making inventory, and other tools have been implemented. Personality evaluations and measuring their validity are included in the development of tests and evaluations. In the development of tests and evaluations, personality evaluations and their validity are incorporated.

The United Nations defines e-governance as "the use of information and communication technology by government agencies, such as an external communications network, websites, and computer systems."

Human Resource Management:

Several studies have been conducted on human resource management, allowing us to determine the extent to which human resources have evolved and operated inside a

business in the presence of electronic management. Because of their relative importance to other resources and their effective involvement in all administrative, production, financial, and other operations, human resources are given a lot of attention in our world today. Rapid advancements in the fields of industry, technology, and services result in significant changes in the organizational structure of an organization and, as a result, in its human resource requirements. The human resources function is now conducted electronically and in electronic media as a result of the increased use of computers, the Internet, and the intranet in enterprises. As a result, the phrase electronic human resource management, which can be stated in personnel management, human resource management, and strategic human resource management, has been introduced to the evolution of human resource management. The theoretical dimension of electronic human resource management, as well as the functions that make up this notion, are discussed in this study.

2.2.1. The Definition of the Concept of HRM

Al-Wataifi (2015) Human resource management refers to the management of personnel in institutions and organizations, and the human resources department specializes in doing so using various methods and tactics that aim to improve employee performance, address work difficulties, and fulfill the organization's goals. Human resources are actions and events that are designed to motivate employees to achieve the highest degree of productivity while also increasing the efficiency and effectiveness of production skills and personnel. It is based on organizing, planning, guiding, collecting, and highlighting work between the firm and its employees in order to meet the organization's goals by improving and emphasizing productivity while maintaining the market share of the company. The management of human resources is the most significant aspect of the human resources planning process since it is largely responsible for putting the appropriate people in the right places at the right time to fulfill the company's goals of expanding its share of the market and other objectives.

- French: the process of identifying, utilizing, developing, and rewarding the human resources of a business.

- Nicholas: It is the facility's usage of its workers, which includes recruitment, performance appraisal, development, remuneration, salaries, employee social and health services, and employee research.
- Gliwice: This is the position in an organization that is responsible for delivering essential human resources, including planning personnel requirements, locating, operating, and dispensing with them.
- French: the process of identifying, utilizing, developing, and rewarding the human resources of a business.
- Nicholas: It is the facility's usage of its workers, which includes recruitment, performance appraisal, development, remuneration, salaries, employee social and health services, and employee research.
- Gliwice: This is the position in an organization that is responsible for delivering essential human resources, including planning personnel requirements, locating, operating, and dispensing with them.

2.2.2. Benefits and indicators of human resources

HR departments are generating more data than ever before, but they are also working hard to turn that data into useful information that can be built upon. The most essential indicators that managers can use to better understand the employee side of the organization have been identified based on a series of studies and research in organizations throughout the world. The following is a list of the most significant pointers to be aware of. (Al-Kargati, 2021).

- The required competency indicator: the amount of experience, expertise, and competence of your organization's team is critical to its success. The Required Talents Index is the result of a procedure that identifies the fundamental competencies you'll need at work. Once you know what these skills are, you can compare them to the qualifications that are currently available in your team to find any qualification gaps. Competence includes a wide range of talents and

abilities, such as the capacity to build and maintain relationships, the ability to utilize a certain device, computer typing abilities, and technical skills in dealing with problems and devising acceptable solutions. These are all examples of technical skills.

- Indicators of skill acquisition: finding and hiring talent is frequently a crucial aspect of business growth. The skills acquisition index is a method for determining how successful your company is in acquiring the necessary skills. This method starts with learning about important talents that your company needs today and will need in the future. The present levels of these skills are then analyzed, and any gaps are identified. Then you can track how well your company or organization is developing these talents over time, both in terms of developing existing employees and employing new applicants with these skills.
- Employee stability indicators: Culture is difficult to describe and quantify, and even more difficult to change or adjust to. It frequently comprises a set of rules, regulations, and behavioral patterns that your company exemplifies. So the enterprise culture indicator is the process of learning more about your organization's or organization's culture, as well as the numerous different cultures inside it, because this allows you to track changes in the culture, whether you want to modify or understand them, or establish early warning systems to detect emerging cultures, with the goal of ensuring that no one is hired whose culture clashes with the organization's culture. There are a variety of tools available to help you understand and appreciate the organization's culture.
- Staff stability indicators: Recruiting, training, and integrating people into the organization's job takes time and money. An employee stability index is a method of assessing your company's staff turnover rates in order to forecast the future and reduce turnover. Traditional performance measures such as the employee happiness index, level of employee engagement, and the degree to which employees are near the general average can be used to identify and

determine employee stability. Surveys and interviews can also be used to find and determine this. Also, keep in mind that occasional employment turnover may be beneficial. However, it is critical to achieve a healthy amount of it.

- Employment Channels Indicators: In most businesses, employees represent the biggest expense and potential. The Recruitment Channels Index is a method of determining which sources of high-skilled, speed, accuracy, work, and, most importantly, your ideal personnel to focus on, as well as which sources are the most expensive and least helpful to avoid. because it indicates that you are more effective at attracting qualified candidates for the job.
- Leadership indicators: Ineffective leadership in corporate management and operations costs a lot of money and prevents the attainment of outcomes and objectives. The leadership index is the consequence of various dimensions in the overall performance indicators, which are exposed through data that reveals good and bad behaviors. Questionnaires, surveys, interviews, and other methods can be used to gather the necessary information about leadership performance. When using the questionnaire approach, it is recommended to keep the data source anonymous so that employees can provide more relevant information while in the presence of their bosses to submit them.

The advantages: the study concluded that the advantages of human resources among themselves in the presence of technology have become an important factor in our lives today, based on several studies.

- Human Resources deals with the impact of changing events on each organization's varied activities and products.
- enabling human resources to improve their ability to coordinate between companies and demands by utilizing current communication networks and connecting computers to one another via crucial channels of communication.
- The organization's response enables it to adapt to new technological advancements and link them to e-governance.

- One of the advantages of electronic human resource management is that it can help firms shrink in size and reduce the number of administrative levels. Instead of traditional management, network organizational structures are suggested.
- use in situations where the demand for electronic management and design work performance is increasing due to technological advancements.
- Providing correct and timely information to the decision-maker improves decisions.
- transitioning from paper-based to electronic-based management.

The definition of a human resources indicator is a set of specific and measurable criteria that can be used to assess an organization's performance in various domains and areas of expertise. (Al-Abadi & Al-Taie, 2014).

- assist in the attainment of the defined objectives.
- It assists with innovation and renewal.
- It aims to persuade officials in practical institutions to carry out strategic plans and goals.

2.2.3. Technical requirements and electronic management elements

E-governance is a creature that comprises a technical component of four interrelated elements. (Yassin, 2005):

These elements, the fertile mixture of those factors:

- The network of communication
- employees with specialized knowledge.

The following are the basic elements of electronic management:

1. Computer hardware refers to computers, servers, and their peripherals. Given the growing number of users of devices in institutions and businesses, it is preferable for the organization to seek out the most recent findings from hardware manufacturers around the world in order to achieve two main benefits:
2. The cost of continuing development and maintenance is reduced.
3. Hardware compatibility for software development and software for information systems.

On the other hand, in terms of types and the best of them, this effort is mainly due to the extent to which the organization needs the applications used in it. Of course, the devices are accompanied by a lot of basic equipment, such as printers, cameras, audio devices, scanners, information viewers, storage media, etc.

1. Software Every electronic management organization requires a collection of software systems that can deliver an old or incomplete organization to the organization or institution. Assume that the organization lacks a programming system for its many tasks, including programming and complementing systems such as inventory, financial, and pay.

The organization, according to the researcher, requires many options:

- Improvements to the current system
- begin developing a new software system with input from the organization's personnel.

Often, an organization is either ready to purchase a complete system of comprehensive organizational systems in order to contain the switch to electronic management, or program that system if knowledge-makers are available, as do universities under study, where available staff have knowledge in technology centers developing information processing and integrated computer systems in order to switch to e-governance.

1. It is one of the most significant basic models in the electronic management base if we are unable to achieve the outcomes and strategic goals that we require without it. Telecommunications networks today are a symbol of modern science's rapid technical advancement. On the other hand, it is

electronic media that serves to communicate information over long distances between different devices and locations; that is, it sends data between two or more stations; that is, it is electronic media that serves to communicate information over long distances between different devices and locations; that is, it is electronic media that serves to communicate information over long distances between different devices and locations; that is, it is electronic media that serves to communicate information over long distances between different devices and locations; that is, it is electronic media that serves to

2.2.4. Difficulties facing human resources

Human resource management is critical in institutions, organizations, and businesses since it is responsible for managing employee performance, development, and training, resulting in increased productivity and profitability. Because the ultimate goal of a company is to grow and profit, business owners must be aware of the problems and developments that face human resource management in order to keep the firm growing.

Human resources face a number of challenges (Arabia, 2018):

- Legal and regulatory compliance: Many business owners struggle to keep up with constantly changing labor rules, and the majority of them ignore them even when the laws do not apply to their businesses. This may result in the company being sued, resulting in its loss or closure. As a result, it is critical to follow all applicable regulations, including those governing employment, security, and payment, as well as those governing the workplace.
- Management changes: As a company grows, its structure, strategy, and internal processes change as well. Yet, some employees find these changes difficult to deal with.
- Employee training: Some businesses struggle to provide financial resources for their staff to train and develop their abilities. The company's most significant employees also put in a lot of effort and may not have time to attend training

sessions. Hiring managers who can lead personnel and provide online training classes can help overcome this challenge.

- Adapting to new innovations: As technology advances, business owners face a significant difficulty in training personnel to acquire new technologies and adapt to new developments. If companies do not accomplish this, they will vanish from the market, allowing competitors that are able to constantly evolve to take their place.
- Financial compensation: Many organizations or firms try to compete for talent by delivering the greatest remuneration schemes to employees, but they find it difficult to put this in place when they also have to pay for training and taxes. Although pay is significant, it is not the most important element for job prospects, and the employee can be rewarded for the low pay by developing a reward system for outstanding performance.
- Recruitment of talent helps the company to save money and time dramatically, but some entrepreneurs find it difficult to maintain a balance between the appointment of suitable people and the management company. It is possible to use the recruitment company to do this to save time and money and avoid frustration due to the continuing lack of suitable people.
- Diversity: Because of the diversity of generations, cultural differences, and ethnicities in the workplace, it is critical to foster a culture of teamwork, cooperation, sharing of experiences, and respect in order to maintain a good and productive work environment.
- Private work: There is a growing trend of combining private and professional work, which poses a difficulty for human resources. As a result, the institution, organization, or firm must enact regulations to address quality and job performance issues.
- The urge to work remotely: Many businesses have found that working remotely helps them save money by allowing them to hire talent from all over the world and maintain productivity throughout the day. in the same location, but this can be overcome with the application of effective communication software. The

most difficult task in this regard is persuading businesses to provide workers with the flexibility they require.

2.2.5. Electronic management of modern and contemporary Iraq and its impact on human resources management

The human resources function is now conducted electronically and in electronic media as a result of the increased use of computers, the Internet, and the intranet in enterprises. As a result, the phrase electronic human resource management, which can be stated in personnel management, human resource management, and strategic human resource management, has been added to the development process of human resource management. The notion of electronic human resource management, as well as the functions that make it up, is examined in this paper, along with its theoretical dimension. (Abdel Fattah, Moroccan, & Azi, 2015).

Iraq is considered one of the countries with a poor rate of ICT adoption. Iraq's present challenges in developing a successful e-government initiative are due to a lack of ICT infrastructure. The state must employ an electronic system that can only be accessed by government agencies to do this. The Iraqi government is in a unique position to advance the e-government project in an atmosphere that welcomes new ideas and shapes the changing environment. These encouraging thoughts will serve as sparks for a bright and prosperous future. The extensive use of computers in business and quick advancements in internet technology have had an impact on human resource management, with electronic human resource management being the most recent stage achieved (E-HRM). E-HRM systems are now widely used to process and store human resource information in many enterprises. The phrase "E-HRM" was coined when the term "e-commerce" became popular. The prefix e-relates to the word "electronic" in this case. Electronic HR is a specialized application of "networks." As a result, instead of using the word "traditional" human resource management, it may be more appropriate to use the term "online human resource management." (Panayotopoulou L. V.-H.-2.)

The Stage of Contemporary Management: In light of current administrative thought in industrialized countries, there are general tendencies in the field of electronic human resource management, with the following being the most important of these trends:

- Globalization and Global Management: The entire globe is now moving toward so-called globalization, and the entire world has become a little village in order to witness the communications and information revolutions, as well as the transportation and global free trade revolutions.
1. treating employees as the most valuable asset of the company.
 2. Making decisions that need to be made as a group.
 3. With the dimension of government monitoring, creating commitment and self-discipline, the execution of oversight should be inherent in the control of the organization.
 4. Modern organizations are responsible for commitment, even outside of labor organizations, since they care about the worker as a human being.
 5. The overall focus is on the organization as a whole, followed by the individual workers.
- Put a premium on human resource management excellence:
 1. Organizations must focus on excellence if they want to continue to expand, and there are a set of characteristics that must separate organizations, institutions, or corporations that want to excel and exceed their competitors, the most essential of which are the attributes.
 2. The transition from the traditional stage of personnel affairs and personnel management to the electronic stage of human resources management
 3. Encourage staff to think outside the box and be proactive, rather than resisting change for the sake of the company.
 - Integration and engagement with the external world to search for possibilities and combat the risks and hazards it faces.

- Organizational productivity and quality management in conjunction with resource management:

The leading companies in the world today achieve high and distinct quality at reduced prices while optimizing the use of resources, so that high quality is no longer always connected with a high price and high expenses, because international corporations are now looking for the challenging equation. It improves quality while also lowering costs.



CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

Research may be very broadly defined as a systematic gathering of data and information and its analysis for the advancement of knowledge in any subject. The research attempts to find answers to intellectual and practical questions through the application of systematic methods (Slesinger, 1930). In this chapter, we will discuss the data collection methods, sample size, and analyses that will be performed, as well as the results and interpretations that will be provided, as well as the hypotheses that will be answered and the hypothesis that will be chosen. Then questionnaires were distributed to employees within the University of Babylon, after which a statistical treatment was performed on the data collected for the study.

3.1. Questionnaire

The questionnaire was made in two parts each section includes several questions for one variable. The form included two variables, the first independent variable, electronic governance, the questions consisted of 10 questions about Communication, Problem Solving and Service Delivery, while the dependent variable human resources, contained 8 questions about Recruitment & Selection, Performance appraisal, and Training and development, and the questions were evaluated for the Likert scale. It will be distributed to the research sample. This research uses Likert scale measurement, to describe the data in the questionnaire, measure it as 1 = Strongly agree, 2 = Agree, 3 = Neutral, 4 = disagree, 5 = disstrongly agree.

3.2.Data analysis

After creating the questionnaire form taken from the study sample, the following analyses will be performed:

- 1- Reliability: This analysis is used to determine the reliability of the questionnaire using the Cronbach method in the SPSS program (Statistical Package for Social Sciences). According to (Sekaran, 2000) reliability of a research work indicates the extent to which the research work is without bias (error free) and hence offers consistent.
- 2- Validity: To test the Content Validity we have used the Content Validity Index (CVI) and Content Validity Ratio (CVR). And to test the convergence validity we have used the Average Value Extracted (AVE) and Composite Reliability (CR).
- 3- Descriptive statistics analysis: Descriptive analysis is a sort of data analysis that helps to explain, show, or summarize data points in a constructive way so that patterns can develop that satisfy all of the data's conditions. It is one of the most crucial steps in the statistical data analysis process. It provides you with a summary of your data's distribution, assists you in detecting errors and outliers, and allows you to spot patterns between variables, preparing you for future statistical analysis (Rawat, 2021).
- 4- Principal Components Analysis (PCA): We have used this analysis to determine a measure's factor structure and assess its internal dependability and to determine the some of the variables which measure the same underlying construct.
- 5- Single linear regression: Definition a simple liner regression model is a mathematical equation that describes the relationship between two model includes only two variables: one independent (e-governance) and one dependent (human resource management). The dependent variable is the one being explained, and the independent variable is the one used to explain the variation in the dependent variable (Bevans, 2020).

The formula for a simple linear regression is:

$$y = \beta_0 + \beta_1 x$$

y is the predicted value of the (human resource management) dependent variable (y) for any given value of the (e-governance) independent variable (x).

β_0 is the intercept, the predicted value of y when the x is 0.

β_1 is the regression coefficient – how much we expect y to change as x increases.

x is the independent variable (the variable we expect is influencing y).



CHAPTER FOUR

DATA ANALYSIS AND RESULTS

Introduction

This chapter presents results by analysis the data which collected from the questionnaires after reviewed by the respondents on the case study of e-governance and its impact on human resources. Also this chapter will discuss the results. The case was selected from the University of Babylon, the number of questionnaires 210, 10 of them eliminated because of the lack of information.

4.1. Sample size

The study found that the respondent's numbers present inside the University of Babylon in various scientific fields were quantified, the questionnaire was distributed to 210 respondents and 10 questionnaires was rejected because it's not answer it from the respondents. This study used the Thompson (Thompson, 2012) formula as below:

$$n = \frac{N \times p(1-p)}{\left[\left[N - 1 \times \left(d^2 \div z^2 \right) \right] + p(1-p) \right]}$$

Where,

To obtain an estimator p having the probability of at least $1-\alpha$ of being no further, for that the p it's equal to 0.05 chance of rejecting the null hypothesis (there is a significant impact from the e-governance on the human resource management), d means the confidence Interval for a population proportion it's equal to 95% for that the error proportion equal to 0.05. Concludes that Alpha is equal to 0.025 two-tail, the sample size formula based on the normal approximation gives when z is the upper $\alpha/2$ point the normal distribution. From that the value for this equation is (Z-value), the study can find it in confidence level at 95% from z table and it's equal to 1.96.

From the above, the following appears:

$$p \text{ (probability)} = 0.05$$

d (error proportion) = 0.05

Z (z score) = 1.96

N (population size) = 420

The sample size was found to be equivalent after solving the equation using the above-mentioned data approximately (210) , the valid questionnaires is (200).

4.2. Questionnaire data analysis

1- Gender data analysis: from the table below shows the gender distribution according to the sample size.

Table 1. respondents gender

Gender	Male	Female	Total
Total	117	83	n = 200
%	58.4 %	41.6 %	100%

From Table (1), it was found that the percentage of males is equal to (58.4%), and the percentage of females is equal to (41.6%), and this indicates the employees most of them are males.

- 2- Academic data analysis: from the table below shows the academic distribution according to the sample size.

Table 2. Academic

Academic achievement	Percentage
Doctorate	13.9%
Master's degree	27.6 %
Bachelor's	44.6 %
Diploma	5 %
Others	8.9 %
Total	100 %

From Table (2), it turns out that the percentage of those who hold a doctorate is (13.6%) and the percentage of those who hold a master's degree is (27.6%), while those who hold a bachelor's degree are (44.6%) and those who hold a diploma are (5%) and those who hold an others are (8.9%). Through the results, it was found that the percentage of those who obtained the bachelor's degree was the highest percentage was equal to (44.6%).

- 3- Age data analysis: from the table below shows the age distribution according to the sample size.

Table 3. Ages

Ages	Percentage
20-25	32.7 %
26.30	31.7 %
31-35	28.7 %
Greater35	6.9 %
Total	100 %

From Table (3), we found that the percentage of those whose ages ranged between 20-25 was (32.7%) and the percentage of those whose ages ranged between 26-30 was equal to (31.7%), while the percentage of those whose ages ranged between 31-35 was equal to (28.7%) and those whose ages ranged greater than 35 was equal to (6.9%). Through the results, it was found that the percentage of those aged between 20-25 got the highest percentage was equal to (32.7%).

4.3. Descriptive Statistics for Questionnaire Analysis

Table 4. Effect of the e-governance

SA- Strongly agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly disagree

E-governance	SA	A	N	D	SD	Total
	%	%	%	%	%	%
• Communications						
Q1- Management of records and sharing of information has improved immensely since implementation of E-governance systems	53.0	22.0	18.0	5.0	2.0	100
Q2- E-governance implementation reduced our workload.	48.0	25.0	16.0	4.0	7.0	100
Q3- The staff of the university has access to all necessary information online.	59.0	21.0	14.0	3.0	3.0	100
Q4- University website allows us to communicate faster and better.	56.0	25.0	14.0	1.0	4.0	100
• Problem solving						
Q5- Time taken to process any transaction has been reduced as the university has implemented E-governance in service delivery.	24.0	56.0	10.0	4.0	6.0	100

Q6- Selection of the staff is more effective with e-governance.	49.0	25.0	17.0	5.0	4.0	100
Q7- We can find solution to problems easier after implementation of e-governance.	47.0	33	12	4	4	100
• Service delivery						
Q8- E-governance has reduced cost of delivering services.	50.0	29.0	10.0	5.0	6.0	100
Q9- Major functions we do in our university are done electronically.	51.0	22.0	10.0	4.0	13.0	100
Q10- University staff is able to store and retrieve records when delivering services.	50.0	29.0	15.0	4.0	2.0	100

From the table (4) above, 53% from the respondents strongly agreed that is Management of records and sharing of information has improved immensely since implementation of E-governance systems, 22% agreed, 18% neutral, while 5% disagreed and 2% strongly disagreed. 48% strongly agreed that is E-governance implementation reduced workload, were 25% agreed, 16% neutral, while 4% disagreed, 7% strongly disagreed. 59% strongly agreed that is the staff of the university has access to all necessary information online, 21% agreed, while 14% neutral, 3% disagreed and 3% strongly disagreed. % 56 from the respondents strongly agreed that is university website allows us to communicate faster and better, were 14% neutral, while 1% disagreed and 4% strongly disagreed. 24% strongly agreed that is time taken to process any transaction has been reduced as the university has implemented E-governance in service delivery, 56% agreed, 10% neutral, 4% disagreed and 6% strongly disagreed. 49% strongly agreed that selection of the staff is more effective with e-governance, 25% agreed, were 17% neutral, wither 5% disagreed and 4% strongly disagreed. 47% strongly agreed that the finding of solution to problems easier after implementation of e-governance, 33% agreed, 12% neutral, 4% disagreed and 4% strongly disagreed. 50% strongly agreed that is E-governance has reduced cost of delivering services, 29% agreed, 10% neutral, 5% disagreed and 6% strongly

disagreed. 51% strongly agreed that is major functions we do in our university are done electronically, 22% agreed, 10 %neutral, 4% disagreed and 13strongly disagreed. 50% strongly agreed that is University staff is able to store and retrieve records when delivering services, 4% disagreed and 2% strongly disagreed.

Table 5. Effect of the human resource management

SA- Strongly agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly disagree

Human resources management	SA %	A %	N %	D %	SD %	Total %
• Recruitment and selection						
Q1- A salary that corresponds to my performance.	53.0	37.0	6.0	1.3.0	.1.0	100
Q2- Careful selection of new employees.	41.0	25.0	15.0	8.0	11.0	100
Q3- Meticulous recruitment of new co-workers.	51.0	27.0	11.0	6.0	5.0	100
• Performance appraisal						
Q4- A salary bonus that depends on the organization's profits.	54.0	25.0	11.0	4.0	6.0	100
Q5- The periodic evaluation of my performance.	48.0	37.0	6.0	5.0	4.0	100
• Training and development						
Q6- Support in planning my professional development	48.0	27.0	15.0	5.0	5.0	100

Q7- The opportunity to develop new skills and knowledge for my current job, or for possible future positions	51.0	26.0	11.0	7.0	5.0	100
Q8- Support in planning my professional Development.	49.0	26.0	17.0	4.0	4.0	100

From the table(5) above, 53% strongly agreed that is a salary that corresponds to the employees performance, were 37% agreed while 6% neutral, 3% disagreed and 1% strongly disagreed. 41% strongly agreed that there is a careful selection of new employees in the university, 25% agreed were 15% neutral, 8% disagreed and 11% strongly disagreed. 51% strongly agreed that there is a meticulous recruitment of new co-workers, 27% agreed were 11% while neutral, 5% disagreed and 6% strongly disagreed. 54% strongly agreed that a salary bonus depends on the organization's profits, 25% agreed, 11% neutral, 4% disagreed and 6% strongly disagreed. 48% strongly agreed that there is a periodic evaluation of workers' performance., 37% agreed, 6% neutral, 5% disagreed and 4% strongly disagreed. 48% strongly agreed that support in planning the univirsity workers' professional development, 27% agreed, were 15% neutral, 5% disagreed and 5% strongly dis agreed. 51% strongly agree that the oppottunity to develop new skills and knowledge for university' workers current job, or for possible future positions, 26% agreed, were 11%, while 7% disagree and 5% strongly disagreed. 49% strongly agreed that the university' workers uport in planning their professional development., 26% agree, 17% neutral, 4% disagree and 4% strongly disagreed.

4.3. The Validity of the Study Tool

The questionnaire was delivered to a limited group of professionals in its original form, replete with study questions and hypotheses. Some who work for arbitration at many Iraqi colleges, as listed in the appendix, to test the content validity of the questions produced, the researchers selected four domain experts, two academics, and two practitioners based on their expertise and experience in the fields of e-government and human resource management. The content validity of the questionnaire was assessed

using the item and scale content validity indices (I-CVI and S-CVI). The professionals were asked to score the clarity, simplicity, and relevance of each topic on a five-point Likert scale (ranging from strongly disagree to strongly agree). The I-CVI for each item was calculated by dividing the number of professionals who gave a rating of 3 or 4 by the total number of experts. The S-CVI was calculated by taking the average of all I-CVIs. Adequate content validity indices were I-CVI and S-CVI of at least 0.78 and 0.90, respectively. CVR at least should be 0.78 to say that an item or scale as valid . From the obtained results in table 6 we can notice that the CVR values are more than 0.78, and I-CVI and S-CVI more than 0.78 and 0.90 and as results we can say there is a content validity.

Table 6. Test-Retest and Content Validity Indicators of Questionnaire on impact of e-governance in enhancing human resources management

Item number	CVR	I-CVI Simplicity	I-CVI Clarity	I-CVI Relate	Corrected Item-Total Correlation
1 E-GOV	0.91	1	1	1	0.66
2	0.91	1	1	1	0.5
3	0.83	1	1	1	0.45
4	0.75	0.87	0.91	1	0.11
5	0.58	1	1	1	0.74
6	0.58	1	1	1	0.55
7	0.83	1	1	1	0.67
8	0.91	1	1	1	0.61
9	0.75	1	1	1	0.44
10	0.91	1	0.95	0.95	0.64
1 HRM	0.75	0.87	0.91	1	0.11
2	0.91	1	1	1	0.5
3	0.83	1	1	1	0.45
4	0.75	0.87	0.91	1	0.11
5	0.58	1	1	1	0.74
6	0.58	1	1	1	0.55
7	0.83	1	1	1	0.67
8	0.91	1	1	1	0.61

4.4. Method of successive interval

The successive interval method, first reported by Safer, was designed by Thurston to overcome some of the difficulties inherent in the way equal intervals appear. It is recommended to use the successive interval method when there are too many items that cannot be measured feasibly by the paired comparisons method. The successive period method is based on the assumption that the underlying distributions are normal on the derived scale. Therefore, the study will convert the data from the time interval as shown in the lower table (Thurstone, 1927). From this transform will find the results below:

- 1-Determine the frequency on each option of each question item.
- 2- Determine the proportion of each option by dividing the frequency of choice by the number of samples.
- 3- Calculate the cumulative proportion that is by summing the proportion sequentially for each option.
- 4- Determining the value of Z for each cumulative proportion that is considered follows the standard normal distribution.
- 5- Determining the density values for each value of Z.
- 6- Counting scale value for each option.
- 7- Changing the smallest scale value to be equal with 1 and transforming each scale according to the smallest scale changes in order to obtain transformed scale value

- 1- Successive Detail: We have for all the variables (18) questions in the questionnaire, In the questionnaire we have 18 questions for all variables, so we'll mention the five questions of each variable, all details can be seen in appendix.

Table 11. Successive detail for e-governance

Col	Category	Freq.	Prop	Cum	Density	Z	Scale
1	1	4	0.040	0.040	0.086	-1.751	1.000
	2	4	0.040	0.080	0.149	-1.405	1.592
	3	12	0.120	0.200	0.280	-0.842	2.060
	4	33	0.330	0.530	0.398	0.075	2.797
2	1	6	0.060	0.060	0.119	-1.555	1.000
	2	5	0.050	0.110	0.188	-1.227	1.607
	3	10	0.100	0.210	0.288	-0.806	1.984
3	1	13	0.130	0.130	0.212	-1.126	1.000
	2	4	0.040	0.170	0.253	-0.954	1.590
	3	10	0.100	0.270	0.331	-0.613	1.851

Table 12. Successive detail for human resource management

Col	Category	Freq.	Prop	Cum	Density	Z	Scale
1	1	5	0.050	0.050	0.103	-1.645	1.000
	2	7	0.070	0.120	0.200	-1.175	1.678
	3	11	0.110	0.230	0.304	-0.739	2.121
2	1	4	0.040	0.040	0.086	-1.751	1.000
	2	4	0.040	0.080	0.149	-1.405	1.592
3	1	7	0.070	0.070	0.134	-1.476	1.000
	2	4	0.040	0.110	0.188	-1.227	1.574
	3	15	0.150	0.260	0.324	-0.643	2.009

A. Electronic governance: Descriptive statistics in the study including mean and standard deviation, skewness and kurtosis of the variable (e-governance). Skewness is a measure of symmetry, or more precisely, the lack of symmetry. A distribution, or data set, is symmetric if it looks the same to the left and right of the centre point. Kurtosis is a measure of whether the data are heavy-tailed or light-tailed relative to a normal distribution. The reason for comparing the questions was to know the highest arithmetic mean that occurred between the variables questions and to know the preference for each question. The purpose of the comparison is to find out the most influential question that has a higher correlation with the variable than the rest of the questions.

Table 4. Descriptive statistics for e-governance

Questions	Mean	Standard Deviation	Kurtosis	Skewness
Q1	2.800	1.357	.132	-1.202-
Q2	3.2390	1.31461	-.139-	-1.087-
Q3	2.5818	1.38192	.262	-1.255-
Q4	2.8365	1.42919	.075	-1.339-
Q5	2.9748	1.17250	.073	-.650-
Q6	2.8836	1.41276	.045	-1.243-
Q7	2.7484	1.33607	.069	-1.271-
Q8	2.6415	1.32571	.280	-1.090-
Q9	2.7170	1.36948	.114	-1.281-
Q10	2.6258	1.37860	.245	-1.251-

From the table above should have a sequence for the questions, to do this sequence should compare between means of questions and it's come from the biggest mean to the lowest mean (Q2 > Q5 > Q6 > Q4 > Q1 > Q7 > Q9 > Q8 > Q10 > Q3) All questions

values of the skewness and kurtosis are lying within the range of (-3 to +3) which conforms the normality of the data for regression accepted except question.

B. Human rescuers management: The descriptive statistics in the study, including mean, standard deviation, skewness and kurtosis of the variable (human resources management). Skewness is a measure of symmetry, or more precisely, the lack of symmetry. A distribution, or data set, is symmetric if it looks the same to the left and right of the centre point. Kurtosis is a measure of whether the data are heavy-tailed or light-tailed relative to a check all normal distribution. The reason for comparing the questions was to know the highest arithmetic mean that occurred between the variables questions and to know the preference for each question. The purpose of the comparison is to find out the most influential question that has a higher correlation with the variable than the rest of the questions.

Table 5. Descriptive statistics for human resource management

Questions	Mean	Standard Deviation	Kurtosis	Skewness
Q1	2.6258	1.37860	.245	-1.251-
Q2	2.6101	1.39359	.236	-1.320-
Q3	2.4182	1.38192	.438	-1.193-
Q4	2.4277	1.29770	.361	-1.107-
Q5	2.5253	1.38866	.353	-1.226-
Q6	2.6195	1.35842	.274	-1.203-
Q7	2.5252	1.24998	.245	-1.118-
Q8	2.7767	1.31138	.073	-1.229-

From the table above should have a sequence for the questions, to do this sequence should compare between means and it's come from the biggest to the lowest: (Q8>Q1>Q6>Q2>Q5>Q7>Q4>Q3)

From table (14) shows us the mean, standard deviation, kurtosis and skewness. By comparing, and we can notice that all questions were in kurtosis and skewness accepted.

4.5. Correlation Analysis

Table 15. KMO and Bartlett's Test for E-Governance

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.785
Bartlett's Test of Sphericity	Approx. Chi-Square	797.200
	df	45
	Sig.	0.000

The Kaiser-Meyer-Olkin (KMO) sampling adequacy metric displays the proportion of variance in the variables that could be caused by underlying causes in the table above. We may say that factor analysis is beneficial with this data since the KMO value is 0.785, which is near to 1.

Bartlett's Test of Sphericity, on the other hand, is used to test the null hypothesis that the correlation matrix is an identity matrix, indicating that the variables are unrelated and not suitable for structure discovery. The significance value (Sig. = 0.000) is very low (less than 0.05), indicating that a factor analysis is appropriate for this set of data. Using these two checks together, we may conclude that the data is suitable for factor analysis.

Table 16. KMO and Bartlett's Test for Human Resource Management

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.634
Bartlett's Test of Sphericity	Approx. Chi-Square	471.091
	df	45
	Sig.	0.000

Table nine present Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy demonstrates the proportion of variance in the variables that could be caused by underlying factors. KMO value on this data is 0.634, which close to 1, therefore we can state that factor analysis is useful in this data.

On the other hand, Bartlett's Test of Sphericity is used to test the null hypothesis that the correlation matrix is an identity matrix, which shows the variables are unrelated and not appropriate for structure detection. The significance value (Sig. = 0.000) is very small (less than 0.05), which indicates that a factor analysis is useful with this data. Together these two tests, we can conclude this data in appropriate for factor analysis.

Table 17. Factor Loading analyzes for E-Governance

E-Gov (communication)			
Cronbach's Alpha (α)= 0.81	Variance Explained %= 42.04	Mean value = 2.864325	Factor Loading
Q1- Management of records and sharing of information has improved immensely since implementation of E-governance systems			0.937
Q2- E-governance implementation reduced our workload.			0.658
Q3- The staff of the university has access to all necessary information online.			0.652
Q4-University website allows us to communicate faster and better.			0.650
E-Gov (problem solving)			
Cronbach's Alpha (α) = 0.745	Variance Explained %= 54.87	Mean value = 2.868933	Factor Loading
Q5- Time taken to process any transaction has been reduced as the university has implemented E-governance in service delivery.			-0.932

Q6- Selection of the staff is more effective with e-governance.			-0.851
Q7- We can find solution to problems easier after implementation of e-governance.			-0.761
E-Gov (service delivery)			
Cronbach's Alpha (α)= 0.780	Variance Explained %= 66.82	Mean value = 2.661433	Factor Loading
Q8- E-governance has reduced cost of delivering services.			0.832
Q9- Major functions we do in our university are done electronically.			0.666
Q10- University staff is able to store and retrieve records when delivering services.			0.596

Table 17 shows the results of factor loadings for measurements of E- governance factor. Table shows that a total of 10 variables. The internal consistencies of all these variables are also showed. It is demonstrated that, Cronbach's alpha for the factors is more than the generally accepted guideline of 0.7 which ranges from 0.745-0.851, that is above the acceptable level. It is presented that four variables within a factor tend to have a high coefficient of item-to-total correlation of communication ranges from (0.650-0.937), three variables within a factor tend to have a high coefficient of item-to-total correlation of problem solving (-0.760--0.932), and three variables within a factor tend to have a high coefficient of item-to-total correlation of service delivery (0.596-0.832), that suggests a high degree of item to item correlation and internal consistency for each dimension. Variance explained by factor analysis must not maximum of 100% but it should not be less than 50%. It should not be less than 50%. If the variance explained is less than 50%, it shows the data is not useful, and may need to revisit measures, the results in the table 17 shows that the variance explained value for service delivery and problem solving is good and it is suitable the analysis, but for the communication factor, it shows the data is not useful.

Table 18. Factor Loading analyzes for Human Resource Management

HR (recruitment and selection)			
Cronbach's Alpha (α)= 0.852	Variance Explained %= 43.58	Mean value= 2.551367	Factor Loading
Q1- A salary that corresponds to my performance.			0.915
Q2- Careful selection of new employees.			0.910
Q3- Meticulous recruitment of new co-workers.			0.617
HR (performance appraisal)			
Cronbach's Alpha (α) = 0.756	Variance Explained %= 58.11	Mean value = 2.4765	Factor Loading
Q4- A salary bonus that depends on the organization's profits.			0.894
Q5- The periodic evaluation of my performance.			0.885
HR (training and development)			
Cronbach's Alpha (α) = 0.876	Variance Explained %= 68.35	Mean value= 2.640467	Factor Loading
Q6- Support in planning my professional development			0.789
Q7- The opportunity to develop new skills and knowledge for my current job, or for possible future positions			0.777
Q8- Support in planning my professional Development.			0.653

Table 18 shows the results of factor loadings for measurements of human resource management. Table 18 presents that a total of eight variables. The internal consistencies of all these variables are also showed. It is illustrated that, Cronbach's alpha for the factors is more than the generally accepted guideline of 0.7 which ranges from 0.756-0.872, that is above the acceptable level. It is shown that four variables within a factor tend to have a high coefficient of item-to-total correlation of recruitment and selection ranges from (0.617-0.915), two variables within a factor tend to have a high coefficient of item-to-total correlation of performance appraisal (0.852-0.894), and three variables within a factor tend to have a high coefficient of item-to-total correlation of training and development (0.653-0.789), that suggests a high degree

of item to item correlation and internal consistency for each dimension. The values of the explained variance for training and development and performance appraisal factors show that the data is good and suitable for the analysis, but for recruitment and selection factor the result is less than the accepted ratio.

Correlation analysis

Table 19. Correlation analysis

	1	2	3	4	5	6
1- Recruitment	1	0.010	,217**	0.108	0.053	0.117
2- Performance		1	-0.062	-0.038	0.078	-0.092
3- Training			1	,248**	0.133	,269**
4- E-Gov Communication				1	,514**	,416**
5- E-Gov Problem Solving					1	,389**
6- E-Gov Service Delivery						1

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

The Pearson correlation technique is the most widely used approach for numerical variables; it assigns a number between (-1,1), with 0 representing no correlation, (1) representing entire positive correlation, and (-1) representing total negative correlation. A positive correlation indicates that if variable A rises, so will variable B, whereas a negative correlation indicates that if A rises, B will less (Bartholomew, 1995). Based on the results obtained from the spss statistical programme analysis the (**.) indicates that the relation between two variabls significant at the 0.01 level.

The results in the table 19 showed that there is a positive and statistically significant correlation between training and adoption of E-governance (Communication) where ($r=,248^{**}$) which indicates that the adoption of E-governance (communication) give the employees the opportunity to develop new skills and knowledge for the current job, or for possible future positions according to the points of views of the workers in University of Babylon.

The Pearson correlation technique is the most widely used approach for numerical variables; it assigns a number between (-1,1), with 0 representing no correlation, (1) representing entire positive correlation, and (-1) representing total negative correlation. The results in the table 19 showed that there is a positive and statistically significant correlation between training and adoption of E-governance (Communication) where ($r=,248^{**}$) and there is a positive and statistically significant correlation between training and adoption of E-governance (service delivery) where ($r=,269^{**}$). The relationship was significant because the p-value (0.000) was less than 0.05. Therefore, we can accept the alternative hypothesis indicating that E-governance (Communication, and service delivery) Has a positive and significant correlation with HR training activities.

Furthermore, the table above showed that there is no statistically significant correlation between E -governance (Communication, problem solving and service delivery) and recruitment and performance.

CHAPTER FIVE

CONCLUSION AND SUGGESTION

1. DISCUSSION

The main goal of this thesis was to investigate the role and impact of e-governance in enhancing human resources management to accomplish this goal this thesis has chosen the University of Babylon as a population.

After the study has accomplished analyzing the responses to the questionnaire and testing the hypotheses of the study in the previous chapter, In this chapter, the study will discuss the results that have been reached and suggest recommendations and future research directions that it hopes will serve the university under study.

The study concluded that there is only a limited impact of e-governance (communication and service delivery) in enhancing human resource management (training). For that reason, the study selected the employees who work at the University of Babylon as a sample, and the valid sample size was 200 respondents. Data was collected from the questionnaire after it was received from the respondents, and the study discovered that there were 58.4% of male employees and 41.6% of female employees, resulting in a nearly equal percentage of males and females. Also, there are 13.9% of Ph.D. employees, and this is a lower percentage than the master's and bachelor's degrees, when 27.6% of employees had Master's degrees and 44.6% of employees had Bachelor's degrees. Therefore, the university should motivate some employees who hold bachelor's and master's degrees to complete their studies. The other employees had 5% with a diploma degree and 8.9% had different degrees under diploma like high school or intermediate school or without any degree. For those, there is no need for the university to motivate them to obtain higher degrees because they are doing work that is not related to teaching and there is no one to represent them. The study found that 32.7% of employees had aged between (20–25) years, 31.7% of employees had aged between (26–30) years, 28.7% of employees had aged between (31-35) years, and 6.9% of employees had an age greater than 35 years. From this, the study indicates that most of the employees are young. After the demographic test, the study transferred the data from the ordinal scale to the interval scale. After that, the study used the single linear regression test for analysis, and the results were shown

after analysis by the explanatory analysis method to the descriptive analysis of the questionnaire using the scientific statistical analysis program (SPSS). As shown by the results in tables (12 to 19), there is no statistically significant impact from the independent variables electronic governance (communication, problem-solving, and service delivery) on the dependent variables human resource management dimensions (recruitment and performance), but there is a statistically significant impact from the independent variables electronic governance (communication, and service delivery) on the dependent variable human resource management dimension (training). Therefore, we accept the null hypothesis (HO: there is no effect of communication, problem-solving, and service delivery) on the dependent variables human resource management dimensions (recruitment and performance) and accept the alternative hypothesis (Ha: there is an effect of variable electronic governance (communication, and service delivery) on the dependent variable human resource management dimension (training)).

The results in Table 19 indicate that the training of the university staff is associated with communication opportunities provided through e-Governance. There may be several reasons for these associations, including but not limited to the followings:

- the easiness of the access to the training documents that the e-Governance provides to staff, which may have caused the university staff to be able to reach training materials whenever needed,
- the information that is shared among the university staff over the e-Governance applications, which may have caused the university staff to share and acquire information easier,
- the information about training and other job-related courses announced through the communication channels provided by the e-Governance applications, may have increased their awareness of them.
- the immediate help that co-workers provided to each other through communication channels provided by the e-Governance applications, which may have acted as hands-on training.

These results supported by the study of Heeks, (2006), and AL-sadi, (2015) which concentrate on the implementing and managing e-government and the effectiveness

of using the e-government application in improving the performance of local government and the study of Saleh, & Basir, (2017) and Al-Uqab, (2018) which concentrate on the impact of social auditing on human resource governance in organizations and the requirements of electronic management and its role in improving the job performance of human resources.

2. RECOMMENDATION

The recommendations of this thesis are:

- Conducting a study concerned with focusing on recruitment and performance as dimensions of e-governance and knowing the costs of change in the way human resource management works, from the traditional method to the electronic governance method.
- In the event that the ministry of higher education and scientific research does not approve of the application of e-governance at the University of Babylon due to a lack of financial allocation, the researcher recommends the implementation of this work by the University of Babylon.
- Doing a study with the same topic as this research but with a case study of a governorate, a region, or Iraq as a whole, in order to give full details on this topic to the Iraqi government in case it desires to implement e-governance.
- Conducting a study on the electronic governance of construction costs for the Ministry of Higher Education and Scientific Research.
- The university encourages employees with master's and bachelor's degrees to apply to graduate studies to obtain certificates that are higher than their own, in order to raise the percentage of employees who hold doctorates, in order to increase the level of scientific competence.
- Work on the electronic governance system is underway in all universities and colleges in Iraq, not only at the University of Babylon

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APPENDEX

QUESTIONNAIRE

Declaration

Dear Sir / Madam

Dear respondents I am student of business administration. As part of master my thesis I am required to do a questionnaire on The role and impact of e-governance in enhancing human resources management :study case of Babylon University ,and all responses given by you will be strictly kept confidential and used for academic purpose only .

PARTA

1. Gender

- a) Male []
- b) Female []

2. Education

- a)less than College []
- b) College []
- c)bachelor degrees []
- d) postgraduate degree []

3.Age

- a) 18-24 []
- b) 25-34 []
- c) 35-44 []
- d) 45-54 []
- e) 55-65 []

E-governance	SA	A	N	D	SD
Q1- Management of records and sharing of information has improved immensely since implementation of E-governance systems					
Q2- E-governance implementation reduced our workload.					
Q3- The staff of the university has access to all necessary information online.					
Q4-University website allows us to communicate faster and better.					
Q5- Time taken to process any transaction has been reduced as the university has implemented E-governance in service delivery.					
Q6- Selection of the staff is more effective with e-governance.					
Q7- We can find solution to problems easier after implementation of e-governance.					
Q8- E-governance has reduced cost of delivering services.					
Q9- Major functions we do in our university are done electronically.					
Q10- University staff is able to store and retrieve records when delivering services.					

Human resources management	SA	A	N	D	SD
Q1- A salary that corresponds to my performance.					
Q2- Careful selection of new employees.					

Q3- Meticulous recruitment of new co-workers.					
Q4- A salary bonus that depends on the organization's profits.					
Q5- The periodic evaluation of my performance.					
Q6- Support in planning my professional development					
Q7- The opportunity to develop new skills and knowledge for my current job, or for possible future positions					
Q8- Support in planning my professional Development.					

