T.C.
KARABUK UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES
DEPARTMENT OF BUSINESS

INFORMATION TECHNOLOGY AND ITS ROLE IN THE DEVELOPMENT OF MANAGEMENT SKILLS FOR ADMINISTRATIVE LEADERS (DECISION-MAKING SKILLS)

DOCTORAL THESIS

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THESISAPPROVALPAGE

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This thesis entitled " Information Technology and ist role in the development of management skills for administrative leaders.Decision making skills in the financial sector in Libya." submitted by TARIK ABDULGASIM A. EL-MALLUSHİ was examined and accepted/rejected by the Thesis Board unanimously/by majority as a MA / Ph.D. thesis.

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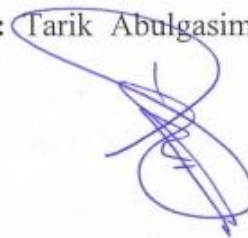
DECLARATION

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FOREWORD

ABSTRACT

Information technology nowadays has played a vital role in helping leaders to improve their business and achieve the results that satisfy customers demand. At the same time, information technology (IT) has emerged as a critical resource for organizations to enhance the efficiency and effectiveness of their product development activities. however, this study aims to light and discuss the role played by IT in introducing new products and quick services. The study thus aims to highlight the following points:

To shed some light on the real use of Information technology and its role in the development of management skills for administrative leaders (Decision-making skills) in the Jumhouria Bank, and Management Information Systems (MIS). The aim is to identify and examine the difficulties affecting the bank decision-making process.

To assess the effect information technology plays in shaping the quality of the bank decision- making the process.

To identify some difficulties in using information technology in the financial sector in Libya in general and in the Jumhouria Bank in particular.

To achieve the above objectives, the researcher used the descriptive analytical method. A questionnaire was developed from (51) paragraphs divided into eleven fields, with (368) representing the sample size.

The results support a significant correlation between information technology and decision- making regarding the proper kinds of decision, and also a significant correlation between information technology and decision-making regarding the efficiency dimensions (Time, Official, and Content).

The First main hypothesis:

H1-There is a statistically significant impact of IT efficiency on the quality of administrative decision in the bank under study.

This hypothesis aims at identifying the impact of IT efficiency on the (quality of the administrative decision) in the bank under study.

The statistical results of this main hypothesis do not reject the significant impact of information technology on the quality of the administrative decision in the bank under study.

First sub-hypothesis:

There is a statistically significant effect of the time dimension on the quality of the administrative decision in the bank under study.

This hypothesis aims at identifying the relationship between the of the time dimension problem and the quality of the administrative decision in the bank under study.

The statistical results of this sub-hypothesis do not reject the notion that there is a statistically significant effect of the time dimension on the quality of the administrative decision in the bank under study.

Second sub-hypothesis:

There is a statistically significant effect of the Official dimension on the quality of the administrative decision in the bank under study.

This hypothesis aims at identifying the relationship between the of the (Official dimension problems) and the quality of the administrative decision in the bank under study.

The statistical results of this sub-hypothesis do not reject the notion that there is a statistically significant effect of the Official dimension on the quality of the administrative decision in the bank under study.

Third sub-hypothesis:

There is a statistically significant effect of the Content dimension on the quality of the administrative decision in the bank under study.

This hypothesis aims at identifying the relationship between the of the (Content dimension problems) and the quality of the administrative decision in the bank under study.

The statistical results of this sub-hypothesis do not reject the notion that there is a statistically significant effect of the Content dimension on the quality of the administrative decision in the bank under study.

The second main hypothesis:

H2-There are statistically significant differences about the dimensions of the study attributable to personal factors (gender, age, academic qualification, administrative level, length of service in the current job).

Gender:

It can be said that there are statistically significant differences between males and females in the decision-making process whereby, compared to females, males appear more committed to the quality of the decision-making process.

Age:

The researcher used the Shifa test to examine the statistically significant differences between the mean age. The results of this test for age differences about the time dimension problems suggest that there are significant differences in the mean age for the time dimension problems.

Results on the level of morale adopted in the study indicate that there are statistically significant differences between the age of the respondents on this dimension**.**

Educational qualification:-

Results on the level of the moral adopted in the study indicate that there are no significant differences in the dimensions of the study attributed to the educational qualification.

Administrative level:

Results on the level morale adopted in the study indicate that there are no significant differences in the dimensions of the study attributed to the administrative level.

Duration of service in the current job:

Results on the level of the morale adopted in the study indicate that there are no statistically significant differences in the dimensions of the study due to the length of service in the current job.

Key Words: Information Technology; Management Information Systems; Decision Making skills. Leaders.

ÖZ

Geçtiğimiz birkaç on yılda, bilgi işlem ve iletişimde bir devrim yaşandı ve tüm göstergeler teknolojik ilerlemenin ve bilgi teknolojisinin kullanımının devam edeceğidir. Bilgi ve iletişim teknolojisindeki devrim sadece yaşamlarımızı değil, aynı zamanda insanların nasıl iş yaptığını da değiştirdi. Bilgi teknolojilerini kullanarak şirketler, daha fazla müşteriye ulaşma, yeni ürün ve hizmetleri hızla tanıtma ve dünyanın her yerinden tedarikçiler ve iş ortakları ile işbirliği yapma potansiyeline sahiptir. Endüstriyel toplumdan bilgi toplumuna ve endüstriyel ekonomiden bilgi ekonomisine dönüşüm, BİT ve İnternet kullanımının etkisinin bir sonucudur. Bu nedenle, *bu çalışma aşağıdaki hususları vurgulamayı amaçlamaktadır:*

Bilgi teknolojisinin gerçek kullanımı ve Jumhouria Bank'ta idari liderler (Karar verme becerileri) için yönetim becerilerinin geliştirilmesindeki rolünü ve ayrıca yönetim bilgi sistemlerini aydınlatmak. Daha sonra bankadaki karar verme sürecini etkileyen zorlukları ve sorunları bilmek.

Jumhouria Bankasında karar verme kalitesinde Bilgi teknolojisinin rolünün derecesini değerlendirmek. Özellikle Jumhouria Bank'ta Libya'da finans sektöründeki Bilgi teknolojisinin kullanılmasının zorluklarını ortaya çıkarmaya çalışıyor.

Araştırmanın amaçlarına ulaşmak için araştırmacı tanımlayıcı bir analitik yöntem kullanmıştır. On bir alana ayrılan (51) paragraftan bir anket geliştirilmiştir. Çalışma örneği (368) örneklemden oluşmaktadır. Verileri analiz ettikten sonra, aşağıdaki sonuçlar bulunmuştur.

Bilgi teknolojisi ile karar verme süreçleri ile ilgili karar verme kararları arasında anlamlı bir ilişki vardır ve Bilgi teknolojisi ile verimlilik boyutları (Süre, Resmi ve İçerik) ile ilgili karar verme arasında anlamlı bir ilişki vardır.

İlk ana hipotez:

Bilgi problemlerinin idari karar kalitesine göre istatistiksel olarak anlamlı bir etkisi vardır.

Bu hipotez, BT problemlerinin, incelenen bankanın idari kararının niteliği üzerindeki etkisini tespit etmeyi amaçlamaktadır.

-Ana hipotezin önceki istatistiksel testlerinin sonuçlarına dayanarak. Bilgi teknolojisi problemleri üzerinde istatistiksel olarak anlamlı bir etki olduğu hipotezi, incelenen bankadaki idari karar kalitesine kabul edilmektedir.

İlk alt hipotez:

Temerrüt problemlerinin, incelenen bankadaki idari karar kalitesine göre istatistiksel olarak anlamlı bir etkisi vardır.

Bu hipotez, çalışılan kurumda zaman boyutu sorunları ile idari kararın kalitesi arasındaki ilişkiyi tanımlamayı amaçlamaktadır.

İlk alt hipotezin önceki istatistiksel testlerinin sonuçlarına dayanarak zaman boyutu problemleri üzerinde istatistiksel olarak anlamlı bir etki olduğu hipotezi, incelenen bankadaki idari karar kalitesine kabul edilmektedir.

İkinci alt hipotez:

Bölümdeki bankada idari karar kalitesine ilişkin resmi boyutun sorunları üzerinde istatistiksel olarak anlamlı bir etki vardır.

Bu hipotez, çalışmakta olan bankadaki (resmi boyut problemleri ve idari kararın kalitesi) arasındaki ilişkiyi tanımlamayı amaçlamaktadır.

İkinci alt hipotezin önceki istatistiksel testlerinin sonuçlarına dayanarak. Zaman boyutu problemleri üzerinde istatistiksel olarak anlamlı bir etki olduğu hipotezi, incelenen bankadaki idari karar kalitesine kabul edilmektedir.

Üçüncü alt hipotez:

İçerik boyutu problemlerinin, incelenen bankadaki idari karar kalitesine istatistiksel olarak anlamlı bir etkisi vardır.

Bu hipotezin amacı, (içerik boyut problemleri) arasındaki ilişkiyi ve çalışmakta olan bankadaki idari kararın niteliğini bilmek.

Üçüncü alt hipotezin önceki istatistiksel testlerinin sonuçlarına dayanarak hipotez kabul edilir. Hangi durumda (İçerik boyutu problemleri), incelenen bankadaki idari kararın kalitesi üzerinde istatistiksel olarak anlamlı bir etki olduğu belirtilmektedir.

İkinci ana hipotez:

Küresel olarak anlamlı farklılıklar Çalışmanın boyutları hakkında Kişisel faktörlere atfedilebilir (cinsiyet, yaş, akademik yeterlilik, idari düzey, mevcut işteki hizmet süresi).

Cinsiyet:

Erkeklerle kadınlar arasında karar verme sürecine istatistiksel olarak anlamlı farklılıklar olduğu söylenebilir. Erkeklerin kararların kalitesine kadınlardan daha fazla bağlı oldukları söylenebilir.

Yaş:

Araştırmacı, ortalama yaş arasındaki istatistiksel olarak anlamlı farkları incelemek için Shifa testini kullanmıştır. ve (zaman boyutu problemleri) yaş aralığındaki farklılıklar için Şifa testinin sonuçları (zaman boyutu problemleri) için ortalama yaşta önemli farklılıklar olduğunu göstermektedir.

Araştırmada kabul edilen moral düzeyi, bu boyuttaki katılımcıların yaşları arasında istatistiksel olarak anlamlı farklılıklar olduğunu göstermektedir.

Eğitimsel Yeterlilik:

Çalışmada benimsenen ahlakın düzeyi, eğitim yeterliliğine atfedilen çalışmanın boyutlarında anlamlı bir farklılık olmadığını göstermektedir.

İdari seviye:

Çalışmada benimsenen moral seviyesi, yönetim düzeyine atfedilen çalışmanın boyutlarında anlamlı bir fark olmadığını göstermektedir.

Mevcut işte hizmet süresi:

Çalışmada kabul edilen moral düzeyi, mevcut işteki hizmet süresi nedeniyle çalışmanın boyutlarında istatistiksel olarak anlamlı bir farklılık olmadığını göstermektedir.

Anahtar Kelimeler: Bilgi Teknolojisi, Yönetim Bilişim Sistemleri, Karar Verme Becerileri.

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ARŞİV KAYIT BİLGİLERİ

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ABBREVIATIONS

IT   : Information Technology.

HRM   : Human Resources Management.

SDLC : System Development Life Cycle.

MIS   : Management Information System.

LDM   : Leadership Decision Making.

ICT   : Information and Communication Technologies.

SD-UD : Structured Decisions based on Unstructured Data.

NICT   : New Information and Communication Technologies.

GDP   : Gross Domestic Product

SPSS   : Statistical Package for Social Studies.

DNA   : Deoxyribo Nucleic Acid

(*ibid*) : *Origin of ibid*. Classical Latin *ibidem* in the same place: used in referring again to the book, page, etc. cited just before.

SUBJECT OF THE RESEARCH

Information technology and its role in the development of management skills for administrative leaders.

Decision-making skills: A study Case of Jumhouria Bank. Applied study on the financial sector in Libya.

PURPOSE AND IMPORTANCE OF THE RESEARCH

The importance of the study is summarized in the following points:

1. The study gives a wide spectrum and a clear understanding of the role of information technology in one of the Libyan -financial institution known by " Jumhouria Bank ". It will add a new insights and a useful results, that is fruitful results to the people of the Banking sector in taking appropriate decision-making process, in an attempt to improve the quality of business on the one hand, and, on the other, to scope and to go hand by hand with the modern technology in the said field.

2. This study focuses on the use of information technology in Jumhouria Bank and its obstacles. The study also an attempt to expand the existing knowledge of IT literature in this institution.

3. The study analyzes the various difficulties (barriers) affecting IT in the institution under study.

4. The study proposes a theoretical framework that can be useful for bank executives in their decision-making process.

5. It is an attempt to evaluate the actual role played by the heads of the bank sector, taking into account the new political and economic situation which started after the Libyan revolt of the 17th of Feb 2011. Therefore, it will differ from its predecessors in terms of changed political and economic factors and their impact on Libyan organizations.

The present study will also contribute to the field of banking a new mechanism played by the role of Information technology in performing a good business management literature, that is, by raising such awareness in the context of the Libyan

banking system. Additionally, it will contribute to knowledge by identifying the key reasons as to why Libyan banks suffer from the absence of a robust model for Information technology management properly. Furthermore, this research will contribute to the literature on Information technology management in general.

Finally, This study is the starting point for other studies in this field, in addition to the limited local studies that are interested in the subject of Information technology and management information systems in the institutions of the financial sector in Libya.

METHOD OF THE RESEARCH

The researcher followed the analytical descriptive method to describe the phenomenon of the study subject and analyze its data as well as the relationship among its components. The above method is also used to examine key opinions that are commonly raised around it along with processes involved and their possible effects.

RESEARCH PROBLEM / HYPOTHESIS OF THE RESEARCH

The Research problem:

Despite the intensive use of information technology in the financial sector, especially in the Libyan banking sector, as well as its ability to acquire such technology for use in various administrative units, this financial institution under study (Jumhouria Bank) still faces some problems that limit the optimal use of this important technology. This seems to be resulting from the lack of awareness about these technologies within several many levels of leadership inside the bank as well as their unfamiliarity of the opportunities offered by this technology.

Hypotheses of the study:

The study presents the following hypotheses:

H1: There is a statistically significant relationship between information technology and the quality of administrative decision, based on the quality criterion of information regarding: (Time dimension in terms of (Modernity, Timing)), the

(Official dimension in terms of (Clarity, Arrangement, Comprehensiveness)) and the (Content dimension in terms of (accuracy, correlation, completeness)).

First sub-hypothesis:

There is a statistically significant impact of the time dimension on the quality of the administrative decision in the bank under study.

Second sub-hypothesis:

There is a statistically significant impact of the official dimension on the quality of the administrative decision in the bank under study.

Third sub-hypothesis:

There is a statistically significant impact of the content dimension on the quality of the administrative decision in the bank under study.

H2: There are statistically significant differences in the directions of the study sample on the information technology in administrative decision making due to several personal factors; namely, gender, age, academic qualification, length of service in the current job, administrative level.

POPULATION AND SAMPLE (ASSUMING AVAILABILITY)

The study community consists of:

The study society is represented in the Bank of Jumhouria in each of the Directors General, the assistance of the Director General, the directors of the departments, their deputies, their assistants, office managers, directors of branches of the regions, their deputies and assistants, as well as branch managers, their deputies and assistants.

1. General Administration in Tripoli. (head office).
2. Management of Tripoli area branches.

3. Management of Jabal Nafusa area branches.
4. Sample of large, medium and small branches and banking agencies.

DIFFICULTIES OF THE STUDY

The researcher faces many difficulties and problems during the field study as well as during the distribution of questionnaires to the sample studied, including the spatial conditions, including with regard to the temporal conditions and also related to the security conditions. Among the problems faced by the researcher in this study are the following:

1. There are no previous studies on this subject in the financial institution under study that can help the researcher to obtain important information for this study or contribute to the preparation of this research.
2. The lack of cooperation of some individuals from the research sample despite their explicit and implicit recognition of the importance of conducting such studies.
3. The difficulty of distributing questionnaire forms to the elements of the research sample as well as the difficulty of collecting them due to the divergence of the branches of the institution under study and its very widespread across Libya.
4. Some managers within the financial institution under study did not even accept to look at the survey form because there was not enough time to review or because the questionnaire was not in keeping with the nature of their work. Some managers simply refused to give reasons.

LIMITATIONS OF THE STUDY

1. The research will study and evaluate the role of IT in developing managerial and leadership skills (Decision-making skills) for the administrative leaders and their utilization in the process of conducting business within Jumhouria bank and its branches.
2. The study is limited to administrative leaders in the Jumhouria bank members of senior management and general manager, directors of departments, deputy

directors, office managers, branch managers, deputy directors and heads of departments in this institution.

3. As for the period of study: A four-year period was selected between 2012 and 2016 to provide information and data accurately and as required. As well as to know the development of the size of employment and the development of the number of branches in addition to the economic development of the financial institution under study, which gives an indication of the size of work and the type and level of information technology systems used within the financial institution under study.

Therefore, it should be noted that the information underlying this research is based on the respondent's answers in the questionnaire forms, and such answers could have been exaggerated or in which there may be some exaggeration and /or incomplete. In addition, the conclusions reached in this study are specifically for the case of the Jumhouria bank and may not be generalized to other banks.

INTRODUCTION

Information technology is playing a fundamental role in making the organizations competitive at national and global stages. This principle requires the implementation of communication mechanisms, as it makes employees more autonomous and increases management efficiency. The twenty-first century witnessed a revolution in information technology, and managing a company`s strategic issues by the classical ways became obsolete to maintain it strong at a competitive advantage. Companies are highly dependent on the system of information technology they possess; its absence may cause large losses which could jeopardize the survival of the company.

As the economy is globalizing and permanent change has become the norm, information technology will allow companies to adapt to the changing conditions. The adaptability of an organization is no longer a luxury but an absolute necessity. The Information Technology System as an information vector must effectively contribute to the evolving capacity of an organization in which an information system can adapt to new needs and demands.

Currently, information technology is not only for boosting productivity, but it has also become strategic tools for innovation, evolution, and means of competitive advantage for organizations. (Soumitra Dutta, 2015:v) reported that the impact of information and communication technologies "is well beyond productivity gains, it is a vector of social development and transformation by improving access to basic services, enhancing connectivity, and creating employment opportunities". The structure of an organization requires the implementation of coordination mechanisms to ensure the satisfaction of the overall objective while respecting the principle of the division of labor and relative autonomy of its various members. The information system provides, through software applications the means for automating, assisting the implementation of these coordination mechanisms. As (USG, 2017: 7) argues that:

"accomplishing vital arrangement between Data Innovation (IT) associations and the endeavours they serve is a significant objective for any association. This arrangement requires a procedure to guarantee that interests in IT anticipates and

resources are coordinated toward accomplishing the association's key vision, objectives, and targets. Without arrangement of direction, expectation, and activities, IT associations would not contribute intentionally to the general mission".

Contemporary literature nowadays revealed that current practices of information technology face several challenges; it became so difficult for effective policies and appropriate implementations to contribute to employees` performance in the workplace. Among the aims of this dissertation are: to review the basic literature of information technology in order to understand how it can be used in the administrative leadership levels to improve Decision-making skills. The objective here is to explore the underlying relationship between the usage degree of information technology and its role as Decision-making skills to boost organizational performance. At the level of administrative leaders, this study would enable them to identify the predominant role of information technology in terms of Decision-making skills and in productivity, the competitiveness of their organizations at local, national and international stages.

To analyze the subject, the researcher collected primary reliable data and analyzing them on conceptual terms and scientific manners. He focused on the most relevant literature to develop the theoretical and conceptual framework regarding information technology, administrative leadership forms, and Decision-making skills. Getting such performance needs a rightful decision-making process and that depends on information flow in the workplace.

The importance of the dissertation can be seen from different levels; good and reliable information system is an engine for any administration and companies. The 21st century is known as the era of the information age, which is a central point for the prompt and right decision-making process. In the globalized world, companies are struggling to maintain their competitive advantage, and to strengthen their dominance in the marketplace. Performance has always been at the heart of the concerns of an enterprise; the scientific knowledge on this subject remains challenging. This situation is explained by the fact that most of the studies have tackled the problem only in one aspect, one dimension, or perhaps two or three dimensions in extreme cases to limit the

scale of the task. Getting such performance needs a rightful decision-making process and that depends on information flow in the workplace.

This study is structured into four chapters. The first Chapter covers information technology and management of information systems technology. Chapter two discusses leadership's theories and principles. And the third Chapter explores Decision-making skills and problem-solving. Chapter four highlights the practical side and it is divided into four sections as follows:

1. The first section discusses the research problem and methodology.
2. The second section examines the profile of the bank of Jumhouria (its history, number of employees, number of branches and banking agencies, types of systems used and varieties of services it provides).
3. The third section highlights the area and the research community.
4. Finally, section four analyzes the data and discusses the results.

CHAPTER ONE

1. INFORMATION TECHNOLOGY

This chapter discusses the general background and the conceptual framework regarding information technology and management information systems technology in the organizations. The chapter also examines the relevant literature for developing the empirical framework.

1.1. Information Technology

Small, medium and large enterprises are recognized as an essential element of development. It is a powerful tool to promote and encourage policies in industrialized and developing countries to maximize struggles against job creation, economic growth and consequently social inequalities and poverty. When the companies enjoy good financial status and have a favorable competitive position in a market, they contribute not only to the creation of incomes but also to the redistribution of national income in favor of the poor. All these virtues can benefit companies when they have the material, financial, human and informational resources.

However, having a good information system in the workplace is an important signal for adapting changing conditions in the business world, bringing innovation and evolution. In this regard, (Bryan, 2010:305) rightly states that: "learning and advancement society are getting to need to the welfare and nature of life...this depends significantly on logical and innovative advancement. Data and Correspondence Advancements quicken – urban - and country improvement by adding to increasingly effective administration and fast information scattering". In the last decade, information technologies have been marked by increasing speed and generalization. This is linked to the globalization and integration of economies at global stages, which creates a turbulent economic environment around organizations and companies. Bryan (2010:305) argues that viewing such clear evidence: "a goal of management is to provide the right tools for staff to effortlessly access and store the information required

to manage or provide a service. A park and recreation organization may be comprised of many operational and administrative functional areas, and each has an information component".

The information technology system is also the driving force behind the evolution of new product market pairs on new strategic management methods in an increasingly turbulent and a competitive environment with information technology. This enables the company to control commercial management, productive systems, humanitarian, financial, and information. Therefore, thanks to information technology, the information system is accepted as a new key variable of competitiveness in companies in strategic management theory, in short, medium and long term. Thus, they are presented as an exit strategy. The demand for competitiveness, brought about by the general evolution of the national and international economic environment, implies a modernization of the information apparatus of the organizations in order to confer on them not only an aptitude on a competitive market but also to render them efficient. This raises the question: what is information technology?

1.1.1. Basic Concepts of Information

In daily life, one can say and feel a flow of information in the present day, and an acquisition of data at individuals' levels, companies and states. What does that really mean? In the words given by (Roederer, 2012:9). who pointed out that: "information is the operator that intercedes the above-portrayed correspondence: it is the thing that connections the specific highlights or example in the source framework A with the particular changes caused in the structure of the beneficiary B. We state that "B has gotten information from A" in the communication procedure. What's more, the common framework can't have "information alone", disconnected from any association procedure past, present or future: information is always there for a purpose.

(Gelinas, 2008:8) sees it as includes any, software, hardware or communications technology that can be adopted by an organization to control or support a business process or provide a competitive advantage or enable management decisions. Data processing is essential for data, in the technical term, it is converting

raw data to a machine-readable format, generating data via the CPU and memory to output devices, and formatting or converting the output as described in the next chart.

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┌─────────────────────────────────────────────────────────────────────┐
│  ┌──────────────────┐    ┌──────────────────┐    ┌──────────────────┐ │
│  │ Input Technology │    │ Process Technology│    │ Output Technology│ │
│  │                  │    │        CPU        │    │                  │ │
│  │ accepts data and │    │                   │    │ Present data in a│ │
│  │ instruction for  │ →  │ ALU: perform Arith│ → │   way            │ │
│  │ processing.      │    │ & Logical         │    │ understandable by│ │
│  │                  │    │ comparisons CU:   │    │   people.        │ │
│  │ - Keyboard       │    │ Control & direct  │    │ -Monitor         │ │
│  │ - Mouse          │    │ processing        │    │ -Printer         │ │
│  │ - Scanners       │    │ MEMORY: RAM & ROM │    │ -Plotter         │ │
│  │ - Voice input    │    │ Store data &      │    │                  │ │
│  │                  │    │ Instructions during│   │                  │ │
│  └──────────────────┘    └──────────────────┘    └──────────────────┘ │
│              ┌─────────────────────────────────────┐                  │
│              │     Transmission Technology          │                 │
│              │ Control the passing of data and      │                 │
│              │ information between the input output  │                │
│              │ and storage devices and users at      │                │
│              │ different locations                   │                │
│              └─────────────────────────────────────┘                  │
└─────────────────────────────────────────────────────────────────────┘
```

Source: (Heeks & Molla, 2009:4)

Figure 1.1. Data Processing System

Rudo (2013) underlines the stages or cycle for data processing in the following points:

1. The first stage of the cycle is collection and it is important to ensure that the collected data is both defined and correct for subsequent decisions based on the findings.

2. The preparation is the conversion of data into a form suitable for further analysis and processing. It is also for generating data sets from one or more data sources for use in further research and processing;

3. Input is the task in which verified data is converted into a codable or machine-readable form for processing from a computer;

4. Processing is when data occurs in a variety of ways and methods, the point at which a computer program is executed, and when it includes program code and its current activity;

5. Output and interpretation is the stage where the processed information is now transmitted to the user. The output is presented to users in a variety of report formats, such as printed reports, monitors, audio or video;

30

6. The last stage in the data processing cycle is storage where instruction, data, and information are kept for future use (Rudo, 2013:1).

In a company, machines and networks enable various actors to coordinate their activities within the company. In this case, we are in the presence of interconnection of machines. Isazadeh (2014) remarked that "information in modern society is governed by knowledge, competence, and only informed decisions and actions. There will be no room for incompetence in this society. The wealth of information and knowledge available for the citizens were only informed, knowledge, and competent individuals can survive as managers and leaders of the society (Isazadeh, 2014:3). The various tools and means for information technology are used to deal with content that is intended to be communicated in the process of mass, organizational or personal communication.

Companies and their leaders are also increasingly confronted with the power of information, in which the search for a position on the market will be oriented and enable them to improve business performance. In business, the disruption of information flow around the company is both an opportunity and a threat. Leaders can take advantage of flexibility and capacity to adapt to market positions to ensure their competitiveness.

To (Karim, 2011:2) Who clearly state the fact that "information is essential for the endurance of a financial organization in the global and competitive market; the nature of globalization and competitiveness in the market stress on the importance of developing an organization capability through a better enhancing information system. He also argues that: "information must then be recalled and distributed for the use of organizational leadership and top management as well as mid-level managers to take effective long term (strategic) and short term (Tactical) decision-making" (ibid).

Technology is a mean of information, more now than ever, information became a fundamental element for any business. IT developments offer opportunities to improve workflow processes, foster innovation, and gain competitive advantage. However, information can also be a challenge for managers who need to both control costs while ensuring that the infrastructure continues to meet the needs of their

organization. (Carlos & Alcami, 2012:7-9) add that information for administration should be basically articulated in the following dynamics.

1. Relevant information: it increases knowledge and reduces uncertainty surrounding the problem under consideration;

2. Accuracy: information should be accurate enough for the purposes of managers. No information is not entirely accurate and spending more in pursuit of greater accuracy does not always result in more valuable information. The degree of accuracy should be consistent with the importance of the decision to be taken;

3. Completeness: each required information is for the decision-making process, and information is completed if it informs us of the key points of the problem we are analyzing;

4. Source trustworthiness: it can be tested when a source has a proven track record, and to increase the trustworthiness of information, managers use reports from various sources, particularly where strategic decisions are concerned;

5. Punctuality: right and good information are that which is delivered just when it is needed. To a certain extent, the need to obtain information quickly can jeopardize its accuracy, although today's data processing methods can produce accurate information very rapidly;

6. Details: each information should contain the minimum number of details for effective decision making, and the level of detail should vary with the level in the organization;

7. Comprehension: It transforms data into information, it cannot be used if the information is not understood and therefore cannot add value.

1.1.2. Types and Sources of Information.

In the literature, two types of information can be illustrated: primary information and secondary information. The choice of the source depends on the need for information. The choice of the source of information is inter alia related to the level of news, the precision and depth of information sought. For example, the information found in a periodical article will be much more recent and specific to a restricted topic

than the information found in a book. Thus, we must know what kind of information is needed. As Rafael (2012) asserts company executives make decisions, prepare plans and control company activities by using the information they can obtain from official sources or through informal channels such as face-to-face meetings, social contacts or telephone calls. Managers are often challenged by an increasingly uncertain and complex environment. In these cases, managers should be able to identify and obtain the kind of information they need theoretically. (Rafael, 2012:5).

Primary information is defined by Bates (2011) as original, uninterrupted, or new materials such as a scientist conducted original research. The sources in primary data are giving a personal point of view regarding the concerned subject, and they are usually created by a participant in events or witnesses, except for historical studies written after the fact (Bates, 2011:74). Sources which provides new studies, original findings or results based on the research of others to interpret the giving data without relying on the interpretations of others. The sources of this information will naturally be journaled articles and books as well as private or general dictionaries and encyclopedias. We may also use non-textual documents and information, such as movies, sounds, images, and other multimedia documents. And all these types of information can be obtained from personal information sources such as customers, bankers, suppliers, sales staff, and distributors. The information may also be acquired from other information sources including general memorandums, surveys, market studies, and consultants' reports.

Hollowell (2011) considers secondary information as types of data that describe and interpret conclusions, findings and results based on studies written by other scholars (Hollowell, 2011:28). Hence, this type of information is used to give ideas or comparing a personal understanding to others by citing their resources. They are basically created by scholars who did not participate in the original events or did not get the first experience for accounting, evaluating and interpreting the evidence provided by primary data. In organizations, the type of information can be internal secondary data or external secondary data. The first ones are available within the organization such as past market studies, activity reports, competition statistics, archive files and information stored in the customer database. While external sources can be obtained free of charge or at the cost of access from specialized or general

information centers such as banks, research centers, professional federations and chambers of commerce.

Table 1.1. Primary Resources vs. Second Resources

Primary Resources	Secondary Resources
___Concept___: Giving a personal point of view regarding the concerned subject, and they are usually created by a participant in events or witnesses.	___Concept___: Describe and interpret conclusions, findings, and results based on the studies written by other scholars.
___Example:___ Interviews, manuscripts, autobiography, government or organizations` records.	___Example:___ Books or article reviews, biographies, historical films.

Source: (Hollowell, 2011: 28; Bates, 2011:74)

Here two main sources of information: Internal information about the environment in the company's operation gives information about whether the company has achieved its objectives. Most of this information comes from the statistical analyses of the production, sales, among others and the accounting system. External information helps company managers obtain information about their most direct competitors, the geographical distribution of its shareholders, and potential client segments for the company's product lines. Rafaeal (2012) argues that a company succeeds only if it complies with the demands of its external environment, and it must be constantly informed and updated about all evolution and changes to its external interest groups which can be classified as follows:

1. Customers: marketing, sales, levels of satisfaction;
2. Distributors: marketing and logistics;
3. Competitors: market penetration, innovations, product quality;
4. Suppliers: transaction conditions;
5. Trade unions: salaries and employment stability;
6. Shareholders: company performance;
7. Financial institutions: financial conditions and investment opportunities;
8. Government: legal and political developments (Rafael, *et. al.*, 2012).

1.1.3. Concept of Information Technology and its Characteristics

Marantidou (2011) defined information technology as a different set of technological resources and tools used for communication and for processing, the creation, storage, dissemination, and information management (Marantidou, 2011:45). And Bryan stated that information technology is a key force in reshaping organizations by applying computing and communication investments to promote customer service, competitive advantage, and other strategic benefits (Bryan, 2011:305). The concept of New Information and Communication Technologies (NICT) is often used and understood as synonymous with the Internet with all that that implies: the use of computers and various telecommunications networks to connect users to each other, and to link them to the information.

Information and communication technologies (ICT) bring together the techniques used in the transmission and processing of information, mainly computer and telecommunications and the internet. The modern technologies help to make information accessible to everyone in verbal or symbolic form, also in computer readable form. In other words, information technology is the result of a convergence of technologies that can allow the exchange of information and their processing, and it also offers new means of communication. Morabito (2013) argues that companies have many technological solutions; they tend to drift into the most easily handled information form, and the conversion of data into something more constructive requires intelligence and concentration and a significant amount of human thinking, but most companies see the issue only in technological terms. (Morabito, 2013:24).

The technologies that support and enable the development of the internet are currently at the heart of NICT, but these are not limited to the internet. The concept of NICT must be understood here as covering all the tools and techniques resulting from the convergence of telecommunications, computer science, and audiovisual media with the common denominator of the use of digital data. It does not exclude classic services, such as radio and television, which can now be broadcast on the same digital media. In companies, the process of developing the quality of the relationship has traditionally been based on face-to-face interaction between service provider and

clients. However, information technology provides new opportunities to create, maintain, and develop the customer relationship.

As to the characteristics of information technology, Chen (2016) asserts that information technology has become a day-to-day development in every field and is closely linked to technological and scientific development, and its intellectualization has become increasingly prominent (Chen,2016:21). Information technology has developed to a major driving force in many organizations. These organizations are seeking to get IT applications which can help them sell their products or services effectively. For example, through the internet, organizations, and businesses are moving information faster and they also coordinate multiple activities to achieve efficiency. Sarrocco (2005) contends that information technology is considered the hope for unequal distribution and narrowing down gaps and of access to information among the nations and sharing of technology. In other words, the universal access to information and knowledge (Sarrocco, 2005).

Information technology has changed businesses in many ways, helping to create a network economy in which businesses are connected in real time with customers, suppliers, partners, and manufacturers. In this case, we look at information technology as an opportunity and economic development industry. Helfert (2011) assumes that information technology has a number of features which gets easy access to any information or news from around the world and provides the necessary information in all areas such as economy, politics, education, and others (Helfert, 2011:55). The main objectives are to use the available resources efficiently to get maximum effectiveness and organizational performance as explained in the following graph.

```
                    ┌─────────────────────┐
                    │     Objectives      │
                    └─────────────────────┘
                              ▲
                              │         Effectiveness

Resource         ┌────────────┴──────────────┐                Results
                 │ Information System / Technology │
                 └───────────────────────────┘

      ◄──────────────────── Efficiency ──────────────────►
```
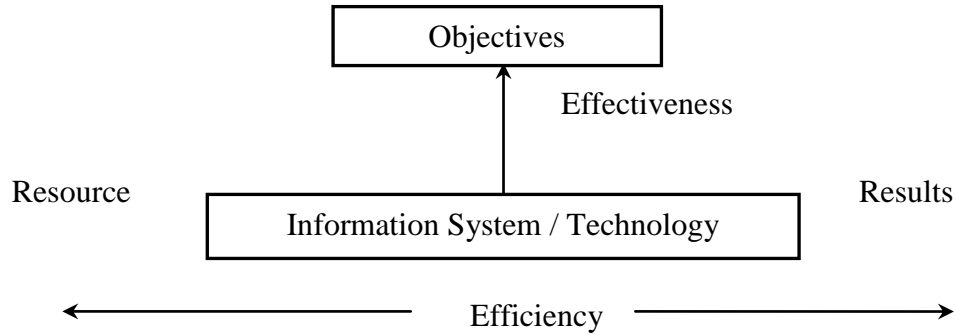
Source: (Tofan, 2013: 191)

Figure 2.1. Characteristics of Informat

Notwithstanding, information technology can also be characterized as available means that facilitate access to information in the least time possible by relying on computers and devices that support internal or external internet connectivity. It also uses applications that can securely allow the information for being transferred, stored and analyzed in a timely manner. But, the rapid development of technology which has become a daily image in business life makes it necessary for us to catch up that rapidity in favor of the competitive advantage in the marketplace. Berisha-Shaqiri (2015) argues that the technological revolution foresees global computer networks and the free circulation of information, goods, and peoples across national borders. Therefore, global computer networks and the internet make globalization possible by creating a technological infrastructure for the global economy (Berisha-Shaqiri,2015:73). Information technology enables individuals who are marginalized and isolated to express their opinions openly and transparently in the local and international community, regardless of who they are or their place of residence, thus helping to reconcile power and decision-making relations both locally and internationally.

It permits individuals and companies to find out all the details of the important information they need and to catch up on the evolution with lower cost and limited efforts. Shah and Kesan (2005) argue that information technology pushes us toward a digital world, and the design of the world has implications for transferring information and influencing societal values, such as privacy. It is malleable that allows for a large amount of variation depending upon the intentions of the designers (Shah and Kesan, 2005:1). Currently, information technology is one of the most important means of

communication in the present age for providing all kinds of communication services, whether educational, educational or political, among individuals, communities and countries around the world. Through information technology, people, institutions, and companies can get access quickly and easily to a virtual world within which the information can be converted into knowledge and translated into practical material that may be beneficial to its users. In summary, the technological era is characterized by the multiplicity of inventions and renewing them daily to gain a further competitive advantage over other competitors.

1.1.4. The Importance of Information Technology

Information technology focuses on a variety of software and applications that protect, process, store, and then transmit and send information. Therefore, information technology has become a major force for development in many countries. A country that is dominating information technology is the country that can see progress and development in the near and far future. Information technology has made the world a small village. Today, there is no longer a distant region, thanks to modern technologies that contributed to the dissemination and circulation of information better than ever before. It facilitates the performance of the tasks and has saved the world from various traditional methods that drain time, effort and resources; thus, improving both productivity and profitability. As Nikoloski (2014: 303) claims, technological advances have greatly increased the competitive nature of the business world. Companies have used information technology to transform their business from local businesses to global and national market competitors. Technology also forced businesses to remain flexible and adapted their operations to better and newer technological developments (Nikoloski, 2014: 303).

In today's world, information technology has become the backbone of the world's growth and progress, it is considered as fundamental to the economic growth in the competitive advantage. The digital revolution affected human life; It dominated economic, social, and cultural life, and economic development is largely based on capturing rapid development in the fields of companies and states. The development of these technologies has helped to uncover many facts. The world has become very

connected; everyone can quickly and easily access anywhere, the use of modern technology, especially the internet help people learn and work collectively, as well as communicate quickly with information and science at the lowest cost. However, many developing countries suffer from a shallow culture of technology due to the lack of government care in these areas compared to the emerging and developed economies. The United Nations reports that developing countries must look forward to and actively participate in the development of technological capabilities that are appropriate to their needs (UNCTAD, 2003:4). But catching the fast movement of information technology in the developing countries remains challenging. (Winjnhoven and Wassennar, 1990:37) assert that it is important for these countries to anticipate the necessary organizational changes needed for effective system implementation.

Information technology has established its unique presence in the modern business world as an important engine for knowledge and growth both for managers and employees, as well as for customers. (Berisha-Shaqiri, 2015:73) claims that information technology changes not only our lives but also the way people do business; companies have the potential to reach more customers by using information technology, deliver new products and services quickly, and collaborate with business partners and suppliers from all over the world.

The result of information technology is largely the transformation from the industrial society to the information society and then from the industrial economy to the knowledge economy.

Dealing with information technology will change the general behavior of individuals and companies, and we can find that in several forms, decision-making systems, artificial intelligence, e-mail, systems of expertise, and local networks. (Kundishora, 2013:8) assumes that "information technology provides nations with an opportunity to reduce poverty in economic growth and address the digital divide. Some developed and developing countries have seen the emergence of information technology, which contributes significantly to the national gross domestic product - GDP".

Information technology plays an important role in achieving its development objectives and goals; first, it plays an important role in increasing domestic income in most developed countries and developing countries. It contributes as well to improve community conditions and reducing poverty. (Berisha-Shaqiri, 2015:75) argue that: "Information technology is one of the factors that help businesses to enter new markets to produce new services and products and become innovative. Therefore, we can conclude that the role of information technology in the production of new products and services is quite large." Furthermore, information technology is often identified with novelty that can generate mutations from classical society to a technological society.

(Kia.e.al.,2000:331) stated that "Information technology has become an important part of the accurate and rapid transfer and processing of large amounts of data processed in international and port organizations and transport companies". Information technology: can be used for various purposes such as directing useful information to economic activities, facilitating communication between players, improving existing services or creating new ones. (Sarrocco,2005:8) assumes that opened "new perspectives and offered opportunities for e-commerce, e-learning, e-government, environmental protection, e-health, post-war reconstruction and many other applications which are highly useful for and economic development and social-cultural.

Many projects fail because the real needs and information are insufficiently studied. The creation of a multifunctional service or a new brand inevitably raises the question of where real needs are and how to achieve them. Although the digital revolution is a global phenomenon, deep disparities still exist between countries and the Sustainable Development Goal sets an ambitious global target: significantly increase access to communication and information technologies and ensure that all the inhabitants of the least developed countries have access to the Internet at a cost affordable (Kim and jee, 2007:498) stated that the use of information technology has enabled companies to reposition themselves or overcome competitive disadvantages in a competitive configuration in a market, and through information technology, companies can improve the efficiency of their operations and their performance in resource management and procurement.

Governments, the private sector, and the international community will have much to do to reach this target and bridge the digital divide. Kramer (2007) conclude that information technology enables players, states, companies, and individuals to expand their economic opportunities and create wealth for others for mutual benefice and interdependence (W. J. K. e. al, 2007:23). There is no doubt that information technology has a major role in modern management like organizing the work automatically, reducing time in correspondence and the effort in completing tasks. As for the administration, it must follow the times and use the technology to facilitate and accelerate the achievement of the objectives set. Thus, the role of information technology is profoundly important and effective across individuals, companies, and states at large.

Finally, information technology completely creates new insights into the economic and social fields and even promotes the emergence of new societies. In contrast to the industrial revolution of the last century, the information technology revolution is and influencing everyone's vitality and rapidly spreading; it does not discriminate among people in their timely access to information and knowledge. Information technology goes beyond political and geographic boundaries of countries to reach any corner in the world. Therefore, it is necessary to develop and take care of this technology effectively by emphasizing its importance at the macro and micro level, by teaching and educating individuals how to use.

1.1.5. Steps of Development of Information Technology

Information technology has evolved over time; the birth of the World Wide Web was the most powerful ICT in the sense that it brings together all multimedia media by networking them. This history began when computers became so inseparable to human life; Haigh (2011) argues that in the late 1940s, computer technology released the social revolution, whose evidence often seemed to be incomplete. However, information technology has played an important role in reshaping many aspects of everyday life, and new applications and ways of use are always being invented. Studying information technology itself cannot tell us how and why it is used to change the world (Haigh, 2011: 44). Dede (1989) adds that developing information technologies will transform the nature of business and this transformation will affect

the content and design of life. Since World War II, technological evolution, the performance capabilities of computers and telecommunications have doubled every few years at a fixed cost. Over the years, for information generation complex devices probably replaced data processing and information systems, and digital discs will change the structure of the media (Dede, 1989: 25).

The world has witnessed in recent years rapid development and progress in information technology, digital revolution on the economic, human, cultural and social life. Economic development is largely related to the ability of countries to control and cope with these transformations in order to exploit existing and renewable resources. The revolution in the digital world which started by telecommunications to be ended with satellites and fiber optics has released a vast amount of knowledge.

”(Mahoney,1988:1) contends that “Information emerged as a fundamental technological and scientific concept applied to events ranging from black holes to DNA, from cell organization to human thought processes and from the management of companies to allocation of global resources. Information technology brought a dynamic revolution in many areas, and it changed the ways people and nations were living their social and economic life. For example, natural resources are no longer a measure for economic growth, but investing in information and technology became essential for development and progress.

According to the literature on the evolution of information technology, two simultaneous phenomena occurred in the late 1940s. The first was in 1945 when John von Neumann (1903-1957) invented the modern form of the recorded program and presented a major developer. The data and instructions are thus handled by the machine that paves the way for the modern computer. The second incident was the transistor invented in 1948 by three researchers at Bell Laboratories: John Bardeen, William Schockley, and Walter Brattain to accelerate the techniques for amplifying the electric movement (Haigh, 2011:44).

Before that revolution era, the telephone was the only means for Correspondence among individuals. Since PCs were invented, they get data to be exchanged with each other and through terminals and tens of billions of microcomputers in the world using countless servers of servers associated with the

web. These profound developments have caused a blast of media Communications. Data exchange among PCs requires much higher capacity and transmission speeds than the telephone. That led to the need to considerably increment the capacity of telecommunications networks (Naiem, 2008).

In modern time, the invention of optical Fibre and Laser in 1958 has changed the dynamic in information technology; the electrons are supplanted by photons to convey the data bits. By the Advancement of modern technology, it was noticed that quick and optical strands have quickly dislodged copper as a broadcast communications innovation. The first idea that comes to mind is to utilize light rather than the electricity, the photon rather than the electron which could work very faster in electronic systems. Our planet is shirked with the invention of the telephone in 1877 by Thomas Edison and satellite television in the early 1960s. Thanks to the revolution in information technology via the internet, today than ever, it became easier to get access to tens of millions of computers around the world in second or less than (Mahoney, 1988). Looking forward to successive developments and changes across the evolution of information technology, revolutionized intellectual and economic activities are booming more than ever, and the dynamic vision based on great evolutionary trends is crucial to understanding what will happen even in recent and distant history.

The 21st-century society is shaped by information technology, and that evolution also represents today a new chapter in the modes of education and communication that affecting positively and negatively our future generations. In the field of education, students are increasingly using the computer as an important teaching assistant that allows them to cultivate their knowledge in a timely manner. The development of networking has changed the functioning of society, the ways citizens get access to health or education services, and the relationship between businesses and their customers. Dede (1989) argued that almost thirty years ago, information systems and data processing would be replaced by complex tools for information generation and technological advances, possibly leading to the emergence of a new era; and an industrial society can be replaced by a civilization based on information processing (Dede,1989). That era is happening now; Information technology has become the lifeblood to our modern time. The outcomes of information

technology are part of our socio-economic life. Information technology has become a common indicator for developed and sophisticated society capable to produce and innovate in order to keep up with the evolution in the globalized world. (Johnson,2003:749) assumes that information technology is "at the foundation of numerous authoritative changes either as a reason or as an empowering influence". Modern organizations, on the other hand, must give considerable attention to the information infrastructure and to the internet in order to prosper and survivor in the current technological environment.

1.1.6. Types and Sources of Information Technology

Information technology is booming, and applications for digitization, data collection and setting and automation continue to advance. There are many types and sources for information technology. For example, there are electronic documents, digital documents, electronic resources, electronic materials, electronic collections, computer files. Computer files and electronic sources of information have been used interchangeably to refer to file (data, software) for handling or processing by computer. (Bronstein, 2010:1) points out that:

"users' preferences for some sources of information over others are of great importance in understanding users' information search behavior. This understanding can lead to the development and provision of information services that better meet customers' information needs".

A combination of external and internal business information resources can provide the necessary background to assess current performance and future progress, in the ways that can advance their work and achieve customer satisfaction. (Anderson e. al., 2001:131) assert that the purpose of information seeking behavior is primarily the acquisition of relevant information from selected information carriers. Poor or incomplete information would likely lead to faulty decisions with serious consequences for the organization.

(Jenny and Baruchson-Arbib,2008:131) contend that: the search for needed information is an essential movement of everyday life. Individuals seek information to pursue their personal and professional goals and broaden their understanding of the world around them. Frustration could arise when users' information seeking process does not match the way the system is designed to provide information. Therefore, matching information needs and information behavior is essential for any successful gathering mode.

In addition, companies, organizations...etc, seek to gather information about its competitors; in the era of information, it is easier than ever to do that through the internet. Organizations can, therefore, gain competitive intelligence about what others do. Sometimes, governments provide an online enormous amount of information that can be useful for businesses and such information may be decisive for any rational choice for gaining further competitive advantage in the marketplace. (Aferdita, 2015) pointed out that:

"Information technology is used as a strategic tool for companies in order to increase their competitive advantages during periods of uncertainty; it may be an idea that information technology can to enable, improve, contribute to the optimization of business resources and increase business performance."

When the organization's environment is unstable, the information system can help decision-makers to formulate rational decisions and reduce the level of uncertainty (Anderson e. al., 2001:133) see that: "the accessibility to information has been a focal thought in the investigation of source inclination in the writing and a few examinations have discovered that information sources that are simpler to utilize are seen as increasingly available and will be utilized more regularly than less simple to utilize sources". information like these can help organizations plan for catching, investigating and utilizing most successfully that information. Although the usage pattern of such information has not changed significantly, the only thing that has changed is the large capacity of storage, instant communication, access and diversity of search points, the multiplicity of sources from which the information is received; and the evidence of evolution of the database from classical methods to modern types. To (Johnson, 2003:739) The person who clearly emphasizes the environment is in

search of information. For example, at full level, climatic, cultural and structural approaches have all the identified factor lists that can affect organizational communication processes.

For Ghassan (2010), who clearly pointed out that there are various types of information technology in the workplace including:

1. Financial Information Systems is one of the most important information systems in management. It includes: i) Historical information on job requirements (balance sheet) through the process of determining the estimated budgets. ii) It gives information to the board about planning and control of profits, the investment of the investor for the mixed sector enterprises.

2. Marketing Information Systems is to determine the sale and distribution of established products by analyzing the profitability and identifying the marketing mix.

3. Operations Management Information Systems relate to all administrative processes related to the production of services or goods in the organization. (Abiss, 2010:3) also adds that: "good management, includes the planning, organizing, and controlling of operations required for providing goods and services in the workplace". To provide control over production processes, an integrated information system should be developed to present the results of planned and already implemented operations to management. In some cases, the task of the administration is limited to the achievement of a specific task or goal, such as producing a new commodity or building a new plant. Because of the specificity of this type of work, the information systems required for it differ from those previously mentioned. Below a graph that illustrates the type of information in different administrative levels.

Information
for decisions

Top Administrative Level

Operational Information

Middle Administrative Level

General Information or Historical

Lower Administrative Level

Source:(Abiss, 2010)
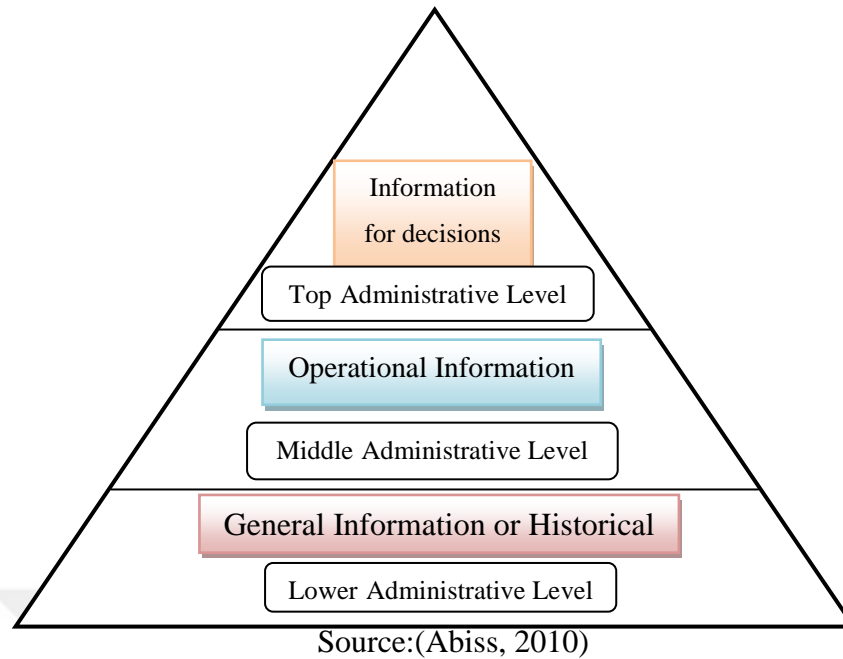
Figure 3.1. Types of Information Technology in Administrative Level

In the broad sense, the sources of information technology refer to all channels through which information can be transferred to its beneficiaries. In metaphorical terms, all data that can be collected, stored, organized and retrieved to serve the beneficiaries for any decision-making process. Parker et al. (1986) argues that knowing the nature of the information required may help select which types of the source would supply this information in a convenient form, within any time limit there may be, to help one with his problem (Parker et al, 1986:6). And the authors divide the types of information technology into two main sources; namely, documentary and non-documentary sources (Parker et al, 1986:6). The documentary sources are touching or recording documentary and detailed information on a specific event or historical issues such as a documentary on ancient civilization: in Mesopotamian civilizations such as Sumerians, Babylonians, and Assyrians. Non-documentary sources are standard data recorded.

As previously discussed, information is basically divided into primary and secondary resources. In primary resources, publications or documents that basically contain concepts, new information, well-known ideas or new interpretations that are recorded electronically based on experimentation, observation, field data collection or statistics for the purpose of new research reports, producing new findings, standard specifications, and patents.

The vessels of primary information transmission are the most important ships and resources of the transfer of primary information are the most important sources and vessels and they really contribute to human knowledge.

As to secondary sources, the information seeker relies on the information that is previously recorded. Data is already arranged according to certain plans in order to manage certain scientific goals like textbooks. Such information can help organizations plan for analyzing, capturing and using most effectively that information. Although the usage pattern of such information has not changed significantly, the only thing that has changed is the large capacity of storage, instant communication, access and diversity of search points, the multiplicity of sources from which the information is received; and the evidence of evolution of the database from classical methods to modern types. Johnson (2003) points to the environment in which information is searched. For example, at the macro level, cultural climatic, and structural approaches have all the lists of factors that may affect organizational communication processes (Johnson, 2003:739).

Digital and electronic data have become part of the information technology, thanks to the rapid evolution of information age. Anand (2014) asserts that the sources of information technology require any electronic product or computer access that delivers an image collections, a collection of data, other multimedia products and graphical, numerical or time-based, as a commercially available title that may be used or reproduced for any decision-making process within the companies (Kenchakkanavar, 2014:97). In electronic datasets, information is recorded electronically in order to interpret, display, and process it. These datasets include data generated and issued via electronic devices for storing in different storage. For knowing the kinds of information resources that are most critical, the literature is getting increasingly difficult to determine the types of information technology. (Bhatt et al 2005) assumes that there is no specific type of information technology, almost all types of computer network technology fall into the category of information types. Information technology is used in the creation of many technologies that really play an important role in the protection of life today and in the future. Hence, all types of information generated in the field of computer networking are considered information technology (Bhatt and Grover,2005:255).

In contemporary management systems, we find many types of packages of information technology in the workplace. Among these types of information technology is business relationship management which is occasionally used for customer relationship management, as well as for handling employees, partners, and governmental business. The term is further used for tools that manage information technology departments relationship with internal and external clients (Spacey, 2015).

Big data are considered essential to meet the new challenges of processing very high volumes of data. According to Ping Fung (2013), large data refers to data sets characterized by greater diversity and greater volume (multimedia, text, structured and unstructured types) produced at higher speeds with an exceptionally high degree of integrity (eg uncertainty and quality). (Fung, 2013:6). Gressel (2017) assumes that some organizations see big data as a new complex and challenging phenomenon that is difficult to manage, while other organizations and researchers see it as a new opportunity for comparative advantage. However, due to its relationship with embedded technologies such as database management and data warehouses systems, large data should not be perceived as a complete innovation. (Gressel,2017:4). In big data, there are structured data as an international information system (e.g., transactional or graph data) that could be used to gain insights and be integrated. Unstructured data include web data, sensor data, blogs, social media data, emails, among others. For the integration of different data types, these data type also present new challenges and may thus affect the decision-making process.

Table 2.1. Structured & Unstructured Data for decision making process.

	Unstuctured Data		
Structured DM	SD-UD Structured Decisions based on Unstructured Data (May require techniques such as text-mining and content discovery).	UD-UD Unstructured Decisions based on Unstructured Data (Mainly rely on human knowledge, experience, interpretation and expert insight. May require techniques such as text-mining and content discovery).	Unsructured DM
	SD-SD Structured Decisions based on Structured Data Can be formulated by using advanced analytics for automated and programmed decision-making.	UD-SD Unstructured Decisions based on Structured Data (Mainly rely on human knowledge, experience, interpretation and insight. May require advanced data mining and query techniques for ad-hoc data analysis).	
	Structured Data		

(Gressel, 2017:10)

1.1.7. Problems And Constraints Using Information Technology

Companies may face several challenges and constraints when using information technology. The twenty-first century is witnessing a revolution in technology, and it is fitting to dub its information age. Its use in the workplace boosts organizational objectives. However, the organizations may also experience several problems in using information technology, some of which are due to employees' behavior related to changing innovation. Serban et al. (2016) As the aspects of change management have been misunderstood by employees, many projects have failed in the

recent past. Managing people is a task that makes some analytical-oriented decision-makers uncomfortable because of their emotional and complexity dimension (Serban & Iorga, 2016:366). The department of information technology may see the urgency to involve hidden costs as an additional constraint, leading to perceive IT as a cost rather than as a source for new business model and revenues.

Companies are rushing to seize digital opportunities, and information technology officials are also sceptical about their ability to keep up with the rapid pace of the digital age. According to Steward et al. (2014), in the digital tsunami, many organizations have been slow in their take-up of information technology due to a number of well-documented barriers, including the very idea of how the business works one-off ventures, low level of technical training and awareness, industry discontinuity required resistance to change, an up-front investment and on-going upkeep expenses. (Stewart and Mohamed, 2014:593). In general, human constraints and appropriate technology are the basic limitations and constraints for implementing information technology within the organizations in order to develop socio-economic dynamics of the companies and to contribute to its competitive advantage (Tossy, 2014).

Madewell (2013) argues that providing services to customers and the specialized capability of supervisors and laborers and growing competition are things compelling information technology. (Madewell, 2013:5), Information technology is changing very fast globally. There are wider market ranges and more nations are being served, in addition, information technology must evolve from the back office to a strategic office and, finally, it must create value from the investment. As Madewell (2013) contends, in the information technology, business strategy and organization structures must set business processes that reflect interdependencies of enterprise strategy. The lack of such a connection would slow down the effectiveness of information technology (Madewell, 2013). Kovacevic & Majluf (1993) note that many constraints exist that involve internal markets, internal politics, business structures, technology, business markets, organization learning, IT infrastructure and organizational culture (Kovacevic, 1993). Valorinta (2011) argues that centralized and decentralized IT systems could cause outsourcing in the workplace and limit the efficiency of information technology. According to the author, it will cover the limits

for transmitting information between business functions and IT, optimize IT spending, provide align IT and competitive advantage and business strategies (Valorinta, 2011). In addition, Fink (2011) points out that IT needs to benefit and create strategic value for IT constraints required for sustainable competitive advantage (Fink, 2011).

Van Stam et al. (2013) list several constraints that affect organizations while they are using information technology. According to the authors, there are five basic constraints, namely: environmental constraints, political and legal constraints, skills constraints, and cultural constraints (G. v. S. e. al.; 2013:3). Among the environmental constraints for using information technology, we may refer to geographical and infrastructural constraints. A distance between cities and towns can cause some difficulties for equipment transportation from one place to another. And the lack of infrastructural dynamics, especially in some developing countries, may prevent the implementation of information technology in the workplace. Regulatory frameworks for information technology need not be conducive to disseminating IT in different areas under legal and political constraints.

As for economic constraints, it is known that information technology contributes to saving time in the workplace; it can guarantee to enhance productivity and efficiency. Using databases to collect and store information can make quick decision-making at work. Employees can easily access business information from a single database. However, it is expensive to purchase and maintain technology. Many private companies cannot afford the cost of hiring full-time technical staff, so they apply to monthly technology contractors who charge them for the job. If business technology tools, such as computers, are not well maintained, their performance is impaired, and buying new computers or other business technology can become increasingly costly (G. v. S. e. al., 2013). Henderson (2012) adds that companies whether small or big need to consider start-up costs when implementing any type of information technology system. Businesses must examine the cost of training employees in unfamiliar technology (Henderson, 2012).

The way the world does the business has been changed by information technology. Advanced skills are needed to get work done effectively. Implementing information technology to highly skilled business operations can save a lot of time in

completing daily tasks. The lack of such skills can present great constraints in using information technology. Furthermore, the absence of appropriate skills may lead to a security failure in the system; information technology is vulnerable to security breaches, particularly when they are accessible through the internet. Unauthorized measures may result in unauthorized access to confidential data. Information can be modified, permanently destroyed or used for unpleasant purposes (Henderson, 2012). Moreover, cyber-attacks and virus threats may interrupt the normal functioning of information technology systems. Such attacks could result in hard disk crashing, causing huge disasters in the system.

1.2. Management Information Systems

1.2.1. The Concept Of Management Information Systems

Management Information Systems (MIS) combines information technology, computer science, and management at the same time, a set of computerized systems that are built to service managers in an organizational environment. (Harsh, 2010:4) points out that production and financial records have long been used by economists as a tool to measure and assess the success of the farming sector. However, when computer technology became more widely used in the late 1950s and early 1960s, the enthusiasm of informed decisions for improving management decision processes increased. ”(R. L. e. al, 2012:12) defines it as "a formal arrangement of procedures that collect, process and distribute the necessary information for the company's operations and related management and control activities, working from a collection of information structured according to the needs of the company, at least partially supporting them, and the decision processes necessary for the Company to perform its business functions in line with its strategy."(Chandra, 2014:1) defines it as "a valuable technology that organizations use to measure the effectiveness and efficiently of their business activities and the performance of their employees. MIS has an in-depth understanding of a company and supports management to make definite business decisions. Although MIS offers many advantages, it has several limitations. In this article, we will focus on this part of the management information system.

And according to Yaser (2014), the above label consists of three terms, the understanding of each would help clarify the meaning of the concept. These three terms are management, information, and system. Management aims to achieve organizational goals effectively and efficiently by organizing, planning, controlling and managing corporate resources. Their purpose is the ability to perform by others. While data is raw data unprocessed and non-context or non-purpose figures, information has meaning and presented in a context are processed. A system is a set of interconnected compounds with clearly defined boundaries that work together to achieve common goals by accepting inputs and producing outputs in an organized transformation process. (Yaser and Shamsuddi, 2014:23). Thus, the management information system is a feature of computerized systems designed to service managers in the organization. It aims to establish technological computer systems that help various institutions and to perform various functions of office assistance and to carry out their business, to organize meetings and accounting tasks and workshops for decision-making.

In management information systems, the decision-making process at the work environment depends on the information that is provided by a team whose task is to gather information. And that information should be accurate and credible for helping specific committees or departments. Managers should have information related to the companies' past and present activities. The information system is based on data, software, devices, and procedures for addressing the information needs of the decision-making process. Yaser (2014) argues that the management information system is one of the most important tools in an organization that aims to provide system users with timely, complete, reliable, accessible and understandable information. Management information systems help automate tasks that save money, time, resources, improve corporate workflow and reduce employee staff. In addition, it promotes the efficiency, effectiveness, customer satisfaction and productivity of the organization (Yaser & Shamsuddin, 2014:22). MIS comprises interrelated elements working together in a consistent manner to achieve the organization's specific objectives. The equipment and system procedures may work manually, mechanically or automatically to collect and store information. Put differently, it is the integrated and interactive structure of the mechanism which ensures access to the necessary data, collected, stored and processed

so as to provide the essential information and connected to the appropriate beneficiary for any administrative means.

The information system is part of informatics and telecommunications, which currently applies to all organizations whether or public or private. The information system coordinates the activities of the organization by means of information and ensures that it reaches its goals. In addition, it also examines the ability of individuals, institutions, and companies to evaluate and design projects and then implement and manage systems that help generate information to improve the effectiveness and efficiency of the product. Mishra (2015) explains that the data is distributed among the various departments of the organization. Data processing takes place in a variety of ways, such as diagrams, reports, charts and graphs to produce accurate and relevant information for management. MIS ensures that all business information is stored in focus and is used at all organizational levels. (L. M. e., 2015). The main purpose of MIS is to analyze the available information to make the appropriate decisions and to provide maximum benefit from the use of the computer or the system and help the provision, management and use of the information in the business environment.

Asemi et al. arc. (2011) sees MIS as an organizational method for our past, present and predicted knowledge of external operations and internal intelligence. It supports the organization's control, planning, and operational functions by equipping uniform information in the appropriate time frame to assist decision makers. (Asemi et. al., 2011:164). Developed information systems provide the data needed to manage and support project program functions. Management information systems were introduced long before the PC was introduced. The utilization of the PC expands the use and access to information and the handling of data in huge amounts. MIS gives suitable appropriate information to the right person at the right time. It can also be a system designed based on the requirement for senior administration and other officials who need relevant information for their decision-making process. The authors explain that MIS is based on available information in various forms like periodic or special reports along with the output of mathematical simulations. Managers use the resulting information output when making their decisions to solve firms' problems.

Note that some definitions of MIS focus on the basic objective of management information systems being a decision-making process, while other definitions emphasize data processing as the primary purpose of MIS. Still others highlight MIS' storage and retrieval of data, or the information management function, among others. Indeed, this definition variety aims at linking the processes and administrative functions with information technology and computer applications. In general, MIS seeks to create management information for all levels of management to perform their functions effectively by using computer for data processing and providing information for decision-making process. MIS consists of an automated information system that collects, organizes, communicates and displays information for use by management in the areas of planning and control of the organizations` activities. However, system boundaries are also established within a business framework. A sales manager may be responsible for motivating, managing and evaluating the performance of a sales organization that owns the business, may encounter various limits in each case and develop a financial plan, a long-term business and plan a marketing strategy.

1.2.2. The Importance Of Management Information Systems

MIS is designed to serve officials and managers of the organization. The main objective is to establish a connection by gathering information between and computer science and management to establish modern technological computing systems to serve organizations. (Adeoti-Adekeye, 1997: 318). points out that it is based on a great deal of information for the development of all aspects of administration in the modern age. Nothing moves without knowledge, and it is often believed that knowledge is power and has the power it possesses. MIS is a modern phenomenon related to the use of appropriate information that can lead to better results, better planning, and better decision-making.

Companies that rely on MIS in their work can gain a further competitive advantage in the marketplace. MIS provides information regarding the internal and external environments that can greatly help managers to make temporary or effective according to the information provided. (Gupta. e. al.,2010:111) asserts that a few years back there are no computer and literate people, everybody depends on manual sources

to get information for different fields. Manual work is inefficient for collecting information and slow for disseminating it to their users; this could cause the information to lose its value and usability. The digital and telecommunication revolution has made information readily and cheaply available to everyone.

(Karim, 2011:459) suggests that contemporary organizations are in the race for enhancing their capacity in order to survive in a highly competitive worldwide market. Consequently, these companies have exceedingly relied on MIS to advance their operations and services. MIS contributes to improving the efficiency of companies to achieve their objectives in the globalized business world. When the economy is booming and evolving, the management information system of organizations must adapt to these new developments. It should be more responsive to its internal and external dynamics. Such adaptability is no longer a luxury but an absolute necessity. (Furgan, 2014: 40) argues that MIS plays the role of communication, information generation, problem identification and helps in the process of decision making. MIS, therefore, plays a vital role in the management, administration, and operations of an organization. (Karim, 2011:459) adds that organizations are endeavouring to propel their dexterity level by improving the effectiveness and efficiency of their decision-making process to meet the successive advancement of the market. In an effort to achieve this goal, many medium and large organizations have increasingly invested in new management information systems.

MIS supports the planning process and provides timely information that effectively contributes to the efficiency and speed of the decision-making process. It also strengthens the competitive position of the company in the current business environment. Yadeta (2016) assumes that during the growth of a globally competitive environment, there is considerable pressure to make the tactical, strategic and operational processes of most organizations more powerful, effective and efficient. A management information system is a combination of components that can obtain better information in decision making and can increase competitiveness (Yadeta, 2016:15). Gupta (2010) contends that there has been fast growth in technology and IT skill. Many organizations launch new products and new services and are in need of MIS to introduce the users and customers to these new services and products (Gupta C. L. P. G. e. al., 2010:111). Yadeta (2016) also argues that MIS generates information to meet

the needs of both the operations and management subsystems as well as the needs of external parties. This information reflects competitive actions, the organization's internal activities, political and financial trends, and environmental and sociological interests (Or, 2016: 15).

(Michálek,2011:3) explains that decision-making requires, aside from availability and precision, it also needs a proper information structure to enable managers to perform required analyses and draw proper decisions from the available information. And that is irreplaceable for companies to reach correct and rational decisions. As Gupta and Yadeta , suggest, MIS improves the quality of organizations by providing relevant information for sound decisions. It encourages decentralization and contributes to making necessary changes in the organization procedures and plans, and measuring performance (Gupta, et al). Yadeta, 2016). Briefly, the application of MIS results in many benefits for organizations and advances their competitive advantage in the marketplace. The decision-making process needs information permanently and continuously for the purpose of making successful, correct and effective decisions by providing appropriate and timely information to achieve the goals of the organizations

1.2.3. Steps Of Developing MIS

MIS is designed to deliver services to managers in the organization to increase its competitiveness in the marketplace, and it has evolved over time through various stages. Each stage aims at achieving a set of objectives for organizations and helps managers in the decision-making process. To succeed in attaining such objectives, MIS passes through three main stages, each of which consists of the following several sequential stages (UNESCO, 2009):

1. Planning and policy development;
2. Developing information systems;
3. The operation, maintenance, and management of the system.

These stages are placed in a mechanism called Structured Analysis based on a series of stages called the System Development Life cycle (SDLC) for planning, designing, analyzing, supporting and improving the information system to achieve the highest standards beyond the perceptions or expectations of users.

The system development cycle (SDLC) comprises generally of five essential stages with specific output; namely, (1) system planning stage; (2) system analysis stage; (3) system design stage; (4) system implementation stage; (5) system operational stage (Adegbola, 2010).

System Planning Stage

At this stage, the basic goal is to create the first logical visualization of the system to be created. The system analyst examines the requirements from the customer by reviewing the details of the necessary activities in the system and in addition by reviewing and visualizing the data flow (data collection and processing) through conducting interviews with users of the system data collection, running questionnaires that contain sensitive and important questions about the new system and its distribution to the users of the system, reviewing the documents used in the current system or through the users' perception of the new system, and monitoring the way the system works and the outputs of the current system and tracking operations through it from beginning to end (Caldwell, 2009:2).

System Analysis Stage

The main target of this stage is to create a detailed system requirement that matches what was analyzed and prepared in the System Analysis Phase. At this stage, the programmer or system analyst defines and identifies the design of all operations, inputs and outputs and in addition to all external and internal elements in the system, whether automatic or manual to ensure the efficiency, accuracy, security, and effectiveness of the developed system. This stage is very important to ensure that the client (the requesting party) understands the specifications of the system to be implemented (Caldwell, 2009:2).

System Design Stage

At this stage, programmers write scripts for the whole system, test the system, take action for verification, and then install the last system to be used by users. The end goal of this stage is to produce a program that works perfectly without any errors and works according to the required specifications with full documentation. After installing the final version of the system, the programmers transfer the data to the new system and then train users on the new system (UNESCO, 2009).

System Implementation

During this stage, the programmers write scripts for the entire system, do the system test, process for authentication, and then install the system to be used by users. The ultimate goal of this stage is to produce a program that works perfectly without any errors and according to the required specifications and with full documentation. After installing the final version of the system, the programmers transfer the data to the new system and then train users on the new system (UNESCO, 2009).

System Operation

This phase continues during the system warranty period. The IT team requires, maintains and constantly updates the system within the limits accepted by users to ensure that the system keeps up with the evolving business requirements in the best possible manner.

A long-term strategic information plan reflecting the overall strategic plan of the relevant organizations is required to promote computer technologies and improve the information systems of any organization. To do that, several strategic plans need to be set, such as a strategic plan for training, strategic plan for human resources development, strategic development plan and other strategic plans that aim at boosting productivity and achieving the organizational objectives. (King, 2010:27) points out that strategic planning is both necessary and feasible for the organization's information needs if MIS supports the organization's core purposes and objectives. In fact, the

system may behave incorrectly when designed from the same "bottom-up" perspective, which characterizes the development of data processing systems at an earlier time.

There is no doubt that the development and construction of good information systems are directly related to the development and growth of the business. The need to produce information has become a fundamental and primary requirement for a company to survive. Computer technology has been the foundation of information systems in any organization; It provides great support in assisting administrative levels in conducting various activities and in all necessary actions and decisions. For any organization, computer technologies and information systems can achieve the following benefits: increase the efficiency of employees, quick access to information, support strategic plans, and improve administrative performance (UNESCO, 2009). To develop MIS and implement an effective method for data processing, the following stages are required.

First, problem identification is a pressing need to start the improvement and development of information systems. This is to provide answers to all problems related to the decline in the competitive position of organizations in the competitive environment, preventing implementation of problems with the existence of defects or weaknesses in the quality or productivity of products. (Lucas-Jr.,2011:8) argues that identifying organizational structure problems come sometimes from feedback within the organization and/or from clients.

The information needed to solve the problem might come from a survey of the competition, e.g., what other firms are doing under similar circumstances, and what alternative organizational structures are available. Moreover, a feasibility study is an important step for developing MIS. Feasibility studies identify the need for an innovative information system, whether technical, organizational or financial. This is done by a feasibility study group and recommendations and proposals to management regarding the investment initiative in MIS. It is also interested in determining the overall costs of the system and determining the technical capabilities of the organization, whether in the long or short term, as well as comparing it to the expected future benefits Palvia (1988) argues that a feasibility study can help assess the suitability of multiple or single proposed system solutions to an identified business

problem, based on a set of criteria prepared by technical personnel/system analysts from the user group, with the possible assistance, in order to be applied indirectly or explicitly in the evaluation of system proposals. (Palvia, 1988: 213).

The system analysis phase is a series of complementary activities of the System Analyst, the obligation to analyze customer needs and requirements, then identify the objectives to be achieved by the new system and determine the dimensions, characteristics and limitations to produce an integrated logical description of the system requirements and components: inputs, outputs, exercises, processes, resources, instructions and procedures for the operation of the system. As Mittal (2012) contends, the stage for system design is divided into physical and logical designs. Logical design means the definition of logical concepts and concepts related to the system before it is practically designed and implemented. The physical design comes to complete what has been initiated by the logical design. That is the testing of the database management system and the design processes and the testing of all the system programs. It includes economic feasibility, organizational feasibility, operational feasibility, and technical feasibility. (Mittal, 2012:3).
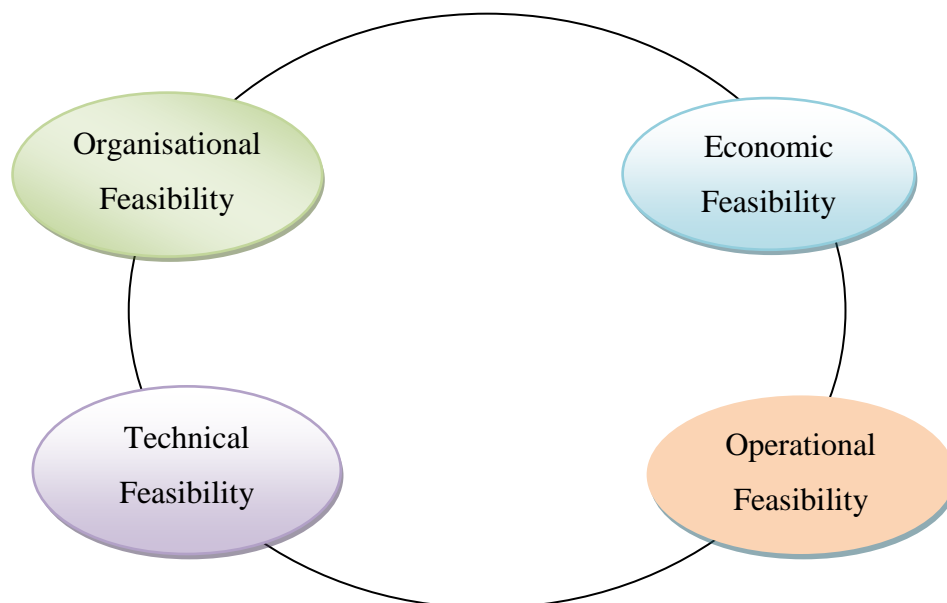
Source: (Mittal, 2012:4).

Figure 4.1. Components of Feasibility Studt.

The feasibility study is an important pillar upon which the starting any business or project is built, whether small or large businesses, entrepreneurial or investment projects, whether financial or non-profit projects. Such studies are necessary to examine and assess the costs and expected returns of the planned projects. There are several types of feasibility studies. Technical feasibility examines the possibility of implementing the project within existing technical capabilities and identifies expected barriers to technical determinants and their aspects. Operational and organizational feasibility assess the project's ability to address potential problems and the project's ability to exploit opportunities to achieve greater operational efficiency, as well as to study the extent to which the project is suitable for the surrounding investment environment. Economic feasibility highlights expected returns and benefits of the project relative to potential costs.

1.2.4. Components Of Management Information Systems

Components of MIS can be divided into a set of key components; namely, organization, manpower, technology, and data and information. Each component is complementary to one another. Tofan (2013) stated that the information system of the institution contains several closely related components; ie information circuits and flows, data and information, information processing tools and information procedures. These components perform the following well-defined functions: transmission, recognition, comparison, storage and information sharing (Tofan, 2013:191).
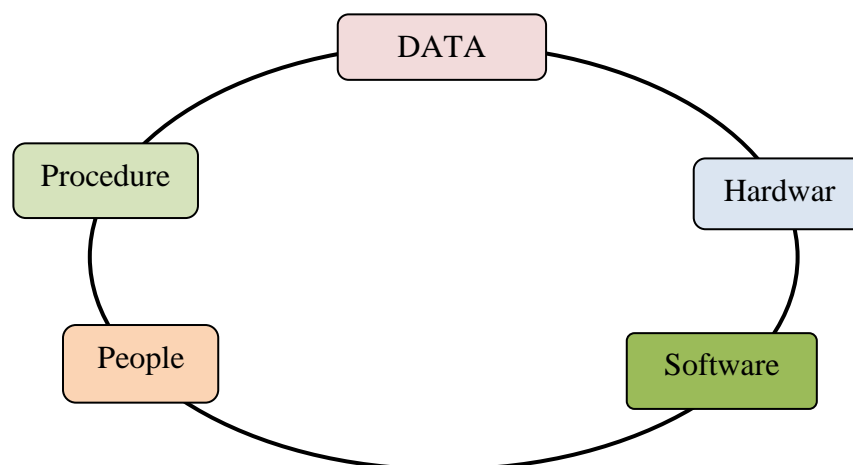
Source: www.Google.com.tr

Figure 5.1. Components of MIS

In the workplace, the organization is an important step for the successful implementation of information technology. Through the organization, the information system can be built. The organization's objectives, culture, nature of work, nature of administration, job distribution and external environment are important elements for MIS. Manpower and human resources are human elements that are trained and qualified for the implementation of various activities.

Human resources management (HRM) has become an important management pillar for creating business values by focusing on several strategic ways at the workplaces (Common, 2013:15).

HRM differs in terms of efficiency, depending on the nature and functions of the system. Technology such as hardware and various physical components like computers, electronic inputs and communication equipment that consists of systems and technical methods used in data processing, storage, and retrieval of information (Digesara, 2013). Business procedures are applications that guide all other components and users to work efficiently. Business procedures have been developed by people including consultants, users, and others. Data are daily business transactions that are recorded daily. For a bank, data is collected from activities such as withdrawals, deposits, etc. Data are produced by printers, computers, networking devices, etc. Hardware converts data processing into information. Software is a program that runs on hardware and is divided into two main categories; that is, system software and application software.

1.2.5. Planning For MIS

Strategic planning for information systems is basic for all organizations, regardless of whether small or large. It plays a particularly important role in the company when it is connected to its organizational culture. It must be integrated with the elements of strategic business planning. The inclusion of higher information systems in strategic planning will produce better results. The strategic planning of information systems can be formal or non-formal to accentuate adaptability and flexibility and strategic thinking at the level of top management. According to King (2010), MIS planning is a process that transforms an organizational strategy set and

aligns it with the organizational, objectives, mission, strategy, and other strategic organizational attributes into an MIS strategy set (King, 2010:27). Organizations can accomplish various competitive advantages by utilizing various technologies and they can control their market advantage when they reach the right strategic planning. This would provide adequate procedures for getting the necessary information for the various analysis processes, especially when the organizations plan to penetrate new markets. Understanding the customers` needs and their expectations remain a challenge for the companies.

Morton (2000) points out that managers will be using systems that exhibit intelligence that may contribute to develop systems and to make useful intelligent suggestions to the manager about strategies or courses of action he might consider. Or it could be thought of as monitoring the problem-solving process of the user and suggesting alternatives to him based on its prior experience and its understanding of the manager's goals (Morton, 2000:8). The development and construction of good information systems are directly related to the development and growth, and development of the business, as the need to create information, becomes a fundamental requirement for continuity survival and harmony. And the organization needs good planning to follow up the road map for its development, and for gaining further competitive advantage in the marketplace. Bogabol (2014) argues that increased competition poses a threat to the survival of businesses in order to be more open in many sectors In this case, strategic planning is vital to ensure organizational efficiency (Bogabol, 2014:13). The concept of planning of MIS aims at developing work and performance to achieve the goals and objectives of the organizations. Therefore, senior management must adopt an official plan for the information system in line with the overall company master strategy.

Bowman (2000) contends that planning a good management information system is based on information obtained. The way toward getting information requirements can, best case scenario in a tentative set of almost complete, reasonably correct, requirements. At worst, the information requirements would possibly be incomplete and incorrect. In the absence of well-defined processes for information requirements determination, it is hard for an organizational unit or functional zone to

define fully its information requirements. (Bowman, 2000:12). Stages of MIS tend to invest in the information required and to understand the work of regulatory information dynamic which is influenced by technology and characterized by rapid changing demand. Thus, appropriate planning needs to address the basic needs of information and to answer some key questions like; What is the extent of MIS planning required? Where are we now? Where do we like to be? also, How do we achieve the desired objective? Below is a graph to illustrate the MIS planning in the workplace:
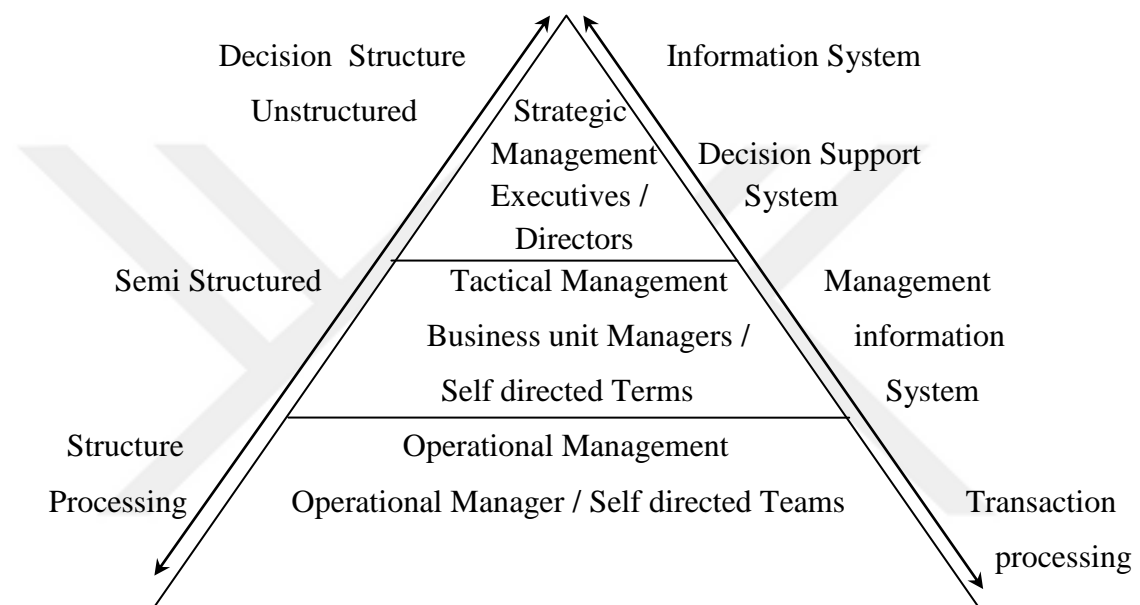
Source: (Bogabol, 2014; Bowman, 2000)

Figure 6.1. Shows Planning of MIS in the Workplace

Analyses of the internal and external structures are the cornerstone of any planning. It is necessary to examine the internal environment to identify the weaknesses and strengths of the organization's information systems and assess the external environment including all factors surrounding the organization to identify the opportunities as well as the threats that information systems may face in the future. The MIS goal is to play a key role in developing the organization's mission by working together with senior management to implement appropriate information technology to reach its defined objectives. MIS's aim at making information systems more appropriate and responsive to user requirements, and to provide the necessary information to decision makers for efficient actions in a timely manner. And that needs

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a good plan for designing and implementing systems projects based on the organizational objectives to strengthen the company`s position in the competitive advantage.

Summary

Information technology plays an essential role in making the organization competitive at the national and global stages. It helps employees to become more autonomous and improves the efficiency of management. Organizations, whether small, medium or large, need a good and strong information system to set adequately their decision-making mechanisms. Having a good information system in the workplace is a signal for adapting to changing conditions in the business world, bringing innovation and evolution in the ways the competitive advantage is undertaken. There are different types of information that organizations need to analyze their domestic and international environment to gather and process necessary information for better decision-making mechanism.

MIS is a combination of computer science, information and its analysis process passes through a cycle called system development cycle consisting mostly of five basic stages; namely, (1) system planning stage, (2) system analysis stage, (3) system design stage, (4) system implementation stage and (5) system operational stage.

CHAPTER TWO

2. LEADERSHIP: THEORY AND PRINCIPLES

This chapter tries to cover the basic theories and principles for leadership. And it discusses as well the tenets issues related to the subject and how the leaders behave in the workplace.

2.1. Basic Concepts And Definitions Of Leadership

The leadership represents a significant interest axis by the management scholars and researchers since the early time of modern managerial testing. Today, the leadership techniques are considered to be the most important elements in the work success within that it will guide all of the resources to achieve the goals. The concept has become – often implicitly - hot news. Some companies or organizations would suffer from a leadership deficit, and some would not be able to produce the leaders of tomorrow. Developing people's leadership skills at work is a major issue for contemporary society. This complex process manifests itself through the capacity to mobilize and federate individuals or groups around collective action. It is described by (Agyeman, 2015:4) as the development of strategies and vision; aligning those involved behind these strategies and empowering individuals to achieve vision despite obstacles.

Bratton,(2005:9) said that leadership is a process of communication, guidance, and motivation to convey future perceptions of the followers to bring of change in the organization. Leadership is the interaction process, which means that when a leader is influencing his people, he is also influenced by them. In another term, the leadership is interaction, mutual relations and attempts to influence in both directions from the leader to his followers, and from the followers to the leader. The studies continued until the current time and history is full of success and failures stories for the leadership efforts of the humans (Northous,2013). The importance of the administration leadership is increasing in the modern era because of the challenges and requirements faced by the organizations in their strategy and vision in new

situations that imposed by the globalization (John, 2005:244). The emergence of organizations with the specialist, human energy and diversity of branches and efforts imposed the development of the leadership theories to be in line with the globalization which we live at this era and to stand in line with the enormous development in the work systems (Bass, 1990:3).

Shilpa Jain, (2013:1) asserts that the jobs of leaders are to inspire employees to top level of performance which need continual study and works… in order to improve their leadership skills, good leaders are constantly working and studying; they do not rely on laurels. According to Okpokwu (2016:20) Leadership is essential for development and growth, so the dominant position of a country is determined by the type of leadership in governance The effective leader in all leadership positions is committed to the logic of performance in the workplace. Also, he is motivated to get his personnel in adequate and dynamic managerial positions with the customers in order to establish the relations of cooperation and integration between them and to ensure that the specific quality level of their work outputs represents the expectations of their customers. Dasho Karma Ura (2012:3) stated that leadership is that procedure in which one individual determines the direction or purpose for one or more other persons and enables them to move along that path and direction with full responsibility and competence.

It is natural that the leader will sometimes expect some behaviour of his employees which may be different from his expectations or directives. The core process of leadership and the source of the effectiveness of the leader and his success in influencing the subordinates will focus on leader ability to provide support to his followers and having their confidence in his ability to provide to them the material, moral and informational needs that increase their efficiency and their performance enabling them to handle the tasks assigned to them. Moreover, the leader seeks to preserve the workers inside the organization as he is considered the decisive factor for any achieved success and whenever the science and technology degrees increased, the preservation mission to preserve the human resources is one of the most challenges that face the leadership continuously. In order to achieve that, the leader must choose the appropriate leadership mode which through a direct effect on the workers where the leadership model is the outcome for the interaction of a set of activities and

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behaviors which implemented by the leader in the work (Amanchukwu, 2015:6). Viewing such activities, the interest at the leadership is emerged after ensuring that the failure occurs in the institutions and in spite of the emergence of resources belongs to the lack of efficient leadership. At the present time, the successful leader is characterized by his ability to take the correct decisions and direct the subordinates toward them (Shelley, 1991:48-60).

The leadership is considered the process of collective influence where the individual is able to provide help and support the others to accomplish mutual tasks (Chermers, 2001:140). Further to this, Northouse, (2001:14) it is the procedure through which one individual impacts on a group of people to achieve common objectives. Rost's point of view about leadership, it is the intentional action between the leaders and subordinates to make the real and desired events. He is confirmed this concept by three elements to determine the leadership and these elements are available to make this concept integrated which are as follow:

1. The relationship between the subordinates and leaders depend on the mutual influences which must not be a type of coercion relationship.
2. The relationship depends on the existing of two parties who are the leaders and subordinates and thus, it is a type of exchange relationship.
3. The desire of the leaders and subordinates in making real change in the common goals (Rost, 1993:102).

Define a leadership concept is primarily displaying the scientists' point of view and all scholars insert into definition the views and visions which consist the nature of the school that the scientist belongs to, but with the diversity of these definitions, there is notified similarity between these definitions. So, all definitions revealed that leadership focuses on five basic variables namely: (1) The leaders; (2) The followers; (3) The objectives both are determined for; (4) The time framework; (5) and The techniques or the Communication methods. In other words, leadership is an influence authority based on the relationships that the leader has established with a group of members by motivating team members to achieve their goals. Furthermore, the leader seeks to work with the employees within the organization as decisive steps for any

achieved success by selecting the appropriate leadership model through which the employees are directly or indirectly affected.

Convincing people for pursuing or persuading the followers, and achieving desired goals is challenging duties in the workplace Successful leaders measure their ability to understand followers correctly; identify how they relate to others inside or outside the organization. Metaphorical speaking, the leader who plays the role of leadership in an organization plays the role of the teacher in the classroom; the students listen carefully to his/her guidance for acquiring functional skills needed for their educational development. The employees in the workplace need to play similar roles in mutual understanding to achieve common goals.

2.2. Functions Of Leadership & Its Importance In Management

Early human resources development studies have paid increasing attention to the traits of leadership behavior and to the quality of the relationship between subordinates and leaders in organizations. Agyeman, (2015:4) leadership is the development of strategies and vision; empowerment these people to reach the vision despite preventing them and the harmony of these people behind these strategies. Leadership, especially the transformational leadership style with inspirational motivation, idealized influence, individualized consideration, and intellectual stimulation are playing important roles in fighting against administrative corruption in the workplace.

Darlling & Heller, (2009) assume that one doesn't need to be splendid to be a successful leader; however one does have to understand other individuals, how they feel, their manner of thinking, and effective ways to impact them. This reality is especially important during the present times of frailty that composing wins in organizations Of Socioeconomic upheaval. Leadership is initiating innovative actions, leaders and their subordinates are working closely to achieve organizational goals. While doing it, some innovative ideas and actions may come out to boost the company`s success, and contribute to reducing corruption in the workplace. As the art of success, leadership tends to influence some people to achieve specific goals

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(Robbins, 2006:314). it also maintains the spirit of the responsibility between the group members (Likert, 1967). Similarly, leadership is a process of communication, guidance, and motivation to convey future perceptions of the followers to bring of change in the organization (Bratton, 2005:9). Good leaders are providing guidance and become a role model for their employees.

A leader, therefore, is giving instruction to his followers about how they can improve their skills, their know-how at the workplace. This guidance is helping the employees to perform their job by full effectiveness and efficiency.

The leadership has a great interest through the business communities. It is very important for the organization because it has a highly dynamic effect on the interaction between individuals and organizations. It is used to highlight on the effectivity of the leadership through the preparation processes, management and human resource development inhomogeneous system which reflect the strategic interest of the organization and the development requirements (Scott, 2011:26). The importance of leadership comes from the needs of the organization for a person who can lead the organization to achieve its goals while taking into consideration the humanitarian aspects with the subordinates. Also, as the case with who think that there is no need for the leader where some workers think that they can make a team work and everybody has his special tasks to manage the works. This type of thinking is not correct at all in many societies and cultures and from different sides (Joanne, 1999:166-172).

The existence of a leader is a very important issue for the organization to manage its operations. Also, he is intermediary between the employees and the organization plans and future visions. In addition, the successful leader can convince the workers to the need to the change and motivate them by multiple methods and direct them towards the goals (Smith, 2013). Accordingly, the role of leadership becomes more important when the level of competition is increased between the organizations. Thus, the successful leader makes the vision and strategy privately for the organization (Kotter, 1988). Good leadership style is creating confidence, leaders are working to make their subordinates believe in themselves and feel confident for a change they were trying to draw and create. It aims to put everyone a part of the team for achieving

the organizational goals. The confidence will make employees believe that corruption is not bad for the organizations, but also for their professional careers.

The effective leader on the whole levels in the organization give special care to his followers, tries to create the clarity, encourages them to remain committed, constructs the trust between them, works on developing their abilities and prepare and configure the organization on the long-term (Bruce, 1999). It can be said that the successful leader who place the rules in his management, customs and traditions which consist of the project goals. He works on that where the behavioural side in the relationship between the subordinates and his leader is the core of the leadership. It is appeared in the influence of one person on the behavior of the other persons and encourages them to work in a specific direction (Michael, 2012:2-7).

A leader is a person who uses his power and influence to influence his behavior and the reaction of individuals around him to achieve certain goals. (Daniel, 2000: 8). It builds a moral dynamic. Leaders are working by example, and they make their employees being absorbed by such kind of morality, in working by fairness, credibility, and full cooperation to get the common goals done with the best of their abilities. Leadership is building a work environment that can provide a good condition for fair communication between employers and their employees. It gives a fair condition to employees of being protected by legal rules and regulations. Or making them feel so important in the team and be a part of any decision-making process.

There are many functions, responsibilities, and duties for good leaders, below a summary of those points:

1. The Planning: The planning process can be used through the participation or through the leadership concepts and the participation may come from the subordinates as it is comprehensive or may not reach into specific sides only through the plans. For example, suggest the means used to achieve the goals by the professionals.

2. The Responsibility on the Implementation: In addition to determine the goals and draw the policies, the leader follows the implementation steps with the direct control on the implementation operations or delegate the supervision

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power on the implementation to some of his followers. However, this is not absolving the leader from the responsibility.

3. Distribute the Rules and Organize the Relationships: The leader put by himself the rules to each member of the group and appear his responsibility and the corresponding rules which prevent the mixing of rules and the duplication which lead to the integration in the efforts.

4. Monitoring, Evaluation, Incentives, and Penalties: The leader has the ability and power to set the work. Furthermore, he must guaranty that the efforts must serve the goals and thus, the provision of motivations that necessary for the work and punish the anomalies on the work line and re-edit the paths (Boggiano, 1992).

5. Proactive and Innovation: The leader takes the appropriate facilities which allow him to place the thoughts and create the practices in the work line to the group. In addition, the leader must be on knowledge from the nature of the changes and renewals. Also, he must seek to get the support of the group for the suggested change and give tangible value on the organization and not to ignore the ancient workers who oppose the change (Peter, 2006).

6. Deeping the Sense of the Membership in the Group: The leader should contribute to the process of social interaction in which members can increase their acceptance of each other and the recognition of the power that is not available to everyone in the group.

7. Example and Model to the Workers in the Home and Their Representative Outside: Each organization raising the logo which distinguishes it from the others, for example, elite logo. Even these logos are not blank. Therefore, the leader must have the model role for the worker in his keenness to translate the logo into reality and his commitment to goals and responsibilities. The leader represents a group in his interactions with the other groups and organizations which associated by the relationships and interest of the interests of his organization, defense and preserve it and gain the trust of the community by this organization (Julie, 2004).

8. The Leader as a Mediator Power to Resolve the Contradictions: The role of the leader in solving differences in positions based on the knowledge and opinion of the leader does not allow the discussion to continue and to waste time. Also,

he is a mediator between the organization members during the fighting in order to prevent the overflow of the authorities and responsibilities. Also, he decides the positions in the highlights of the legislation which judge the organization. Thus, the leader must enjoy by the good management, wide mentality, capability, strong character, emotion, psychological and social capability and positivity towards the people (John, 2005).

2.3. Theories And Applications Of Leadership

The concept of leadership has raised the interest of many scholars and scientists during the eras that led to the development and emergence of different leadership theories. The theories have been developed over time from the end of the 19th century to our modern era. Different scholars tried to deal with the topic differently. Chief among them, Gratton (2007:1) sees that leadership theories tend to get some individuals to lead a group to achieve goals. It does not only involve doing something to other individuals, but also the ability to change the attitude of the members of the group, to mobilize them and to lead them for the common goals. For Wagner (2011:2), the theoretical approaches to leadership are first, it touches the idea that leadership is rooted in the personality or behaviors of the leader. In terms of behavior, the tasks orientation and relationship orientation are dominating the personality and behavior. Second, it advances the idea that leadership is effective as long as the relationships among group members are consistent with the leader's style.

The set of structure initiation of behaviors provides that productivity is at its peak when people have real freedom in carrying out their tasks while being with their supervisor. The link between productivity and consideration is unstable but add that the link between consideration and job satisfaction as turnover or absenteeism is important. Leaders are concerned about getting results from satisfying groups, and they are more concerned about the group's climate. It is important to analyze leadership in a different context. It cannot be said that one command style or theory is obsolete. However, one style or theory can be evaluated more pragmatic, appropriate and further dynamic in particular situation than others. We are underlings in the

following points the major theories and approaches for leadership and how they are applied in the organizations.
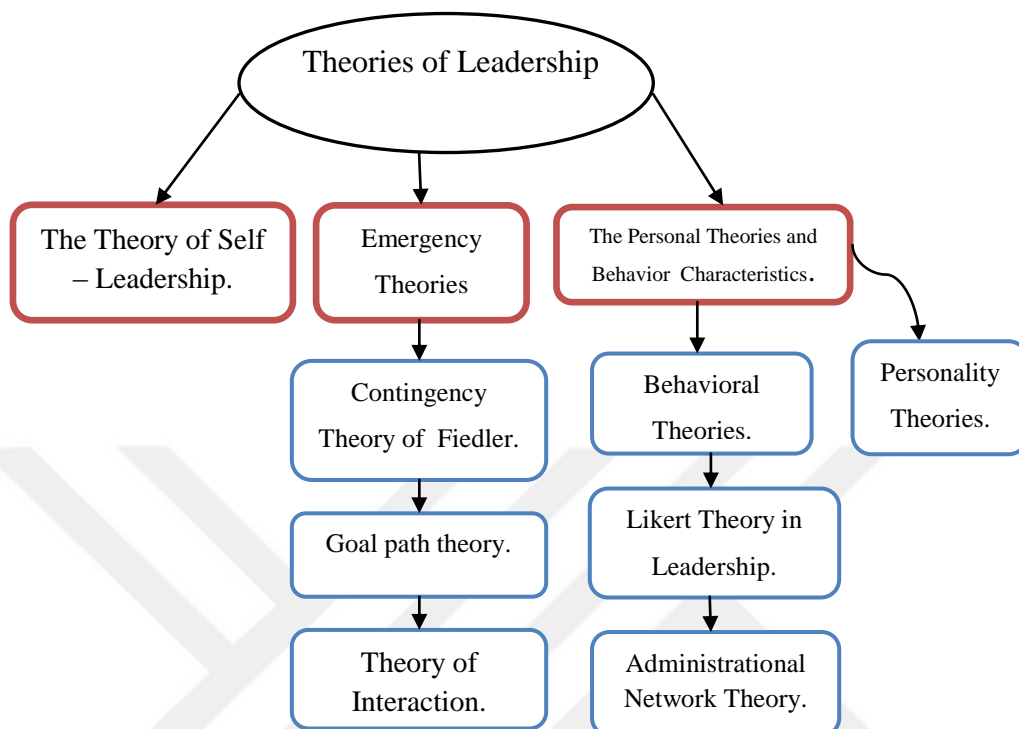
Source: Prepared by the researcher.

Figure 1.2. Theories of Leadership

2.3.1. Great Man Or Personal Theory

The great man theory was evolved in the mid 18th century, precisely in the 1840s. Thomas Carlyle was who popularised the theory in his book: "On Heroes, Hero-Worship, and the Heroic in History". In that period, scholars could not come to a common conclusion on how to identify the characteristic of great leaders. This theory is associated with what scholars called personality theory (David A. Van Seters, 1990). It is basically based on ideas that some individuals who are born to be leaders because they born and have the leadership characteristics in their blood (Maslanka, 2004:6). This means that all great leaders are born with their leadership characteristics; therefore, leaders cannot be made. It was a first attempt to understand the leadership concept, it is started through the attempt to discover the characteristics, and character features where the leaders enjoy and differ them from the others assuming the existing

of specific characteristics including the ambition, energy, and desire in the leadership, knowledge, confidence, honesty, and integrity (Stoner, 1995).

The theory assumes that there are individuals with exceptional abilities and talents that can control the course of history and progress. In other words, some men have been characterized by unusual traits since birth, while leadership traits attempt to descend from one person to another through the inheritance system. The arguments of this school are based on some historical events; For them, most of the old societies were based on their mastery and courage of their leaders, in which the most powerful man was chosen as the ruler or leader or pioneer, and one of his main tasks was to win the battles of his group. However, the theory got huge critics by the reduction of the interactivity, and thanks to those critics, the theory failed to be considered evidence in an empirical manner. It fails in analyzing human behavior and only it described this behavior. It fails to determine the characteristics which distinguish the leader and support his personality. It does not take into consideration the effect of the group on the positions, policies, and management. It fails to determine the inherited characteristics of the leadership and the difficulty to separate between the leadership characteristics and mutual values (Buzzell, 2005:95). In the great man theory, we may ask if Hitler, Mussolini, and Stalin were born as leaders or they became leaders. Here we see the limits of this theory and the need to link the exercise of leadership to other social and moral framework.

2.3.2. Trait Theory

It developed after the First World War, during 1930's to 1940's. It is a reaction to the great man theory. General characteristics are the forms of emotion, thought, behavior, emotion, or behavior that distinguish one person from another and are considered to be a relatively coherent and discriminating path between situations and over time (Sacher, 2016: 142). Thomas Carlyle has considered being one of the pioneers of this theory which is dated back to the nineteenth century. It is to identify skills, talents, and physical characteristics of those are leading, those are in the power. Scholars such as Gordon All port, they believe that people are either made or born with certain characteristics and qualities like intelligence, creativity, the sense of responsibility, or others that can make them apt for leadership roles.

For Maslanka (2004:7) the theory is analyzing physical, mental, and social characteristic to get further knowledge about some common characteristics among leaders (Maslanka, 2004:7). Ricke (2015:2-4) pointed out the following points as common leadership traits that can be found in each of leader. Those traits are narrowed down into four points: Vision, Passion, Communication, Trustworthy. Spears stated ten points as characteristics of leaders: Listening, healing, awareness, conceptualization, persuasion, empathy, foresight, commitment to the growth of people, stewardship, building community (Spears, 2010:3-6). Other views such as Sacher et al (2016) sees that the Trait theory is characterized by three basic components, namely:

1. Cardinal Traits are the main traits that governor control an individual's life, are very rare, as such personalities tend to develop in later life;
2. *Central Traits* are the basic foundations of personality, and they are not dominating as cardinal traits;
3. Secondary Traits: are generally related to preferences, attitudes and usually appear under specific circumstances and in certain situations (Sacher, 2016:145). The common traits of this theory are motivation, achievement, tenacity, knowledge, self-confident, integrity, cognitive ability, ambition, initiative and energy, and also the desire to lead leadership motivation. Fairholm (2009:18) sees that some people are born to lead for psychological qualities; we just need to identify those qualities, selecting them from others to prepare them for leadership tasks with the training program. Warren (2001:9) sees the theory is for knowing mental traits like intelligence, the physical as height, and social traits or characteristics of individuals in order to connect between individual characteristics and measures of leadership effectiveness. This theory sought to determine the characteristics that characterize the leader mentally, physically, socially or individually. However, this theory did not give a practical answer to many of the inquiries and questions asked about leadership, but it revealed the characteristics of leadership that could be learned. The idea of this theory depends on the need for special qualities and characteristics that make itself capable of leadership, and these qualities can be inherited or derived from their existence in society.

According to this theory, a leader is a person who has his or her own abilities and characteristics and separates him from the rest of the group, and these abilities and characteristics can be physical, psychological or mental. By examining the traits theory, we can see that there are no universal traits systematically separated from effective leaders over other individuals. If particular personality traits are key characteristics of leadership, then how can we clarify that individuals who have these characteristics and qualities are not leaders? So, the theory failed to use identical measures to evaluate the same construct, which made it very hard to duplicate the outcomes. Furthermore, most trait studies have depended on samples of adolescents or lower-level chiefs. It also failed to correlate the impact of situational variables that might alleviate the relationship between leadership effectiveness measures and leadership characteristics. Briefly, the theory couldn't give essential principles based on such common traits, whether cardinal, central or secondary for differentiating leaders from non-leaders occupied psychologists who have studied leadership.

2.3.3. Style And Behavioural Theory

It was developed during 1940's and 1950's as a reaction to the previous leadership theories. It is giving a new dimension and perspective which is focused on behavior rather than physical, mental, and social characteristics (David A. Van Seters, 1990:5). It is responding to some critic vis-à-vis the traits theory. David McClelland one of the scholars claimed this theory. He traced a pattern of motives in leaders. According to him, successful leaders are in a lower need for affiliation and the higher the need for power and activity inhibition. (Thomas Cummings Warren, 2001:9). The theory attempted to evaluate the behavior of the leadership where leadership behavior can be virtual and can be learned and emerged in different directions to describe leadership behavior. Moreover, Ohio State and Michigan universities developed each other a specific study which is purely based on the behavioural model.

Michigan University studied leaders and came to the conclusion that there are two types of leadership: employee-centred leadership, and job-centred leadership styles. The first style is giving great concern for employees' personal growth and development, emotional well-being, and achievement. In contrast, it is for creating job

environment to get higher organizational performance. However, the second style is supervising employees to be certain for doing their works according to rules and regulations. The compensation, rewards or punishment, therefore, are to influence and determine the employees behaviors (Blanchard, 2015:1). An Ohio State University came to a similar conclusion as Michigan and added that combining various styles may lead to success in all circumstances. And added also that there is no single way to lead, and the best model is depending on the situation and the friendship relation between the leaders and their followers. And that may be determined by some factors such as nature of work groups, type of tasks, formal authority system, experience, personality and maturity level of the followers, and their ability (Blanchard, 2015:1).

		High	Low
Attention workers	High	Leader interested in consolidating the group and satisfaction of employees and develop them.	The leader focuses his efforts on increasing the efficiency of performance and satisfaction of the employees.
	Low	Leader is negative, he do not interested in the performance of tasks and do not care to satisfaction of workers.	The leader focuses on productivity with the consent of attention few workers.
		High	Low

Source: Stoner, 1995.

Figure 2.2. Behavioural Theory

In addition, this theory is considered similar to the gained leadership theory which is based on the experience and practice of the leader in his life. Thus, the successful leader is the person who gains the leadership characteristics in his work and practices the leadership. Also, due to the lack of the personality theory to determine the interactivity characteristic of the leader and the non-effective leader led to shift in focus in the researches and studies to the behavior of the individual (the leader). Unlike leadership trait theory, behavioural leadership theory does not look for innate abilities or traits in leaders. While this feature theory refers to various sets of independent variables, leadership behavior theory tends to focus on the dependent variable, for example, performance. This theory looks at what leaders do in contrast to simple psychometric assessments that actually distinguish those who have leadership

potential from those who will never have the opportunity. According to the theory of behavior, leaders are not innate leaders, but they are done as talent, work, consistency, reasoning and enthusiasm skills. This theory places more emphasis on the tasks that leaders do in practice, their strong inner intelligence, and their mental skills. (Rue, 2008). In brief, this theory is to get a set of behaviors, examining the successful leaders' behaviors, getting different leadership styles by determining behavior taxonomy.

2.3.4. The Managerial Grid Theory

It is to examine the influence of leadership styles in job performance. In 1939, Kurt Lewin with researchers developed this theory by studying young boys' groups under different working condition. They advanced three leadership styles in their research (Molloy,1998:3-5).

1. Democratic style: The followers are associated with the decision-making process, animated by group discussion guided by leaders for any tasks accomplishing.
2. Authoritarian style: Is the type of leaders who are strict about the orders, they are making decisions alone, and dictating to their followers each step must be taken.
3. Laissez-faire style: Is total freedom to the team to determine their ways of the job without the direct participation of the leader. This last style has been criticized by many scholars, and according to them, the preferred style is the democratic model.

In the studies of Ohio State and Michigan universities, for managerial grid there are five leadership styles which constructed on the axes of interest and production by the relationships as can be seen from the following:
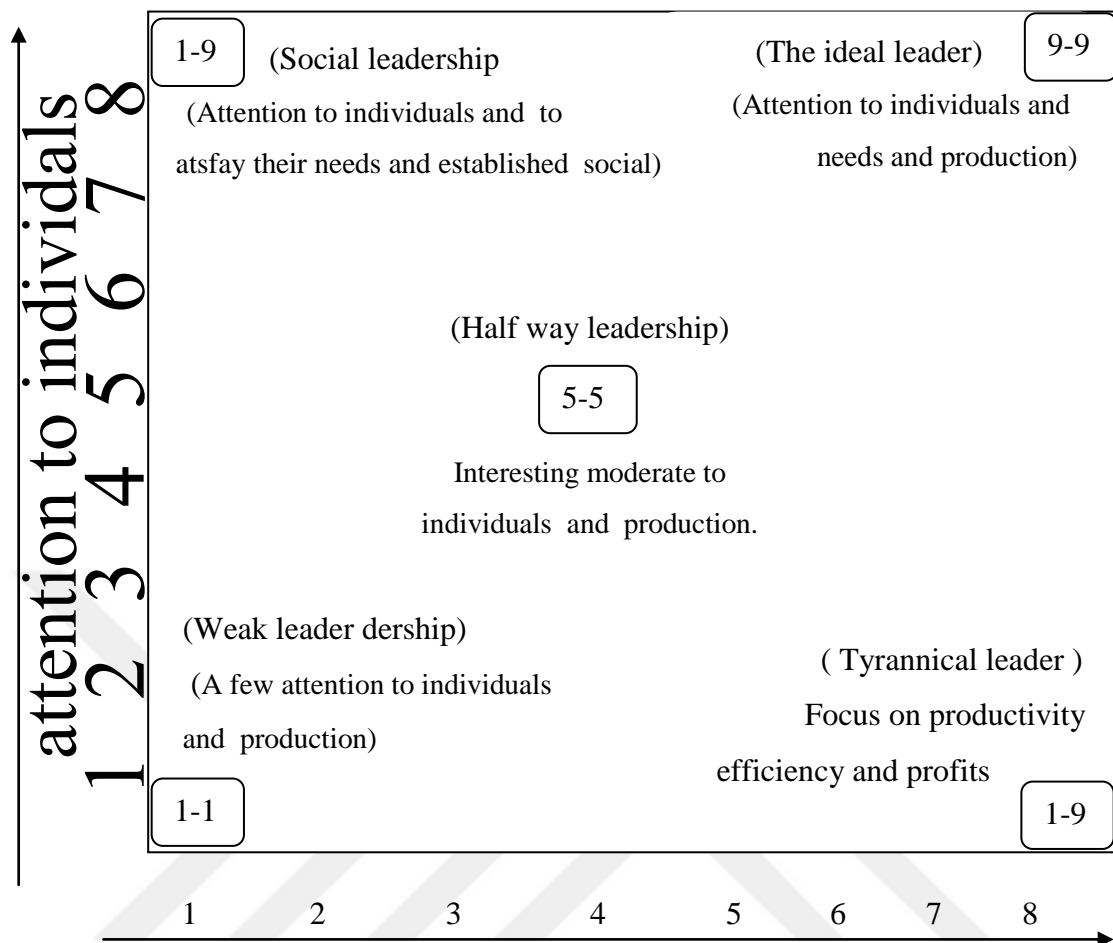
Source: Stoner, 1995.

Figure: 3.2. Behavioural Theory

The Optimal Leader (Team Leadership) (9-9): It is the method which focuses on the spirit of the team at the work through the attempt of getting good productivity through the construction of the humanitarian relationships with the individual of the institution.

Social Leader (Club Leadership) (1-9): It is a type of the technology which leads to good relationships and feels of satisfaction of the self between the members of the group but it focuses on the double of the production. The Leadership at the Middle of the Road (5-5): This style of leadership refers to the leaders who have interest in the production such as the individuals who lead to good productivity by the construction of good humanitarian relationships with the individuals. Authoritarian leadership (9-1): This type of leaders has the professional leadership style and the method of the authoritarian leader. He is highly interested in the productivity at the expense of the

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individuals and this style lead to reduce the moral of the workers and make them work in bad psychological and physical conditions. Weak leadership (1-1): This style of leaders will not highly interest on the productivity and individuals. The leader will only interest by himself and the owners of the organization (Tomey, 2009).

2.3.5. Contingency And Situational Theory

It has developed during the Post-Second World War, in 1960's. It highlights that there is no single way for leadership. Their leadership style must be based on a certain situation. (Maslanka,2004:11). The contingency theory means that the relationship between the followers and the leader depends on a level of complicating the task if the task is very complicated. Thus, the leader must impose relationships with high level with his followers. While if the task is less complicated, the relationship between the followers and the leader must be on a low level (Andrew,2014). Situational contingency theory assumes that leadership in an accounting department uses a different skill than leadership in the boardroom environment of the same company.

Theorists aim to define how a successful leader changes leadership tactics to suit different levels of a company. The ideas emerge between the personality theory and behavioural theory to look to variables in determining the suitable leadership style. This led to the emergence of the theories through the dependence on new methodology (Northouse, 2012:127). The core of this theory refers that the leader tends to the centralized and authoritarian where he is effective in achieving high productivity by the subordinates, while the leader who interest in the relationships and humanitarian situations and respect the humanitarian achieve high productivity in the moderate cases and situations (Dusek, 2006).

It is another reaction to the trait leadership theory; the scholars of this theory as Herbert Spencer and Carlyle pointed out that "the times produce the person and not the other way around (Heifetz,1994:7). This theory supposes that leadership style and leaders characteristics depend on the situation they are. There is no a unique psychographic profile for effective leaders and according to the theory, "what an individual actually does when acting as a leader depends largely on the characteristics of the situation in which he functions" (Matthew R. Fairholm 2009:22). It considers

the probability of emerging specific person as a leader in the group is a result of a complete situation.

Fiedler, the father of theory, assumes that a person's leadership style depends on his personality and his dominant personality traits, according to Fiedler, either for task-oriented or human relations, so whether the leader is successful or not, depends on the degree to which the dominant personality traits caged by the basic elements of a particular set of situations over time (Duff, 2017). The main idea of the Emergency Theories is that the effectively of the leaders is effected by the leader character, style, the nature of his followers and the prevailing situation (Northouse,2012:135). And Hersey et al. (1988) claimed that leadership is skill based and not personality based. An effective leader adapts his leadership style to the maturity levels of the people he is leading. Leaders use telling styles with people or groups at the lowest maturity level, and styles that include delegation sales and participation at each higher maturity level (Duff,2017). As well as, the prevailing situation configures an effect on the ability of the leader to fulfill by the commitments. So, the leadership style is contingent on the situation, depends on organizational problems. This is based on the leader`s effectiveness to deal with the concerned situation.

Paul Hersey and Ken Blanchard (2015:20), considered the founder of the situational leadership model, argued that the leadership style should match (match) the majority of the person or group he leads. The model is structured around instrumental behaviors and relational behaviors. The first aim is to organize and define the roles of the individual members of the team. Instrumental behavior defines an organizational structure, formalizes communication procedures and specifies the procedures for performing tasks or defines performance indicators and standards to be observed.

Moreover, relational behaviors integrate all the personal relationships that exist between the leader and the members of his group. Thus, as indicated by Paul Hersey and Ken Blanchard, a suitable leadership style relies upon the dimension of the development of subordinates in the given circumstance. This maturity is assessed on the basis of the following criteria: accomplishment or self-realization with a willingness to contribute to the achievement. The model illustrates four maturity levels

of the group and four permutations of competency-commitment as explained below with the graph:

Maturity Level:

- M-1: Basic incompetence or unwillingness in doing the task.
- M-2: Inability to do the task but willing to do so.
- M-3: Competent to do the task but do not think they can.
- M-4: The group is ready, willing, and able to do the task.
-

Competency-commitment:

- D1 - Low Competence and Low Commitment.
- D2 - Low Competence and High Commitment.
- D3 - High Competence and Low / Variable Commitment.
- D4 - High Competence and High Commitment.

Leadership Styles in the Hersey-Blanchard Situational Leadership Model	
Participating Style *Share ideas* ------------- Followers able, Unwilling, not Confident	**Selling Style** *Explain decisions* ------------- Followers unable, willing, Confident
Delegating Style *Turn over decisions* ------------- Followers able, Willing, Confident	**Telling Style** *Give instructions* ------------- Followers Unable, Unwilling, not Confident

attention Support Needed (High ↕ Low)

Guidance Needed (Low ← → High)

Source: Blanchard & Hersey, 1996.

Figure 4.2. Situational Leadership Mode

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The model is based on the professional life cycle of the leader and the follower. Knowing when to utilize each situation is largely dependent on the maturity of the person or group being managed. As a result, Paul Hersey and Ken Blanchard warn that you need to think about the maturity of individuals on the team before to adopt any particular style. And good leaders need to change their style based on the task details and the experience and skills the people they lead.

2.3.6. Functional Theory

Is a theory that is focused on the job needs, it is addressing the leader behavior for contributing to a unit or organizational effectiveness. The scholars of this theory, such as Hackman, Walton, and Morgeson mentioned five functional points that are concerned with the leader`s effectiveness (Ravinder Singh, 2017:55):

1. Environmental monitoring.
2. Organizing subordinate activities.
3. Teaching and coaching subordinates.
4. Motivating others.
5. Intervening actively in the group's work.

The theory of functional leadership as a coherent theory was introduced in the 1960s, then to be further reinforced with subsequent studies, because it combines all research in leadership fields into three circles whose functions must be consistent and homogeneous in order to achieve success (Cote, 2017:32). This theory links leadership with the work and efforts that help the group to achieve its objectives. These include the actions that members of the group can take to contribute to identifying and moving the group towards these goals, improving the quality of interaction between members and maintaining cohesion among them. The majority of the members of the group can be carried out by more than one member of the group, so the leadership in the light of functional theory is determined in the framework of the jobs and people who do according to the characters of the functions. Functional leadership means that there are basic functions to be achieved and can be summed up in seven functions (Avery & Ryan, 2001:244):

1. Determine the direction and purpose of the work (why?), Establish a vision for the next three or five years, and disclose the values that determine the ethical compass of the task, mission and institution.

2. The ability to think strategically and plan for the commitment of all concerned parties to enable the institution or group to move towards the goal.

3. The ability to achieve what the institution or the group aspires to.

4. Adjust relations within the work, and determine the way of running the work through central or decentralized.

5. Develop partnerships and alliances to support what the institution or community is aiming for.

6. The ability to unleash the energies of others and achieve synergy and cooperation between the team to achieve more than the number of digital synergies.

7. Ability to develop other leaders for the present and future periods.

2.3.7. Transactional Leadership Theory

The theory if transactional leadership model as a leadership behavior in which the manager focuses on clarifying the objectives of the organizations, how the employees can perform their works and to determine the rewards and punishment policies vis-à-vis job requirements. It emerged since the seventieth of the twentieth century and it focuses on economic interest exchange between the leader and subordinates through the benefit of the workers potential (Kouzes, 1995). Transactional leadership is a set of models which is based on the exchange process between the leader and followers explicitly and implicitly conditioning that the behavior which leads to the performance will be awarded by upgrade or increase in the salary. For example, the leader awards his followers or punish them according to their performance where the exchange process takes two different styles which is whether it is constructive proof and this means that the leader promises by the awards for the purpose of the satisfying performance, and provided if this progress is achieved or treatment associated by the search process of the leader on the mistakes and their treatments before or after the occurrence (Turner, 2002:304-311).

Transactional theories, also known as management theories, focus on and the exchanges that take place between leaders and followers, organizational and group performance, and supervision. These leadership theories are based on a reward and punishment system (Charry, 2012). In other words, a leader's job is to create structures that clarify the consequences (awards and penalties) associated with meeting or not meeting expectations from followers (Lamb, 2013). And Leithwood (1992) clarified that the leadership of the transaction is the reciprocity process of services and functions in exchange of achieving specific goals which fulfill the needs of the leaders and subordinates through the private exchange of interests (Leithwood, 1992:10). According to Kuhnert and Lewis (1987), the leaders of the transactions provide valuable things (rewards - incentives - estimation) and they wait and expect from the individuals in exchange the provision of valuable things (high performance-sincerity in the work-the commitment by the organization goals). Therefore, the effectively of the transaction leaders depend on their ability to achieving the aspirations of the individuals and their expectations, and to fulfill their needs (Kuhnert, 1987:649).

The leadership of the transaction is considered the best entrance to the problems which means the promotion of the individuals through their personal preferences and goals, in addition to the work based on the concept of giving and taking (Torpman, 2004:895). As well as it works on creating a network of powers and clarity of roles and power but it lacks the creativity and empowerment and bear the calculated risks despite the ability on taking decisions about the work vision on promoting the subordinates (De-Berry, 2010:28 When employees succeed, they are rewarded, and when they fail, they are punished or reprimanded (Charry, 2012). Transactional or transactional leadership styles are often linked to management concept and practice and continue to be a very common component of organizational structures and leadership models (Lamb, 2013). According to Bass, transaction leaders meet voters' own interests through party empowerment, positive in case of constructive praises rewards, and promises to voters, success in fulfilling the obligations of the organization and/or leader, or reinforcement is widespread in the case of non-followers follow their obligations - To correct for correcting followers includes negative feedback, reports or disciplinary actions" (Bass, 1990:22).

Many contemporary researchers such as (Greiman & Addington, 2008; Riaz & Haider, 2010; Aldoory & Toth, 2004) touched the dimensions of transactional leadership in theory and practice. Some researches highlight that the style of transactional leadership provide high provides organizational identification and high satisfaction when it is compared to other leadership styles, such as the transformational leadership one (Wu, 2009; Epitropak & Martin, 2005; & Boseman, 2008). Contrastingly, (Bass, 1985; Avolio et al, 1988; Howell & Avolio, 1993; Podesakoff, Toder & Skov, 1982; Kirby, Paradise & King, 1992) assert that the behaviors of transactional leadership reflect decreased work performance and poor attitudes among followers. Style of transactional leadership is represented through the exchange process in clarifying the roles of the employees and tasks which must be accomplished and achieve the personal goals of the workers and the organization message (Neck, 2006:270-295).

Transactional leaders clearly clarify the performance criteria that will be met by the followers and ultimately when desired. According to Long and Thin (2010), transactional leaders are often expected to communicate with their subordinates frequently, and clearly explain and direct followers' work to ensure work is complete. The researchers identified three elements of operational leadership. These are contingent rewards, management by exception (active) and management by exception (passive) (Bass & Riggio, 2006; Northouse, 2013):

1. Contingent rewards: according to Bass and Riggio (2006), a contingent reward "includes the leader obtaining or assigning follower agreement on what needs to be done with actual rewards or promises offered that the assignment offered in return for satisfactory handling." It is a change in reward systems between leaders and followers. A conditional reward is a process of change between the leader and the follower in which the follower's efforts are exchanged with a certain reward. There is a need for a supporter agreement on what should be achieved by the leader and what benefits the people will achieve as a result of the expected task The contingent reward, which is defined as a continuous and positive change with its followers, is taken as a constructive transaction. Although this dimension is effective in motivating followers to achieve higher levels of development and performance, contingent prizes are not as effective

as transformational elements. (Bass & Riggio, 2006; Avolio, Bass & Jung, 1999; Bass, 1997).

2. Management by Exception (Active): can be active or passive in nature (Bass, 1990). "Active trading involves the interaction between follower and leader, emphasizing a more proactive positive change. When followers reach agreed goals appropriate rewards are provided." (Emery & Barker, 2007, p.81). Before something goes wrong, intervening and remaining vigilant to deviations from the norm (Bass, 1985). "Under the Quid Pro quo approach of transactional leaders, employees may find error or dissatisfaction with the equality of the reward system" (Emery & Barker, p.81), as active transactional leaders react to criticism, punishment and/or correction. (Bass & Avoio, 1990).

3. Management by exception: it allows the status quo to exist as long as the old roads work "(Emery and Barker, 2007, p.80). When the status quo is found to be ineffective, the passive leader expects to observe what is happening (Bass, 1985). In the management exception approach, the transactional leader is more likely to be perceived as someone actively seeking deviations that describe a mistake as more than ten successful contributions" (Emery & Barker, p.81). For the achievement and performance goals to be rewarded as promotion, money, and praise for the completion of the work. (Chan & Chan, 2005). Followers' work performance and positive attitudes are determined by the use of active transactional leadership. behavior (Avolio et al, 1988: Bass & Avolio, 1990; Waldmann et al, 1990).

In contrast, other research studies related to passive transactional leadership behaviour indicate decreased performance and poor attitudes among followers (Avolio et al,.1988; Bass,1985; Hoell & Avolio, 1993; Elzets, Landam, 2012; Sanyhaara, Rammanaidu, 2011; Jos, Mesu, 2013; Hani, Abdalla, 2010; Meng, Zhou, 2012; Ann, Higgins, 2015; Anna, Boonzaier, 2008), and while transactional leadership (Avolio, 1988) is effective in predicting and explaining and the level of work performance and tenacity. In short, Management with Exception focuses on the use of the feedback principle, that is, to make appropriate corrections to monitor and improve performance and to eliminate any deviations in performance through the imposition of punishment in case of default and violation (passive interference) or monitoring the activities and

behaviour of individuals, Corrective measures prior to the emergence of any difficulties impeding the achievement of the objectives.

Transformational Leadership Theory

Transformational leadership is a new gateway to change and development; it is one of the most famous leadership theories to transform organizations from traditional to modern methods. John Kenneth Galbraith "All the great leaders had one thing in common; When their people were concerned, they were willing to unconditional confrontation. This and many other things are not the essences of leadership." (George R. Goethals, 2004: 1574). Jain, (2013: 1), "there are some things you need to know and do to inspire your employees to work on a higher level team. These do not come naturally, they are obtained through continuous work and work. Good leaders are constantly working and working to improve leadership skills; they are not based on flaws. Transformational leadership as an effective leadership model is to lead by example, to make the workers a part of the organization's general picture, its global plan.

A transformational leader is not only managing the ordinary tasks and daily issues, but he also tends to change the course of history. Orabi (2016) defined it as "a type of leadership that can collectively impact employee behavior and commitment leading to improvements in the work climate (working dimensions) and knowledge sharing". (Orabi,2016:1). The concept got popularity in the 1980s in leadership studies, because it is emphasizing on values, and emotions to show how far the leaders could get the necessary abilities to motivate and affect the workers to succeed beyond the job expectations. According to Karaca, (2010:32), The transformational leadership paradigm focuses on the achievements of the leader rather than the personal characteristics of the leader. In chaotic settings, transformational leaders are likely to be more effective because they seek new ways of working, opportunities for risk, effective answers to questions, and less likely to maintain the status quo. Therefore, they can respond positively to changes in the external environment." Leithwood (1992) sees it as a form of leadership that facilitates renewing commitments, redefining people's vision and mission, and restricting their systems for achieving their goals. He

explains that the leader's focus is on the capacity and commitment of organizational members to achieve goals that result in greater productivity and organizational functioning.

Although transformational leadership is not a completely new or unknown concept in leadership studies, there is no concise definition (Hoover et al, 1991; Leithwood and Jantzi, 1990). The concept was associated with the Webberler (1947) charisma study. Burns (1978) claims that leaders and followers raise each other to a moral level. Bass (1985) described transformational leaders as followers to increase their interest in the benefit of the group or organization by increasing their awareness of the importance and value of group results. Graham (1991) encouraged transformational leadership to develop the skills of charismatic leader-followers, eventually encouraging them to develop initiatives by working for the leader's goals. This leadership is aimed at creating common interests between followers and leaders.

The transformational leadership represents a summary for the positive sides for all the previous theories where it collects between the successes factors in the traditional theories, the behavioural theories and the theory of the situation (Daft, 2009). It is considered one of the prominent models in the modern theories which occupied the main position in the last two decades of the twentieth century and the beginning of the current century. Developing the subordinate and enhance his performance was one of the main results for this leadership and its main concept. The transformational leader appreciates the probable energy inside the subordinates where he increases their ability to complete the current and future commitments (Dvir, 2002:735-737).

Moreover, Howell (1993) stated that the transformational theory is a conceptual framework where it links the ethical development with the leaders assuming that the transformational leaders are on the high degree of the ethical development and have internal motivations. Hence, leaders know the difference between the true and false and they are under the conscience authority more than the laws, systems. Similarly, they enjoy a high degree on self-control and live in advanced stages of moral maturity.

The transformational leader has a vision in the future and he is excited to work as one team and encourage the followers to make an effort over the expectations. As well as, he believes by the importance of communication with the workers where he stresses on the stimulus system and its positive effect (Koech, 2012:5). The individual who presents the transformational leadership always has a strong set of values and there are dimensions are associated with the transformational leaders as explained in the Figure below:
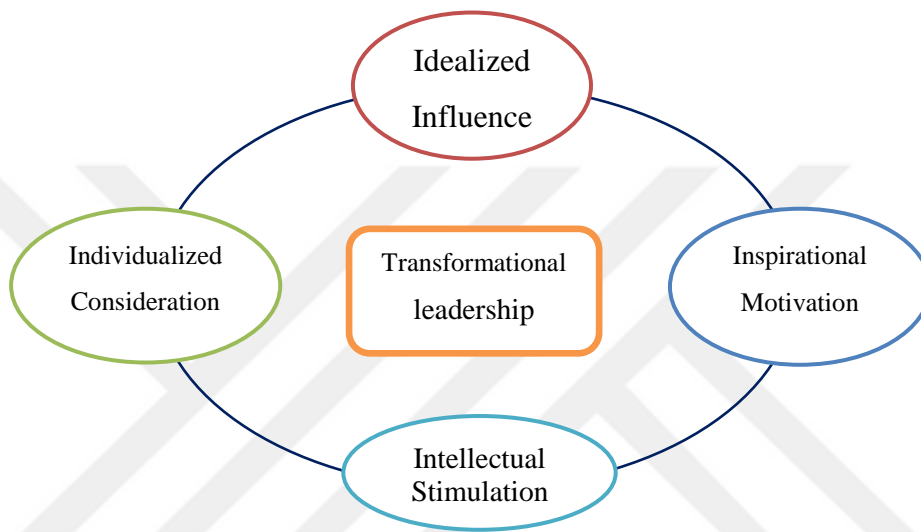
Source: McCleskey, 2014

Figure 5.2. Dimensions of Transformational Leadership Model

Idealized Influence: The charisma is a set of characteristics and behaviors which through the leaders become the highest ideal to the followers. Besides, it is impressive, appreciated and trustworthy for others (Archbold, 2003:51). Transformational leaders emerge as good examples and show an attractive character that influences others who need to become more and more similar to leaders The idealized influence can be best communicated through the willingness of a transformational leader to follow the set of core values, ethical principles, and beliefs in risk-taking and actions. This gives confidence to leading followers and followers through an idealized concept of influence and then enhances confidence to their leaders The charismatic leader has high spirituality, ethical values, and morality that enable everyone to surround and influence them. In addition, he has the ability to

improve the values of subordinates through the deep feeling of the message and providing the ideal vision. (Janis, 2002:37-38).

The charisma reflects the personal power which makes a high degree of loyalty, commitment, recognition, and knowledge by the leader and mission (Hellriegel, 1998). The transformational leader gives a model in the behaviors, high ethics, gains the trust and respecting of the followers. The followers search on the inspiring leader as a seasoned emotional person who increases their consciousness and these transformational leaders take into consideration the need of the others and they ready to sacrifice by the personal gains for the interest of the others (Goertzen, 2012:85). Leaders with these traits are very appreciated, regarded, trusted, and have an abnormal state of self-assurance, confidence, and self-assurance and self-determination. Bass & Avolio (1994) purport that the idealized influence leader given significantly to employees needs more than leaders, develop and practice higher ethical and moral principles and do not use authority for their benefit. They are viewed as good examples and show elevated requirements and moral conduct (Chan & Chan, 2005). Through admired impact, the transformational leader encourages followers to do more than originally anticipated by raising awareness of the value and importance of identified results, increasing the interest of the follower, overcoming them, and expanding or changing the needs of the followers in Maslow's hierarchy of needs. (Bass & Howell 1992).

Inspirational Motivation

The dimension of inspirational motivation is the main factor in the transformational leadership process (Odentunde, 2005), and is close to idealized influence (Laka-Mothebula, 2004). Inspirational motivation expresses the leader's ability to evoke motivation, sense of purpose and confidence in his followers. The transformational leader must express communicate the expectations of the group, a clear vision for the future, and adhere to the goals set This aspect of transformational leadership requires superior communication skills as the leader must communicate his messages with a sense of sensitivity, power, and authority. Other important behaviors of the leader include enthusiasm, ongoing optimism and the ability to signal positive.

The leader inspires and motivates followers by providing challenge and meaning to his work. Inspirational motivation consists of creating a common vision or a common goal with enthusiasm. Inspirational motivation is one of the aspects of charismatic leadership in which leaders can inspire their employees with good opinions and emotional appeals, increase employees' goals, show passion and hope. (Northouse, 2010).

The transformational leader behaves byways that motivate and inspire the people around him by giving the meaning to what the subordinate performs, spread the sprite between them and show the enthusiasm and optimism in the attractional future cases (Bass,2006:1). As well as, he motivates them on studying the different alternatives which give them the opportunity in achieving the mutual goals and the way of using the symbols and logos to direct the efforts and clarify his high expectations to his followers (Chemers,1993). The inspirational relationship is communicating a vision with confidence and fluency, warmth, raising optimism, and giving inspiration to employees (Yammarino & Dubnisky, 1994). The inspirational motivation exhibited by the leader leads the subordinates to make additional efforts on behalf of the subordinates, thereby enhancing the sense of organizational commitment, self-worth and job satisfaction.

Intellectual Stimulation

Is a transformational leader that encourages the struggle of its employees through critical reflection and questioning in order to increase the innovation and creativity of the employees (Bass and Avolio, 1994). Intellectual stimulation encourages employees to adopt broad ideas and new perspectives on how best to do their work. Leaders encourage employees to find new solutions to solve old problems or try out old behavior Transformational leadership cares about autonomy and creativity among the leader's followers. The leader is confident in solving the problems they face and develops the intellectual process to his followers (Mandell, 2003: 390-391). The leader supports his followers by encouraging efforts to be as innovative and creative as possible to identify the solution and by involving them in the decision-making process.

The transformational leader challenges the assumptions and asks the followers for ideas without criticizing them. Helps followers change the way they think and frame problems and barriers. The vision of the leader helps followers see the big picture and succeed in their efforts. The effect of intellectual stimulation is cognitive rather than emotional (Doherty & Danylchuk, 1996:295), emphasizing transformational leaders who completely eliminate the status quo, encouraging 'followers to question old things' (Emry & Barker, 2007:80). The leaders behave in ways which make them move the efforts of their followers in order to be inventors and increase the awareness of their followers in the challenges and encourage them on adopting and create new entrances and methods to solve the problems. In addition, they talk about old situations in new ways and point of views.

Individualised Consideration

This means that by transforming a mentor's role, a transformational leader focuses on the employee's success and develops it to the highest level (Avolio, 1999). Individualized thinking is leadership behavior that is conducive to the individual needs of employers, a mentor or coach for employees, and employee satisfaction to inspire employees to develop and realize themselves. The transformational leader gives special consideration to the needs of each individual to develop and increase new opportunities to learn and take into consideration the individual differences between each other for their needs and desires (Bilimoria, 2007:294). He sees them like individuals instead of considering them subordinates and this license is under control to determine if there is a need for more guidance or evaluation. Thus, we find that the main goal of the leader is to work on the maturity of the subordinates in the organization (Obiwuru, 2011:103). In contrast, other scholars like Kirkbride (2006:25-27) saw that there is a set of indicators for the individual considerations in order to recognize the differences between the individuals in terms of the power and weakness and on promoting the self-development ideology, in addition to the good listen to the subordinates and encourage the followers to exchange the point of views.

Transformational leaders consider individual needs by guiding their subordinates for one-to-one (individual) mentoring and are very concerned about the

needs of the followers (Emrt and Barker, 2007:80). Besides, teaching and coaching in the former sense of dedication and commitment to the organization are very important to both(organization and leaders). Keller, 1992; Piccolo and Colquitt, 2006) suggest that each follower or group member has specific wishes and needs. For example, some are motivated by money, others by excitement and change. Individualized transformational leadership recognizes these needs. The leader should be able to identify or determine what motivates each person - through or observation or eavesdropping. Through mentoring and one-on-one coaching the transformation leader provides opportunities for team members to grow and fulfill their positions for customized training sessions for each team member.

The four main dimensions of co-transformation leadership are interdependent, and they all need to co-exist to have an additional impact that provides performance beyond expectations (Gillis, 2001; Hall, Johnson, Wysocki, and Kepner, 2002, Kelly, 2003). In general, the transformation leader is described as a person who expresses a vision for the future that can be shared with colleagues and subordinates who are intellectually encouraged and attach great importance to individual differences between people (Yammarino and Bass, 1990).

Transactional Leadership Theories, as well as Transformational Leadership Theories, have both developed during 1970's. Transformational theories are the processes through which the leaders influence their followers by unofficial channels. While in transactional leadership model, rules, regulations are dominating the interaction between the leaders and their followers (David A. Van Seters, 1990:8-10). Transformational leaders motivate the team to be efficient and effective. They are focusing on the general picture, not on the details. They are always taking into consideration ideas that can move and boost organizational goals. So, they motivate for a good communication channel and freedom of expression. While in transactional leadership style, punish, tasks and reward are measured by the team`s performance.

2.4. Characteristics And Elements Of Leadership

The existence of a leader is a very important issue for the organization to manage its operations. Also, he is intermediary between the employees and the organization plans and future visions. In addition, the successful leader can convince the workers to the need to the change and motivate them by multiple methods and direct them towards the goals (Smith, 2013). As well as, leadership becomes more important when the level of competition is increased between the organizations. Thus, the successful leader makes the vision and strategy privately for the organization (Kotter, 1988). Leadership from the viewpoint of followers should include everything. A leader, therefore, is a person who devotes his work to focusing on the development of the organization, improving the conditions of employees, achieving their well-being and enhancing their engagement with the organization. Responsibility and trustfulness are the keys to success in leading others, as they are essential to all manner of the organization of community life, whether in government, military, business, or educational organizations (Amanchukwu, 2015).

According to Naylor, the qualities of leaders should include being an effective leader as well as being passionate, visionary, creative, inspiring, flexible, motivational, imaginative, courageous and experimental in addition to being able to initiate change (Naylor, 1999:524). Scholars tried to come to a conclusion by examining great leaders throughout history to find out common things they are sharing. For personal abilities: emotional stability, determination, personal integrity, diplomacy, originality, self-confidence, and creativity. For intellectual abilities: knowledge, judgmental ability, and verbal communication ability. Leadership style and their behavior are also countable; autocratic leaders plan up to the organizational goals without taking into consideration the opinions of their followers, while consultative leaders are associating their followers and shared the organizational goals with their followers. And participative or democratic leaders are participating their followers for any decision-making process and making the team to decide.

Ricke (2015) pointed out the following points as common leadership traits that can be found in each leader. Those traits are narrowed down into four points: Vision,

Passion, Communication, Trustworthy (Ricke,2015:2-4). And Larry stated ten points as characteristics of leaders: Listening, healing, awareness, conceptualization, persuasion, empathy, foresight, commitment to the growth of people, stewardship, building community. Moreover, Spears, (2010:3-6). saw that some leaders are characterized by self-management, and basically apt to manage themselves without relying on others; they are auto-motivated and put the organizations on the stage of high performance. They lead as well with a clear vision, they know how to set the organizational vision and know how to communicate with others and direct them in the rightful ways. In addition, they know to make collective jobs by good and right empowerment policies to better boost the organizational objectives (David McGuire, 2007:7-9).

The leaders are characterized by simplification; they bring a vision into reality with simplification. In other word, they have abilities to articulate a practical, clear, and vision that respond to their team destiny. With these characteristics in mind, leaders should have the ability to get the consensus of employees and their commitment to the common vision. They can bring the means of motivation to the team by associating their followers in creating programs and in any decision-making process. These parameters will prepare the environment and condition for innovation. Successful organizations tend to dispose of best talents could anticipate change with confidence and full professionalism. The leaders play this role, influence their team and build trust within the team to go beyond the expectations. Innovation is to bring change in the workplace, not only in term of results but also at the level of individual performance and how they behave to conduct their jobs. Innovation brings accountability and transparency; this is contributing significantly to boost organizational objectives.

Scholars like (Blanchard, 2015; Hogg, 2015; & Humairah, 2006) draw a set of characteristics that could be applied to different types of leader. Those characteristics are getting the leaders apt to make changes to the organizational growth. In addition, other leadership capabilities can be improved by mentoring, training programs, and skill development programs. Self-management and internal motivation: the leaders get auto-motivation and use it to conduct a

company`s destiny. And the best form of motivation, according to Bill Hogg is to love what you do and ensure that your values are aligned with the organization you work with. They have an ability to make difficult decisions; the leaders are seeing the decisions they take as a part of their task to confront challenges facing their companies. Accordingly, they are not fear to take the right risks, for them the success goes a long risk, and they are always ready to take them. But they calculate the risks if they are appropriate and reasonable before deciding them performance (Hasenyager, 1996).

The leaders match their own objectives with those of the companies they are working for. They share the mutual conscious of their companies, and not seeing their role in the organization as a job. They have the ability to adapt to changing conditions in the workplace. The good leaders seek to discover new thing and try to adapt it and make their followers also be adapted to the changing work environment. They believe if they did not do that, the competitors will do it and bypass them in the marketplace.

The leaders have willing to entertain new ideas and listen to their followers. They tend to make a team effort a success, and for doing that, they listen to all members of the team and make them a part of the expected success, they are welcoming new ideas and new innovation to make that dream realizable. John (2007:48) points out that the required characteristics at the leader may differ to some extent in different situations but the researchers and the analysis of the affected leaders have determined the number of characteristics which owned by the qualified leaders. For transformational leaders, inspiration is central for any working team; it is helping to achieve the organizational goals. So, they work continually to inspire their team, not only by motivating them for the job but by trying to know everyone in the team and understand what can make him/her inspired for the team success. Transformational leaders are leading in proactive ways; they are proactive with their team, and visionary for setting the company`s destiny, mission, and values that should match the organizational culture. Transformational leaders are realistic, and they know how making their team believe in the organization`s vision and mission and be passionate about being a part of the cause.

Leaders are different from managers; there are similarities and divergences between leadership and management; as similarities, they are both requiring working with people, they are both influencing their subordinates, and they are both concerned as well to achieve organizational goals. But from different kinds of literature, we can notice the following divergences between managers and leaders; managers are less emotional than leaders, they work with their employees to solve their problems with a minimal emotional meaning, while the leaders are shaping ideas rather than acting to other's ideas. Leaders expand alternatives came from others to deal with daily tasks in the workplace, while the managers limit the employee`s choice. Another important point is that managers only change the behavior of people while managers change attitude. While managers lead by using brain insurance, leaders lead by using an insightful face,

People usually do not distinguish between the meaning of "Leader" and "Manager" and some people think that each of them is synonymous or two sides of one coin that hold the same meaning. While the others find that as vice versa and in spite of the similarity between each of them in the effect on others, each one work with the individuals and administration goals but the more important differences appear in the followed mean to reach the goals. In addition, according to the researches of John Kotter, the leadership was a concept for many centuries while the management is placed at the last hundred years (Kristina, 2009).

In order to get better management, organizations are recommended to combine management with leadership, management with weak leadership style may be worse, and vice-versa is true. So, it is important for companies to get strong management and strong leadership. According to Gleen Rowe (2013: 4), "managers are needed to deal with complexities such as organization and staff building, planning and budgeting, controlling and problem-solving. Leaders are needed to cope with change by aligning people, setting a direction and inspiring and motivating people." Other distinct is that leaders are determined with collaborative and participative lines, while managers are concerned with rules, regulations, and organizational goals without taking into consideration the ideas and views of the workers. Below a table to distinguish between the two terms:

Table 1.2. Management vs Leadership

Leadership	Management
• Leaders are the people who do the right thing.	• Managers are people who do things right.
• Leadership is about coping with change.	• Management is about coping with complexity.
• Leadership is about a kinesthetic feel, a sense of movement	• Managing is about 'handling ' things about maintaining order about Organisation and control.
• Leaders are concerned with what things mean to people.	• Managers are concerned about what and how things get done.
• Leaders are architect Leadership focuses on the creation of common vision	• Managers are the builders.
• Leadership is the responsibility to represent followers 'needs.	• Management is the design of work. It is about controlling.
• A leader climbs the tallest tree in the forest, may be the wrong forest.	• Management is the accountability to achieve the objectives.
	• A manager Chops his way through the forest.

Source: (Bohoris, 2006:2)

arren Bennis gave further distinctions between leaders and managers in twelve points (Bennis, 2009:33):

- Managers administer, leaders innovate.
- Managers ask how and when leaders ask what and why.
- Managers focus on systems, leaders focus on people.
- Managers do things right, leaders do the right things.
- Managers maintain, leaders develop.
- Managers rely on control, leaders inspire trust.
- Managers have a short-term perspective, leaders have a long-term perspective Managers accept the status quo, leaders challenge the status-quo.

- Managers have an eye on the bottom line, leaders have an eye on the horizon.
- Managers imitate, leaders originate.
- Managers emulate the classic good soldier, leaders are their own person.
- Managers copy, leaders show originality.

Also, there are some other points to deal of the differences explanations as follow:

1. When dealing with the employees, the leaders use non-coercive methods to affect them such as incentives and encouragement of innovations while the manager uses styles such as the punishment and threats (Fred, 2012:5-6).
2. Any person in the organization can be a leader because the leadership depends on personal characteristics. As well as, the leadership does not limit to a person in a specific location while the management is associated with the administrative positions and no one can be a manager if he does not hold an administrative position in the organizational structure (Daft, 2001).
3. The leader tends to take risks in the work especially when opportunities are available while the manager tends to preserve the stability in the work (Robbins, 2001).
4. The leader aims to create a vision for the organization and develop its policy and goals to achieve that vision while the managers aim to implement this vision. Also, the employees with the leader are convinced at this vision which they create but the manager is creating the plan to implement this vision (Greenberg, 2000).
5. The leader interests with the behavioural side and how to effect on the behavior of his followers while the manager focuses on the behavior and non-behavioural sides of the organization (Certo, 1997).

2.5. Types And Patterns Of Leadership.

The leadership style can be considered as the style which is used by the leader to behave in the available powers and lead the others and this style is affected by the

components of the leadership situation. The leader moves from a specific style to another with the same followers at the same organization (Akor, 2014:148-149).

There are many leadership styles; scholars touched different styles of leadership, and it develops over time. In the following lines we are summarising the relevant styles of leadership (Latife Abdourahman, 2011):

2.5.1. Autocratic Leadership

Autocratic leadership (dictatorship): in such leadership, power is centralized in the hands of high authority in the workplace; The leader makes decisions himself/herself and outlines the organization's plans, determines the roles of individuals and is the only one who can obey those who do not have the right to choose. In this leadership style, the ability of workers to innovate is also lacking and so limited. Moreover, he imposes the commands on his followers through dominant arbitration methods and the authoritarian leader is called by the word authoritarianism because he thinks by his right in controlling his followers because what he owns of privileges on them for example if the manager has wide experience, powerful character or influence (McClelland, 1975).

The autocratic leader knows what he wants and he does what he wants, directly straight to his goal and his word is low which does not apply to him. The autocratic leader is characterized by the following features (self-respecting-absolute trust-not to admit his mistakes-brave himself and his achievements- cruelty) (Muhammad, 2015:87-88). He does not care about feeling and he always seeks about the power and fortune by any price. Also, he keeps his secrets and the job secret for himself and blame his employees when he fails (Stevenson, 1998). This style tries to collect all the powers in his hands and he does not assign his power to one of followers because he does not trust them and he takes the decision and tell them. While the method in which he presents his behavior is the controller which makes him tough and hard with them (Dawson, 2002) (Steve, 2013:1).

This type of leaders prefers clear structure and place stable expectations and they rarely speak with others. As well as, they do not care to develop their special skills (Lewin, 1939). The autocratic style is old style but it has still existed. In addition, this style may have negative impacts on the workforce as whole because when the leader takes the decisions, the work team will not have the chance to develop their skills in the decision making (Bass, 2004). Furthermore, the employees will stop by feeling the investor feeling in the company. This will lead to decrease the motivation and morale and the ability of the team on working is completely depending on the leader and when the leader is absent of the work, the productivity of the team will suffer because the team does not have adequate trust to take the decisions (Khuong, 2015:212). In spite of the disadvantage of this style, there are some positive features including decrease the pressure on the leader because he has the full control on the decisions and he can take a decision quickly because there is no need to consult before going forward (Adair, 2005).

Generally speaking, it can be said that the authoritarian leadership maybe useful on the short-term especially during the crises or during the creation of the group but on the long-term the leadership turning into a source of destruction of the organization because it makes the subordinates complain and turn to enemies (Giltinane, 2013:6). Therefore, it decreases their morals and efficiencies and suffer from the frustrated. Also, it decreases their chances to become leaders in the future because the autocratic leader cancels their characters and make them loss the ability of the leadership (Ittner, 2002).

2.5.2. Democratic Leadership

The Democratic Leader involves subordinates in decision-making, distributes responsibility and encourages personal relationships and mutual understanding between members of the organization. The Democratic Leadership is based on three basic pillars: Democratic leadership is based on three pillars: building human relations between the leader and his subordinates, delegating authority and assigning subordinates to some leadership tasks. The Democratic leadership has been supported by many researchers. The Democratic leader shares the authority with the team and

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takes their opinions in most of the decisions which lead to raise their morals, loyalty, and commitment (Yusuf, 2014:24). At this style of leadership, the leader focuses on the importance of the group which he leads and increases their morals to work seriously and efficiently. Also, it provides a chance to spread the sprite of the work team and collaboration between each other. As well as, this style is a practical mean of training and develop the administration abilities of the subordinates (Shukla, 1952).

The participatory leadership is to search the opinions of employees at the same organization by making many meetings, in addition to the participantion with each other in placing the vision, standards, and decisions in the organization (Heneman, 1999). The participatory leaders consult with the employees and take their suggestions and opinions into consideration. The participatory style is more effective when its followers are high needing for accomplishment and independence (Karen, 2010). The democratic leader seeks to continuous feedback and searches on the development chances for himself and his team. This style creates the consistency, productivity and develops the workforce and the team members are always more loyal for their work because they feel that they have the right not only in what happened but how that has been implemented (Choi, 2007:246-251). They take ownership of the issues because this ownership is assigned to them. Moreover, they always ready to work seriously because they know that they will participate in the credit and the employees will participate in the responsibility of the work. Therefore, they less ready to cover the mistakes and more ready to be trusted about the problems, and reactions are given and received continuously (Ray, 2012:1-3).

In addition, the work environment tends to be more productive and collaborative and tends to be less rotational because the employees are the investors in the results. They know that the job owner will invest to develop them (Philip, 2005:9-10). Despite the characteristics of this type for the followers and the organization, it contains some campaign shortcomings is that everybody consulate in the decision-making process and this means that the decision cannot be implemented quickly if there is high pressure or we need to take quick decisions. This style work in reality and thus, the leader may enforce to change his style to the authoritarian style in some cases which may lead to resentment. Also, this type of style requires that the leader must

work on creating a state of balance among allow the others to take the initiative and preserve the controlling on the whole operation (Pride, 2009:179).

2.5.3. Faire Leadership

Free Leadership (Successful): it is a mixture style of leadership between the democratic and the autocratic type and to combine them to direct and conduct the efforts of individuals by influencing their behavior. While democratic leadership focuses attention on subordinates, autocratic leadership focuses on production; the free leadership will focus their attention on the individual working style to improve their performance. This style is called the free leadership or non-interference leadership when the leader hesitates to take the decisions and leave the complete freedom to his followers (Mullins, 1996:810).

Bhatti, (2012:193) argue that the leader is not motivated to determine the goals and in other words, the leader here is absent. This is due to the nature of the character or he does not understand the modes of the management and its modern theories and the inability to apply it in the practice. According to Marius,(2014:83-93) this style leads to negative results which reflect on the whole organization, the followers and the leader himself. There is a sharp contrast with the authoritarian leadership where the leader of this style abandoned from the role of the main decision maker and became plays the role of the median, characterized by the negativity, tolerant and perseverance to his followers. This behavior of the leader may lead to the laxness and lack of discipline, decrease the productivity, loss of time, non-stability and expand in a delegation of powers (Sorenson, 2000:186).

According to Van (2008:253-267), this style of leadership where the leader refuses the help from the group where he does not work on adapting the information and the required treatment method to achieve the group goals Moreover, in this style, no one tries to effect at any one because of the development of the procedures and the lack of policies by the leader. As a matter of fact, freedom is the hallmark of this leadership and the members of the group perform what they want. In addition, they determine the directions of the organization and its goals while for the non-interference

term, is a French term and it is mean (Leave the Hands) (Fitch, 2009:28). According to Akar,(2010:39) the freedom leader is the leader who avoids the interference through the existing of important issues. Others see that this style of leadership does not consistent with the other styles and they said that the leader here is not effective, absent and associated negatively with other leaders and does not have the skills and adequate motivations for the duties (Hartog, 1997:21). The shortcoming of this leadership is the duplicity of efforts, waste of time and money. Also, it leads to extend the power of the authorities and tax evasion and the failure to manage the crises. This type of leadership is a rare event in the application management field. As a matter of fact, through this style, we find that there is disintegration in the group and inconsistency and clarity of goals. In addition, increase the neglect of employees because the responsibilities are not determined and not everybody knows the tasks and required duties and even if they know that, they know that evaluation and punishment are absent in the power and this is certainly lead to weak in the performance and productivity (Chaudhry, 2012).

The leadership of the non-intervention is not only the absence of the leader and but also non-achievement of the goals and hopes legitimate for followers, where there is no rewards system, incentives, and feedback, but chaos and ignorance there, and despite the flaws of this pattern but there are certain characteristics that could benefit from it some of the organizations, especially those that contain the competencies and high skills as medical organizations is the complete freedom of action and the selection of what is suitable for everyone (Susan, 1985).

2.5.4. Transactional Leadership

Transactional Leaders: this style of leadership build on approach that the best way to lead is a direct contact between the leaders and their subordinates Ricard et al. (2017:5) stated that in the transaction perspective, leaders often rely on strategies to achieve the desired performance and rational incentives, and the relationship between leaders and other actors is clearly characterized. At the point when individuals consent to carry out a responsibility, they surrender a portion of their capacity to their supervisor. Consequently, a perfect leader will dependably do his best to guide and

assist his subordinates to deliver good and great performance, in accordance with the decision-makers expectations. When the transactional leader assigns a task to a subordinate, his responsibility involves providing him with the resources or the ability to do his job.

Transactional leadership theory implies a possible (conditional) empowerment. Leading rewards and praise motivate subordinates and help to disciplinary actions and correct negative feedback. The leader may consult subordinates to find out what needs to be done in exchange for explicit or implicit rewards and the allocation of requested resources. Therefore, if subordinates meet agreed performance standards, the transactional leader is asked to award rewards. Transactional leadership theory is objective because it assumes that leaders and followers act reasonably in relation to legally binding neutral relationships. The intervention of the leader is carried out in two ways: active and passive. Effectively, the leader looks closely at his followers and takes corrective action based on his mistakes or rule violations By setting goals, clarifying the desired results, providing feedback to achieve these goals, it reveals its impact. In passive mode, the leader intervenes only after standards are met or problems arise. Transactional leadership adopts a "Directive leadership" style, once the contract is in place, while transformational leadership is more of a "sales" style.

2.5.5. Transformational Leadership

This type of leadership is to bring change; Ricard et al. (2017:5) stated that transformational leadership is based on previous transactional perspectives that emphasize the relationship between supporters and leaders but add a supportive style to complement the instruction style. So, leaders need to perceive the requirement for innovation and change, formulate visions and execute changes by spurring individuals inside the organization to achieve the common objectives.

Transformational leaders are constantly visible among their troops and look for, through their mentality and activities, to set a case of how everyone should behave. They set the example and are always at the heart of the action. They use rituals, ceremonies, services, and other social images to revive their relatives. They

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also endeavour to persuade and prepare supporters by constantly tuning, listening, walking, triggering their enthusiasm and soothing them Their unfortunate commitment helps to calm the suspicion of the fans, especially in dark or suspicious moments, where some may consider whether the vision is achievable. If people do not believe that they can succeed, at that point, their endeavours will falter. In a prophylactic allegory, the transformational leader is immunizing his troops with diseases conceivably prompting estrangement. For this, he utilizes a type of representative talk to look after inspiration, for instance by utilizing services, ceremonies, cultural symbols, and other social images.

2.6. The Most Important Leadership Qualities, Principles And Ethics That Must Characterize Of The Management Leaders.

John Kenneth Galbraith "All the great leaders had one thing in common; When their people were concerned, they were willing to unconditional confrontation. This and nothing else is the essence of leadership "(George R. Goethals, 2004:1574). Jain (2013:1) also, pointed out "To rouse your workers into higher levels of teamwork, there are certain things you should be, know, and, do. These do not come easily, but are acquired through constant work and study. Great and Good leaders are ceaselessly working and contemplating to improve their leadership skills; they are not laying on their laurels. Therefore, they tend to lead by example, to make the workers a part of organizations, its general picture, its global plan beyond the expectations. Leaders have a sense of inspirational motivation, and that provides them to push their followers towards the real meaning of engagement and be ready for challenges to undertake shared goals. They focus on the best talents full of charity, harmony, and a good sense of works, and they empower their followers for reason that empowerment allows employees from any administrative levels to use their abilities and creative thinking to improve the productivity and the performance of the companies. It makes employees confidence and gives them the authority to deliver their best in the flavor of an organization. Employees need to see the real sense of attachment and belongingness to the organizations.

There is no robot portrait of the perfect leader. The executives' styles are firmly connected to the character, starting points, propensities, and culture of each, so there might be the same number of as there are people on this planet. Take the case of the last two CEOs of Apple: Steve Jobs and Tim Cook. Every one of them embodied a different vision of leadership and initiative. Tim Cook seems closer to his employees, more friendlily and communicating than his predecessor, Steve Jobs, who had the reputation of being elitist. Culture and education also largely influence management styles. So the management in France will certainly not look like what is applied in Japan or Sweden.

Nobel Peace Prize, Tutu said: "individuals need their leaders to be great and they feel horribly let down when some scandal or other shows that the one they held in such high respect really had feet of mud. What's more And it seems that you establish your credibility by exhibiting that your contribution isn't for individual magnification". (Lituchy et al, 2017). For Failte Ireland (2013), qualities of leaders are determined by their different skills: interpersonal skills, technical skills, and conceptual skills.

According to them, relationship building is an essential part of administrative work and the nature of your interpersonal skills that facilitate the establishment of relationships with others. Therefore, regardless of your current level of experience, your current understanding dimension understands your strengths and weaknesses in this area because it can improve your ability to relate better with others, and doing so helps you to lead more effectively. Dewan & Myatt (2008) underlines some qualities are relevant for any leadership style: Nevertheless, regardless of all these factors that personify us, there are qualities common to any good leader.

Consequently, a good leader helps a mass of on-screen characters to achieve their objectives; they help their followers not only to choose the right actions, but they get their followers part of their dream and to choose the right actions together. They point out that relevant quality is a leader's clarity of communication. An open communicator is a leader who leads to a common understanding of the use of language, the message being transmitted and the effects of that message. A poor communicator, by contrast, cannot produce such a common understanding, even if he

does not suffer from any speech defects. So far the characteristics of leaders have been external. This seems reasonable for a sense of direction that a leader is likely to be out of control when talking to his followers (Dewan & Myatt, 2008:3). A good leader must speak with transparency and sincerity in all situations. Integrity is one of the keys to trusting people around us. On the other hand, if you know how to be open and transparent, your team members will also feel so free to express themselves frankly (take advantage of the feedback!).

Besides the above qualities, leaders have the know-how and trust from their followers. As the key to a successful organization, they get confidence in yourself and your employees to make fair and thoughtful decisions and put transparency at the heart of your conversations. The relationship of trust that this kind of leadership creates will certainly lead the team to success. The leaders have confidence in themselves and dare to assert and to support their ideas and projects. However, they stay always humble and keep reminded that they could also be wrong. Setting clear goals is another quality needed from good leaders, having common goals defined and clear goals with the collaborators will help the team to determine the distinctive contribution of each and visualize how individual effort can contribute to shared success.

This approach encourages exchange and dialogue and increases cohesion within the team. That will allow the exchange and transmission of knowledge; the crucial objective is to evolve your team, to build skills, to release talent. Encourage moments of exchange and transmission of knowledge/ideas among your team members will invite your collaborators to be more autonomous and creative. In addition, good leaders are rewarding good initiatives that allow the team to progress on a daily basis. When a member shows up, share the good news with the rest of the team, good leaders put their employees forward to boost membership and boost performance. They may show that every effort will be rewarded; the team will be more motivated and further encouraged innovation and change. Innovation is vital to any team and any organization. The leader must ensure that his employees are autonomous in their way of working, Delegating is essential to get the team opened for initiatives and innovation; they will only be more involved and satisfied with their missions once they feel part of it.

Briefly, all leadership qualities should be improved. S. McPheat (2010) asserts that all leadership qualities need to be mentoring and improved, which require a great deal of time and a significant level of commitment in order to be more beneficial.

2.7. The Problems And Constraints Faced By The Administrative Leaders During The Decision-Making Process.

Leaders tend to provide empowerment and transparency. There are challenges that may face the application of this requirement. The challenges are big somehow to disconnect where we are and where we want to go. Many people don`t have clear ideas about how to behave and think in such a condition. Ejimabo (2015) asserts that individuals in leadership positions are confronted each day with basic leadership challenges. Leadership decision making (LDM) is an essential skill and ability for most business activities. The survival of each organization depends on the way their leadership and heads settle on choices that influence everyone in the business. (Ejimabo, 2015:2). Sometimes, dominant values or culture within the organization can influence the choice of leaders in making a decision or implement it. For example, if the organization values prudence in choices, the leaders' behaviors will be influenced by strong risk aversion. The evaluation or rewards mechanisms could also challenge the leadership skills while they are making decisions; they may have interested in making decisions that will give them the best evaluation and rewards instead of looking for organizational performance at whole. Talley (2011: 3) has rightly demonstrated that there are three good reasons for having a decision-making problem:

(1) We do not include key people to participate; (2) we do not produce enough alternatives to base our decision on choice; (3) we do not follow proven and recognized decision-making processes. The context of organizations poses many challenges to the leaders during the decision-making process; they may be confronted with an astronomical amount of information, sometimes easy to obtain, but it could contrary to the expectation, or the reliability may be doubtful.

In the present day, many organizations are in a transitional position toward the information age. They are getting aware of the power of information technology, but

they culturally bound to the status quo of decision-making based on a mix of experience and intuition. According to Ejimado, the more talented leaders are, the more likely they are to be confident in their talents and the better they can make good decisions. For this reason, Ejimabo, (2015:7) states that the only leader who understands the principles and nature of decision-making will be able to cope more challenging and complex situations more effectively than the leader who has no idea. Hasnorafzan (2012) sum up the following challenges may face leaders in the process of decision making:

1. Understanding Global Differences: leaders in the company must learn about many different kinds of factors when they operate globally. Organizational behavior is becoming particularly complex at the global level, because of the different aspirations, attitudes, and values of the labor force from country to country. The problems of coordinating an organization's activities to match its environment become more complex as an organization's worldwide activities increase.

2. Diversity of workforce: diversity is important to companies because in different environments people can benefit from and learn from others' ideas. Diversity has a major impact on our behavior in the workplace. Diversity expresses gender, age, race, religion, ethnicity, sexual orientation, ability/disability, and socioeconomic background differences. Experience has shown that the quality of decision making for different employees is richer and wider. Leaders must interact with employees who differ widely on a number of characteristics while avoiding conflict and mistrust among the team members. It is a challenge to be sensitive to the needs of different types of employees and to develop flexible employment approaches to increase their well-being.

3. Ethical Behaviour: an effective organizational culture should encourage ethical behavior. Therefore, an organizational culture that promotes ethical behavior is not only more compatible with current cultural values but also has good meaning. Leaders may face a big challenge to match ethical behavior with organizational performance if they are really concerned about competitiveness

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and survival. What is needed in today's complex times ? is that more organizations stand out and operate with positive, strong and ethical cultures.

Other constraints may face the leaders such as: compelling for change; good leaders can motivate their followers and show them that systemic change is possible to face challenges and save the causes for what they are fighting for. In addition, effective leadership styles make their employees inspired for the future of their organizations. The leadership transition is another challenge may face effective leaders. They tend to empower their employees to ensure the use of their capacity to deal with resistance to gain organizational goals. Finally, leaders should work for durable progress by convincing their employees to be part of that durable progress of whole organizational success.

Summary

Leadership styles, theories, and techniques are considered to be the most important elements in the work success within that it will guide all of the resources towards achieving the goals. The core process of leadership and the source of the effectiveness of the leader and his success in influencing the subordinates will focus on leader able to provide support to his followers and having their confidence. There are many theories and approaches to leadership, and the most of them touch the idea that leadership is rooted in the personality or behaviors of the leader, and they advance the idea that leadership is effective as long as the relationships among group members are consistent with the leader's style. Scholars designed a set of characteristics that could be applied to different types of leader. Those characteristics are getting the leaders apt to make changes to the organizational growth. And other leadership capabilities can be improved by mentoring, training programs, and skill development programs. The literature showed us that the success of any organization is primarily based on how the leaders are taking the crucial decision to boost organizational performance. But, such a process for decision-making can face some constraints, like: (1) we don't involve the key people who should be involved; (2) we don't generate enough alternatives upon which to base our choice of decision; (3) we don't follow recognized and proven decision-making processes.

CHAPTER THREE

3. DECISION MAKING SKILLS AND PROBLEM SOLVING

Decision making is not an easy situation. The information age is characterized by ambient uncertainty, a chaotic and complex environment, limits the perception of clear signals, and the rapid change of the world. Taking right and the reasonable decision became daily care of leaders in contemporary business life. This chapter discusses the existing review and literature regarding the decision-making process and problem-solving, and it provides the tenets elements to the subject.

3.1. The Decision-Making Process

3.1.1. Basic Concepts Of Decision-Making Process

Human life has gone through many situations, circumstances and variables that arouse its motivation towards something at the expense of other things. It restricts by choosing between a set of variables or things; measuring them in the balance of priorities and available and imposed requirements. To the process of trade-off or voluntary or forced choice is made at the individual, institutional and even community level. All sectors are characterized by daily and continuous situations that effectively require a choice or alternative from all available and possible alternatives. When the organization starts in implementing the goals which come in the implementation plan of the organization, it is natural the occurrence of some problems and it is also a natural situation to find specific solutions. Blenko (2006) said that each achievement, each disaster, each open door seized or missed by an organization (huge or small) is the result of a choice that somebody made or neglected to make. The presumption of good choices and their quick execution determine basically the performance of an organization.

Managing decisions is one of the core functions and essential tasks of a manager. The success of an organization depends primarily on the understanding of

the decision-making process, the ability and efficiency of executive leaders, the concepts and methods that ensure the effectiveness and rationality of decisions. In order to determine the scientific concept of decision-making, it is necessary to first identify the concept of decision. The word called "decision" has different meanings, which depend generally on context and environment. The decision is also defined as the process of action that the decision maker chooses as the most appropriate means to achieve the goals or objectives (Kurdi, 2010). The decision can also be defined as an alternative solution which has been chosen between two or more selections of the provided alternatives to solve the problem (John, 2005:163-166). The decision is the sign to the clear intent of the decision making but the implementation of the decision is the last and visual stage of the decision. An administrative decision is defined as s "the choice of the manager after analyzing a certain position" (Al-Tai, 1998). Armash (2011) also adds that decision-making is the process of choosing a logical choice among the available options. When trying to make a good decision, one should measure the positive and negative values of each option and consider all alternatives.

In order to make an effective decision, one should be able to predict the outcome of each option and, based on all these clauses, be able to determine which option is best for that situation. It should also be noted that the degree of success achieved by an organization depends to a large extent on the efficiency and effectiveness of its decisions and on its suitability for the specific objective. Matching or harmonizing organizational goals with other objectives plays an essential and important role in the organization's plans and programs. The decision-making process has the greatest impact on the success of the organization's progress, administrative leadership, and development. Therefore, after determining the problem exactly, the group which will find the solutions for the problems is called (the alternative solutions). Later, the management comes to evaluate these solutions according to specific standards such as the implementation time and cost, the size of income, the average of risks associated with the income and others (Marc, 2010). Studying carefully the process for evaluating alternatives is an important step for organizational decision-making procedures. The difficulty of the decision-making process lies in the process of evaluating the correct alternative solution. The decision-making process is characterized by the generality and there are many definitions for the decision-making

process, and most of them are reflecting that the decision-making process is better selection process between the alternatives (Daft,2015:289).

The administration decision making process is considered as the ongoing tasks and continue in the administration activity because it does not limit on one employee without other or on a specific level without other, but it is distributed in all parts of the organization and it is practiced on the whole levels (Harrison, 1999:56). As well as, the decision-making process is each action implemented by the officials in organizing the decisions, face the problems or specific situation to achieve the best goals and overcome the problems or the issued cases (Robert, 2001,79). Moreover, there is increased interest from the scientists of the management and the organizational behavior in studying the concept of decision making. Haydar (2016) stated that the decision involves judging, thinking and deliberate action to determine the irreversible allocation of resources in order to achieve the desired goal (Haydar, 2016:25). And Arsham (2010) assumes that decisions are at the center of success and there are critical moments where they can be frustrating, confusing and difficult.

A decision usually involves three steps: (1) A recognition of a need - dissatisfaction within oneself (avoid or need); (2) change decision - to fill the gap or need; and (3) a conscious dedication to the implementation of the decision (Arsham, 2010: 80). When the management implements the planning function, it makes specific decisions in every stage of the development of the plan, in the creation of policies, in the development of the purpose in the definition of appropriate resources, in the preparation of programs or choosing the best methods and ways to run them. When the department properly organizes its various activities and functions, it makes decisions on organizational type, size and structure, areas of authority, division of departments and communication and responsibility When the director takes on the leadership role, he takes a variety of decisions to coordinate, direct or guide his subordinates' efforts and motivate them to solve their good problems or perform well. Decisions made by an individual or business may be arbitrary, logical and deliberate in the light of available information, which needs in some cases to be follow up. Par example, if the teacher wants to help his student make logical decisions on their own, he should first offer them alternatives that they can understand doing that for reason that the student

may not be able to take a logical decision. So, with the continuation of training can increase the number and complexity of alternatives, and their self-confidence and their ability to make decisions will be higher. The researchers (Daft, 2015; Kurtz, 1992; & Russel, 2015) see that the decision making process is an indispensable process within the organization by determining the characteristics and shortcomings for each alternative separately and then select the better suitable alternative in the highlight of the decision-making conditions.

3.1.2. Definition Of Decision-Making Process

Decision-making is part of strategic thinking as it involves different steps and processes that involve decision-making, conceptualization, and problem-solving, each of which is handled independently. In other words, the decision-making process is the same as the problem-solving process; Because, in fact, problems are only positions that require decisions to solve these problems. Through the presence of some concepts, elements, and combinations, it can be concluded that the decision-making process is concerning all the levels of the management. Also, it can be said that the decision making process is to choose between two or more alternatives, following the steps, determining the problem, examining different alternatives in order to select the more contributed alternatives which will achieve the goals of the organization (Kurtz, 1992:176). The process of selecting one of the alternatives amongst a set of the available alternatives is to achieve an exclusively specific goal or fix the problem. In addition, the decision-making process is a part of the problem-solving process. In other terms, it is a machinery to take the decisions or the selection of the alternatives in all the levels of the problem-solving stages in uncertain conditions (Russell, 2015:5).

Decision-making requires the use of many high-level thinking skills such as evaluation, analysis, extrapolation, and stimulation and therefore can be categorized more appropriately to complex thinking processes such as creative thinking, critical thinking and problem-solving. A number of researchers have expressed this tendency by integrating problem-solving into the decision-making process. The decision-making process can be defined like a complex process of thinking that seeks to select the best solutions or alternatives available to the individual in a given position.; in order to

achieve the desired goal. Lunenburg (2010) asserts that definitions reveal three key elements. First, decision-making involves choosing from a variety of options. Second, decision-making is a process that involves more than one final choice of alternatives Finally, the "desired result" stated in the definition of a goal or a goal of the mental activity of the decision maker to reach a final decision (Lunenburg, 2010:1). The basic elements of a decision process include searching for information, interpreting, applying decision criteria and subsequent implementation action. Decision theory has its origins in economic theory, assuming that people make decisions to maximize benefits based on their own rationality and interests (Haidar, 2016: 25).

Decision-making process as mechanisms and strategic thinking styles to choose the best alternative among those available. Decision-making often requires the use of high-level thinking skills such as induction, analysis, interpolation, and evaluation. And also with the skills of critical thinking and creative thinking and. Decision making is one of the most important skills in business life. Savage (1954: 44) took advantage of the assumption that the decision-maker would always tend to enjoy pleasure and suffering so that he would make the following calculations:

1. The subjective benefit, which takes individuals into account, evaluates the weight of benefit rather than objective criteria.
2. The subjective probability that takes individuals into account is probability estimates rather than objective statistical calculations. (ibid). Decision-making is most appropriate and the best choice among the alternatives and options offered to the individual to solve a particular problem, to set a specific goal or to avoid a specific predicament; this is to adopt the best to achieve as accurate results as possible from any damage that needs to be addressed later.

Moreover, in human life, the decision-making process is accompanied by the emergence of many problems and situations and that need to be solved by taking proper actions. The classical ways and the ordinary routine for the individual to make decisions is by choosing the right logical thinking and studying all the available alternatives by evaluating all sides and contexts of to come out with the best option appropriate for the given circumstance.

Briefly, the decision-making process tends to define the problem and diagnosing it as a sensitive phase. The mistakes for defining the problem will defiantly lead to failure to reach the best solution. Therefore, the defining problem needs reliable data towards the proposed solution in order to select the best and appropriate solution among the available alternatives. In the decision-making, it can be assumed that there is a related error of rational or logical decision-making so that at one end of the connected line decisions are logically taken on the basis of the objective assessment of the elements of the situation or problem. Few decisions made by man in his life bear a high degree of certainty about their results, and even the most important decisions are taken in a situation that combines conditions of uncertainty, risk, and certainty.

Defining decision-making may sometime be a synonym to problem-solving process; because there are many similarities between decision-making and problem-solving. Both involve a series of steps beginning with a problem and ending with a solution. Both involve evaluating alternatives or solutions in the light of selected criteria with a view to reaching a final decision. In problem-solving, the individual remains unanswered, tries to reach a practical and reasonable solution to the problem. And in the decision-making process, the individual may begin with possible solutions, and his task is to reach the best solutions to his goal.

3.1.3. Characteristics Of Decision-Making Process

The process of prescribing decision-making by general practitioners requires numerous characters to achieve minimum risk, maximum impact and cost-effectiveness with a full appreciation of a person's right to choose. Deciding is choosing, among several possible actions, the one that appears most relevant to achieve the desired result, in a time deemed desirable and possible, making the best use of available resources and information. The difficulty is quite different in areas where systemic contexts and environments, the diversity and complexity of data, most of the possible solutions, and the personal and professional characteristics of the decision-maker. Đorđević (2006: 280) pointed out that the decision-making process is a very complex process affected by many variables; It requires a positive attitude and

sufficient time to access to a critical assessment and to obtain information for the benefit of all parties.

The know-how and rational process are essential for decision-making when it comes under schemes for which only the freedom of the decision-maker ultimately allows deciding for a solution among others. The strategic vision enables the field of possibilities to be analyzed in a proportionate and detailed manner, enabling certainties and uncertainties to be identified, measured and positioned in an appropriate manner. But, it does not contain in itself the decision-making capacity that allows these certitudes and uncertainties to be integrated into an effective action plan. The tools provided by decision theory are only methodological aids that enable the detailed integration of all possible decision configurations and the assignment of the benefit and gain function according to a defined term to measurable possibilities. The technocratic application of these aids, which tends to reduce any problem as mechanically containing its solution, would lead to an illusion of objectivity denying any subjective responsibility. Ogarcă (2010:4) asserts that decision-making as a procedure of choosing between at least two choices is an act of information processing: "the change of learning and information into administrative activities" and administrators are worried to diminish the issue to be solved, at a decent dimension. The basic leadership forms, for this situation, went for accomplishing a palliative goal for solving a problem more in the present moment than in the long haul.

The role of the decision-makers cognitive rationality, mingled with all of his or her beliefs and system of reference, is then denied, in favor of a sometimes destructive pragmatism: for lack of not having made the right decision, we try, at a forced march, to make good the decision we made. For having concealed the uncertainty inherent in the decision, it is introduced exponentially in the consequent effects. A mode of deliberation and more empirical determination, based on rational "shortcuts" induced by experience, seems more appropriate. The optimal use of decision aids thus supports mixed practices according to the concrete investment possibilities of the decision-maker. A basic taxonomy of the decisions he usually has, based on the strategic vision at his disposal, can enable the manager to structure and anticipate more effectively his decision-making approach, in terms of methodology. And for Junzhe JI (2010:71), the

decision-making process is characterized by rationality, and the rational level involves procedural rationality and comprehensiveness to measure the feasibility of information relevant to the decision and the reliance upon analysis of this information in making the choice.

The fact is that the vast majority of decisions made in the company leave a preponderant part to the empirical approach. Emergency contexts and environmental pressures usually deprive the deliberation of any serious attempt at systematic modeling. The orderly awareness of all the reasons that govern decision-making thus largely escapes the decision-maker. This reality does not mean that these decisions do not refer to any rationality, but that their actor relies mostly on implicit schemes whose theoretical consciousness is weak or zero. These schemas follow certain stereotypes based on the correspondence that the decision-maker has made throughout the days, weeks and months, between the information he holds and the successive and cumulative beliefs that founded and evolved his reference system. This is what we usually call cognitive rationality. According to Masalova (2012:745), a cognitive rationality is the capacity of the subject to the adequate and effective constructive scientific cognition which are characterized by a scale of the subject cognitive activity in streamlining the knowledge of the world, forming a research methodology and organization of the corresponding activity, being adequate, constructively effective, and epistemologically relevant.

The postulate of rationality is based on the assumption that each actor, in the decisions he or she makes, acts in the best interests of the actor, whatever nature or the form this interest may take, from the most objectively descriptive to the most normative. The reasons for a decision-makers satisfaction are precisely the arbitrariness to which complex decisions never escape; it remains that this arbitrariness is an integral part of the rationality of these decisions. The rationality says that any decision always rests, in law, on reasons presenting a coherence of interest for an actor. It does not tell us, on the other hand, that this coherence is always explicit in fact; the case of pure empirical decisions is an illustration of this. Thus, the reference to rationality does not imply that any decision is reasonable if it means that the reasons and concurring interests that led to it can be justified. Professionalization in terms of

decision-making, therefore, requires a clear and explicit awareness of the elements that constitute it, and the process it follows. The decision-making process can thus support a standard model from which more elaborate configurations can be constructed with mastery and method. The decision-making is systematically based on the consideration of five constituent elements. It should not be neglected if we want to claim a reasonable practical control. It is indeed the perspective of the theory of the decision that to want to allow a certain control of the relations of causes and effects in this matter. All professionalism relies on the ability to reproduce, in a controlled way, a process of which one has the elements and the conditions. It is, therefore, without pun intended, to make the rational more systematically reasonable. To decide is first to choose one of several possible acts. The choice of this act presupposes, intrinsically, the recognized existence of a plurality of others that have been considered and studied. The strategic vision of the decision maker is, therefore, in this respect, a constituent of the chosen act. Available resources that make a decision performance in its execution. The nature of the resources, their sequencing, coordination, and convergence may concentrate or, on the contrary, disperse the potential effects of the decision.

Decision-making is a mental skill and process that is sometimes deep, complex, especially when the decision is important. It involves analyzing the problem, exploring its aspects, reaching goals that the individual seeks to achieve, and collecting information about the problem and ways of solving it from different sources. In addition, the personal characteristics may improve as age often increases, and the wisdom of the individual to choose, assess, evaluate and evaluate critical information is shown by assessing the results and effects of the decision. Considering the numerous interactions of different factors and when the uncertainties are reasonably expected and when appropriate criteria are applied in making judgments and simplifies the situation by excluding unnecessary elements but without prejudice to or omission of any significant factors. Hussien (2012:2) reveals that decisions are highly unstructured, complex, long term, and inherently risky and have a great impact on the future of the organization. And while strategic decisions are those important decisions that typically require a large number of organizational resources, and firm's environment consideration. In order to make the decision-making process more effective, it must be featured by some characteristics as follow:

1. Intellectual Operation**:** The decision making is intellectual thinking in the first place and it needs many time and caution.

2. Meaningful Operation**:** The decision means to achieve a specific goal about solving the problems or specific situation where the decision making is an inherent process in the leaders' works.

3. Selection Operation**:** This means that the decision-making process is based on the exchanges between the alternatives from the decision maker himself and the matter is left to choose suitable alternative between that.

4. Humanitarian Operation**:** The feeling that the decision making is associated with the humanitarian side through the decision maker or other matters which affected by it.

5. Future Operation**:** The effects of any decision can present in the future. Therefore, it must include the real vision of the decision maker in the future with complete information about the past and current decisions.

6. Flexible Operation**:** It means that the decision must not be stable but it must be flexible and has alternatives in case of the decision failure.

7. Comprehensive Operation**:** It means that the decision must achieve comprehensive vision when facing difficult situations or problems and the decision must be comprehensive for the whole cases or problems as possible.

8. Analytical Operation: The feeling that the decision-making process does not mean the existing of applicable alternatives and then select between them but it is an operation requires careful study to analyze all the information associated by the decision in order to reach to the correct decision and thus, it will be analytical operation.

9. Popup Operation**:** The original decision streams from intellectual thinking for more than one individual in terms of the specific problem and all of them seek to the original decision (Ashram, 2005). In short, decision-making is achieved not by education but by experience and practice. You will not make the right decisions as soon as, you listen to a lecture or once you read a book. But, the experience matures gradually, and the experience acquired with the days and owned by the human practice, the experience of wisdom. Making a decision is better than not taking it, although the lack of decision-making affects human paralysis and disability in the face of solving problems and events. Decision-

making needs a flexible open mentality: away from stalemate and monolithic opinion, and it needs to be implemented and implementation needs to follow-up and evaluation may enter many of the amendments to those resolutions, it is not important to make a decision, but more importantly how to implement it after that.

3.1.4. Types And Sources Of Decision-Making

The reality that the leader when practice his daily work, he takes many decisions according to the situation which he faces in the daily work and its effect differs in the whole organization including the simple and complex decisions such as grant sick leave and pay the salary of the workers. The success of any organization depends on the quality of decisions made by leaders (McCauley, 2017). Furthermore, the classification process for the types of decisions do not subject to the standards and stable considerations where there is not a stable standard in order to divide the decisions and classify their types. Many people at this field tried to classify the decisions according to specific but mutual standards and these decisions can be classified according to the following standards:

3.1.4.1. Programmed And Non Programmed Decisions

Programmed Decisions (Routine)

Prof. Herbert Simon (June15,1916- February 9,2001), an American financial specialist and analyst, has utilized PC phrasing in classifying business choices. These choices are of a daily schedule and monotonous nature. The modified choices are essential of a normal sort for which deliberate strategies have been contrived with the goal that the issue may not be treated as a unique case each time it yields up. These decisions have been planned previously and they are taken in order to solve the daily and repetitive problems which they do not need to think or use intellectual effort. These decisions are taken according to the rules and policies that determined previously and can be assigned to the workers in the administrations and impose the officials to fined ready solutions, for example, determined a salary for a new

employee, grant leave or send the product to the supplier (Asemi, 2011:164). The programmed decisions are the decisions which repeating by their nature, they are simple and can be made easily and they are associated with the short-term crises. These decisions resulting simple effects for example, the supervisor in the work can specify if the absent employee will have the right in the exemption or not (Rao,2009). The solutions of the routine problems are provided by using quantitative styles. The decision maker uses the performance program and it is consequence measurement which is taken by the organization members periodically whenever they face specific types of problems such as inventory control decisions (Ghaffarzadeh,2015), The organizations develop specific methods to deal with these decisions (Karmman,2014:126).

Non Programmed Décisions (Non-Routine)

They are the decisions which processing mysterious issues and complicated problems which occur during a period of time where not occurring daily because we do not take them only when needed. In addition, they deal with previously unknown problems or they need to think and creativity (Ada, 2015:9). As a matter of fact, these decisions need adequate information and may be additional costs, for example, produce a new product in the markets (require to study the status of the market) and also, create a new branch for the organization, and these decisions are associated with the strategic dimension. Therefore, the senior administration levels are responsible for the study and analysis because this decision is associated with the future of the organization (Daft,2015:290). Organizations spend high effort in this case, to transform the non-programmed decisions into programmed decisions according to the accumulated experience (Amin,2014). The following table explains the differences in the programmed and non-programmed decisions:

Table 1.3. Comparison of the Decisions Programmed and Non-Programmed.

N	Programmed Decisions	Non Programmed Decisions
1	Routine and recurrent.	Non routine and recurrent.
2	Stable conditions and relatively stable.	Changing Conditions.
3	Data stable proportional or semi-certain.	Data not confirming.
4	Time and effort required are limited.	Time and effort are considerable.
5	Take at the various administrative levels.	Taken at senior management levels.
6	Often it is the transfer of powers to the middle and lower levels.	Often non-delegable responsibility.
7	Are usually related to the operational activities of the organization.	Concerning the strategic dimension of the organization.

(Marshall, 2003)

The non-programmed decisions are mind-boggling and merit a particular treatment In the example above, if each of the instructors in a department stops showing, the issue cannot be elucidated by established procedure guidelines. It becomes a subject that requires careful investigation of the causes of such a situation, and after all the factors have collapsed, an answer can be found in the critical thinking process.

3.1.4.2. The Types Of The Decisions According To The Administrational Level

Strategic Decisions

This classification is considered one of the most important classifications which dealt by the specialists and these decisions are associated by determining the strategic goals and the long-term investments policies and also, the surrounding environment and control the performance of the organization. Moreover, the strategic decisions address the future issues which effect on the organization (Nooraie, 2012:406). The decisions are characterized by the stability on the long-term and similarly, the decision needs information about the surrounding future circumstances of the organization. As well as, they are considered the basic strategic pillar and the tool of the senior department in determining the long-term goals. In addition, the decision is taken at the top of the organizational structure (Citroen, 2009: 493-501). On the other hand, strategic decisions involving the entire organization, affecting the

ultimate fate of the business, are often increasingly laborious. The purpose of the enterprise, facility format, capital consumption, production, etc. are related decisions which are examples of strategic decisions.

The Tactical Decision.

They are the decisions which are taken by the central management and associate effectively of using the resources and evaluate effectively the performance of the organizational units. However, decisions associate by the functional fields such as the production, marketing, and financing, each one of them is responsible to determine its contribution in achieving the general strategic goals of the organization. For example, decisions of pricing the products and services and determine advertising and marketing (Harrington, 2009:27-28). In the tactical decisions, managers tend continually to adhere to certain established rules, procedures and policies. They are of repetitive nature and related to general functioning. Authority for making tactical decisions is usually delegated to lower levels in the organization.

The Operational Decisions.

They are the translations of the goals and the behavior of the daily operations of the organization and this type of decisions are characterized by the necessary for the organization. Similarly, these decisions are competence of direct management (the least amount) and the department management is responsible for the implementation of the operations. Thus, the decisions are characterized by the detailed and abundance and the percentage of the decisions is (90%) of the organization decisions (Jones, 2010). Organizational decisions are decisions taken by an official on the official border and which can be transferred to others. On the other hand, individual decisions are not decisions made by a manager, but as a member of an organization, Political elections are the main decisions taken by the top management that affect the whole business. Business decisions are decisions taken by low management to make strategic decisions. Operating decisions relate for the most part to the chief's very own work and conduct while strategy choices impact work or personal conduct standard of subordinates.

(1) Policy decisions, (2) Administrative decisions (3) Executive decisions. Policy decisions related to key issues and policies, such as the nature of the financial structure, outlines of the organizational structure, marketing policies, are made by the top management or management of an organization. Administrative decisions that are less important than policy decisions are taken by the central government. As stated by Ernest Dale, the size of the marketing budget is a policy decision, but the determination of the media will be an administrative decision Executive decisions are decisions taken at the place of work. Those who distinguish between these three types of decisions Dale wrote are "policy decisions that set goals and general action courses, administrative decisions determine the means to be used, and executive decisions are made on a daily basis as special circumstances arise.

Higher Management   Strategic Decisions

The Central Management   The Tactical Decisions

The minimum   The Operational

Management   Decisions

(Certo, 1997)
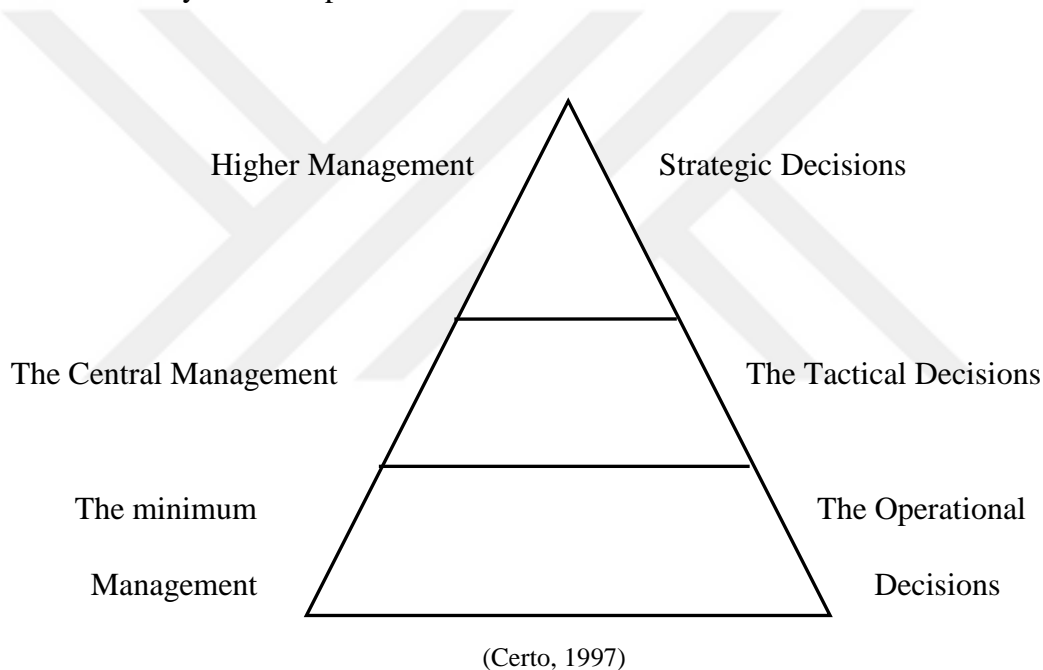
Figure 1.3. Types of Decisions in Accordance with the Administrative Levels

3.1.5. The Importance Of Decision-Making Process

The importance of the decision making streams from the strong relationship in our daily life where the individuals and groups, big and small, local and international administration organizations. Decision-making process has crucial importance in each of the organizational life (Harrison, 1999). The management in the modern era faces high challenges because of the technical development in all of the fields. Therefore, the administration decisions became the tools which reflect the success and the fail in the

workplace. The leader every day take a series of the administration decisions continuously and some scientists in the management said that the decision making process is inventible even if the leader does not want or he avoided to take a specific decision (Al-Tarawneh, 2012:1-23). Decisions in business management became a real engine for the organizations' activities.

According to Herbert Simon (1983), decision making is the core of the management and the concepts of the management theory must be taken from the logic and the psychology is the human selection (Herbert,1983:3). In addition, the importance of the decision-making process is from the interference in all of the functions in the management and its activities. When the management practice the planning task, it takes specific decisions in each stage of the interim plan and also when the management places the suitable planning for its tasks and different activities, the decision will be taken about the organizational structure as the leader decisions to direct his subordinates, to organize their efforts and to solve their private problems. The same in the controlling function where the decision will be taken about determining the suitable standards measure the work results and work on implementing the corrections (Simon, 1999).

(Simon,1999)
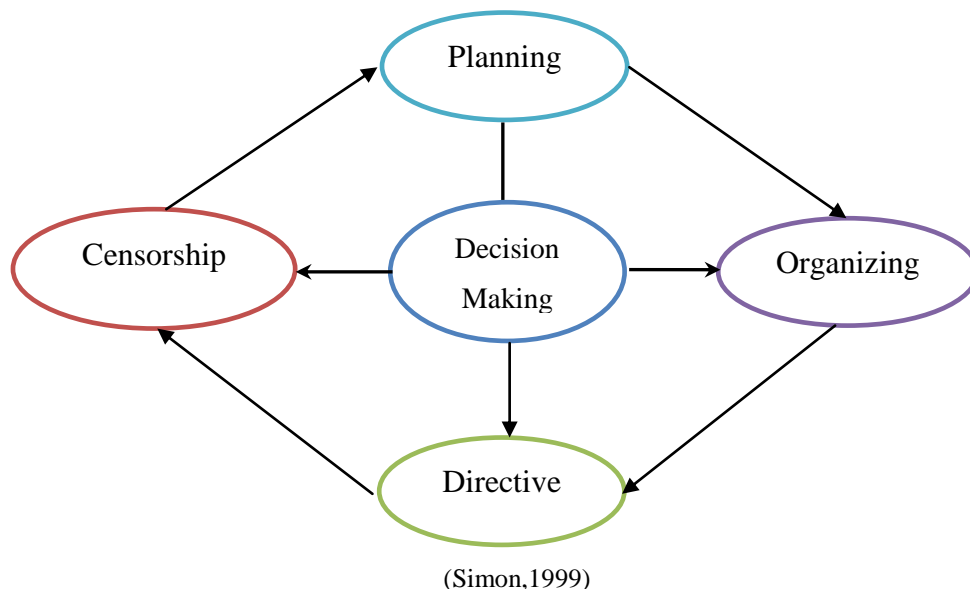
Figure 2.3. Process of Management Decisions and the Essence of the Administrative

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The decision-making process is rationally based on the decision-making strategy for the implementation and evaluation of results. Whether small or large, it is one of the necessary steps in the life of companies and individuals. Generally, one of the most important components of the administrative process and it is seen as a continuous activity that uses the behavioural system through all available information about the circumstances and conditions surrounding the events. It is common knowledge that the decision-making process is connected to planning, organization, guidance, training, supervision, and follow-up. One of the reasons for success in decision-making in organizations is the establishment of a center or unit to support decision-making and implementation. Decision making is one of the most important issues that engage social scientists', social, or political.

Ejimabo (2015:1) sees that the organization is undoubtedly a systemic network that is both dynamic and complex in nature. Decision-making and creative policy development between management and organizational leaders are vital to the development, growth, and success of any workplace. In the administrative organization, good decision-making that achieves the objectives plays an essential and important role in the organization's programs and plans. These plans require more sound and decisive decisions, follow-up, and evaluation. A good decision is a result of understanding all information regarding such decision. Studying knowledge is the starting point to make sure you make the right decision. At this stage, the time spent is a good investment for the positive results to be successful. The consensus is to reach a decision that is understandable to all, supported, and therefore ready to be applied. The real consensus is obtained when all members feel that this decision is more appropriate, and other alternatives may lead to a critical point in the life of organizations.

Dražen view (2008) asserts that a company is the basic institution of the market economy; each company procures resources and takes part in resources market as a buyer of capital, and use rare resources to produce goods and services. For that, all companies make decisions on the way to organize their activities in rational ways in order to achieve the set goals. Decision-making processes in line with the activities of the organization with the environment in which it operates. The decisions you make

indicate your effectiveness as a manager, which has a role to play in your results. The decision-making process shows that there is a real commitment that decision-makers influence people inside or outside the organization. As the decision-making processes have the power to motivate the process of transforming goals and objectives into concrete realities, decision-making processes remain important.

The importance of decision-making process in management and business organizations executes planning function; make specific decisions at each stage of the plan whether in the development step, the preparation of programs, the formulation of policies, the selection of the best methods for their operation or the identification of appropriate resources. When the Department appropriately organizes its various activities and functions, it makes decisions on the organizational type, structure, and size, or when the director takes his leadership, it takes a set of decisions to perform well or solve a set of problems. Decisions are made to determine the proper criteria to measure the results of the work, to identify changes to the plan, and to correct any errors. Thus, within the administrative process decision-making takes place in a continuous cycle.

3.1.6. Steps And Styles Of The Decision-Making Process

The decision-making process has great importance in the business organization and many those steps are indispensable steps for the organizational objectives. Currently, the successful leader is characterized by the others by his ability to take the correct decisions. Moreover, the costs of the false decision are high and can lead the organization to the risk. Therefore, the organization must avoid any misuse in the decision-making process (Thomas, 2009:89). Decision-making is known as one of the most important means used by people on a daily basis in various areas of life, in order to determine the nature of their behavior, the aim of which is to analyze and study the appropriate method of making the right decision for contributing to achieving the desired objectives.

Zeiger (2000) sees that in the organization the decisions made are an important factor in the success of a decision. The leader of an organization must decide whether to associate employees when making it or take full control of the decision-making process. Ata (2015) revealed that the decision-making style reflects an individual characteristic to perceive and respond to the decision-making process The decision-making style for any organization or manager depends on experience and the learning process. The decision-style framework has three main factors:(1) The way one thinks about a problem; (2) the manner in which one communicates with others; and (3) one expects the behavior to influence the performance of others. (Ata, 2015:56). And according to Zeiger, there are different styles for making decisions, such as:

Top-Down Decision-Making:

Is to identify the ideal result or consequences of a venture before deciding the procedure to accomplish those outcomes. This kind of basic leadership regularly goes with a top-down administration style where the leaders of an organization settle on the choices and pass them down to different individuals in the organization to actualize.

Bottom-Up Decision-Making:

It adopts the contrary strategy of top-down basic leadership. Rather than defining objectives before deciding the procedure to achieve those objectives and leaving organization heads to settle on choices all alone, input from multiple levels is considered in the process. In order for bottom-up decision-making to be effective, leaders of an organization must contrast the data got and their own proficient learning to make a wise and informed decision.

Representative Decision-Making:

It takes its decision-making power from the president of an organization and gives it to a group representing multiple aspects of the organization. In such decision-making, at least one person from each department in the organization, including leadership, is selected as part of the decision-making process.

Quantitative vs. Qualitative Decision-Making:

It such style, there are various segments that go into making a decision. Quantitative basic leadership takes a gander at realities and numbers so as to come up with a decision. Subjective basic leadership centers around understanding and thinks about different angles, for example, employee sentiments and client relationships. The following steps are primordial for the decision-making process in order to achieve the organizational goals:-

3.1.6.1. Identify The Problem

The first step in the administration decisions process is determining the problem and knows its reasons and collects the information, try to analyze them and determine the goals which must be achieved. The intending meaning here to understand the concept of decision making is the difference between the current situation and the idea (Patti, 2013). Thus, find out the gap that needs to be closed through a successful decision. As well as, the leader at this stage requires determining what is the type of the problem? How does this problem begin? What are the basic points at that? What is the suitable time to solve it? (Logan, 2014). There are many problems facing any leader, as follows:

Repetitive problems: They are continuously happened and have a relationship with the daily events such as disbursement of funds decisions, leave decisions, the traditional sales and purchases decisions and others.

Basic problems**:** They are the problems associated with planning, forecast, policies, procedures, supervisions, organize, guide and others.

Emergency problems: This event refers to the unexpected surprises inside the organization or the external environment, for example, political crisis, a sudden change in the governmental policies and sudden increase in the energy prices and materials (Thomas, 2009).

3.1.6.2. Collect Data And Information About The Problem

The leaders in the daily life face many problems and situations which require to take decisions towards them and one of the decisions success determinants to reach to the goals is the availability of the information considering that the decisions of the leader represent the future procedures. Kotler (2001:94) argue that the behavior of the institution is the future behavior and future behavior is the behavior of the information. Also, at this stage, the leader must commit by the accuracy to guaranty the collection of the correct information on the situation to be fixed.

3.1.6.3. Analyze The Problem

Problem analysis includes the internal environmental factors which affect the organization activities in order to determine the strength and weakness points. Then, it requires following the external environmental factors which affect the organization activities and determine the opportunities and prominent risks. Later, the gap size between the opportunities and risks will be determined. In addition to determining the strength and weaknesses points in the whole organization and to each of its activities (Mustafa, 2013).

3.1.6.4. Search On Suitable Solutions

The leaders in the context of searching alternatives to solve the concerned problem, they resort to tend to various solutions. If the solutions are not suitable, they resort to the concept of creative thinking in order to find different solutions. At this stage, the decision maker will search for solutions. It is a complex stage and requires the leader to employ the experts and consultants opinions and also use scientific means to depend on his personal abilities (Lunenburg, 2010). As well as, the leaders face a number of constraints which imposed on them some possible solutions, they are of the most important solutions and constraints that need a time factor in addition to the available financial and material resources to face them (Pride, 2009:180).

3.1.6.5. Evaluate The Available Alternatives

When finishing of placing the available alternatives, the leader will find himself in the need to evaluate the alternatives to choose the suitable alternative where all of the solutions are not equal in terms of the ability to achieve the goal and the process of distinguishing between the alternatives is not always easy and clear process because the alternatives always include untouchable factors and it is difficult to place accurate standards to measure (Grant, 2011). In addition, there are many standards which can be used in order to distinguish between the suggested solutions as follow:

1. The possibility to implement the alternatives and provide the material, human and natural materials.
2. The costs and resources resulting from implementing the alternative.
3. The impact of implementing the alternative which will be purchased.
4. Time of the alternative conditions where it does not allow by the emergency circumstances which make the decisions makers choose one of the alternatives under the work conditions (Sharon, 2004).

3.1.6.6. Select The Best Alternative

After the issuing of the decision at the previous stages, the leader finds himself in a situation where he must choose one of the alternatives which expect to achieve the best results (for example, the largest income with least cost). Whenever the leader has adequate information about the other alternatives and the required time, the leader will be crucial to take the decision (Ahmed, 2012).

3.1.6.7. Implement The Decision And Follow It

The mission of the leader does not end immediately after choosing the best alternative, but it moves to the actual implementation stage through the other efforts. The implementation is accompanied with the organizational evaluation process in order to check effectively and efficiency the decision-making process, and to see how

far they could contribute for achieving the results and correct the deviations which have been found. It is a mistake that the leader takes a decision and then forgets or neglects the evaluation of its results (Patti, 2013:177).
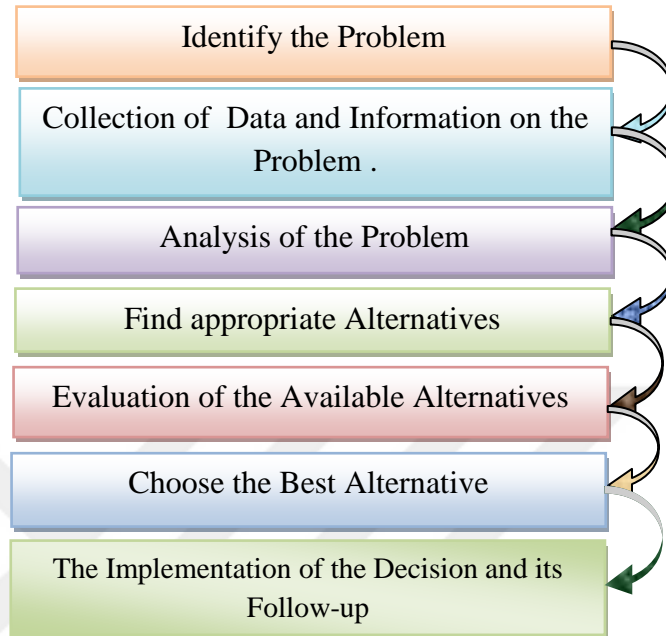
(Russell, 2015)

Figure 3.3. Shows Stages of the Decision-Making Process

To sum up, decision-making as an administrative process designed to create radical solutions to a particular problem that surround the enterprise's operations. This requires a deep search for the best solution among different alternatives. The decision maker needs to know what to do and what to avoid in order to reach a definitive conclusion. The decision-making process of any order or position needs to provide some information for the event to determine the context of the concerned event and its outcomes when it is implemented.

3.1.7. Factors Influencing Decision Making process

The decision-making process as one of the topics that continue to preoccupy social researchers, psychologists, and politicians due to its great importance at the academic, societal and business life. Decision-making can be the result of the conscious and concrete acts of human, or on the basis of the unconscious act of

spontaneous decision making. The decision is to determine the course of action by choosing the appropriate means available to reach the solution and the goal. The decisions aim to provide a report about the suitable means to achieve the organization goals, translate its plans, constructing the organizational structure and determine the path of the relationships between the employees. Consequently, determine the power borders and translate its goals and delegation of authorities and communication goals (Nooraie, 2012:416). In addition, the decisions associated with how to exploit the required resources to continue the work whether they are human or financial resources to achieve the highest average of performance. There are many factors affect in the decision-making process which mentioned in the following form:

3.1.7.1. The External Environment

The circumstances of external factors that can impact the decision-making process within the organizations may be different, and its consequences on the rational decision-making process could be so meaningful. The external environment has become an important role in influencing the decision; this importance emerged in the contemporary stage due to the presence of new data, including some direct and indirect environmental factors that can affect the decision-making process:

Economic factors: They are the factors associated with economic stagnation and prosperity and the extent of the government support for the economic sides and encourage the investment. In addition, the financial assistance provided by the government for the private sector.

Organizational and political factors: They are the factors associated by the prominent political conditions in the countries such as the stability of the government in specific country, laws, and legislation which judge the state and its relationships with other countries.

Cultural factors: The factors associate with languages, religion, civilization and the living levels in the country.

Technological factors: The factors associated with the extent of the technological development of the devices, communications, and others (Beatrice, 1990:9).

3.1.7.2. Internal Environment

They are the factors which affect the decisions directly such as the size of the organization, rules, and regulations, in addition to the human and financial factors. The relationships between the different departments within the organization are also determinant, as well as, the lack of time for the leader and then the necessity of taking special decisions (Nooraie, 2012:405-429).

3.1.7.3. The Impact Of The Decision Maker

It is considered one of the most important factors because it affects the decisions in a direct or indirect way. This depends on the nature of the decision and the internal psychological factors of the decision maker, such as personality, motivations, situations, directions and other factors such as the family, values, and traditions (Musso, 2012:279-280). The core of the management is to make decisions; the leaders always need to evaluate the different alternatives and take into consideration many issues and factors with the variety of the administration styles (Barnett, 2006). Jacobs and Graver (1998) argue that the environmental context may affect the choice; This environmental context also makes it difficult to relate measured personality traits to certain decision-making behaviors. The decision maker is influenced by many factors both inside and outside the decision maker. (Jacobs and Graver, 1998: 6).

Every day, people are full of big and small decisions. Understanding how people reach their choices is a remarkable field of cognitive psychology. There have been theories that explain how people make decisions and what factors influence todays and future decision-making. In addition, heuristic research was conducted in order to understand the decision-making process (Cindy, 2010). For M. Kamal (2015), decision-making in an organizational context is often related to the attitudes and behavior of individuals and groups. Individual factors such as, (1) personality can be

influenced by a person's preferred behavior in the context of a specific decision, and there are four different general factors that can form the personality factor of people, such as social, genetics, cultural and situational. (2) Perception can be seen as an active mental process that involves the transformation of information into meaningful patterns that form identifiable in order to make inferences and select appropriate decisions. (3) The attitude towards risks, as a mental and nervous preparation situation, is regulated by experience and has a director dynamic effect on the response of the individual to all the objects and situations that the individual is associated with. In the case of senior management, decision-making that may involve risk can directly affect the attitudes of risk-averse managers and enable them to demand higher rates of return before investing in these initiatives (Kamal, 2015: 5-6).

Ying (2007) pointed out that decision-making behavior in an entrepreneurial team is a group process the team members form group opinions about start-up decision, entrepreneurial target and so on, following a certain decision-making procedure.
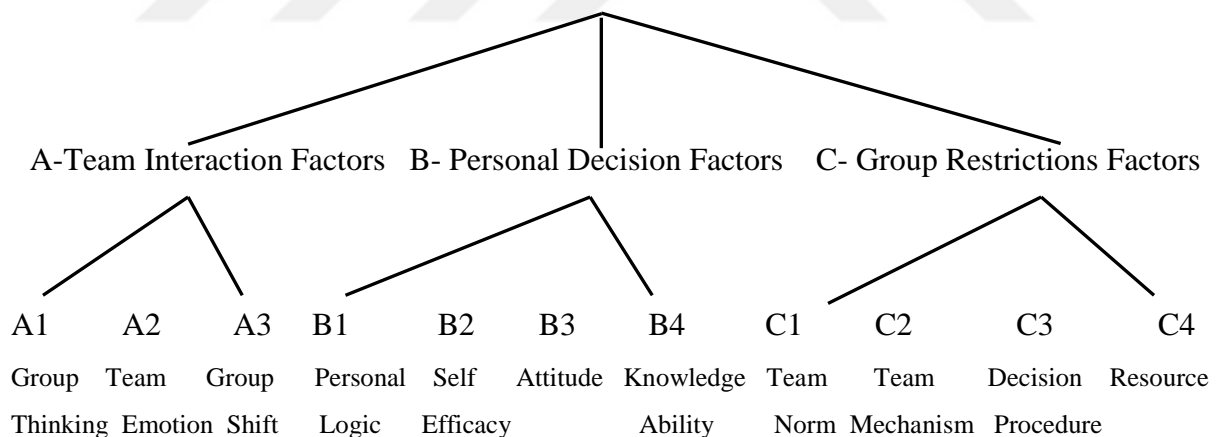
Source**:** Ying, (2007:2)

Figure 4.3. Factors That Can Influence Decision-making.

Decision-making is complex, and there are multiple factors that overlap the decision-making objective; they became a barrier for a rational choice. The decision makers (managers) face many different stages during the process for decision-making, the capacity of the decision maker, including those related to the climate, and the

customs and traditions of society are determinants. And according to Haris (2012), there are four factors that influenced the process of decision-making:

(1) Availability of information; (2) State of organization, (3) personality and skill of decision maker; and (4) External condition/environment. The dynamic of the organization is also considered as one important factor, which can influence the decision-mak

3.1.8. Tools And Models Used In Decision-Making Process

Decision analysis is a transparent, systematic and quantitative approach to decision making under uncertainty. The main tool of decision analysis is a decision analytical model, mostly a Markov model or a decision tree The decision-making process is at the core of the director's job, while direction, planning, control, and organization are the key and main functions of management. We can see that decision-making is an activity that includes all the previous managerial functions, and it generally depends on individuals' personal abilities and their skills to act in different positions. Sainfort and his colleagues (2013:1) argue that a decision model provides a way to visualize a series of events that may occur after alternative decisions (or actions) in a logical frame Decision models can include the possibilities of the underlying (real) situations of nature in determining the distribution of possible consequences for a given decision. These possibilities are not known to the decision maker but are critically important.

Some managers may resort to their classical models or methods for decision-making process which is based on personal judgment and career experience. The decision-making process is the essence of administrative work; for that reason, adopting appropriate model will help to better identify and diagnosis the subject in question, and to connect the causes and consequences for rational decision. The decisions are programmed and are frequent, and they can be regulated in the routine ways, and do not need much thought or analysis in making such kind of decisions. The non-programmable decisions: are often unitary and overlapping in their components

and require analysis and many procedures before they are made. They may have determinants of time, politics or cultural beliefs.

However, we can create a comprehensive model for decision-making in the organization. In addition, decision analysis studies aim to process evidence. In the absence of a formal and systematic approach to assisting the decision maker in the processing of evidence, the processing takes place in a more informal way. Decision-making methods vary according to their motivations between centralized or decentralized, with the latter having a higher mandate to perform tasks or enabling empowerment. For Chaffee (1983), there are five basic models for decision-making process: (1), Rational Model; (2), Collegial Model; (3), Political Model; (4), Bureaucratic Mode; (5) and Organised Anarchy (Chaffee, 1983:14). Not all of these models are widely accepted as true reflections of organizational behavior, however, there primordial points to be understood: First, models may appear both abstract and complex; they are shown to reflect reality. Secondly, it can be very useful to analyze the way organizations make decisions according to their own decisions. Thirdly, decision theories at the level of organizational analysis deal with phenomena that are quite different from decision theories at the individual level, and these phenomena can be structured to promote a desired decision process in the organization, regardless of the particular case. (Chaffee, 1983:15).

Salih (2016), proposed three models considered the most important ones: rational model, administrative or managerial model, and customary model. The Rational Model refers to the decision-making process of a rational economic approach, where the goals occupy the forefront and consider a number of alternatives that help to achieve those goals. The results of each of these alternatives, and their consequences are also presented, this model as a distinct criterion for measuring the rationality of decision, the success of alternatives and multimedia in achieving such a decision. For the administrative model, it aims to study critical decisions, which are critical from a purely administrative perspective. In the view of any decision a long process of deliberation between different groups, each of which represents a particular department seeking to be entrusted with the implementation of such a decision. In such a situation, the decision is not purely rational. Par example, in the defense issues, protracted

negotiations between the relevant ministries: national security, intelligence, Foreign Affairs, and other departments and ministries. Finally, the customary model is concerned with the study of the decision-making pattern of the decision-maker, the extent of his ability or his knowledge of the information available to him, as well as his appreciation of the environmental incentives surrounding him.

3.2. The Problem Solving

3.2.1. Identification And Definition Of The Problems

In the context of competition for information and technologies created through the information and globalization age. With the expansion of business volume in all areas and different sectors of life, it has become imperative to adopt a mechanism and skill in problem-solving and adopt a new style of thinking, which is the best way to deal with the complexities and problems surrounding business and individuals. Problem-solving as one of the most important thinking patterns based on establishing solid, logical and realistic bases for dealing with various problems. It is based on the proper handling of undesirable situations, which appear in the form of problems arising from specific causes, to identify these reasons and find a suitable solution based on the reasons that have been identified. Yahya (2015:2) sees that problem solving is "thinking about solving a specific problem that involves both the formation of answers and the selection of possible answers." In our daily lives, we have countless extraordinary problems.

It allows us to create response strategies, select possible answers, and test answers to solve a problem Human need to acquire the so-called skill of solving problems arises from the frequent exposure to such situations, which must be acquired and developed according to specific reference rules for the direct benefit of it. Problem-solving skills are reflected in the skills and actions of the individual, using previous experience and knowledge that he has learned to control a particular position that may be new in all aspects to achieve an appropriate solution or mitigate any negative impact. Frensch et al. (2001:15) make an effective assignment that expresses the effective interaction between a solvent and the situational requirements of the task

and includes the emotional, cognitive, personal and knowledge and social abilities of a solvent. Augustin (2014:55) thinks that problem-solving refers to the ability to use information, data, and facts to solve problems effectively, or the ability to develop a well-thought-out solution within a reasonable time frame, but it is a skill that employers greatly value.

For Yahya (2015), problem-solving tends to get problem definition, problem identification, and organization of information, strategy formulation, monitoring, allocation of resources, and evaluation. Successful problem solving may include occasionally tolerating uncertainty about how best to proceed. (ibid). It is worth noting that the success of the person to acquire this skill depends mainly on the person's reaction to the problem and how to deal with it or how it feels the negative impact in its daily activities. Furthermore, problem-solving considers as a mental and cognitive activity that is in several logical and organizational steps, which will raise your desire to get rid of them and look for a way to stop this impact and reduce the consequences by finding solutions or alternatives. To identify a problem we may need to see its variables, its causes, refuting its dimensions and determining who is affected and how to measure the degree to which it can be solved and the time required. Garson (2007:7) conceptualizes problem-solving as a quantitative or otherwise situation that confronts an individual or a group of individual, that needs to be resolved, and that the individual does not see an open or open way of achieving a solution.". Or, it means that an individual uses the previously acquired skills, knowledge, and understanding to fulfill the demands of an unfamiliar situation.

In brief, problem-solving will be used in the sense of intellectual behaviors and processes directed at the performance of a task with cognitive requirements. Problem-solving as an intellectual process refers to the ability of the individual to use the previously acquired knowledge and skills to respond to the requirements of an unfamiliar situation. The concept is based on the premise that correct thinking for problem-solving is not linear thinking or logarithmic in one direction; it is circular thinking that continues when the problem is resolved in various circles. Problem-solving is nothing else than a process that can be learned and mastered by mentoring and training people for doing so; people with problem-solving have a high degree of

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understanding of the facts and relationships involved in the problem, often reading the problem more than once to make sure that they understand it correctly and perfectly. And impaired people appear to be prone to jumping on introductions, rushing to conclusions, guessing answers before completing all the steps needed to get accurate answers, while those with deep courage tend to go through the problem step by step, with all due diligence from beginning to end.

3.2.2. The Procedures & Steps Of Problems Solving

In life, a person is sometimes exposed to many unusual things and situations that affect the continuation of a particular situation, the malfunction or the deterioration of the position. These events and situations may be insignificant, but they block roads or stop at reaching targets or causing self-disturbance. Human is naturally endowed to look for appropriate steps for problem-solving; they seek to solve the problems they face in order to replace the unbalanced situation that has affected his or her accession of a particular goal or hindered a result by setting in mind goals and to imagine circumstances that are surrounding.

Csapó & Funke (2017:37) divides the problem-solving process into two main stages:1) problem representation, and 2) problem solution. The presentation of the problem can be divided into a problem translation where the information given in the problem is translated into an internal mental representation and the problem integration into which the information is integrated into a coherent mental structure. Similarly, the problem-solving process can be divided into two sub-processes of designing a plan to monitor how the problem is solved and its implementation.

Problem-solving is closely related to success and goal setting, an educated skill that individuals can gain through experience and experimentation. The common denominator is that all these issues are called problems. The man usually seeks to solve all these dilemmas and problems that he or she faces and stands in the way of one of his directions so that his condition remains within the limits of the psychological security and stability. Rebori (1997) underlines the following steps as procedures for problem-solving:

Define the problem; A good problem description indicates the current state and the desired state. In describing the problem, the statement should not contain any solution or reason. The present situation is defined by the facts using a clear and concise language supported by the collected facts when defining the problem. The desired situation or what we want it to be. It is seen as a goal and must be expressed in a concise, clear, concrete language and must be both valuable. and realistic.

Identify the root causes; Tools used to consider all possible causes is brainstorming that allows a large number of ideas to be generated. In other words, they are fishbone diagram builds naturally, simply by repeating and studying all angles of the problem to verify potential causes by gathering data or some other form of analysis beyond group discussion.

Generate alternative solutions; This step focuses on the evaluation of alternatives in order to reduce the number of available potentially viable solutions. Some solutions are likely to integrate the best aspects of various ideas and also are more likely to find consensus within the organization.

Evaluate the alternatives; The criteria and general characteristics should be measurable rather than emotional and preferably objective. Managers could be focusing on different criteria that are desired or needed to solve the problem and bring solutions (Rebori, 1997:2).

The problem identification steps are to find the issue and to distinguish it and to make a reasonable thought regarding it by recognizing its parts. This stage incorporates the mapping of every single imaginable plan to discover and make proposed arrangements that can give a solution for the issue. This progression depends on the after effects of the conceptualizing procedure which produced a lot of proposed answers for the issue. All the solutions presented are tested within the parameters of the differentiation of the factors of the problem and its outcomes, and picking the correct solution relies upon the results of assessing the proposed answers for pick the solution that is most suitable to the conditions of the issue. Zhong et al (2008) quoted that problem solving needs (1) preparation: collecting information about its solution; (2) Incubation: Thinking about a subconscious problem when performing other

activities; (3) Inspiration: to have a sudden insight into the solution of the problem; (4) Verification: checking to be certain that the solution is correct (Zhong et al., 2008:296). the figure illustrates further detail for problem-solving procedures:
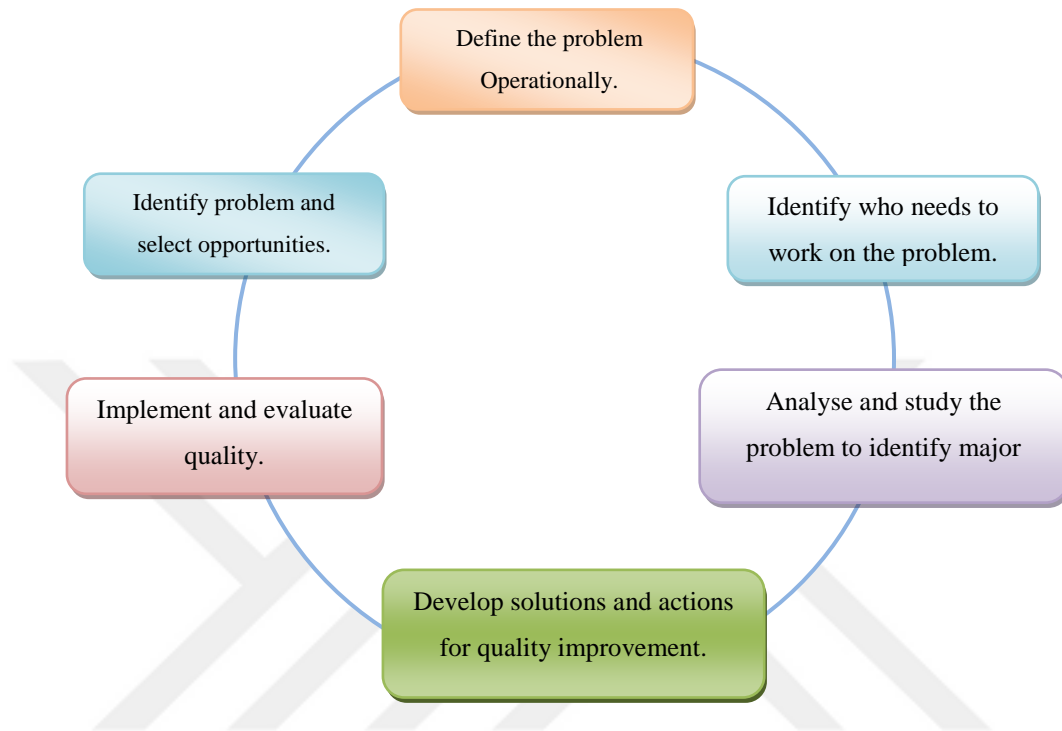
L Miller et al, 2013:12

Figure 5.3. Problem-Solving Procedures

The process of problem-solving critical thinking, understanding, learning, practice, and information, and what the individual does during the execution of the issue is to record the stages and steps of the answer for do a constant survey and assessment of the course of each progression and make the fundamental changes required by the circumstances. Continuation of the audit is a significant prerequisite for contemplating the states of execution, changing the means and expanding them, checking the application and endeavours, and giving an unmistakable and consistent vision about the results of the arrangement and estimating its success.

There are a number of observations regarding the problem solving process;

1. There is no agreement on a uniform list of criteria that can be used as standards from one position to another, from one organization to another.
2. It is necessary to determine the acceptable level of challenge or factor that may influence the problem-solving process in order to determine the non-acceptable risks.
3. It is possible to give these criteria numerical values or relative weights that reflect their importance, and then measure the degree which is obtained by each alternative in each standard.
4. The decision-making process thus becomes a continuous dynamic activity within the management process. The importance of the evaluation phase can be recognized if we see it as a source of experience or a source of learning to improve future performance.

3.2.3. Models And Tools Used In Problem-Solving

Problem-solving is one of the most important developmental paradigms that regulate the way individuals think when facing problems in all aspects of practical and personal life. Different models and techniques have been developed by scholars helping individuals to be aware about the scientific methods of making decisions and solving problems, starting with the appearance of the problem, identifying the tools for determining the problem, analyzing the root causes of the problem by applying different analytical tools to develop appropriate solutions to the concerned problem, to implement it and to follow up its effectiveness. Therefore, there is a need to apply organized scientific methods that help solve problems radically and prevent their recurrence in the future. Morgan (2014:182) underlines four models for problem-solving, namely:

(1) Inspiration Model; (2) Polya Model; (3) Woods Model; (4) Myrvaagnes Model.

Solving problem is complex and human are struggling to face their daily issues or do not know how to approach it - or do you have an important decision to make and you want to make sure you have all the elements in your possession. The CATWOE method (Nayab, 2013) will be very useful to apprehend the different dimensions of the situation in order to be sure not to miss. It seems to mark a relevant analytical framework to identify and put into perspective the different elements to be taken into account in a problem: Customers, Actors, Transformation, Weltanschauung/ World View, Owners, and Environmental Constraints. And Diana (2016:132) approached two main models for problem-solving: Gestalt psychology and Human Information Processing.

Gestalt psychology describes human cognition in terms of the quality of our perception and thinking, while information processing theory categorizes the mechanism of our perception and thinking. In other terms, The Gestalt theorists set out to describe the underlying structure of a problem from the expert's point of view, which can be used within instruction to direct learners towards the most appropriate form of representation of the problem. Information processing theories described how experts proceed through a problem, and more recently, student modelling studies set out to compare how novices proceed through a problem (ibid). Problem-solving methods or models are used by the individual to understand and to evoke the ideas associated with the problem from which he or she can build and evaluate the plans and strategies of the solution in a more flexible and effective manner. Tools are to stimulate imaginary idea, they are very important in the problem-solving process. Sometimes resort to the individual drawing a scheme dealing with the problem, and the outline in the form of drawings or forms or lines or words, all factors help in understanding the problem, and we will discuss in detail the mental map and its role in solving the problem. Ringger (2013) pointed out the following points as necessary for problem-solving:

1. A simple linear model that is set to define or prescribe a problem solving process by focusing on: identify problems, conduct research, generate ideas, revise ideas, produce responses/solutions, and evaluate.
2. Generic model: is to develop solutions leading to the creation of systems, or

environments by using some techniques such as n troubleshooting techniques or by assessing the repercussions that can isolate and diagnose a malfunction: Identify the purpose of a system (inputs and outputs); Identify the purpose of subsystems (inputs and outputs); Test subsystems; Identify cause and implement solution; Test solution; and Refine solution as required.

3. Predictive mode: is based on current performance what is the likelihood of achieving objectives, analyzing past failures and looking for future improvements by engaging preventive mode (Ringger, 2013:61). The individual can rely on different tools or techniques to solve the daily problems, they may deal with the problem by looking at it in a simplified way; it is easier for him to look at it through simple situations that can be solved, thus facilitating the solution of the big problem. Individuals can touch problem-solving by looking at similar techniques or tools. The individual sometimes resorts to a similar problem and then uses the same method to solve the current problem. In addition, in dealing with a problem, the individual can change the way and direction of his thinking, by thinking backward in the subject, instead of dealing with the problem from its beginning to take it from where it.

3.2.4. Skills Sets And Requirements Of The Problem-Solving

As a human, we are used to facing problems and difficulties that appear in the course of our lives, which are varied according to aspects are surrounding. But, only a few people have the ability and necessary skills to deal with problems in a scientific manner. Unfortunately, many of us make decisions to solve there some problems, whether social or financial or other problems by relying on insufficient data, the mixture of emotions and incomplete or immature techniques, which in turn cause to make wrong decisions. There are different styles of the decision making which differ between the traditions of the decision making processes where the most important four models of decision making include the model of decision making for Vroom and Jago in (1988), decision-making model for Robbins in 2003, decision-making model for Boulgaride 1992 and decision-making model for Scott in (1995). However, the researchers classified each style of the decision making styles in a varied group of methods where Scott (1995:820) has determined five styles for decision making

including rational, intuitive, dependent, avoidant, and spontaneous. These five models are characterized as comprehensive and can be applied in the institutions. The five models of decision making are resulting from the researches of Scott and his studies while the first three models are inspired by Harren (1979). The avoidant pattern is taken from the work of Philip and others in 1984 whereas the spontaneous model is taken from Scott. Abazov (2016) underlines four basic skills needed for problem-solving, namely:

1. The ability to identify the nature of a problem, and develop an effective set of actions to address the challenges related to it. Great problem solvers try usually to identify the very roots of the problematic situation. Also, he quoted from Albert Einstein once said: "The formulation of the problem is often more essential than its solution, which may be merely a matter of mathematical or experimental skill."

2. The ability to break down the problem into small pieces, and more manageable parts by defining the main elements of the problem; it is an essential skill to develop both psychologically and managerially.

3. The skills to find possible solutions is a very tricky step in the problem-solving process, as on the surface it looks like most of the work is already done and the ultimate goal is so close.

4. Developing a step-by-step execution plan and acting effectively and decisively is the final touch and skill needed in the problem-solving process.

5. Look for lessons to learn, this is the moment to look back and see if there is a need to tune up the work that has been completed by formulating the lessons to be learned so the next problem-solving project will be more effective and produce even more elegant solutions. (Abazov, 2016:2). In problem-solving, feeling a problem is primordial; and waiting for the problem to be developed can make it catastrophic. Then, problem analysis is to help to discover the facts and motives of the event of the problem by simplifying and fragmentation it into small parts easy to study. During problem-solving analysis, we may see a lot of solutions for each problem, but we should have to find creative and alternative solutions that will make a variety of opportunities for future successes and achievements. Harren (1979) discusses the dependent decision-

making process which depends on others when taking the decision, especially for famous scientists. While the rational style is analytical and logical and based on the facts to evaluate the long-term impacts whereas the intuitive style is taken quick decision based on the information and internal feelings. These three styles have depended by Scott (Salas, 2010:950).

Scott and Bruce argued that the avoidant decision-making style has emerged from Philips work where they found that the avoidant decision-making style is to avoid taking the decisions as possible. While the last one which is the spontaneous decision-making style is the hope of taking quick decisions and these five styles together configure the general style of decision making (Gati, 2010:278). At this field, the researchers found a benefit of decision making to predict by the suitability of the function with the character (Singh, 2004:198-210). Harren (1979) clarified that the decision-making model is a conceptual framework to understand how the decision makers processing the information and extract the results (Harren, 1979:119-133). The following tables illustrate further details regarding skills needed for problem-solving process:

Table 2.3. Shows Problem-Solving Skills in the Cognitive Domain

Identifying the Problem	Structuring the Problem	Creating the Solution	Improving Solutions
Systems thinking	Defining known	Generating ideas	Establishing criteria
Identifying a problem	Defining unknowns	Applying knowledge	Applying criteria to potential solutions
Defining a problem	Partitioning	Selecting possible solutions	Validating solutions
Identifying key issues	Organizing information	Integrating solutions	Assessing solution implementation
Identifying assumptions	Engaging in project learning	Reusing problem solutions	Generalizing solutions to other problems
Identifying missing knowledge	Prioritizing sub-problems	Planning implementation	Soliciting peer review

Stice, 1987:58

As an individual's capacity to engage in cognitive processing to understand and resolve problem situations where a method of solution is not immediately obvious. It includes the willingness to engage with such situations in order to achieve one's potential as a constructive and reflective citizen. This capacity rests upon complex cognitive processes such as planning a sequence of actions, decision-making, and knowledge acquisition, all of which have to be coordinated to address a specific problem situation.

Table 3.3. Shows Problem-Solving Skills in the affective Domain.

Self Development	Emotional	Management Valuing	Self Valuing Others
Maintaining a positive attitude	Identifying emotions	Forming personal values	Forming shared values
Setting personal goals	Expressing emotions appropriately	Constructing an ethical code	Committing to others
Being open-minded	Coping with others' emotions	Maintaining a sense of wonder	Empathizing
Persistence	Managing stress	Self-confidence	Respecting
Producing humour	Nurturing	Assertiveness	Serving others
Curiosity	Courage	Commitment to self	Appreciating diversity

Woods, 2000: 183

The effective domain plays an undeniable role in education. The Maslowian hierarchy of needs puts self-actualization (creativity, problem-solving, ethical reasoning, etc) right on top of the peak, and rightfully so. If our more basic needs are not met, there is no internal mechanism with which to realize our higher potential. Emotional needs occupy the bridge between the basic physiological, security-based needs, and those of self-esteem, achievement, and self-realization. The affective domain is a great method that utilizes learning skills which are predominantly related to emotional (affective) processes. It utilizes behaviors of awareness, interest, attention, concern, and responsibility, and the ability to listen and respond in interactions with others.

Table 4.3. Shows Problem-Solving Skills in the Social Domain.

Communicating	Inviting Interaction	Performing in a Team	Performing in an Organization
Reading body language	Taking interest in others	Goal setting	Accepting responsibility
Active listening	Paraphrasing	Achieving consensus	Being assertive
Responding	Assisting others	Planning	Documenting
Formatting a message	Expressing positive nonverbals	Cooperating	Influencing decisions
Checking perceptions	Being non-judgmental	Compromising	Communicating decisions & results
Identifying missing knowledge	Prioritizing sub problems	Planning impelmentation	Soliciting peer review

Woods, 2000:183

It involves learning the skill of social issues related to problem-solving and emphasizes the importance of experience in providing ways of organizing information so that it may subsequently be utilized in further processing. Ideas regarding the way a social subject`s problem-solving skill is acquired and the way it is related to more general problem-solving research. Weidman et al (2009) concluded that effective social problem-solving can increase situational coping and behavioural competence, which in turn may prevent or reduce emotional distress, while negative problem-solving orientation includes cognitions and emotions that are hypothesized to inhibit adaptive problem-solving.

3.2.5. Relationship Between The Leadership Styles And Decision Making Process.

The leadership is the reciprocal process of the social effect where the leaders and subordinates effect each other to achieve the goals. Most of the leadership styles must collect between the characteristics, skills, and behaviors used by the leaders with their subordinates (Ngodo, 2008:83-85). Also, the people in the leadership positions whether they are companies or government face day by day a number of decisions with their followers and the institutions business. Decision making is an integral part of any organization where it includes a series of activities comprises the braveness of the leader (Thompson, 2000). Also, decision making has vital importance in the organization because it is spread in the whole of the administration positions (Mumford, 2009). In the other hand, leadership is a style of behavior which is committed by the leader when deals with the employees. In addition, Lewin and Lippett specified three styles of the leadership which is focused in our study including the democracy, authoritarianism, and non-interference where according to Lewin that the democratic style is more effective. Here the leader calls the workers to contribute in the decision making and this does not affect only on the employees' satisfaction but also help them in gaining skills and thus, feel of control on themselves and they are a part of the organization (Lewin, 1939:269-299).

According to Tanner and Skate (1958), the Democratic leadership is good from the theoretical side but the largest problems that everybody has an equal share in the result while Shawart found that there is high obedience between the organizations' employees based on the democratic style. Whereas feeling of frustrated and angry in the organizations which depend on the authoritarian style is the arbitrariness which is known in the decision making. It is associated with the leader who has complete control and ownership in the decision making. This style is effective when there is a need to take quick and necessary decisions (Lewin, 1939). In addition, the laissez-faire style which is considered the abandons of the leader from all of his responsibilities, avoid the decisions and stop by observe remotely and interference if necessary (Robbins, 2007). The non-interference policy gives complete freedom to the

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employees where there are not enough methods to achieve the goals (Bhatti, 2012:193).

The leader must have the confidence in addition to the advance work planning, future vision and expect the decisions which will be taken for the benefit of the organization where the successful leader who adds the values to the organization (Reuven, 1991). Moreover, when taking any decision in the organization, the leader cannot perform that alone but he needs to be supported from the employees and find a way to convince them by the use of the supreme leader who got the trust of the subordinates (Cameron, 2003). The successful leader does not take decisions alone without asking the others or subordinates but he works with them in order to change the social context. Also, Zimmerman, (2012:11) the decisions may be taken from the senior management or from the lower management in order to keep pace with goals.

Furthermore, the successful decisions making are considered one of the main components of the leaders in the organizational leadership and most of the leaders and decision makers in the companies must understand that the leader who can lead the group of people to achieve the mutual goals in the correct direction with the effectively in terms of the cost and within the time frame (Nahavandi, 2005). People need to take many daily decisions during their life despite that these decisions may be variable because they belong to the character of the decision maker and the situation itself. In spite of that, the researchers have argued that people have natural tendencies to face problems in similar methods (Dane, 2009). This direction of the decision making refers to the styles of the decision making which contribute to the compensation of the singular differences which differ between the individuals.

Through mentioning the studies clarified the relationship between the leadership and the decision making process and one of them was for the author Nicodemus (2015) in America where the participants from different cities of America about 400 including (300) men and (100) women with an experience in the decision making for (7) years at least. The sample referred that (228) of participants have used the democratic leadership in the decision making during their work and both women and men tend to use the democratic style compare with the other leadership styles.

Whereas (157) of leaders preferred the authoritarian leadership and we find that (115) of the leaders prefer to use non-interference leadership. The results refer to the extent of the commitment of most of the organizations' leaders and focus on taking correct decisions in their work. Through the interviews with the participants, the leaders confirmed at all of the levels that it must be looked to the people interest and confirming that the decision making in the institution is continuous process and the ability of the leadership on understanding the factors which effect on the decision-making process in their work is the important point and it represents the main key to understand what the decisions are made for the organization progress. Accordingly, the author recommended that the leaders must have the confidence at themselves, the honesty and communication with the followers (Ejimabo, 2015:1-13).

Also, Larsson pointed that the participated leader (democratic) takes the best decisions as a result of the fruitful discussion which happens with the employees and can bring the ideas and new suggestion for the group (Larson, 1998:482-495). Moreover, Gudykunst found that the groups with the information are more associated and take better decisions than the groups with less information (Gudykunst, 1997:327-348). In addition, Vroom saw that the decision making process and leadership are very associated problems because the effectiveness of decision making requires the implementation effectively (Vroom, 2003:968-978). Verma (2015:246-269) study refers that clarified the relationship between the leadership styles and the decision making styles in the Indian organizations where the study sample includes about 50 of the Indian manufacturing organizations (public and private) with experience between 12-19 years. Therefore, the results pointed out that the non-interference style has a relationship with avoidance decision making.

The leadership styles are highly associated with decision-making styles (Kao, 2007:71-79). The leadership styles as transactional, transformational and laissez-faire tend to be associated with the private decision-making styles (Tatum, 2003:1006-1016). Richard's study (2014) which clarified the relationship between the leadership styles and the decision making styles in Indonesia and the research sample has been collected from the leaders of schools and teachers in Lambong County (Indonesia) where six areas have been used and the used schools are (37) schools. The number of

participants is (518) teachers. Thus, the results point out that the teachers in the school sector in Indonesia are more prepared for leadership styles such as the transformational and transactions but not to present the non-interference style.

Moreover, it is clarified that strong and positive relationship between the transactions style and the transformational style but the relationship is negative between the transactions style and laissez-faire style. Moreover, the relationship between the transformational and transactional styles with the rational decision-making style is positive, while the relationships between laissez-faire style with the rational style of the decision making are negative. In addition, the leaders in the schools will be more prepared to see the transformational leader, less prepared to present the transactional styles and hardly or likely to use the laissez-faire style. The non-interference style tends to provide a negative relationship with the rational decision-making style and positive relationship with the avoidant decision-making style (Hariri, 2014:284-298).

According to Vector and Vroom (2007:17-24), the central issue in the modern leadership is the complexities process in the decision-making process and the results refer that the complexities of the modern organizations require accurate selection of the decision making the process in the organization. There are cases where the authoritarian style is more effective and another case for more participated and effective styles and the main challenge for the leader in the organizations is to analyze the emergencies statuses and deal with them effectively. Through mentioning Francis' study (2014) which aims to highlight on the nature of the relationship between the leadership styles and the decision making styles between the organizations' leaders in North America where the questionnaire tools which has been used through the general decision-making measure by Scott. Thus, Francis' study revealed that there is a positive relationship between the leadership style and the decision making styles (rational, intuitive, dependent, avoidant and spontaneous). Also, the leaders who use the participated leadership style tend to the depended decision-making style (Francis, 2014:287-299).

Navid 2016 study which searches the role of the leadership styles in predicting the decision making style (rational, intuitive, dependent, avoidant and spontaneous) where the multiple leadership questionnaire of the decision making has been used and the results pointed out that the transformational leadership style has a positive relationship with the rational decision-making style while the negative predicting with the depended and avoidance style. Accordingly, the laissez-faire leadership style has a positive relationship with the rational decision-making style while negative prediction with the depended and avoidance style. Moreover, the laissez-faire style has a positive relationship with the axiom, depended and avoidance decision-making style but they have a negative relationship with the rational decision-making style. The leadership styles present an insignificant effect on the spontaneous decision-making style (Riaz, 2016:891-915).

Through the above-mentioned studies, the researcher sees that there is a strong relationship between the leadership styles and the decision-making process. In the point of view of the researcher, the leader during his daily work takes many decisions which may differ from one organization to another and some of these decisions do not need into long time and delay in the consulting. Therefore, the suitable style here is the authoritarian style and the others need to make meetings and exchange the point of views in order to come up with new ideas which serve the organization and here the democratic style is suitable and the other which are taken by the workers without return back to the leader. This leader gives complete responsibility to the workers without interference. In spite of the shortcomings of this style but it promotes the spirit of renewing and innovation between the employees. As a result, the researcher sees that the leader in any organization must hold more than one style where each practice separately depends on the case and time which through the work implemented. Through the literature review which has been presented, it is clear that there is a strong relationship between the study variables and in order to present the leadership styles and the decision-making process.

Summary

Human life has gone through many variables, circumstances, and situations that arouse its motivation towards something at the expense of other things. In other terms, deciding among several possible actions, the one that appears most relevant to achieve the desired result, in a timely manner. The managing decision-making process is one of the core functions and essential tasks of a manager. For the successful engagement of the organization, managerial leaders should demonstrate their ability and their efficiency to better understanding the decision-making process, its methods, and its concepts that ensure the rationality and effectiveness of the decisions. Furthermore, problem-solving is one of the most important developmental paradigms that regulate the way individuals think when facing problems in all aspects of practical and personal life. Different models and techniques have been developed over time. Many scholars tried to design decision-making process and problem-solving in order to follow appropriate ways for taking the right decisions. Managers need to identify the problem, collect data and information about the problem, analyze the problem, and search suitable solutions amongst the alternatives.

CHAPTER FOUR

4. The Research Problem And Methodology

Information technology (it) *, in countless forms, has a profound and concrete effect on information technology users and their environment. Outlines and proposes a framework of information technology roles as a facilitator, an initiator, or an activator. It shows the use of this framework by reviewing the effects and roles of information technology. It briefly examines the growth of its impact on business processes, particularly through certain forms of technology, such as computing, imaging technologies, and telecommunications. Evaluate the effects of this on organizations and management. A thorough understanding of the roles of information technology will enable the systematic identification and evaluation of risks and cost relationships associated with the application of information technology in business processes within an organization.

4.1. Introduction

Organizations' environment is highly dynamic, increasingly complex and undergoing perpetual change (Boulesnane & Bouzidi, 2013) argued that the acceleration of technological progress leads to the omnipresence of information and a multiplicity of information sources. In a constantly changing context, actions or decisions become more complex (Eraut,2004; Eisenhardt & Zbaracki,1992). . Moreover, many decision makers today generally have to work with mountains of heterogeneous data and are not able to make correct and rapid decisions (Kennerley & Mason,2008). Information technology (IT)* the convergence of computing, telecommunications, and imaging technologies - has had radical impacts on Information technology users, their work, and their working environments. In its various manifestations, Information technology processes data gathers information, stores collected materials, accumulates knowledge, and expedites communication. In fact, it plays a role in the daily operations of today's business world.

The complementary role has emerged with the realization and recognition of potential information technology. In previous years, information technology has only been seen as a supportive player in the firm's overall strategy. (Chan, 2000). Automation was limited, for example, to existing organizational functions. However, with the emergence and successful implementation of information technology innovations, opinions have changed. We observe that information technology plays important roles in business processes - managing new procedures, creating new needs and leading to new product development (Xu et al, 2017). Following the full implementation of information technology in an organization, these internal changes can also lead to wider changes in markets, society as a whole and products.

In this study, the researcher will try to expound and propose a framework of the roles of Information technology in the development of management skills for administrative leaders.

In this context, Information technology can assume any of the roles depending on the business environment and how the technology is applied. And then logically, we consider (six-w) in an organization in a business process, what-how-where-when-who-why.

Based on the above, the researcher will discuss some of the management implications of this understanding of the roles of Information technology. Therefore, they willfully and comprehensively understand the roles of information technology, and will also enable the systematic identification and evaluation of information technology in business processes within an organization. Accordingly. Application strategies of concept technologies, policies and the implementation of information technology banking is becoming a subject of fundamental importance and relate to all banks and indeed a prerequisite for local and global competitiveness.

In closing, the researcher will study and assess the information technology used in one of the commercial banks operating in Libya and clarify its role in raising and developing administrative leaders' skills in making decisions.

4.1.1. The Research Problem

Despite the intensive use of information technology in the financial sectors, especially in the banking sector in Libya, as well as their ability to acquire this technology for use in various administrative units, this sector still faces some problems that limit the optimal use of this Technology. This is due to the lack of awareness about these technologies within many levels of leadership inside this institution, as well as their ignorance of the opportunities offered by this technology. Also, the lack of qualified personnel, specialists and effective leaders are among the main issues behind this bottleneck in handling the performances within the administrative unit levels. Furthermore, this financial institution is using this technology in routine work, such as viewing files and storing financial information or checking balances of some accounts and printing some reports.

The world today is not looking at information technology devices, just devices for viewing and archiving files, but they are being used in broader areas such as telecommunications and decision making. On this basis, developed countries deal with this technique efficiently as a basis for competition. So the problem here has nothing to do with the technique and its potential, but to provide development and create an administrative leader who can deal with this technique effectively and efficiently. Therefore, this technique will assist leaders in recycling business and decision-making, providing them with the information, increasing their effort, time, money and capacity for decision-making, as well as to assist them instrumentally in the growth and development of their skills. In order for this technique to be a good start of it has to be used effectively and skillfully, directed and adapted to meet the growing needs.

4.1.2. The Rationale For Choosing The Libyan Financial Sector Especially In The Banking Sector

The banking sector has been chosen for several reasons:

4.1.2.1. The Sector

1. The banking sector in Libya is the only mean of transactions between all economic activities both in the private and public sectors.
2. The Libyan Banks ranking is very low and, in fact, they are left behind. This reflects the poor quality of management and the absence of planning either strategically or routinely.
3. It has been observed that the Libyan banks are of poor quality. There is a large gap between Libyan Banks and similar Banks in other countries in the US, Western Europe, Asia or even the African continent.
4. Libya is in the transition from a centralized economy to a free market economy and is further research in the area of information technology and human resources in all sectors, banks of high value among others.
5. Compared with the other public sectors in Libya, the Libyan banks have used information technology, which makes them a good research environment.

4.1.2.2. Personal Interest

1. The researcher is a Libyan citizen and the study will be conducted in Libya.
2. The researcher has worked in the banking sector in Libya for over fifteen years, therefore, has considerable experience in this area, took many courses in different countries and has held several leadership positions at Libyan banks. He is also a member of the Association of Libyan banks.
3. This research will constitute the initial step for the researcher to build his academic career and will provide opportunities for further research.

4.1.3. The Research Outline

4.1.3.1. Research Questions

Current research attempts to identify those issues and challenges related to IT management, and then suggest appropriate solutions.

Briefly, the research aims to find answers to the following questions:

1. Why is IT management not effectively implemented within the Libyan banks?
2. What are the main challenges and difficulties impeding the planned implementation of IT management within Libyan banks?
3. How and up to what extent would Information technology management be applied and implemented in Libyan Banks sector?

4.1.3.2. The Research Aim

The aim of this research is to identify the difficulties and problems impeding the implementation of the administrative decision-making process in the Bank of Jumhouria using information technology and specifically management information systems.

4.1.3.3. The Research Objective

In this study, the researcher seeks to reach some results that can contribute to achieving the following objectives:

1. Understanding information technology management issues, and its role in developing the management skills of administrative leaders.
2. To Highlight on the reality of the use of management information technology in the administrative decision-making process in the Bank of Jumhouria.
3. To review the relevant literature on Information technology management worldwide.

4. To get a better empirical understanding and depth of IT management in the context of the Libyan banking sector by focusing on Jumhouria Bank.

4.1.4. The Research Contribution

This research provides a genuine opportunity to advance existing knowledge and hence to understand IT in general. It will contribute to the existing knowledge by providing an in-depth understanding of IT in the following issues:

This research provides a real opportunity to develop current knowledge and thus to understand information technology in general. It will also contribute to current knowledge by providing an in-depth understanding of information technology in the following issues:

1. This study, in fact, is the first leading study in Libya which focuses on the use of information technology in Libya public banks and its obstacles. Expanding the existing knowledge of IT literature in these Institutions is a contribution.
2. Common barriers and difficulties of implementing and using information technology in Institution under study.
3. The key factors for improving IT activities will be identified and presented.
4. The demonstration of unique difficulties (barriers) affecting IT in Institution under study.
5. Deriving a theoretical framework to be used in the decision-making process by bank executives.

Generally, this study will contribute to the literature of IT management by raising the level of awareness and publicize the importance of information technology and its role in developing management skills for administrative leaders. Additionally, it will contribute to knowledge by identifying the key reasons why Libyan banks suffer from the absence of a robust model for Information technology management properly. Furthermore, this research will contribute to the literature of Information technology management in general.

Finally, this study will be the first in Libya since the new political and economic situation which started after the Libyan turmoil that ended with the new revolution on the 17th of Feb 2011. Therefore, it will differ from its predecessors in terms of changed political and economic factors and their impact on Libyan organizations.

4.1.5. Previous Studies

Due to the absence of such studies previously in Libya, the researcher inferred some studies that dealt with the topic, but in other countries. The studies are:

(Christoffersen & Others, 2000), "The Impact of Information in Decision Making Processes". This study was conducted on approximately (1000) people who have an email where they reached the following results:

Most respondents were either (very satisfied or satisfied) with their relationship with this system, the important role of the system in influencing direct decisions, positive feedback on the site and publications, the survey showed that the system gave great success to access information.

(Average & Mrin, 1999), entitled "Key Success Factors in Implementing Decision Support Systems", was conducted in South Africa. The study examined management information systems in general, And DSS, particularly in South Africa, compared with developed countries in order to give information systems managers the guidelines for building and implementing decision support systems in their organizations.

The researchers studied 18 private sector organizations and adopted a questionnaire for the purpose of collecting data while interviewing some managers whose organizations use decision support systems. They found that organizations that successfully implemented decision support systems had different strengths that were better than organizations that showed partial success or failure in decision support systems.

(Liebowttz,1999) entitled "Information Systems Success and Failure", was conducted in the United States of America. It included (15) managers of the Information Systems Unit to measure the success or failure of modern information systems used in their organizations. Significantly in their organizations. The researcher found that there were many factors behind the failure of the information systems used, including technical factors related to technology or administrative factors of system-based management.

(Ahmed, Shahzad, Umar, & Khilji, 2010) entitled "The Impact of Executive Information Systems on Organizational Design, Intelligence, Decision Making." The researchers used the survey method for (91) senior US administration managers to test the operational information system used by managers with fast decision-making speed and problem identification, provide information, and involve subordinates in decision-making. The study aimed for the practical test of the relationship between the executive information systems in intelligence and in decision-making.

A questionnaire was used from a number of inquiries in (22) organizations focused on test hypotheses and relationships between the duration of the use of information and the availability of time. The study found that when using executive information systems in a large and long time it is associated with a positive relationship with the understanding and definition of the problem, and the speed of decision-making of executives and managers of middle management. These effects also lead to high-quality decision-making.

The study also found that the use of executive information systems does not reduce the process of accreditation of executives and middle managers to their subordinates to assist in decision making. This may be due to the involvement of subordinates and does not necessarily imply implicit positive or negative behavior among managers, while speed and information are positive factors.

(kreamer & Danziger & Dunkle & King, 1993) entitled "The usefulness of Management Information computerized general managers systems" The study included (250) general managers in support of two scenarios of the possibility of benefiting computerized information systems for managers. The knowledge and use of these

Information systems were collected in a long-term study (Longitudinal Study) on computers in more than one US state in 1976 and again in 1988.

The researchers used Structured Interviews as a tool for gathering information with senior management, MIS specialists and the Personnel Management Department. They also used a questionnaire distributed to (2,500) government employees in (42) US states in 1976 and 5,000 employees in 1988 in 46 cities. The researchers concluded that managers who are committed to using computerized information systems are the ones who need employees to help them use these systems more than those who use the computer to get direct information, and researchers suggest that indirect computer use may be most appropriate for most contemporary managers and this is a good application of MIS design.

4.1.6. Spatial And Temporal Limitation Of The Study

The limitation of the study is as follows :

1. The research will study and evaluate the role of IT in developing managerial and leadership skills (Decision-making skills) for the administrative leaders and their utilization in the process of conducting business within Jumhouria bank and its branches.
2. The study will be limited to administrative leaders (at the senior management level) within Jumhouria bank, they are the members of the administration and the Director general, departmental directors, deputy directors, office managers branch directors, Vice-Presidents and section chiefs of this institution.
3. As for the period of study: A four-year period was selected between 2012 and 2016 to provide information and data accurately and as required. As well as to know the development of the size of employment and the development of the number of branches in addition to the economic development of the financial institutions under study, which gives an indication of the size of work and the type and level of information technology systems used within the financial institutions under study.

Therefore, The following should be noted:

1. The information on which this research is based on is collected according to what respondents considered in the questionnaire forms, in which there may be some exaggeration or lack of giving some data.
2. The results to be reached relate only to Jumhouria bank, and cannot be circulated to other banks.

4.1.7. Hypotheses Of The Study

According to the study problem, the following hypotheses have been formed:

H1: There is a statistically significant relationship between (Information technology) and (The quality of administrative decision).

First Sub-Hypothesis:

There is a statistically significant effect for the problems of the (Time dimension) on the quality of the administrative decision in the bank under study.

This hypothesis aims to identify the relationship between the problems of the (Time dimension) and the quality of the administrative decision in the bank under study.

Time dimension in terms of (modernity, timing)

This factor includes two variables that have been subjected to the time dimension and its effect on Information of which in turn affects the decision-making process of the administrative. He examines the dimension (Modernity and Timing) and shows the importance of this factor in terms of availability of the appropriate information in a timely manner required by the decision-making process; otherwise, the information becomes useless if not available in a timely manner.

Second Sub-Hypothesis:

There is a statistically significant impact for the problems of the (official dimension) on the quality of the administrative decision in the bank under study.

This hypothesis aims to identify the relationship between the problems of the (Official dimension) and the quality of the administrative decision in the bank under study.

Official dimension in terms of (clarity, Arrangement, comprehensiveness)

This factor included three variables that dealt with the effect of the Official dimension of the information needed to make the correct and effective administrative decision. This dimension includes clarity, Which means that good information is clear and understandable information by the user must be not ambiguous, The information should be presented in a sequential manner according to the user's need for decision-making, and finally, comprehensiveness, which includes the necessary information required by the decision-making process and all this is done through the proper use of technology and computerized management information systems.

Third Sub-Hypothesis:

There is a statistically significant impact for problems of the (Content dimension) on the quality of the administrative decision in the bank under study.

The purpose of this hypothesis is to know the relationship between the problems of the (Content dimension) and the quality of the administrative decision in the bank under study.

Content dimension (accuracy, correlation, completeness)

This factor contains three variables that addressed the content dimension of the information needed to make administrative decisions, which in turn affects the content

of the administrative decision by examining three basic elements (accuracy, correlation and, completeness).

Accuracy: Refers to the degree to which the information is free from error and reflects the situation as it is in reality.

Correlation: Means the degree of suitability of the information to the user's request. The information provided by computerized management information systems should be related to the subject matter of the decision that the user of the system wishes to make.

Completeness: Means that the information provided by the information system should provide all the decision maker needs for a given situation, however a large degree of this area should be reached, even though it is recognized that there is difficulty in achieving full completion.

H2: There are statistically significant differences in the directions of the study sample on information technology and their impact on administrative decision making due to the personal factors:(gender, age, academic qualification, length of service in the current job, administrative level).

4.1.8. Research Methodology

The process of any research is the overall activities undertaken by the researcher to achieve an answer to a given problem.

The research methodology is concerned with the way(s) by which the researcher collects and analyzes data in order to answer the research questions. It addresses the way in which to approach problems and search for answers (Taylor & Bogdan, 1984).

This study will place an emphasis on consistency between the purpose of research and its theoretical, methodological and methical choices. A commitment to

understanding Information technology management in their historical, socio-economic and political contents requires reflexive and reflective processes of negotiated interaction between the researcher (s) and the researched. The approach is mainly qualitatively based, and as such, relates to the interpretive tradition. It seeks to collect data based on the case study, but also to maintain a strongly critical stance. This is in keeping with social science researchers who employ qualitative research methods and who espouse an approach in which theory and empirical investigation are interwoven (Silverman, 2013).

The research methodology will be adopted in order to fulfill the aim and objectives of the study. However, this research will be conducted on two main bases, literature review and case study. It will be carried out in the following brief steps:

4.1.8.1. Literature Review

Information technology management in general and its practices within the bank's contexts worldwide are the main topics of the literature review. This literature review will be conducted to enable the researcher to understand the concepts of Information technology management. It will permit the researcher to recognize and cover the objectives and constitute a base for an overall understanding and identifying the key factors and challenges affecting the implementation of Information technology management. The literature review also helps to form a conceptual framework where the key variables of the study will be identified and then investigated empirically.

4.1.8.2. Adoption Of Research Philosophy

There are two main traditional philosophical positions in research: epistemology-positivism and ontology-phenomenology (social Constructionism). The Philosophers have argued about which one is best to conduct. Research Positivism is described by (Easterby-Smith & Thorpe) as: "The social world exists externally, and that its properties should be measured, through objective methods, rather than being inferred subjectively through sensation, reflection or intuition." While Social Constructionism is the new paradigm, which has been developed by philosophers,

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during the last half of the last century. Largely in reaction to the application of positivism to the sciences, stems from the view that 'reality' is not objective and exterior, but is socially constructed, and given meaning by people (Easterby-Smith & Thorpe). Based on the nature of this research, the social Constructionism (phenomenological) will be the research philosophy.

4.1.8.3. Adoption Of Research Approach

A common theme in the literature is for authors to classify process or strategy of research under two main paradigms (Collis & Hussey, 2013). These are - Qualitative research, which usually, emphasizes words rather than quantification in the collection and analysis of data, and Quantitative research, which usually, emphasizes quantification in the collection and data analysis.

The researcher will adopt the qualitative philosophy as the main approach for this research. This approach will enable the researcher to dive into the real life of a situational context to explore the included features, challenges and factors (Remenyi & Williams, 1998).

4.1.8.4. Case Study Approach

This study will be exploratory and explanatory in perspective; it will focus on knowing that "what", "how" and "why" (Yin,2003) issues related to the investigating factors and difficulties/challenges affecting Information technology management. The case study method allows the researcher to concentrate on a specific instance or situation and to identify the various issues (Yin, 2003). (Gummesson, 2003) has summarized proper concerns of the case study approach such as a free and wide choice of data generation and analysis techniques; access to reality and validity in focus; and the purpose is understanding. This drives the researcher to select a case study approach.

4.1.8.5. Data Collection And Sources Of Data

Authors such as (Easterby-Smith & Thorpe; Harwood & Garry,2003) and others have mentioned some different data collection methods that include "Documents, Archival records, Interviews, Direct observation, Participant-observation, Diaries, Focus group, and Questionnaire".

In this study, the researcher will use two data collection methods; semi-structured interviews which will enhance full in-depth understanding of the Information technology management and questionnaire survey which also will be used as a mean of triangulation and make the data and analysis more robust and ultimately enhance the validity and reliability of the research. And very briefly: This research relied on two types of studies:

Theoretical Study:

Through this type of study, the researcher has access to books and scientific references available, journals and magazines related to the topic of study.

Empirical Investigation:

The present applied study will be conducted in the Financial sector in Libya specifically in the Jumhouria Bank as one of the most important financial institutions in Libya.

Summary

In this chapter of this study, the researcher will display problem research and methodology by identifying the problem and research objectives. So the main problem within financial institution where the study took place is not providing different techniques but the problem is to provide, develop and create employees and an administrative leader who can deal with different techniques to effectively and efficiently.

One of the most important objectives that the researcher seeks to reach through this study is to have results and then come out with recommendations that support the positive aspects in the process of introducing information technology and reducing the negative aspects that stand in front of the ideal use of this technology.

4.2.1. History Of The Bank

Jumhouria Bank is one of the largest banks belonging to the Libyan State and the most prominent financial institutions in the region. All its activities and services are subject to Libyan commercial law. The regulations adopted by the statutes of the bank and the laws governing the work of Libyan banks, which are supervised by the Central Bank of Libya. The bank is a platform for the recruitment and of funds. In addition to the directives of the Central Bank of Libya regarding the provision of funding for development projects, Which the Bank is required to participate in.

The head office of the bank is located in Tripoli the capital of the State. That is the main office of the general administration of its branches. Its branches and agencies spread over a vast area of the State. The purpose of the bank is to carry out all banking activities according to the latest developments in the banking industry. Which has had a direct impact in providing financing for small and medium-sized companies operating in the Libyan economy? Also, the bank has contributed widely to the expansion of the financing of the international trade movement to encourage the export and import operations in order to provide banking services to all customers throughout Libya. To achieve this, the Bank's branches and agencies are spread throughout the country with (175) branches, a banking agency, and an area administration, with (6599) employees.

4.2.2. Governance Of The Administration

The Bank's management is committed to applying the principles of corporate governance. In the exercise of its activities and business, it relies on high levels of transparency, disclosure, and integrity towards the Libyan society in which it operates, the owners of the "shareholders" and the customer segments as well as the employees of the bank. As it announces all the development and modernization plans to be submitted by the Bank and the stock market is notified of any changes in the senior

management body. In addition, the Bank's policies to achieve its objectives are accurate and objective.
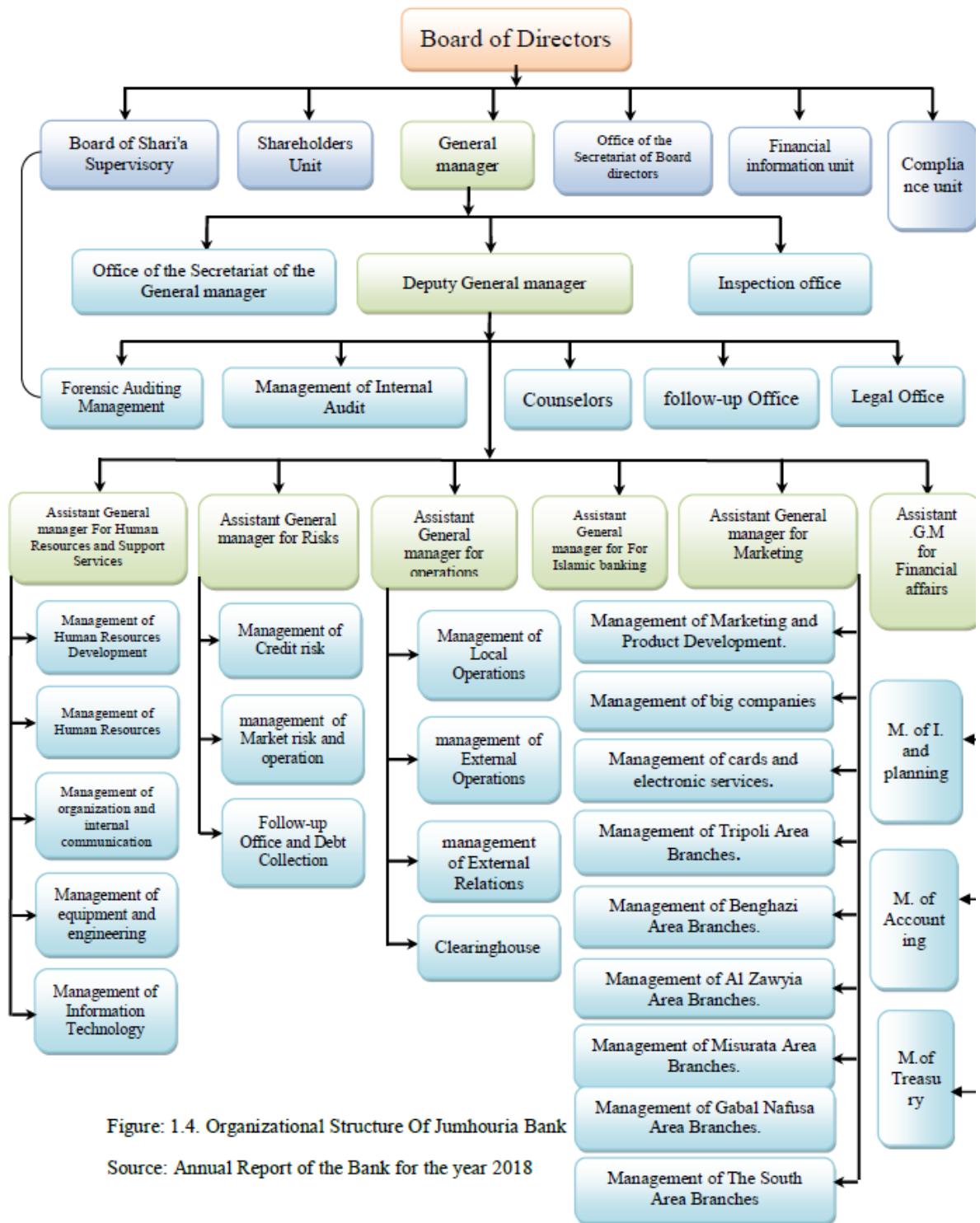
4.2.3. The Organizational Structure Of The Bank

Figure: 1.4. Organizational Structure Of Jumhouria Bank

Source: Annual Report of the Bank for the year 2018

Figure 1.4. Organaization Structer of Jumhouria Bank

4.2.4. The Strategic Plan Of The Bank

As a result of the recent world is witnessing severe competition in all aspects of economic activity, due to the circumstances and variables that are significantly affecting domestic and international banking environment, due to the fact that the Bank is one of the most prominent financial institutions in the region and influenced all the happenings surrounding him, so the Bank's senior management has adopted a strategic thinking approach to manage all the Bank's activities. It has strived to maintain the levels reached by the Bank.

A consulting firm was hired to develop an ambitious plan for the Bank (2008-2018) The activities of the bank, in order to defend and maintain the leadership of the banking sector, which reached the bank to competitors from other banks, whether local or regional. Where one of the most important ambitions of the management in developing this plan is to grow in the activities and business of the bank at the same pace of the banking sector and maintain the market share of the volume of assets and the number of customers and the level of profits achieved.

4.2.4.1. The Vision Of The Bank

That the Bank of Jomhouria is the National Bank of the Libyan pioneer who is leading the process of development and modernization of the banking sector of Libya and is able to meet the needs of the Libyan citizen at all levels.

4.2.4.2. Message Of The Bank

The Bank is committed to providing its banking services with high quality and competitive prices, following an appropriate pricing policy that meets the needs of the customer segments in all parts of Libya, in order to meet the aspirations of the shareholders of the Bank.

4.2.4.3. Strategic Objectives Of The Bank

The objectives are divided into two parts:

The Strategic Ambitions

1. Providing competitive services at the local, regional and global level.
2. To Become the preferred bank for both corporate and retail for all customers.
3. To be the preferred partner of Libyan, foreign and major companies.
4. To be famous in the Libyan banking sector as having the preferred working environment.

Specific Financial Objectives

1. Raising total returns by (15%) per annum.
2. Controlling operating costs by not more than (10 %) Per annum.
3. Collecting and reducing the volume of doubtful debts by (25%) per annum for what it was in the past.
4. Raising the performance of all employees of the bank to maintain the status reached by the bank.
5. Raise the quality of the banking services provided, and improve the outlook of future customers.

The Outlook for raising and improving the performance of the Bank in all the activities it operates through:

1. Enhancing the financial and competitive position of the bank within the Libyan banking sector, in order to enable the bank to take the lead in comparison to the banks operating in the Libyan banking sector, as well as maintain the main financial ratios of the bank within the requirements of the regulatory bodies and international standards, whether in liquidity to meet withdrawals or the solvency of the bank's capital.

2. Achieving profitability rates above the target, which will contribute to the bank's financial position, resulting in adequate and secured financing, and investing surplus liquidity in attractive uses and content.

3. Expanding the Bank's financing activities by participating in providing adequate financing to all economic sectors within the national economy and continuing to focus on the private sector. And work to meet the needs of economic sectors and productivity while maintaining an acceptable degree of risk and liquidity in the granting of credit to companies and small and medium enterprises in support of institutions of the national economy.

4. Development of banking products and services provided by the bank to the dealers with which, being careful to be submitted in accordance with the highest levels of quality and to keep pace with the latest developments in the banking industry, So that the bank was able to study the needs of customers and dealers and provide them with services keep pace with the local economic situation as well as the launch of a package of electronic and investment services tailored to the aspirations of senior customers.

5. Continue to improve buildings branches and agencies of the bank through the confirmation of senior management to create distribution outlets and show the proper manner, so as to reach the target customer segments and the development of service in the branches in line with the banking industry standards and aspirations of the Bank's environment, in addition to seeking to open new branches in good places.

6. Confirm the Bank's compliance and compliance with the laws, regulations, banking and professional instructions issued by the Central Bank of Libya and regulatory bodies, and develop credit risk management, operating and instructions to meet Basel 2 requirements.

7. Updating and strengthening the banking system and circulating it to most branches and agencies of the bank, modernizing the telecommunication systems in the bank, and the bank's participation in all the attached systems approved by the Central Bank of Libya to provide various banking services in electronic form.

8. To take care of the human resources of the bank and improve its efficiency and raise the level of its performance by engaging in internal and external training

programs commensurate with the needs of the work, and keen to develop performance management and reward and stimulate outstanding achievement by aligning the objectives of the bank and the objectives of its employees to raise the levels of actual performance.

4.2.5. Human Resources At The Bank

The Bank seeks to support its cadre of trained and specialized personnel in the field of banking to meet its actual needs in all areas where the number of employees at the bank by the end of the year (2018) of the number of (6599) employees are distributed on the network of branches, and the Bank continued its efforts to provide training opportunities for most employees at home and abroad. At the local level, a number of courses were organized at the headquarters of the training center at the Bank and the training center of the Central Bank of Libya and other local training in All fields where the number of enrolled (1450) employees. On the external level, the Bank participated in several banking courses, conferences and seminars, which were organized by the Union of Arab Banks and the Arab Academy for Banking and Financial Sciences, and the courses organized by the Central bank of Libya, Where the number of ((950) employees) in addition to some specialized courses by some correspondents, The number of trainees has reached (2400) a percentage (36%) of the total number of employees at the bank, and a number of employees continue their higher studies in universities and local academies in support of senior management of self-development programs.

Table 1.4. Shows the Statistical number of employees until the end of the year 2018.

The place	Actual human resources until 31-12-2018
Head office	1171
Tripoli area.	2362
Benghazi area.	1086
Al Zawyia area.	515
Misurata area.	591
Gabal Nafusa area.	536
The South area.	338
Total	6599

Source: Annual Report of the Bank for the year 2018

The Bank's senior management has also continued to implement its policies aimed at improving and caring for the Bank's human resources. In this regard, the policies of evaluating and managing performance have been redeveloped, rewarded and motivated by the actual performance achieved at all levels of the Bank. Adjustment of salaries of employees at the bank to match the salary rate granted in the Libyan banking sector, and to meet the needs of employees and keep them from leakage to other institutions, which will have a positive impact in enhancing the job satisfaction and raising productivity Employees and their various positions.

In addition to the formulation and implementation of short and medium term training plans and programs (external and local) covering all areas and activities of banking in accordance with the latest developments of the banking industry in the world, and to meet the ambitions and requirements of the next phase.

4.2.6. The Geographical Spread Of Branches And Agencies Of The Bank

The bank has a wide network of local branches represented in (175 branch and agency) spread throughout Libya and linked to each other geographically so that it has been distributed and identified by six branches for branches and agencies and they provide all banking services to all segments of society And providing services to non-

residents through an external banking network connected to many correspondents around the world. The bank seeks to open new branches and agencies in most regions of Libya in an effort to provide the best banking services to all segments of society.

Table 2.4. Shows the number of branches and agencies of Jumhouria bank.

Area Branches Management		Number of branches	Number of agencies	The total
Tripoli	1	50	21	72
Benghazi	1	26	5	32
Al Zawyia	1	12	3	16
Misurata	1	15	3	19
Gabal Nefoussa	1	20	2	23
The south	1	10	2	13
Total	6	133	36	175

Source: Annual Report of the Bank for the year 2018

4.2.7. Types of Information Technologies Used In The Bank

Due care has been taken to make this presentation as accurate as possible. Certain statements made in this presentation may not be based on historical information or facts and may be "forward-looking statements" and may be subject to risks and uncertainties that could cause actual results to differ materially and adversely from those that may be projected by such forward-looking statements. These risks and uncertainties and other factors that could affect, including but not limited to, competition, acquisitions, economic conditions, ability to retain highly skilled employees, technology, law and regulatory policies, managing risks associated with its business. I-flex makes no representation or warranties with respect to the contents hereof and shall not be responsible for any loss or damage caused to the user by the direct or indirect use of this Presentation. i-flex may alter, modify or otherwise change in any manner the content hereof, without obligation to notify any person of such revision or changes All company and product names are trademarks of the respective companies with which they are associated.

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Banking Domain Challenges:

1. Heightened competition.
2. Growing customer expectations.
3. Need for a reliable and secure system.
4. Thinning Margins.

What A Bank needs to do?

1. Respond to Market opportunities in a fiercely competitive business environment.
2. Introduce New banking products in shortest time.
3. Improved Efficiency in Operations Management.
4. Enhanced Effectiveness in Operations Control.
5. Capability to reach out to customers in diverse ways.
6. Seamless delivery of sophisticated banking products to customers   (Corporate / Retail / Investment) –
   The World of Financial Services
   Customer View for Relationship Banking and Personalized Services
7. Integrated IT Solution

   - Minimize cost of development and maintenance.
   - Leverage on technological progress to enable growth.
   - Have controlled access to the system.
   - Manage User Privileges.
   - Exercise Operational Control.
   - Manage User Licenses.
   - Maintain an Event Log.
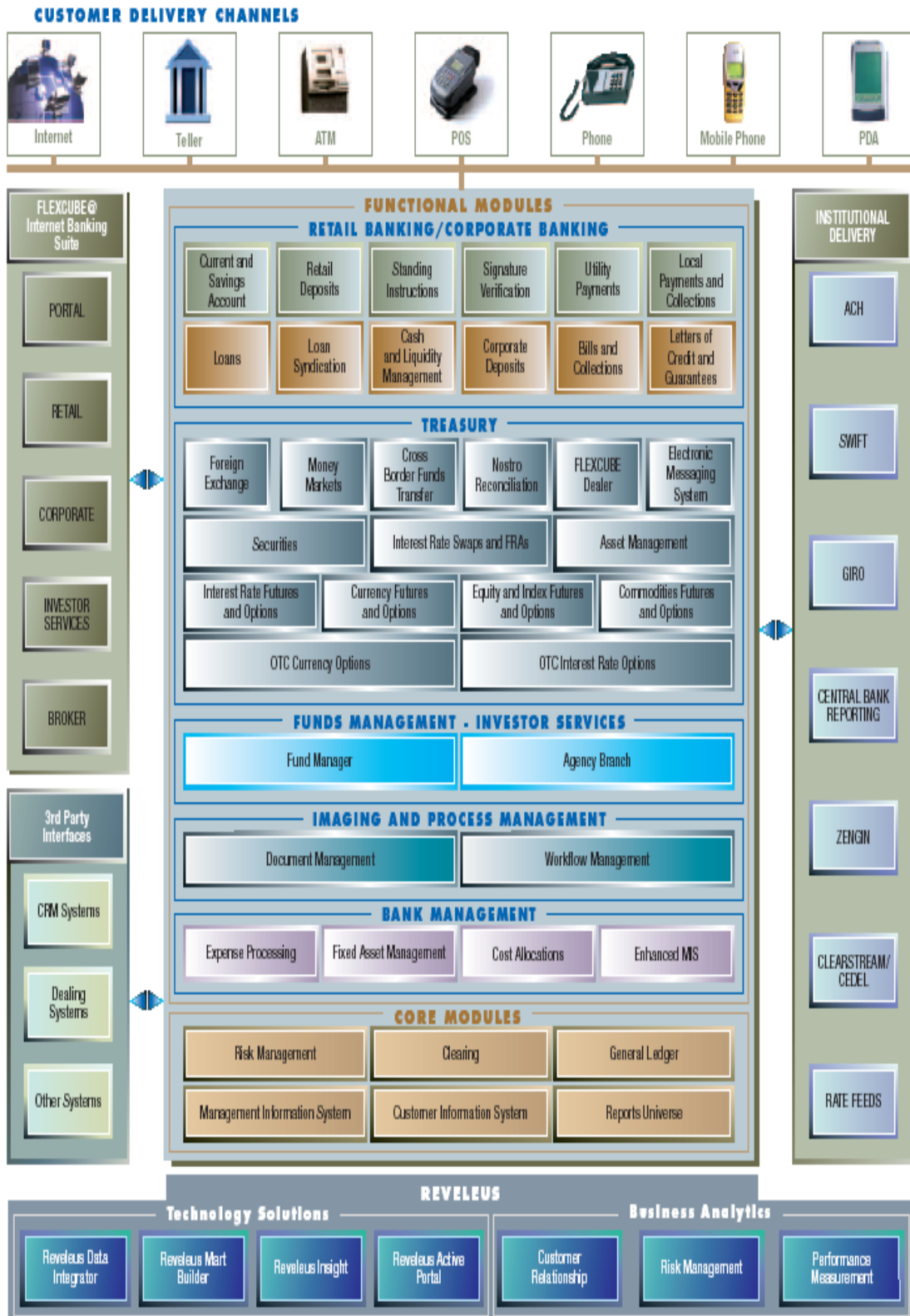
Source: Annual Report of the Bank for the year 2018

Figure: 2.4. Flexcupe Application Architecture Functional Overview

Service Based Architecture

1. Accounting and messaging/advising.
2. Risk management.
3. Interest Charges, Fees & Commission.
4. Taxes and brokerage.
5. Management Information System (MIS).
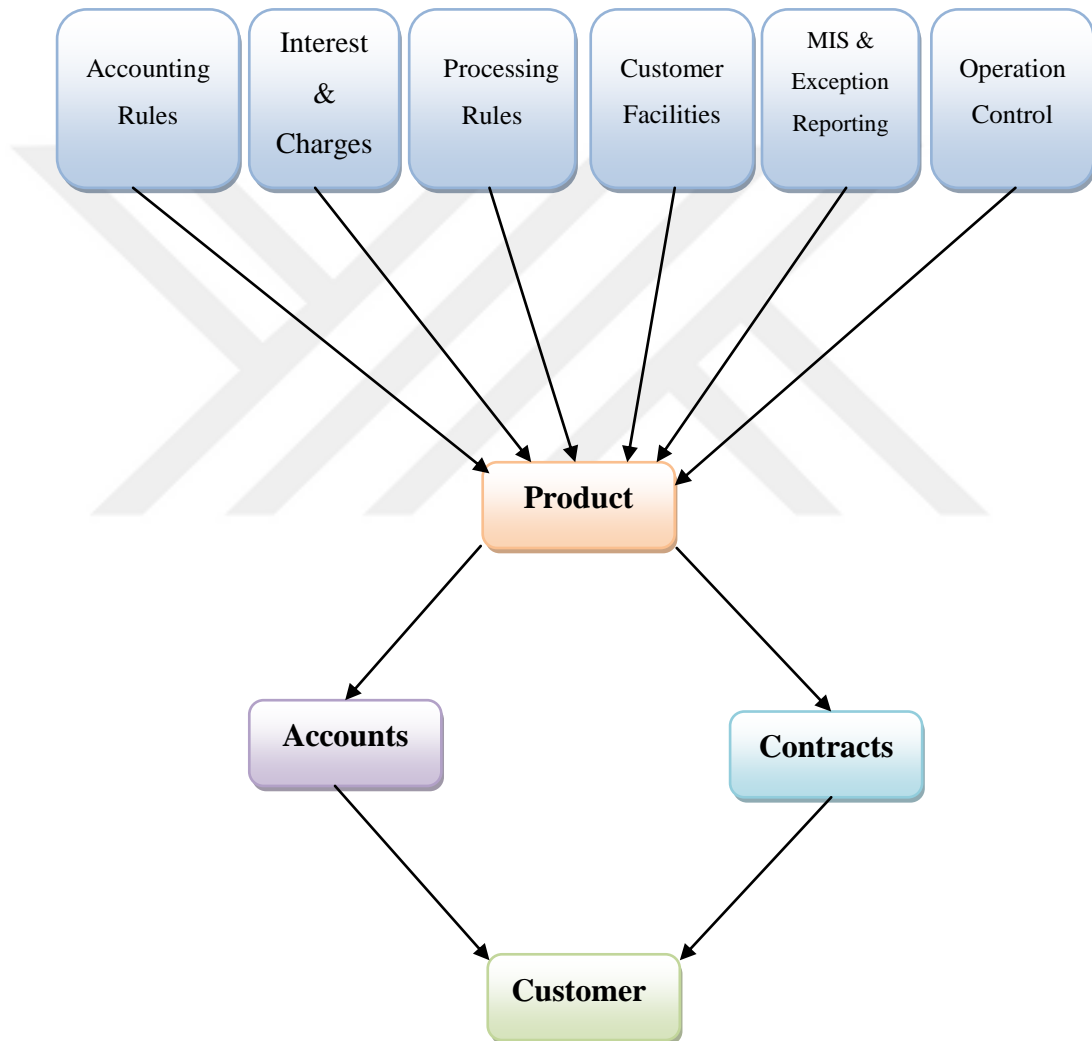
Figure 3.4. Product Centric Architectur

Benefits Of Product Definition:

1. Create, Manage & Launch new products faster.
2. Standardize product offering across branches reducing time to market. Responsiveness to changing customer needs.
3. Standardize and handle customer exceptions providing maximum flexibility.
4. Structure and automate complex transactions enhancing service capability.
5. Minimize operational errors enhancing service levels and reducing costs. Better controls.
6. Flexibility through standardization.

Modular Architecture:

1. Offers flexibility to Banks.
2. Provides neat, simple and modular expansion for future enhancement.
3. CORE is Central to the system.
4. Modular yet integrated.
5. Customer Centric Architecture.
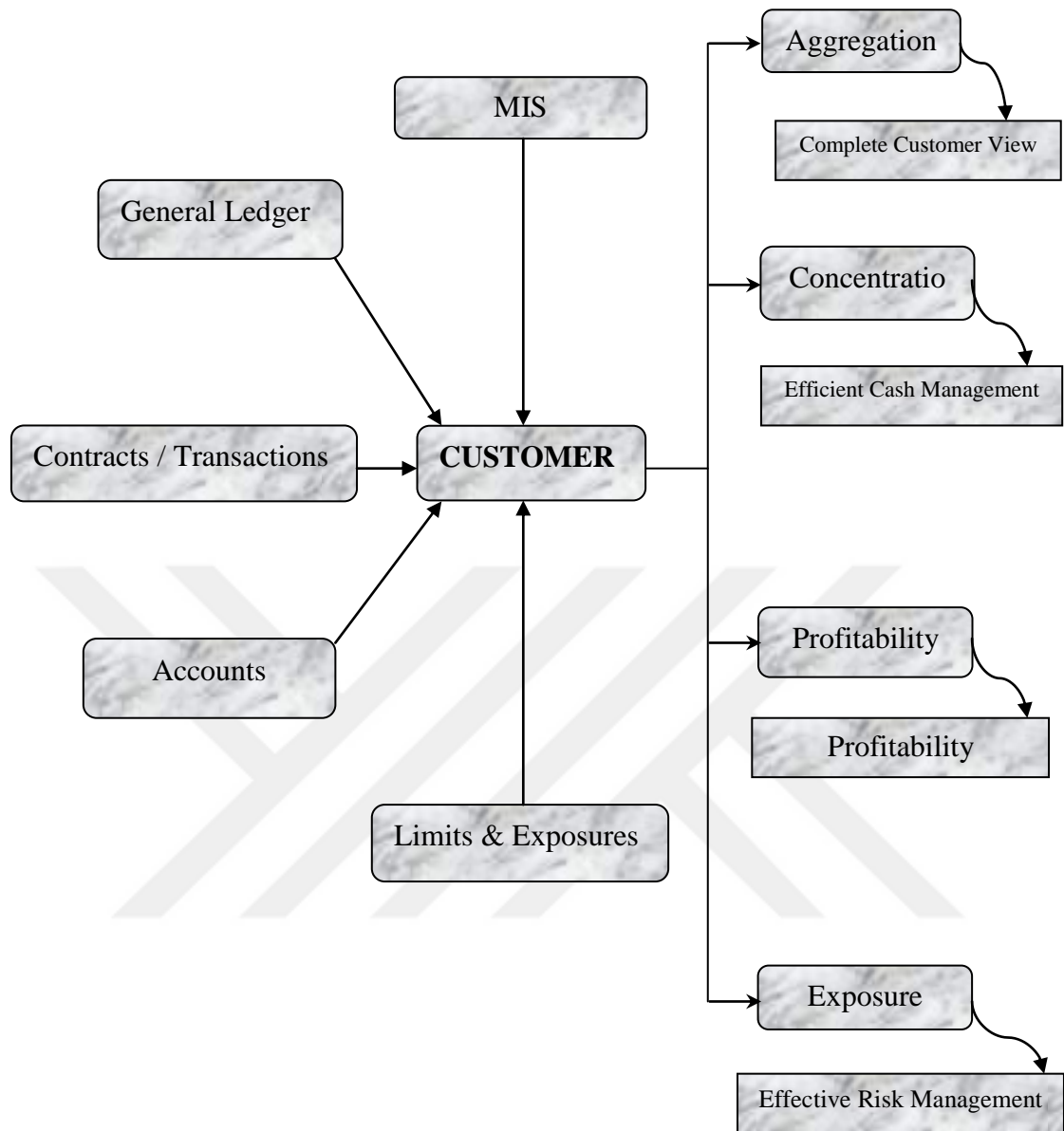
Figure 4.4. Customer Centric Architectur.

Flexcube As the Solution:

Respond to market opportunities in a fiercely competitive business environment and Introduce New banking products in shortest time – speed and flexibility.

Flexible Product Definition Facility:

1. Accounting Methodology.
2. Transaction Lifecycle Events.
3. Product Preferences.
4. Messaging.
5. Status Control.
6. Charges / Fees / Commission / Taxes.
7. MIS Information

Effective Operations Control:

1. Comprehensive Security Management System and Audit Trails.
2. Configurable Overrides and Controls.
3. Authorization Re-key and Dual authorizations.
4. Branch / Currency / Customer / User Restrictions.
5. Exception Control Reporting

Efficient Operations Management:

1. High efficiency, fast, scalable.
2. Product definition facility.
3. To standardize all services/facilities.
4. Flexible GL and MIS.
5. Use of Templates and Copy Facilities.
6. Straight-through Processing.
7. Optimal Parameterization.

Capability to reach out to customers in diverse ways:

1. Personalized services
   a. Customer Access.
   b. Internet and Fax interface.
   c. Special Charges and fees.
   d. Customized Advices and Statements .
   (multi-lingual support)

Customer View for Relationship Banking:

1. Enterprise-wide customer information.
2. Consolidated customer statement.
3. Hierarchy of Credit Lines and Limits.
4. Drill-down facility.
   a. Customer.
   b. Products and Accounts.
   c. Transactions.
   d. Contract Information.

Ease of Use

1. Consistent user interface.
2. Configurable Vertical Toolbar.
3. Pre-emptive disabling.
4. Pick lists & Use of Standard Icons.
5. Full Keyboard & Mouse Support.
6. Use of Templates, Copy, Hold facility.
7. Defaults based on setup.
8. Context-sensitive On-line Help & Keyword search for Help.
9. Comprehensive On-line User Manual.
10. Alpha-numeric Codes for Customer, GL, Currency, etc.

Queries and Reports:

1. Powerful Query Facility.
   a. Summary Views.
   b. Drill down facility.
   c. Search Criteria.
   d. View of entire Transaction History.
2. Extensive Reporting Capability.
   a. Canned Reports.
   b. Comprehensive MIS.
   c. Business Objects for adhoc queries/reports.

Customer Information System:

1. Single customer view.
2. Comprehensive demographic, financial, professional, corporate information capture and storage.
3. User defined fields for additional information.
4. Customer categories to facilitate MIS data collection and decision-making.
5. Customer grouping to assist credit risk management.
6. Customer-to-Customer and Customer-to-Account relationships.
7. Capture of signatures and photographs and online viewing.
8. Customer Contact Log.

Current and Savings Accounts:

1. Extensive support for
   a. Checking accounts.
   b. Savings Accounts.
   c. Recurring Deposits.
   d. Overdrafts.
2. Flexible Interest Plans
   a. Product Base Rate + Product level Variance + Account level Variance.

b. Tiered structure.

c. Various methods for accrual basis (30/360, Actual/Actual, etc.) and interest. calculation methods (Daily balance, Monthly minimum, Average daily balance).

3. Charges and Fees:

   a. Fixed or Floating (Percent) or Tiered.

   b. Periodic or Online.

   c. Waiver based on balance – Current/Previous/Average/Minimum.

   d. Free transaction treatment – None/Count based/Amount based.

   e. Variance based on customer, product, channel, day, time, etc.

❖ **Customer Funds Management using:**

- Funds transfer.

- Auto Sweep-ins and sweep-outs across CASA and Deposits.

- Standing instructions.

❖ **Customer communication:**

- Periodic statements (ad hoc, monthly, quarterly, etc.).

- Account level special frequency of statements.

- Multiple customer addresses for statements.

- Combined statement for all accounts.

❖ **Facilities:**

- Cheque Book.

- Passbook.

- Internet.

- ATM/POS.

Time Deposits:

❖ Supports the processing of retail deposits.

- Cumulative deposits.

- Non-cumulative deposits.

❖ Comprehensive support for life cycle events, e.g., booking, interest payments, maturity, rollover and foreclosure.

❖ **Interest treatment:**
- Tiered rates based on amount and term for each product.
- Fixed or floating rate deposits.
- Interest rate based on total deposits of customer.

❖ **Multiple modes for deposit funding and payouts.**
- Cash, Cheque, Bankers Cheque, Demand Draft.
- Transfers to/from Accounts (Current or Savings account, GL).
- Combination of above for a single deposit.
- Automatic deposit creation through Standing instructions and Sweep-outs.

❖ **Maturity Processing:**
- Auto Redemption – part and full.
- Auto renewal – part and full.
- Forced renewal in case of lien on deposits.
- Back dated renewal with choice of interest rates.

❖ **Penalties on Early redemption:**
- Absolute rate or variances.
- User defined penalty methods.
- Penalty rates at Bank, Product or slab level.

❖ **Withholding tax:**
- On balance or interest.
- At branch, customer or account level.
- On projected or non-projected income basis.
- Recovery of un-recovered tax.
- Yearend tax treatment, tax recovery or tax deferment.

Clearing:
- ❖ Handles back office retail banking business like.
    - Inward Clearing.
    - Outward clearing.
    - Cheques for collection – inward and outward.
    - Cheque Operations.
    - Generation of related reports.

- ❖ **Key Features:**
    - Supports both centralized & de-centralized clearing set-ups.
    - Multiple Inward & Outward Clearing runs.
    - Sweep in facility support for clearing.
    - Charges associated with clearing and collections.
    - Acting as correspondent for others.
    - Clearing through correspondent bank.

Inventory:
- ❖ Complete tracking of both security as well as non-security stationary like
    - Cheque Books.
    - Cheques - Certified & Traveler's.
    - Pass Books.
    - Account Opening Forms.
- ❖ Tracking of stock at three levels – Bank, Branch or Teller.
- ❖ Maintenance of re-order, minimum order and excess level for each branch for each stock type.
- ❖ Inventory linked to transactions like Certified Cheque issue, cheque book issue, Travelers Cheque issue.

Teller:
- Easy and intuitive browser based user interface.
- Teller language can be English or Arabic.
- Fast paths (shortcuts) and hot keys.

- Dual authorization of transactions – online and remote.
- Powerful search capability with wild cards.
- Automated Cash Balancing currency-wise and with denomination.

Risk Management System – Collaterals and Limits:

- Multi-level centralized customer exposure tracking with high level of flexibility in structure, limits definition and collateral functionality.
- Multi currency limits with automatic revaluation of exposures.
- Support for Collaterals with Margins & automatic revaluation.
- Charging facilities for the limits granted.
- Country Exposure Tracking.

Loans:

- Extensive support for loans with different flavors.
- Effective control with online credit line checking and linking of collaterals.
- Multi-currency handling capability.
- Flexible User-defined charges administration .
- Flexibility in defining and applying interest.
- Flexible loan tracking mechanism with automatic provisioning.

Application Processing:

- Highly effective tool for complete automation of movement of documents/information or tasks.
- Supports extensive operations regarding processing of loans, letters of credit, credit limits.
- Supports definition of various stages in a workflow with attributes like 'Deadline Information', 'Milestone Information'.
- Comprehensive business conditions and transitional rules can be defined.
- Well-structured tracking mechanism to help online monitoring of work.

Document Management System:

- ❖ Comprehensive tool serving as a single source for all corporate documentation.
- ❖ Allows bank to create, index, import, export, scan, mail, track, archive, and audit any kind of document.

- ❖ **Features:**
  - Charting communication paths.
  - Processing documents in various formats.
  - Scanning documents.
  - Image compression.
  - Pre-viewing images.
  - Annotating images and versioning.
  - Archiving and retrieving information.
  - Distributed access.
  - Messaging interfaces.
  - Audit trails and Report Generation.

Reporting:

- ❖ FLEXCUBE has interface to a third-party solution from Business Objects.
- ❖ A reporting universe is provided for business-oriented data mapping.
- ❖ Single configurable solution for regulatory, management, audit & security and operational reporting across all business areas.
- ❖ Data can be effectively converted into clear and meaningful information in tabular and graphical formats.
- ❖ Various analysis tools including.
  - Slice-and-dice.
  - Data-drill.

Are available for multi-dimensional analysis of data.

General Ledger & MIS:

- ❖ Parameters/unlimited multi-level multi currency GL.
- ❖ User-defined MIS entities for reporting.
- ❖ Period accounting and reporting.
- ❖ Automatic online Transaction Posting.
- ❖ Flexible Reporting & Querying including profitability reports.
- ❖ Multiple levels of Budgeting and Variance Analysis.
- ❖ Facility for provisional and final closing of books.
- ❖ Revaluation of foreign currency balances.

- ❖ **Nostro Reconciliation**

Figure 5.4. Nostro Reconcilition.

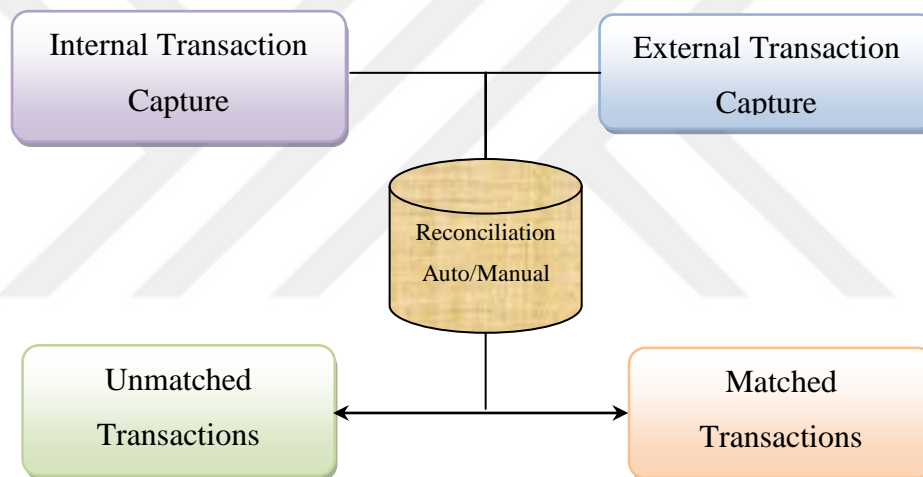- ❖ Facilitates complete automation of reconciliation.
- ❖ Highly flexible definition of matching rules based on various criteria.
- ❖ Supports Nostro cash-flow projections and gaps.

Fixed Asset Management

- ❖ Comprehensive solution to manage bank profitability.
- ❖ Maintains different categories and sub-categories of fixed assets.
- ❖ Caters to various methods of depreciation calculation.

- Straight-line method.
- Written-down value method.

❖ Supports parameter set-up of depreciation schedule and rate.

❖ Facilitates revaluation of fixed assets.

❖ Assists capitalization, transfer and realization of fixed assets.

Trade Finance:

- Complete Support for all aspects of Trade Finance with Complete SWIFT support – MT 1XX, 2XX, 4XX & 7XX series.
- Credit Limit Maintenance and On-Line Tracking.
- Automated processing of User Defined Interest, Charges and Commissions.
- Automated Generation of Configurable Advices in SWIFT including generation of follow-up tracers.
- User Defined Contract Status and Automatic Status Changes is supported for Bills.
- User Defined Standard Clauses, Documents, Instructions and Free Format Text Inputs.
- Template Creation for Frequently processed transactions.
- Straight through processing of incoming messages [MT 700/701/760].

Treasury

❖ Fully automated environment for effective treasury management and control including life cycle event management like accounting & Settlement.

❖ Integrated with other core services.

❖ Complete SWIFT support – MT 1XX, 2XX, 3XX & 5XX series.

❖ STP for incoming SWIFT messages for confirmation matching & incoming payment messages.

❖ Support for wide variety of instruments.

- Foreign Exchange - Spot, Forward, Swap, Split dates .
- Money Market – Placement, Borrowing.

- Securities-Equities, Bonds (Fixed & Floating), Discounted instruments.
  - Derivatives – Swaps, FRAs, Options, Futures.
❖ Support for mark to market of deals.
❖ Flexible user defined charging methodology.
❖ Extensive support for deals done through brokers.
❖ Comprehensive online customer exposure tracking mechanism for all deals.
❖ Straight through support from front office dealing system – Acumen for automated processing of deals.
❖ Extensive interfacing capabilities for both upstream and downstream systems.

Acumen – Treasury Front & Middle Office:

❖ Integrated Turn-key solution for Treasury, Derivatives and Capital Markets.
  - Foreign Exchange - Spot, Forward, Swap.
  - Money Market – Placement, Borrowing.
  - Securities – Equities, Bonds (Fixed & Floating), Discounted instruments.
  - Derivatives – Swaps, FRAs, Options, Futures, Complex products.
❖ Covering Front, Risk Control, Middle Office functionality.
❖ Extensive online position limit tracking.
❖ Product design based on configuration of business events – Flexibility in configuring actions.
❖ Flexibility of analysis and reporting.
  - Flexible Portfolio Structure (up to 10 levels).
  - Analyses based on any transaction & any field of a transaction.
❖ Real Time integration of Market Data like currency rates, interest rates.

Acumen – Main Functions

- Input and pricing of deals.
- Blotter.
- Portfolio valuation, Greeks, what if,
- Sensitivity & Volatility analysis.

- Exchange Rate analysis.

- Gap & Liquidity analysis.

- Credit risk and Settlement risk.

- Trading limits.

- P & L.

- Historical Va R.

- Audit trail.

- Deal slip & Deal confirmation.

- Fixing of operations.

- Payment analysis.

Cross-Border Funds Transfer:

- ❖ Comprehensively handles translocation of money and generation of messages.
- ❖ Efficient multi-party, multi-currency and inter-branch fund transfers.
- ❖ Supports straight-through processing with minimal manual intervention.
- ❖ Facilitates definition of exchange rate and method of conversion for cross-currency funds transfers.
- ❖ Supports various funds transfer media.

CHAPTER FOUR

SECTION THREE

4.3.   Area And The Research Community

4.3.1. Field Of Research

The research community consists of members of the board of directors, general managers, directors of departments, office managers, heads of branches and their deputies within Jumhouria Bank.

4.3.2. A community Of Research

The selected sample includes department managers and office managers within the financial institutions under study that operates inside the city of Tripoli and city of Gharyan, those financial institutions were chosen precisely because they represent large, medium and small enterprises.

4.3.3. Selected Methods And Tools For Data Collection

It means the sources that are available for the researcher to collect the data. Accordingly, the researcher used the following methods in an attempt to obtain the correct data and information as necessary, including personal interviews, records and documents and questionnaires (*Aqeel Hassan Aqeel, 1995,: 182, ELBA*). The researcher relied on the following methods in collecting data:

4.3.3.1. Interviews

It is the most common tool in the field of research, it relies on two factors: the investigation and data collection list. Under this method the researcher himself or by an authorized person that is tasked to interview the community or particular sample of

people asking them questions using a survey list. The authorized person or the researcher himself are obligated to write down each and every answer that was questioned. This tool is used when there are so many questions. When a sample of the community is not able to read or write, in some cases the researcher has to come with an opinion from the questions observed. This means asking questions aimed to clarify some ambiguity facts among the information by linking the relationship between the independent and the dependent variables shown in the research.

Accordingly, the researcher may use other sources to obtain data and information that cannot be obtained by questionnaire, records, documents and annual reports of enterprises where the research took place. The idea of a personal interview is that it gives the researcher in-depth information about the people involved in the study, without the interference of any other mediator or anything that can cause the change of information either by increasing or decreasing. The importance of the personal interview can be summarized in the following points:

1. It Gives the researcher the opportunity to meet directly people related to the topic.
2. It gives the researcher the opportunity to extrapolate the reactions of questioned people and the changes that appear on their faces, as well as the appearance of signs of emotion on their behavior.
3. Gives the researcher and the people who have questioned the chance to correct any information and inquire about any ambiguity in the questions whether oral or written.
4. Provides the researcher with information that complements other data collection methods Aqeel Hassan Aqeel, (1995: 182).

Despite the advantages of the interview method, it has some disadvantages among them:

1. Need much time and the costs are high.
2. Successful interview depends on the questioner ability to articulate and precisely what he wants to report.
3. The interview process is influenced by multiple factors of stress, tension and other factors that may affect the interviewer and the interviewer

4.3.3.2. Records And Documents

In addition to the questionnaire, records, annual reports and other documents were used as a tool to obtain data on the number of branches, employees, budgets and profit and loss accounts, Access to information on IT elements in financial institutions under study (physical elements such as hardware and equipment, non-physical elements such as software and information technology, as well as specialized human resources). Therefore. this method is considered an important part because it helps the researcher to gather the information that will help accomplish the research in the desired manner.

4.3.3.3. Questionnaire

The questionnaire is one of the methods used by the researcher in collecting data and information from its main sources. The questionnaire depends on questioning the targeted individuals in order to obtain their answers to the topic under study, which the researcher expects to be sufficient enough to make his findings generalized to others. Therefore, the questionnaire is one of the most common and most widely used tools. It is based on the collection of data and on the subject under study. The researcher here relied on a questionnaire form that was specially prepared according to the research topic.

The main features of the questionnaire:

1. Is considered to be less expensive compared to other methods.
2. Does not require much time and many assistants but at the same time, it enables the research to collect information from large numbers of people.
3. Not writing the name on the form. Helps to give information and data that might be sensitive.
4. It is one of the most technical and objective means.
5. The rate of response is high as the percentage of loss is low regarding people's awareness in the study Ahmed Badr,(1989: 353, Cairo).

But the questionnaire also has disadvantages:

1. The answers may be limited and sometimes unclear for the researcher.
2. There might be bias by the researcher himself in obtaining certain answers or this bias might be issued by the supervisor.
3. The questionnaire is valid only in the case of a community that knows how to read and write.
4. In many cases, the respondent may misinterpret some of the words and sentences in the questionnaire and thus not giving the required information correctly. Ahmed Badr,(1989:353).

4.3.3.4. Tools Used in Data Collection

In order for the researcher to obtain accurate and clear results, he must choose the sources that he will use to compile the data accurately. The tools used in data collection should be appropriate to the nature of the subject and area of study:

Usually data collection sources are divided into:

A) Primary sources:

Its the research community itself, and that's only if the researcher got all the necessary data from this community.

B) Secondary sources:

They include two types of sources:

The First type: published Sources:

Which are sometimes called historical sources, that include (published statistics and results of researches carried out by the State or those carried out by some competent professionals), such as publications and periodicals issued by the competent

professionals of the State or chambers of commerce, banks or foreign countries, international organisations and other published researches that are related to the study (Mahmoud Assaf, p 42, Cairo).

The Second type:

It includes records held by institutions or the state agencies which are called (internal sources). These contain written data in books, statements, lists, budgets, etc, such as records of employees, means of transport, insurance, debtors, creditors, services rendered, fees collected and others.

4.3.4. Determining The Statistical Methods To Be Used In The Analysis:

The researcher will rely mainly on SPSS statistical programming, which is very sophisticated and that is used to perform all the statistical tests taking advantage of all the possibilities provided by this system of data and tabular presentation of data quickly and accurately.

Testing the research hypotheses fits with the use of quantitative analytical approach, which is a tool to collect data and information on the phenomenon under study, analyze and interpret the results to be reached. The selection of this approach is due to its strong correlation with the nature of the topic under study. The choice of this method allows testing the role played by the IT elements in developing the administrative and leadership skills of the administrative leaders and the extent of utilization of this technique. All this will be done using the computer and the highly advanced (SPSS [Statistical Package for Social Studies]) software to ensure a greater degree of Accuracy and objectivity in the results that will be reached.

4.3.5. Periods of time that it took to Complete each Stage of the Research

At first the researcher wishes to indicate that such a subject is not previously studied within the financial institutions in Libya where the researcher has developed a plan for each stage of the research, but this time plan didn't succeed to some extent because, as we know that the achievement of any search always depends on the size and quantity of information that is available to the researcher studied institutions or organizations. So the researcher finds that the time periods for each stage of research vary considerably. The data collection process will last three months because it's hard to get such special financial data and certain other information because there are some managers within such institutions considered that such data are the secrets of the bank' work and should not be disclosed. In the third stage is the stage of designing the questionnaire distributed to the branches of the selected bank under consideration and then compile what was distributed forms, this phase will last three weeks in addition to the classification of data collected and discharged in tables for analysis this phase will last for a period of approximately three months.

Finally. Followed the last stage and the final writing up and printing stage where this phase will last three months.

4.3.6. Questionnaire Design

The questionnaire is designed to obtain the necessary data that cannot be obtained from other sources. Therefore, the researcher designed a questionnaire consisting of a set of questions formulated and prepared by him in order to obtain the necessary data to achieve the objectives of the study through the research problem and recommendations prepared for it. Accordingly, the questionnaire was designed according to the following:

List of the questionnaire was divided into four groups to serve the research hypotheses. And each group was divided into subsets by several questions as follows:

Group I:

Q1-This question aims to identify the information technology used within the administrative units of the financial institution under study and the extent of their use in the development of skills through the process of making administrative decisions. Includes paragraph (1,2, and 3).

Q2-The objective of this question is to determine the availability and use of the financial institution under consideration for each of the means of communication (fax, Internet, e-mail). Which includes paragraph (4, 5, and 6).

Q3-The objective of this question is to identify the stages in which the decision-making process takes place to address a problem, and to identify the actual position of the administrative leaders to address these problems Which includes paragraph (7,8,9,10,11,12, 13).

Q4-This question is concerned with identifying the methods on which the administrative leaders depend on their decisions and whether or not modern methods are used in decision making This includes paragraph (14, 15, 16, 17, and 18).

Group II:

Q5-This set of questions aims to identify the obstacles and problems that limit the optimal use of information technology, especially with regard to the development of information resources for the administrative leaders of the financial institution under study and to benefit from them in the development of managerial and leadership skills. This includes paragraph (19, 20, 21, 22, 23, 24, 25, and 26).

Q6-This set of questions aims to identify the reasons why the administrative leaders in the financial institutions do not use the quantitative and behavioural methods in developing their leadership skills by employing them in the decision making the process. This includes paragraph (27, 28, 29, 30, and 31).

Q7-This question is concerned with identifying the reasons for the failure of the financial institution under study to optimize the use of IT systems. This includes paragraph (32, 33, 34, 35 and 36).

Group III:

Q8-This question is concerned with the availability, use, and efficiency of each component of the IT system, namely: the human element, intangible element, and physical component. This includes paragraph (37, 38 and 39).

Q9-This question is concerned with determining the availability and efficiency of IT-assisted management systems such as computers, communications, incentive systems, internal audit systems, etc. This includes paragraph (40, 41, 42, 43 and 44).

Group IV:

Q10&11-These two questions inquire about some of the activities carried out by the financial institution under study, such as training programs and participation in seminars related to information technology, etc. which includes paragraph (45, 46, 47, 48 49.50 and 51).

Q12-This group of questions is concerned with inquiring about some personal data such as jobs, qualifications, and age in order to understand the impact of these factors on the administrative leaders and their understanding of the importance of IT systems.

Each of the four previous groups was measured by a number of questions for each group. The following table shows each group and its own questions.

Batch number	Question numbers
Group I	(Q 1, Q 2, Q 3, Q 4)
Group II	(Q 5, Q 6, Q 7)
Group III	(Q 8, Q 9)
Group IV	(Q 10, Q 11, Q12)

When the researcher designed this questionnaire, the following was a consideration:

1. Formulate questions in a clear and easy way so that the answer is clear and limited
2. Avoid asking personal questions to the community members of the study that may cause embarrassment and thus lack credibility in the data to be obtained.
3. Avoid questions that might suggest certain answers.
4. Arrange questions and coordinate them logically and smoothly so that the correlation and consistency factor exists between the answers to be obtained.
5. Stay away from questions that provide data which can be obtained from secondary sources.

The questionnaire consisted of two questions as follows:

Type I: questions with a limited answer:

These are the gradual questions that contain a set of answers that leave the freedom of choice to the researcher according to what he sees and the appropriate answers that he expects.

Type II: These questions are closed; known as yes or no questions. It is required by the nature of some questions where limited questions cannot be used.

Open-ended questions were also used to obtain some personal data such as jobs, qualifications, etc.

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The following set of formulas was used to determine the answers, and a score was used to measure each of the alternative answers for each question as follows:

The First Formula:

This formula measures the manager's extent in using the IT system to develop his leadership skills, and the degree of using various means of communication in order to obtain information and then analyze and disseminate it , As well as the extent of his reliance on both quantitative and behavioural methods in the process of decision-making to address a problem, which reflects the optimal use of this technology, Especially with regards to developing his information resources and benefiting from them in developing his leadership skills.

Alternative answer	Not used at all	Not used to some extent	Don't have an opinion	Fairly used	Highly used
Prescribed class of each answer.	1	2	3	4	5

Alternative answer	Doesn't happen to me at all	Sometimes	Always
Prescribed class of each answer.	1	2	3

Where the answer is [highly used] for a high degree of use, and the answer is [fairly used] for a medium degree of use, while the answer [does not use at all] means not using both information technology and quantitative and behavioural methods in developing leadership skills . This formula includes the following questions:

Q 1, Q 2, Q 3, Q 4

The Second Formula:

This formula measures some of the negative characteristics of the information technology, as well as identifying the reasons for the failure of the financial institution to reach optimal use of the IT system, which reflects the degree and validity of the decisions of the financial institution in question.

Alternative answer	I disagree	I disagree to some extent	Don't have an opinion	I agree to the Some extent	I completely agree
Prescribed class of each answer	1	2	3	4	5

Alternative answer	To a very small extent	To a medium extent	To a large extent.
Prescribed class of each answer.	1	2	3

Alternative answer	Yes	No
Prescribed class of each answer.	1	0

Q 5, Q 6, Q 7

The Third formula:

This formula measures the availability, efficiency and effectiveness of each element of the information technology system as well as the degree of availability and the efficiency, and effectiveness of all management systems in the developing leadership skills for administrative leaders of enterprises under consideration.

Alternative answer	Does not exist at all	Exists but needs improvement	Exists and works with high efficiency
Prescribed class of each answer	1	2	3

The answer (Exists and works with high efficiency) reflects a very high level of use of these elements, and the answer (Exists but needs improvement) is to a medium degree of use for these elements, while the (Does not exist at all) answer expresses the lack of components of the IT system. This formula includes the following questions:

Q 8, Q 9

The Fourth Formula:

This formula measures the degree of replication of some of the activities carried out by the institution under study in order to achieve a high degree of optimum utilization of the IT system by providing the system with sufficient, accurate and clear information in quantitative, qualitative and timely specifications.

Alternative answer	Never happened	Sometimes	Always
Prescribed class of each answer.	1	2	3

The answer (always) reflects a high degree of usage, and the answer (sometimes) means medium use. While the answer (never happened) means that it's not used at all. This version includes the following questions.

Q 10, Q 11, Q12

4.3.7. Testing The Questionnaire

After completing the final preparation of the questionnaire form, the researcher distributed it to a group of members of the study community which amounted to about (20%) 25 individuals as a stage to test the questionnaire and identify the validity and consistency of data and information to be collected from the respondents. The number of individuals was determined by a precise list. Fifteen days later, the questionnaire was distributed again to the same individuals mentioned above. The data were then analyzed statistically and we found the correlation coefficient between the total responses of the respondents at the first and second time was about 85% which is positive and has a direct relationship.

4.3.8. Validity And Reliability Of The Questionnaire

4.3.8.1. Validity Of The Questionnaire

The aim of this method is to ensure that the measurement to be used in this study actually measures what should be measured and to verify the validity of the tool. The researcher presented the questionnaire to a group of specialists in the field of management and information technology specialized in the field of administrative research, as well as given to a group of management professors and technology professors In order to ensure that the paragraphs of the questionnaire measure what they are designed to measure And that the formulation of paragraphs indicates that. This is known as the face validity and the researcher observations from all the specialists. And that the formulation of paragraphs indicates that. This is known as face validity, and the researcher took the observations of all specialists, such as modifying and adding till it reached its current state, as in paragraph (4.3.6) Which will be distributed to the sample's members.

4.3.8.2. Reliability Of The Questionnaire

The stability of the tool is one of the important tests of the questionnaire, where it means the need to obtain the same information as if the questionnaire was used more

than once. The stability of the results and outputs of the measurement instrument should be at one level. This will be done through the use of the Statistical Package for Social Sciences (SPSS) methods to extract the Cronbach-Alpha consistency coefficient for all Cronbach alpha vertebrae.

4.4. Data Collection And Analysis

4.4.1. Data Collection.

Test reliability and stability instrument of study.

Believe the Study Tool:

The researcher used the truth of the arbitrators: the presentation of the data collection tool to a group of arbitrators specialized in the subject matter of the study in particular and methods of research in general, in order to demonstrate their opinion on performance in many aspects, including: form, formulation, arrangement, and safety of items or questions, Of the subject to be measured (Al-Nasr, 2004:183).

After reviewing many scientific references and previous studies in the current research area, the researcher prepared the initial form of the questionnaire. After discussing the supervisor, some modifications were made to it and the initial form of the questionnaire was completed Of the arbitrators in order to ascertain the appropriateness of the questionnaire terms for the study community. The statements measure what has been measured and answer the questions of the study axes. In addition to the appropriateness of the answer criterion used for the questions in the questionnaire, A number of observations and suggestions have been taken into account, and then the final picture of the questionnaire described in the attachment.

Internal Consistency:

The internal consistency of the study questionnaire was calculated by calculating the correlation coefficients between each of the terms of the survey axes and the total score of the same axis. The results were as follows:

Table 3.4. Shows the Pearson Correlation Coefficient between the axes of the questionnaire For Types of Decisions.

N	The Item	Pearson correlation coefficient
1	strategic decisions (long term)	0.797**
2	Interim decisions (mid-term)	0.853**
3	Routine decisions (Daily)	0.706**

**correlation at a significant level (0.01)

Table 4.4. Shows the Pearson Correlation Coefficient between the axes of the questionnaire For Means of Communication.

N	The Item	Pearson correlation coefficient
4	(FAX)	0.683**
5	(Internet)	0.808**
6	(e-Mail)	0.830**

**correlation at a significant level (0.01)

Table 5.4. Shows the Pearson Correlation Coefficient between the axes of the questionnaire For Means Act when Making Decisions.

N	The Item	Pearson correlation coefficient
7	I can easily identify the problem.	0.616**
8	I can gather all the facts I need before making a decision.	0.532**
9	It does not take me long to get the information I need when making a decision.	0.576**
10	I use the computer to get the information that I need when making decisions.	0.675**
11	I carefully identify several alternatives to resolve any problems I may encounter.	0.635**
12	I can carefully evaluate the alternatives to the solution.	0.646**
13	I follow the implementation of the decisions to make sure they are implemented correctly.	0.596**

**correlation at a significant level (0.01)

Table 6.4. Shows the Pearson Correlation Coefficient between the axes of the questionnaire For Decision-Making methods.

N	The Item	Pearson correlation coefficient
14	Quantitative methods and tools are intended (Operations Research and Statistics**)**.	0.649**
15	Experiment and error mode**.**	0.551**
16	Personal experience**.**	0.575**
17	Intuition and personal judgment	0.570**
18	Participatory management is intended to: Give employees the opportunity to participate in decision making**.**	0.681**

**correlation at a significant level (0.01)

Table 7.4. Shows the Pearson Correlation Coefficient between the axes of the questionnaire For Decision-Making problems.

N	The Item	Pearson correlation coefficient
19	Contradictory information.	0.564**
20	Lack of information as requested (in number language).	0.643**
21	Lack of the required quality of information.	0.674**
22	Inaccuracy in information.	0.696**
23	Inappropriate information.	0.689**

**correlation at a significant level (0.01)

Table 8.4. Shows the Pearson Correlation Coefficient between the axes of the questionnaire For Reasons for not using the IT System in Making Decisions

N	The Item	Pearson correlation coefficient
24	Ambiguous information (not clear).	0.565**
25	Delayed access to information in a timely manner.	0.386**
26	Lack of information (not integrated and comprehensive).	0.352**
27	Do not know these methods.	0.639**
28	Your personal conviction of the usefulness of these methods.	0.656**
29	Difficulty applying these methods.	0.679**
30	The senior management is not convinced of these methods.	0.638**
31	Most of these approaches are not appropriate for the organization's environment.	0.663**

**correlation at a significant level (0.01)

Table 9.4. Shows the Pearson Correlation Coefficient between the axes of the questionnaire For Reasons for the failure of the Utilization of Information Systems.

N	The Item	Pearson correlation coefficient
32	Lack of knowledge of the members of the administrative leaders of financial institutions, the dimensions of information technology and therefore their inability to make optimal use of them.	0.833**
33	The important challenge facing the administrative leaders is computing the work.	0.820**
34	The members of the administrative leadership within the financial institutions do not have sufficient training on the necessary information technology.	0.828**
35	Information technology is disliked by administrative leaders in financial institutions and therefore unwilling to learn and employ them.	0.765**
36	Raising the performance of the administrative leaders requires training all the employees of the institution on how the new work methods, and stages of the scheme of information implementation in terms of skills and the culture of work.	0.693**

**correlation at a significant level (0.01)

Table 10.4. Shows the Pearson CorrelatioN Coefficient between the axes of the questionnaire For The degree to which Components of Information Systems are Used.

N	The Item	Pearson correlation coefficient
37	The human element specialized in the design, development, use and processing of IT systems.	0.743**
38	The physical element represents the set of devices and equipment used to process information such as a computer	0.787**
39	The non-material component is intended as a set of software and procedures taken to process information and data.	0.786**

**correlation at a significant level (0.01)

Table 11.4. Shows the Pearson Correlation Coefficient between the axes of the questionnaire for Efficiency of IT Systems.

N	The Item	Pearson correlation coefficient
40	The computer system is designed to handle the information and data available so that the uncertainties surrounding the decision-making process are less.	0.667**
41	Administrative communication system This system allows the exchange of information and opinions between the different administrative units.	0.754**
42	Performance Appraisal System The purpose of this system is to identify the performance levels of the management personnel and their ability to achieve the target performance level.	0.761**
43	The incentive system is intended to motivate individuals to work and to remain loyal to the organization.	0.712**
44	Internal Audit System The objective of the internal audit system is to evaluate the administrative levels and activities of the institution.	0.659**

**correlation at a significant level (0.01)

Table 12.4. Shows the Pearson Correlation Coefficient between the axes of the questionnaire for the Extent of reliance on IT Systems.

N	The Item	Pearson correlation coefficient
45	The data and information office has integrated and up-to-date information systems.	0.790**
46	The computer depends on the automation of all administrative functions.	0.823**
47	The information system meets the actual needs of senior management of the information you need.	0.739**

**correlation at a significant level (0.01)

Table 13.4. Shows the Pearson Correlation Coefficient between the axes of the questionnaire for Availability of IT System Activities.

N	The Item	Pearson correlation coefficient
48	The Foundation provides training and administrative development programs to develop your managerial skills and abilities.	0.803**
49	The Foundation conducts training courses on the use of IT systems.	0.823**
50	The Foundation seeks to use and provide modern IT systems instead of old methods of work.	0.811**
51	The Foundation participates in seminars and courses related to information technology and processing.	0.744**

**correlation at a significant level (0.01)

Table 14.4. Shows the Pearson Correlation Coefficient between each of the terms of the Survey axes and the total score of the axis it Self.

Pearson correlation coefficient	No of phrases	Pearson correlation coefficient	No of phrases	Pearson correlation coefficient	No of phrases	Pearson correlation coefficient	No of phrases	Pearson correlation coefficient	No of phrases
0.659**	44	0.820**	33	0.696**	22	0.635**	11	Types of decisions	
Extent of reliance on IT systems		0.828**	34	0.689**	23	0.646**	12	0.797**	1
0.790**	45	0.765**	35	Reasons for not using the IT system to make decisions		0.596**	13	0.853**	2
0.823**	46	0.693**	36	0.565**	24	Decision making methods		0.706**	3
0.739**	47	The degree to which components of information systems are used		0.386**	25	0.649**	14	Means of communication	
Availability of IT system activities		0.743**	37	0.352**	26	0.551**	15	0.683**	4
0.803**	48	0.787**	38	0.639**	27	0.575**	16	0.808**	5
0.823**	49	0.786**	39	0.656**	28	0.570**	17	0.830**	6
0.811**	50	Efficiency of IT systems		0.679**	29	0.681**	18	Act when making decisions	
0.744**	51	0.667**	40	0.638**	30	Decision-making problems		0.616**	7
		0.754**	41	0.663**	31	0.564**	19	0.532**	8
		0.761**	42	Reasons for the failure of the utilization of information systems		0.643**	20	0.576**	9
		0.712**	43	0.833**	32	0.674**	21	0.675**	10

** correlation at a significant level (0.01)

Table (14-4) shows the Pearson correlation coefficient between each of the axes of the questionnaire and the total score of the same axis, which shows that all correlation coefficients are at a significant level of (0.01).

Stability of the Study Instrument:

The data collection tool is consistent and consistent. Meaning that the data collection tool gives the same results if it is used or returned again under similar circumstances (Al-Nasr-184).

In order to measure the stability of the study axes, the researcher used the equation (Alpha Kronbach), and this test measures the degree of consistency of the answers of the questioner to all the questions in the scale.

And to the extent to which each question measures the same concept, and the value of Cronbach alphacoefficient between (0.1) The correlation between the responses of the sample of the study when the value of the coefficient Cronbach alphazero, indicates that the absence of an absolute correlation between the answers of the vocabulary of the sample of the study, but if the value of Cronbach alpha(1 correct), this indicates that there is a correlation between the answers of the complete sample of the study sample , It is known that the smallest value is acceptable to jointly Cronbach's alpha is (0.6) and the best value ranging from (0.7 to 0.8) and the higher the value of (0.8) was better, and the following table (15-4) shows the stability of the study axes coefficient.

Table 15.4. Shows the Results of the Cronbach Alpha test for the study axes.

Dimensions	Total	
	No of phrases	Alpha Kronbach
Types of decisions.	03	0.679
Means of communication.	03	0.666
Act when making decisions.	07	0.721
Decision making methods.	05	0.559
Decision-making problems.	08	0.704
Reasons for not using the IT system to make decisions.	05	0.663
Reasons for the failure of the utilization of information systems.	05	0.847
The degree to which components of information systems are used.	03	0.662
Efficiency of IT systems.	05	0.755
Extent of reliance on IT systems.	03	0.688
Availability of IT system activities.	04	0.803

It is clear from the previous table (15-4) that the coefficient of the persistence of the study axes (alpha-Cronbach coefficient) ranged between (0.559 and 0.847) for the different axes of the study.

The method used to divide the terms of each axis into two halves (single and doubles). The relationship or correlation between the scores of these two halves is calculated and the results are shown in the following table (16-4).

Table 16.4. Shows the Results of the Midterm Test of the Study axes.

Dimensions	Total		
	No. of Items	coefficient of Pearson correlation	coefficient of Spearman Brown's stability
Types of decisions.	03	0.347	0.515
Means of communication.	03	0.505	0.671
Act when making decisions.	07	0.446	0.617
Decision making methods.	05	0.480	0.648
Decision-making problems.	08	0.226	0.369
Reasons for not using the IT system to make decisions.	05	0.417	0.589
Reasons for the failure of the utilization of information systems.	05	0.755	0.860
The degree to which components of information systems are used.	03	0.492	0.659
Efficiency of IT systems.	05	0.547	0.707
Extent of reliance on IT systems.	03	0.462	0.632
Availability of IT system activities.	04	0.671	0.803

It is clear from the previous table (16-4) That there is a relationship between the parts of the study axes, whereas the coefficient of Pearson correlation between the individual and doubles half of the axes ranged between (0.266 and 0.755). The coefficient of Spearman Brown's stability between the individual and doubles half of the axes ranged from (0.369, 0.860). These values are high and suitable for checking the stability of the scale.

Thus, the researcher has verified the validity and stability of the scale of the study, which makes him confident in the validity of the scale and its validity to analyze the results and answer the hypotheses of the study.

Community and Sample:

The study society is represented in the Bank of Jomhuryia in each of the Directors General, the assistance of the Director General, the directors of the departments, their deputies, their assistants, office managers, directors of branches of the regions, their deputies and assistants, as well as branch managers, their deputies and assistants.

1. General Administration in Tripoli.
2. Branches administration of Tripoli city.
3. Management of the branches of Jabal Nafusa.
4. Sample of large, medium and small branches and banking agencies.

4.4.2. Encoding the Study Data

After collecting the questionnaire forms, the researcher used the numeric method in coding the data, since it corresponds to each of the terms of the main variable variables of the questionnaire list with the choices as follows:-

The Quinary Likert Scale:

(used extensively - used to some extent - I have no opinion - not used to some extent - not used at all), and each of the previous choices were given scores to be statistically processed as follows: (5) five degrees, fairly used (4) four degrees, I have no opinion (3) three degrees, do not use to a certain extent (2) two degrees, not used at all (1) one degree.

The arithmetic average is equal to (3) as $(1 + 2 + 3 + 4 + 5) / 5 = (3)$. Therefore, the arithmetic averages of value less than (2) reflect a low degree of approval, (3) represent a sub-average approval score, and the arithmetic averages of less than or equal to (4) and greater than (3) express above-average approval, and arithmetic averages greater than 4 and less or equal to (5) High approval level.

Tripartite Likert Scale:

(always - sometimes - not at all) Each of the previous choices has been given scores to be statistically processed as follows: always(3) three degrees, sometimes two (2) degrees, not at all (1) one degree, and the arithmetic mean is equal to (2) as (1 + 2 + 3) / 3 = (2) The arithmetic value of less than (2) expresses a low degree of approval, the arithmetic averages of (2) expressing a medium degree of approval, and the arithmetic mean values greater than (2) expressing a high degree of approval.

The binary Likert Scale:

(No - Yes) Each of the two options has been given a score to be treated statistically as follows: No (1) one degree, yes (2) two degrees, and the arithmetic average is equal to (1.5) as (1 + 2) / 2 = (1.5). Therefore, the arithmetic average value less than (1.5) indicate a medium degree of approval, and the arithmetic average values greater than (1.5) express a high degree of approval.

4.4.3. Data Analysis And Interpretation

Statistical Methods Used in the Study:

To achieve the objectives and hypotheses of the study and analysis of the primary data collected from the sample vocabulary selected from the study community, many appropriate statistical methods were used based on the use of " "Statistical Package for Social Sciences" which is abbreviated as (SPSS) version 20. The following is a set of statistical methods used by the researcher:-

Cronbach Alpha Test:

The Cronbach Alpha test is one of the most important statistical tests to analyze the questionnaire data. This test shows the stability of the responses of the sample items to the questionnaire. It is found using the following equation(Al-Bayati, 2005:49):

$$\alpha = (\frac{N}{N-1})(1 - \frac{\sum \sigma^2_q}{\sigma^2_t})$$

Where :

α = Stability coefficient.

N = Number of questions in the questionnaire.

σ^2_q = Question variation.

σ^2_t = Variance of all questions.

The Arithmetic Average:

The "arithmetic average" is the sum of the number of values, a measure of central tendency, used to estimate the parameters of a society, or to test statistical hypotheses.

The arithmetic average is created by the following equation (Tshaou, 2004:86):

$$\overline{x} = \frac{\sum_i^n xi}{n}$$

Standard Deviation:

The standard deviation of a set of observations is the "positive square root of the sum of squares of deviations of values from the arithmetic mean divided by (n-1)", one of the dispersion parameters. It is used to determine the approximation or spacing of a sample vocabulary around a given option, The standard deviation is created by the following equation(Lankoun Letchow, Previous reference:114):

$$S = \sqrt{\frac{\sum_{i=1}^n f(Xi - \overline{x})^2}{n - 1}}$$

Where :

$\bar{x}$: The arithmetic mean.

xi : Values given.

f: The frequency for each given value.

n: Number of values.

(t-test):

The value of (t) is found by the following equations:

- Test equation (t) for one community (Ali Hussein Al-Ajili   Ali Abdul Salam Al-Amari, 2000:195):

-

$$t = \frac{\bar{x} - \mu_0}{s / \sqrt{n}}$$

- Test equation (t) for two independent samples (Ali Hussein Al-Ajili Ali Abdul Salam Al-Amari, reference previously,2000:195):

$$t = \frac{(\bar{x} - \bar{y}) - (\mu_1 - \mu_2)}{s_p \sqrt{\frac{1}{m} + \frac{1}{n}}}$$

The test (t) is used to test the null hypothesis that the two mean totals are equal against the alternative hypothesis that the two mean are not equal, where the value of the (t) test is compared with the value of (t) The scale of freedom and moral level, If the value of the t-test is greater than the (t) value of (t) table, the null hypothesis is rejected. If the (t) test value is smaller than the (t) value, the zero hypothesis is accepted.

Correlation Coefficient:

The value of the correlation coefficient is between (1,-1) and this value indicates the strength or weakness of the relationship between the two variables. If the value is significant regardless of the signal, the relationship between the two variables is strong and the relationship is statistically significant if the level of statistical significance of the correlation coefficient is small (Less than 0.05). The signal of the correlation coefficient indicates the direction of the relationship between the two variables. If the signal is positive, the increase in the values of one variable is accompanied by an increase in the values of the other variable and the decrease of the values of this variable is accompanied by a decrease in the values of the other variable. The negative signal It means that the increase in the values of a variable, accompanied by a decrease in the other variable values, and vice versa, it means the inverse relationship, and can use more than one factor to find a correlation, and the most important of these transactions correlation Pearson coefficient, and the extraction of correlation Pearson coefficient by applying the following equation (Joudeh, 2008a:256).

$$R= \frac{N(\sum xy)- \sum x \sum y}{\sqrt{\left[N\sum x^2 - (\sum x)^2\right]\left[N\sum y^2 - (\sum y)^2\right]}}$$

Where :

R = Pearson correlation coefficient.

X = The first variable.

Y = The second variable.

Analysis of Variance and F Test:

For a significant test of the difference between several middle (three or more media) can be used and the (F test), which is mainly based on the method of analysis of variance. The analysis of variance by dividing the sum of squares of total deviations

from the general mean of the variable under study defines any two parts relative to the source of the difference based on the following equation:

$$\sum_i \sum_j (y_{ij} - \overline{y}_{..})^2 = n \sum_i (\overline{y}_{i.} - \overline{y}_{..})^2 + \sum_i \sum_j (y_{ij} - \overline{y}_{i.})^2$$

Where the left side of the equation represents the sum of the total deviation squares and is referred to as the SST symbol. While the first part of the right side represents the sum of the deviation squares of the processors and is referred to as the (SSt) and the second part of the right side represents the sum of the squares of the random error deviation and is referred to as the (SSe) code. The (F) test is defined by the following statistic:

$$F = \frac{SSt \big/ (k-1)}{SSe \big/ k(n-1)}$$

After obtaining the calculated (F), it is compared to the value of the periodic (F) in order to decide whether to accept or reject the null hypothesis which states that the range of variables is equal. If the value of the calculated (F) is less than the value of the periodic (F) with the degrees of freedom (k-1) and (k (n-1)) and the assumed mean level used in most studies (0.05) the null hypothesis is accepted. IF the calculated (F) value is greater than the (F) value, the alternative hypothesis is accepted, which, the range of variables is not equal.

Simple Linear Regression:

Is used to study the effect of one or more independent variables on a specific dependent variable so that we can predict the values of the dependent variable if we know the values of the independent variable or independent variables. The relationship between the independent variable and the variable can be represented as an equation as follows (Joudeh, 2008b:267).

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$$Y = a + bx + e$$

Where:

y = the dependent variable.

a = Fixed value.

b = slope slope.

x = Independent variable.

e = random errors.

Identify the use of the information technology system in the process of rationalization of decisions within the financial institution under study.

Explain to what extent the IT system is used to provide you with the necessary information to help you develop your skills in order to make any of the following decisions?

Table 17.4. Shows the answers of the Research Sample on the Degree of Use of the IT System in the process of Rationalizing Decisions within the Financial Institution Under Study.

N	The Item	Category	Degree of approval					Average sample	Standard Deviation	Test value (t)	Moral level	Ranking
			Not used at all	Not used to Some extent	I do not have a specific opinion	Used to Some extent	Used significantly					
1	"strategic decisions" (long term)	R	56	61	69	139	43	3.141	1.266	47.581	0.000	3
		%	15.2	16.6	18.8	37.8	11.7					
2	"Interim decisions" mid-term	R	23	39	65	182	59	3.584	1.074	64.015	0.000	2
		%	6.3	10.6	17.7	49.5	16.0					
3	Routine decisions (Daily)	R	22	33	36	68	209	4.111	1.247	63.262	0.000	1
		%	6.0	9.0	9.8	18.5	56.8					

Table (17-4) shows the answers of the study sample on the axis of the types of decisions. The table shows that (routine decisions) came in the first place, and the answer rate (Used significantly) is high on this Item and is (56.8%). And that the

average answers of the study sample are (4.111), which is greater than (3) the default average of the quinary Likert scale, and by the standard deviation (1.247).

The Item "Interim decisions"(mid-term) came in the second place, the average answer rate was (3.584), which was greater than (3) the default average For the quinary Likert scale, and by standard deviation (1.074).

The Item (long term) came in the third place, and the answer rate (used to some extent) was high on this statement (37.8%). The average answers of the study sample were (3.141), The default for the quinary Likert scale and the standard deviation (1.266).

The value of (t) test calculated for all the terms of this axis and its total score is greater than the tabular value of (1.645). The level of the mean is less than (0.05) the level of morale adopted in the study, which enables the generalization of the results obtained from the sample On the study community. From the above shows that the use of the IT system provides users with the necessary information to help them make decisions in the following order:

1. Routine Decisions (Daily).
2. Interim Decisions (Medium Term).
3. Strategic Decisions (Long term).

The researcher concludes that what is used in this institution is the mechanization of some routine work only. The weakness of the efficiency of this system may reflect the inefficiency of the management. On the other hand, replacing the traditional technology with modern electronic data processing cannot lead to a real change in the system as a whole unless accompanied by appropriate changes in other system components such as modifying and preparing the organizational structure to suit these operating requirements Modern technology, as well as preparing individuals and preparing them to work under the new circumstances.

From the previous analysis of the table (17-4) the researcher concludes the following:

1. The weakness of the information system within the financial institution under study and the evidence is to focus on its use in routine decisions to a large degree.

2. Despite the availability of available resources such as hardware and software, but not employed optimal recruitment to contribute to the decision-making of the future, and the reason for this is the lack of qualified personnel and willing to do so.

Identify the level of communication used by the financial institution under study.

To what extent does your organization use any of the following means of communication between departments within the same institution and between different financial institutions?

Table 18.4. Shows the Answers of the Sample to the Study on the use of the means of Communication in the Financial Institution Under Study.

N	The Item	Category	Degree of approval					Average sample	Standard Deviation	Test value (t)	Moral level	Ranking
			Do Not used at all	Do Not used to some extent	I do not have a Specific Opinion	Used to Some extent	Used significantly					
4	(FAX)	R	03	21	16	55	273	4.560	0.881	99.316	0.000	1
		%	0.8	5.7	4.3	14.9	74.2					
5	(Internet)	R	17	18	25	161	147	4.095	1.036	75.850	0.000	2
		%	4.6	4.9	6.8	43.8	39.9					
6	(e-Mail)	R	37	37	22	174	98	3.704	1.245	57.077	0.000	3
		%	10.1	10.1	6.0	47.3	26.6					

Table (18-4) Shows the answers of the study sample on the axis of the means of communication. The table shows that "FAX "came in the first place, and the answer rate (Used significantly) is high on this Item and (74.2%) The average number of responses of the sample of the study sample is (4.560), which is greater than (3) the default average of the quinary Likert scale and the standard deviation (0.881).

The term "Internet" came in second place, so the answer rate (Used to some extent) was high on this phrase and equal (43.8%), and the average answers of the study sample is (4.095), which is greater than (3) the default average of the quinary Likert scale, with a standard deviation (1.036).

The term "e-mail" came in third place, so the answer rate (used to some extent) was high on this expression and was equal to (47.3%). The average answers for the study sample were (3.704), which is greater than (3) the default meaning of the quinary Likert scale and by a standard deviation (1.245).

The value of (t) test calculated for all the terms of this axis and its total score is greater than the tabular value of (1.645). The level of the mean is less than (0.05) the level of morale adopted in the study, which enables the generalization of the results obtained from the sample On the study community.

It has been shown that the means of communication are arranged as follows:

1. Fax.
2. Internet.
3. e-mail.

From the previous analysis, the researcher conclude:

1. Availability of various means of communication such as fax (e-mail), Internet, e-mail but not exploited as much as required.
2. A weakness of the effectiveness of the means of communication for optimal and effective use in the financial institution under study. Indicating that there is a gap between the institution in question and the rest of the other institutions, which makes it difficult to keep up with this institution of modern technology.

Identify the stages of the decision-making process by the administrative leaders.

Determine your actual situation in light of what you actually do when you make a decision to address a problem?

Table 19.4. Shows the Views of the Sample of the Study on the Behavior when Making Decisions.

N	The Item	Category	Degree of approval			Average Sample	Standard deviation	Test value (t)	Moral level	Ranking
			Do not use at all	Sometimes	Always					
7	I can easily identify the problem.	R	28	259	81	2.144	0.526	78.260	0.000	6
		%	7.6	70.4	22.0					
8	I can gather all the facts I need before making a decision.	R	20	236	112	2.250	0.545	79.200	0.000	5
		%	5.4	64.1	30.4					
9	It does not take me a long to get the information I need when making a decision.	R	43	269	56	2.035	0.518	75.350	0.000	7
		%	11.7	73.1	15.2					
10	Iuse the computer to get the information that I need when making decision.	R	36	173	159	2.334	0.648	69.151	0.000	4
		%	9.8	47.0	43.2					
11	I carefully identify several alternatives to resolve any problems you may encounter.	R	17	211	140	2.334	0.562	79.686	0.000	3
		%	4.6	57.3	38.0					
12	I can carefully evaluate the alternatives to the solution.	R	18	203	147	2.351	0.571	78.928	0.000	2
		%	4.9	55.2	39.9					
13	I follow the implementation of the decisions to make sure they are implemented correctly.	R	15	118	235	2.598	0.568	87.710	0.000	1
		%	4.1	32.1	63.9					
The general average of the responses of the study sample on the axis of decision-making.						2.29231	0.34482	127.527	0.000	

Table (19.4) Shows the answers of the study sample on the axis of (*disposition when making decisions*). It is noted from the table that the Item *"I follow the implementation of decisions to ensure their correct implementation"* came in first place, (63.9%), and that the average answers of the study sample are (2.598), which is greater than (2) the default average of the tripartite Likert scale, and by the standard deviation (0.568).

The Item *"I can carefully evaluate alternatives to the solution"* came in second place, so the answer rate (Sometimes) was (55.2%) the average number of answers in the study sample was (2.351), which is greater than (2) the default average of the tripartite Likert scale and by a standard deviation (0.571).

The Item *" I carefully identify several alternatives to solve any problem you may face "* in the third place, the answer rate (sometimes) was high on this expression and was equal to (57.3%), the average number of answers in the study sample was (2.334), which is greater than (2) the default average of the tripartite Likert scale and by a standard deviation of (0.562).

The term *"use the computer to get the information I need when making decisions"* came in fourth place, so the answer rate (sometimes) was high at (64.1%), and the average number of the answer in the sample was (2.250), which is greater than (2) the default average of the tripartite Likert scale and a standard deviation (0.545).

The term *"I can easily identify the problem"* came in sixth place, so the answer rate (sometimes) was high at (70.4%), and the average number of answer to the sample was (2.144), which is greater than (2) the default meaning of the tripartite Likert scale and a standard deviation (0.526).

The phrase "I do not need much time to get the information I need when making a decision" came in seventh place, the answer rate (sometimes) was high on this Item and was equal to (73.1%). The average answers of the study sample were (2.035), which is greater than (2) the default average of the tripartite Likert scale, with a standard deviation (0.518).

The general average of the answers of the study sample on the axis of *"disposition in making decisions "*equals (2.29231), with a standard deviation (0.34482), Since the arithmetic mean is greater than the default average (2), which means *that the employees of Jumhouria Bank have good behavior when faced with problems.*

The value of (t-test) calculated for all the terms of this axis, as well as the total score, is greater than the tabular value of (1.645). The level of morale is less than (0.05) the moral level adopted in the study On the study community.

Methods Used When Making-Decision

How do you rely on each of the following methods in your decision-making process based on your IT systems?

Table 20.4. Shows the Views of the Study Sample on the Methods on which the Administrative Leaders depend when Making Decisions.

N	The Item	Category	Degree of approval					Average sample	Standard Deviation	Test value (t)	Moral level	Ranking
			Not used at all	Not used to some extent	I do not have a specific opinion	Used to Some extent	Used significantly					
14	Quantitative methods and tools are intended (Operations Research and Statistics).	R	57	55	60	167	29	3.152	1.232	49.063	0.000	4
		%	15.5	14.9	16.3	45.4	7.9					
15	Experiment and error mode.	R	134	51	60	91	32	2.554	1.413	34.675	0.000	5
		%	36.4	13.9	16.3	24.7	8.7					
16	Personal experience.	R	07	19	21	102	219	4.378	0.943	89.036	0.000	1
		%	1.9	5.2	5.7	27.7	59.5					
17	Intuition and personal judgment	R	20	28	38	113	169	4.041	1.165	66.518	0.000	2
		%	5.4	7.6	10.3	30.7	45.9					
18	Participatory management is intendedto: Give employees the opportunity to participate in decision making.	R	58	46	57	145	62	3.291	1.320	47.808	0.000	3
		%	15.8	12.5	15.5	39.4	16.8					

The table (20.4) Shows that the method of *(personal experience)* came in first place, and the answer rate (used significantly) is high on this expression and (59.5%) , The average number of responses of the study sample is (4.378), which is greater than (3), the default average of the quinary Likert scale, and by standard deviation (0.943).

The method *(intuition and personal judgment)* came in the second place, and the ratio of the answer (used significantly) high on this phrase is equal to (45.9%), and that the average answers to the study sample is equal to (4.041) which is greater than (3) average default measure of the quinary Likert scale, And by standard deviation(1.165).

The "participatory management" approach is intended to: "give employees the opportunity to participate in decision making" Came in third place, the answer rate (used to some extent) was high on this expression and was equal to (39.4%). The average answers of the study sample were (3.291) which greater than (3) the default average of the quinary Likert scale, and by the standard deviation (1.320).

The method of quantitative tools (Operations Research and Statistics) came in the fourth place, and the answer rate (used to some extent) was high on this expression (45.4%). The average responses of the study sample were (3.152), The default average for the quinary Likert scale, with a standard deviation (1.232).

The method (Trial and error) came in the fifth place, and the ratio of the answer (not used at all) high on this Item is equal to (36.4%), and that the average answers of the study sample is equal to (2.554) which is less than (3) average default measure of the quinary Likert scale, With a standard deviation (1.413).

The value of (t) test calculated for all the terms of this axis and its total score is greater than the tabular value of (1.645). As their level of morale is less than (0.05) the level of morale adopted in the study, which enables the generalization of the results obtained from the sample On the study community. It has been shown that the methods of decision-making are arranged as follows:

1. The method of personal experience.
2. Intuition and personal judgment.
3. Participatory management, which means: (Giving employees the opportunity to participate in decision making).
4. Quantitative methods and tools (Operations Research and Statistics).
5. Trial and error mode.

The reliance of the administrative leaders within institution under study on personal experience and personal judgment may be attributed to the prevailing belief that management is only art and depends on the personal qualities that are available in the leaders themselves. This belief may confirm the control of traditional thought on management and its lack of modern management science and the requirements it requires. Scientific qualification and continuous development, which can be concluded that the lack of use of most of the administrative leaders of quantitative methods due to the modest scientific qualification of these leaders. Therefore, the lack of managers' use of quantitative and behavioural methods in decision-making is due to their lack of knowledge of these methods and their role in dealing with complex problems by providing managers with tools for scientific analysis.

Identify the level of Information

To what extent is the information provided to you for decision-making accompanied by the following problems?

Table 21.4. Shows the Views of the Study Sample on the problems associated with the Decision-Making process.

N	The Item	Category	Degree of approval			Average sample	standard deviation	Test value (t)	Moral level	Ranking
			To avery Small extent	To an average extent	To A large extent					
19	Contradictory information.	R	183	157	28	1.579	0.630	48.066	0.000	8
		%	49.7	42.7	7.6					
20	Lack of information as requested (in number language).	R	169	159	40	1.649	0.668	47.366	0.000	6
		%	45.9	43.2	10.9					
21	Lack of the required quality of information.	R	159	169	42	1.682	0.668	48.299	0.000	5
		%	43.2	45.4	11.4					
22	Inaccuracy in information.	R	153	159	56	1.736	0.707	47.116	0.000	4
		%	41.6	43.2	15.2					
23	Inappropriate information.	R	175	149	44	1.644	0.685	46.019	0.000	7
		%	47.6	40.5	12.0					
24	Ambiguous information (not clear)	R	98	180	90	1.978	0.715	53.047	0.000	3
		%	26.6	48.9	24.5					
25	Delayed access to information in a timely manner.	R	43	145	180	2.372	0.685	66.476	0.000	1
		%	11.7	39.4	48.9					
26	Lack of information (not integrated and comprehensive).	R	44	151	173	2.351	0.684	65.908	0.000	2
		%	12.0	41.0	47.0					
The general average of the responses of the study sample on the axis of decision-making problems						1.87398	0.38860	92.509	0.000	

Table (21.4) Shows the answers of the study sample on the axis of (decision-making problems), and from the table it is noted that the Item (delayed arrival of information in the required time) came in first place, and the answer rate to (a large extent) (48.9%), and that the average answers of the study sample is (2.372), which is greater than (2) the default average of the tripartite Likert scale, and by a standard deviation (0.685).

The Item "lack of information (incomplete and comprehensive)" came in third place, the answer rate (to a large extent) was high on this Item and equal (47.0%). The average number of answers to the study sample is (2.351), which is greater than (2) the default average of the tripartite Likert scale and a standard deviation (0.684).

The Item "The ambiguity accompanying information (unclear)" came in third place, the average answers rate (to an average extent) was high on this Item (48.9%). The average number of answers of the sample equal (1.978), which was less than (2) the default average of the tripartite Likert scale and a standard deviation of (0.715).

The Item "inaccuracy in information" came in the fourth place, the answer rate (to an average extent) was high on this Item and equal (43.2%), and that the average answers of the study sample is (1.736), which is less than (2) the default average of the tripartite Likert scale, and by standard deviation (0.707).

The Item "lack of required information" category came in the fifth place, the answer rate (to an average extent) was high on this Item and equal to (45.4%), the average of the answers of the study sample is (1.682), which is less than (2) the default average of the tripartite Likert, and by a standard deviation (0.668).

The Item "lack of information as requested" (in numbers) came in the sixth place, The answer rate (to a very small extent) was high on this Item and equal to (45.9%). The average number of answers in the study sample was (1.649), which is less than (2) the default average of the tripartite Likert scale, with a standard deviation (0.668).

The Item "Inappropriate information " Came in the seventh place, the answer rate to (a very small extent) was high on this Item and equal to (47.6%). the average number of answers of the study sample was (1.644), which is less than (2) the default average of the tripartite Likert scale and a standard deviation of (0.685).

The Item "contradiction in information" came in eighth place, the answer rate (to a very small extent) was high on this Item and equal to (49.7%). The average number of answers in the study sample was (1.579), less than (2) the default average of the tripartite Likert scale and the standard deviation (0.630).

The general average of the answers of the study sample on the axis of "Decision-making problems" equal to (1.87398), with a Standard deviation of (0.38860), and since the arithmetic mean is lower than the default average (2) which means that there are few problems.

The value of (t-test) calculated for all the terms of this axis and its total score is greater than the tabular value of (1.645). The level of the moral is less than (0.05) the level of morale adopted in the Study, which enables the generalization of the results obtained from the sample On the study community.

From the above, it is clear that the information obtained by the administrative leaders is usually accompanied by problems, the sample of the study community reported the existence of these problems in the following order:-

1. Delays in the timely arrival of information.
2. Lack of information (not integrated and comprehensive).
3. The ambiguity accompanying the information (unclear).
4. Inaccuracy in the information.
5. Lack of the required quality of information.
6. Lack of information as requested (in number language).
7. Inappropriate information.
8. The contradiction in the information.

Identify the Reasons for not Using Quantitative and Behavioural Methods in the Development of Leadership Skills:

The lack of your use of the IT system, especially the computer, and quantitative and behavioural methods in making your decisions refer to?

Table 22.4. Shows the Opinion of the Study Sample on the Reasons why the IT System was not Used in Decision Making.

N	The Item	Category	Degree of approval		Average Sample	Standard Deviation	Test value (t)	Moral level	Ranking
			Yes	No					
27	Lack of knowledge of these methods.	R	116	252	1.315	0.465	54.231	0.000	4
		%	31.5	68.5					
28	Not satisfied with the usefulness of these techniques.	R	66	302	1.179	0.384	58.891	0.000	5
		%	17.9	82.1					
29	The difficulty of applying these methods.	R	140	228	1.380	0.486	54.471	0.000	2
		%	38.0	62.0					
30	Senior management is not satisfied with these methods.	R	150	218	1.408	0.492	54.877	0.000	1
		%	40.8	59.2					
31	Most of these methods are not appropriate for the Organizations invironment.	R	123	245	1.334	0.472	54.185	0.000	3
		%	33.4	66.6					

Table (22.4) Shows the responses of the study sample on the axis of (reasons for not using the information technology system in decision making). It is noted from the table that the expression (The senior management is not convinced of these methods) came in the first place, The answer rate (No) was high on this phrase and equal (59.2%). And The average responses of the study sample is (1.408), which is less than (1.5) the default average of the binary scale, and by the standard deviation (0.492).

The Item (difficulty applying these methods) came in the second place, and the answer rate (no) is high on this expression and is equal to (62.0%), and the average answers of the sample of the study sample is (1.380), less than (1.5) the default average of the binary scale and the standard deviation (0.486).

The Item (Most of these methods do not fit into the origination environment) came in third place, and the answer rate (No) is high on this expression and is equal to (66.6%), and the average answers of the study sample is (1.334), less than (1.5) the default average of the binary scale and the standard deviation (0.472).

The Item (Not to know these methods) came in fourth place, the answer rate (No) was high on this expression and was (68.5%). The average responses of the study sample are (1.315), which is less than (1.5) the default meaning of the binary scale and the standard deviation (0.465).

The Item (not your personal conviction of the usefulness of these methods) came in fifth place, and the answer rate (No) was high on this expression and (82.1%). The average answers of the study sample are (1.179), which is less than (1.5) for the standard mean of the binary scale and for a standard deviation of (0.348).

The value of (t-test) calculated for all the terms of this axis and its total score is greater than the tabular value of (1.645). The level of the mean is less than (0.05) the level of morale adopted in the study, which enables the generalization of the results obtained from the sample On the study community.

The reasons for not using the (IT system in decision-making) are summarized as follows:

1. Lack of conviction of senior management of these methods.
2. Difficulty applying these methods.
3. Most of these methods are not suitable for the organization's environment.
4. Do not know these methods.
5. Not your personal conviction of the usefulness of these methods.

One of the Reasons for the Failure of the Financial and Administrative Institutions to Make the best Use of IT Systems is the following:

Table 23.4. Shows the Views of the Sample of the Study on the Reasons for failure to benefit from Information Techniques Systems.

N	The Item	Category	Degree of approval					Average sample	Standard deviation	Test value (t)	Moral level	Ranking
			I do not agree at all	I do not agree to some extent	I do not have a specific opinion	I agree to some extent	I fully agree					
32	Members of the administrative leaders in financial institution, have a lack of knowledge the dimensions of information technology and therefore their inability to make optimal use of them.	R	14	64	25	146	119	3.793	1.179	61.713	0.000	4
		%	3.8	17.4	6.8	39.7	32.3					
33	The important challenge facing the administrative leaders is computing the work.	R	06	57	37	106	162	3.981	1.145	66.717	0.000	2
		%	1.6	15.5	10.1	28.8	44.0					
34	The members of the administrative leadership in financial institution do not have adequate training in using the required information technology.	R	12	53	41	145	117	3.821	1.127	65.032	0.000	3
		%	3.3	14.4	11.1	39.4	31.8					
35	Information technology is disliked by administrative leaders in financial institution and therefore unwilling to learn and employ them.	R	29	64	52	114	109	3.571	1.289	53.123	0.000	5
		%	7.9	17.4	14.1	31.0	29.6					
36	Raising the performance of the administrative leaders requires training all the employees of the institution on how the new work methods, and stages of the scheme of information implementation in terms of skills and the culture of work.	R	03	16	28	78	243	4.473	0.873	98.281	0.000	1
		%	0.8	4.3	7.6	21.2	66.0					

Table (23.4) Shows the answers of the study sample on the axis of (the reasons for the failure of the utilization of IT systems). It is noted from the table that the Item "raising the performance of the administrative leaders requires training of all the employees of the institution on how the new work methods, and the stages of the implementation of information in terms of skills and culture of work" came in first place, and the rate of answer (I agree completely) high on this Item and equal (66.0%), The average answers of the study sample is (4.473), which is greater than (3) the default average of the quinary Likert scale, and by a standard deviation (0.873).

The Item "the most important challenge faced by the administrative leaders is the computerization of the work" In the second place, the answer was (I fully agree), it was very high (44.0%), and that the average answers of the study sample is equal to (3.981), which is greater than (3) the default average of the quinary Likert scale, and by standard deviation (1.145).

The Item "members of administrative leaders in financial institutions do not have sufficient training in the necessary information technology" in the third place, the ratio of the answer (somewhat agree) high on this phrase is equal to (39.4%), and that the average answers to the study sample is equal to (3.821) which is greater than (3) average default measure of the quinary Likert scale, and a standard deviation (1.127).

The phrase "lack of knowledge of the members of the administrative leadership of financial institutions and the dimensions of information technology and therefore their inability to optimize them" in the fourth place, The ratio of the answer (somewhat agree) high on this phrase is equal to (39.7%), and that the average answers to the study sample vocabulary is equal to (3.793) which is greater than (3) default average for the quinary Likert scale, and a standard deviation (1.179).

The Item "Information Technology is hated by the administrative leaders of financial institutions and therefore their unwillingness to learn and employ them" in the fifth place, The answer rate (I agree to some extent) is high on this Item and is equal to (31.0%), and the average answers of the study sample is (3.571), which is greater than (3) the default average of the quintile and the standard deviation (1.289).

Given The value of (t-test) calculated for all the terms of this axis and its total score is greater than the tabular value of (1.645). The level of the mean is less than (0.05) the level of morale adopted in the study, which enables the generalization of the results obtained from the sample On the study community.

The Reasons for the Failure of the Utilization of Information Systems are as Follows:

1. Raising the performance of administrative leaders requires training of all employees of the institution on how new work methods, and stages of the scheme of information implementation in terms of skills and the culture of work.
2. The important challenge facing administrative leaders is computing work.
3. Members of administrative leaders in financial institutions do not have sufficient training on the necessary information technology.
4. Lack of knowledge of the members of the administrative leaders of financial institutions dimensions of information technology and thus their inability to make optimal use of them.
5. Information technology is hated by the administrative leaders in financial institutions and therefore unwilling to learn and benefit from it.

Identify the Elements of the IT System and how to benefit from them in Developing the managerial Skills of the Administrative Leaders

What is the availability, use, efficiency and effectiveness of each component of the IT system?

Table 24.4. Shows the Opinion of the Sample of the Study on the Degree of Use of Elements of the Components of IT Systems.

| N | The Item | Category | Degree of approval | | | Average Sample | Standard Deviation | Test value (t) | Moral level | Ranking |
			It does not exist at all	Exists but needs to be developed	Exists and works efficiently					
37	The human element specialized in the design, development, use and processing of IT systems.	R	26	306	36	2.027	0.410	94.821	0.000	3
		%	7.1	83.2	9.8					
38	The physical element represents the set of devices and equipment used to process information such as a computer	R	23	291	54	2.084	0.450	88.808	0.000	1
		%	6.3	79.1	14.7					
39	The non-material component is intended as a set of software and procedures taken to process information and data.	R	24	296	48	2.065	0.438	90.433	0.000	2
		%	6.5	80.4	13.0					

Table (24.4) Shows the answers of the study sample on the axis of (the degree of use of components of IT systems components). The table shows that the Item "material element" represents the number of devices and equipment used in processing information such as computer" came in the first place, the response rate (existing but needs to be development) is high on this statement and is equal to (79.1%), and that the

average answers of the study sample is (2.084), which is greater than (2) the default average of the tripartite Likert, and by standard deviation (0.450).

The Item "intangible element", which refers to the software package and actions taken to process information and data", came in the second place, the answer rate (exists but needs to be developed) high on this Item is equal to (80.4%), and that the average answers to the study sample is equal to (2.065) which is greater than (2) The default average for the tripartite Likert scale, and standard deviation (0.438).

The Item (the human element specialist in the design, development and use of information technology systems and processing) came in the third place, and the answer ratio (exists but needs to be developed) high on this Item is equal to (83.2%), and that the average answers to the study sample is equal to (2.027) which is greater than (2), the default average for the tripartite Likert scale, and standard deviation (0.410).

Given the value of the (t- test) calculated for all terms of this axis as well as the college has a degree we find greater than the tabular value of which is equal to (1.645), and the moral level of them less than (0.05) level of moral adopted in the study, allowing the dissemination of the results obtained from the sample On the study community.

It is clear to us through the data and information included in the table (24-4) that the financial institution under study has been able to obtain the components of the (IT system from hardware, software systems and technical personnel), but it is still far from achieving the desired objectives of employing this technology in The process of skill development, decision-making, and the building of effective management information systems, so most of the applications of this technology are still mainly geared towards automating some routine work.

From the above, the degree of Use of Components of the Information Systems components is arranged as follows:

1. The physical element represents the group of devices and equipment used in processing information such as a computer. Where the average responses of the study sample are (2.084).

2. The intangible component of the software package and actions taken to process information and data. Where the average responses of the study sample are (2.065).

3. The human element specialized in the design, development, and use of IT systems. Where the average responses of the study sample are (2.027).

Although these ratios may indicate a high level of availability of these elements, it should be noted here that the lesson is not the availability of these elements, but the lesson of their effectiveness and effectiveness and their ability to access the most effective and effective use of them in the development of administrative work.

From the previous Analysis, the Researcher Concludes the Following:

1. The elements of the IT system of the financial institution studied are represented in (physical elements, non-material elements, human elements).

2. The weakness of the elements of IT systems and their inability to reach their optimal use.

3. The current use of information technology in the financial institution under study is mechanization of some routine work and has not yet reached the support in the process of development of leadership skills and help in decision-making as the extent of success of administrative leaders depends on the degree of health of decision-making.

Identify the Availability and Effectiveness of each of the Administrative Systems Supporting the IT System:

What is the availability and efficiency of each of the following IT system management systems?

Table 25.4. Shows the Opinion of the Study Sample on the Availability of the Efficiency of IT Systems.

N	The Item	Category	Degree of approval			Average sample	Standard deviation	Test value (t)	Moral level	Ranking
			It does not exist at all	Exists but needs to be developed	Exists and works efficiently					
40	The computer system is designed to handle the information and data available so that the uncertainties surrounding the decision-making process are less.	R	27	289	52	2.068	0.459	86.437	0.000	1
		%	7.3	78.5	14.1					
41	Administrative communication system This system allows the exchange of information and opinions between the different administrative units.	R	44	273	51	2.019	0.508	76.180	0.000	2
		%	14.9	77.2	7.9					
42	Performance Appraisal System The purpose of this system is to identify the performance levels of the management personnel and their ability to achieve the target performance level.	R	55	284	29	1.929	0.473	78.222	0.000	4
		%	14.9	77.2	7.9					
43	The incentive system is intended to motivate individuals to work and to remain loyal to the organization.	R	74	263	31	1.883	0.522	69.214	0.000	5
		%	20.1	71.5	8.4					
44	Internal Audit System The objective of the internal audit system is to evaluate the administrative levels and activities of the institution.	R	32	307	29	1.992	0.408	93.742	0.000	3
		%	8.7	83.4	7.9					
The general average of the responses of the study sample on the axis of the availability of the efficiency of IT systems.						1.97826	0.33791	112.306	0.000	

Table (25.4) Shows the answers to the study sample around the axis (the availability of efficient information technology systems), and the table notes that the Item (computer system intended to available information and data processing so that a minimum degree of uncertainty surrounding the decision-making process) came in the first place, and was the answer ratio (exists but needs to be developed) high on this Item is equal to (78.5%), and that the average answers to the study sample is equal to (2.068) which is greater than (2) the default average for the tripartite Likert scale, and standard deviation (0.459).

The Item "administrative communication system" allows the system to exchange information and opinions among the various administrative units" came in the second place, the answer rate (exists but needs to be developed) high on this Item is equal to (74.2%), and that the average answers to the study sample is equal to (2.019) which is greater than (2) The default average for the tripartite Likert scale, and standard deviation (0.508).

The Item "Internal Audit System" aims to evaluate the administrative levels and the various activities of the institution" came in third place, And the answer ratio (exists but needs to be developed) high on this Item is equal to (83.4%), and that the average answers to the study sample is equal to (1.992) which is less than (2) the average default for the tripartite Likert scale, and standard deviation (0.408).

The Item (Performance Appraisal System" aims at identifying the performance levels of the management staff and their ability to achieve the target performance level) came in fourth place, The answer rate (exists but needs to be developed) high on this Item is equal to (77.2%), and that the average answers to the study sample is equal to (1.929) which is less than (2) the average default for the tripartite Likert scale, and standard deviation (0.473).

The Item (the incentive system and intended to entice individuals to work and continue loyalty to the organization) came in fifth place, the answer rate (exists but needs to be developed) high on this Item is equal to (71.5%), and that the average

answers to the study sample is equal to (1.883) which is less than (2) the average default for the tripartite Likert scale and standard deviation (0.522).

The overall average for the answers to the study sample on the axis (the availability of efficient information technology systems) is equal to (1.97826), standard deviation (0.33791), and as the arithmetic average is less than the default average (2), which means a weakness in the availability of efficient IT systems.

Given the value of the test (t) calculated for all terms of this axis as well as the college has a degree we find greater than the tabular value of which is equal to (1.645), and the moral level of them less than (0.05) level of moral adopted in the study, allowing the dissemination of the results obtained from the sample On the study community. The efficiency of IT systems has been shown as follows:

1. A computer system designed to handle information and data available so that the uncertainties surrounding the decision-making process are less.
2. Administrative communication system, This system allows the exchange of information and opinions between the different administrative units.
3. Internal Audit System, The objective of this system is to evaluate the administrative levels and the various activities of the institution.
4. Performance Appraisal System, The purpose of this system is to identify the performance levels of the management personnel and their ability to achieve the target performance level.
5. The incentive system is intended to encourage individuals to work and maintain loyalty to the organization.

From the previous Analysis, the Researcher Concludes:

1. Provides administrative systems (computer, communications, internal audit system).

2. The use of these systems is within the scope of mechanization of some routine work and did not support the skills development process and the construction of good information systems.

Identify the level of Dependence on the Information Technology System in the Financial Institution Under Study:

How reliable is the IT system of the organization in which you work?

Table 26.4. Shows the Study Sample Opinions on the extent of reliance on IT Systems.

N	The Item	Category	Degree of approval			Average Sample	Standard deviation	Test value (t)	Moral level	Ranking
			It does not happen at all	Sometimes	Always					
45	The data and information office has integrated and up-to-date information systems.	R	35	231	102	2.182	0.583	71.782	0.000	2
		%	9.5	62.8	27.7					
46	The computer depends on the automation of all administrative functions.	R	30	188	150	2.326	0.620	72.024	0.000	1
		%	8.2	51.1	40.8					
47	The information system meets the actual needs of senior management of the information you need.	R	26	256	86	2.163	0.528	78.625	0.000	3
		%	7.1	69.6	23.4					
The general average of the responses of the study sample on the axis of the extent dependence on IT systems.						2.22373	0.45347	94.071	0.000	

Table (26.4) Shows the answers of the study sample on the axis (extent of dependence on IT systems), from the table it is noted that the Item "computer depends on the mechanization of all administrative functions" came in the first place, the

answer rate (sometimes) was high on this Item (51.1%). The average number of responses of the study sample was (2.326), which is greater than (2) the default meaning of the tripartite Likert scale and the standard deviation (0.620).

The Item (The data and information office has full information systems for the institution) came in second place, the answer rate (sometimes) was high on this Item is equal to (62.8%), and that the average answers to the study sample is equal to (2.182) which is greater than (2) The default average for tripartite Likert scale, and standard deviation (0.583).

The Item (The information system meets all the actual information needs of senior management) came in third place, the answer rate (sometimes) was high on this Item and was equal to (69.6%), the average number of answers in the study sample was (2.163), which is greater than (2) the default meaning of the tripartite Likert scale and a standard deviation of (0.528).

The overall average for the answers to the study sample on the axis (the extent of reliance on information technology systems) is equal to (2.22373), standard deviation (0.45347), and as the arithmetic average is greater than the average default (2), which means that the Bank of Jomhuryia always depends on systems Information technology in making decisions.

Given the value of the (t-test) calculated for all terms of this axis As well as the total degree of it is greater than the tabular value of which is equal to (1.645), and the moral level of them less than (0.05) level of moral adopted in the study, allowing the dissemination of the results obtained from the sample On the study community.

Identify the level of Activities in the Financial Institution Under Study:

What are the following activities available at the institution where you work?

Table 27.4. Shows the Opinion of the Study Sample on the Availability of IT Systems Activities.

N	The Item	Category	Degree of approval			Average Sample	Sandard Deviation	Test value (t)	Moral level	Ranking
			It does not happen at all	Sometimes	Always					
48	The Foundation provides training and administrative development programs to develop your managerial skills and abilities.	R	40	213	115	2.204	0.617	68.519	0.000	2
		%	10.9	57.9	31.3					
49	The Foundation conducts training courses on the use of IT systems.	R	31	268	69	2.103	0.512	78.857	0.000	3
		%	8.4	72.8	18.8					
50	The Foundation seeks to use and provide modern IT systems instead of old methods of work.	R	36	210	122	2.234	0.613	69.903	0.000	1
		%	9.8	57.1	33.2					
51	The Foundation participates in seminars and courses related to information technology and processing.	R	42	252	74	2.087	0.555	72.080	0.000	4
		%	11.4	68.5	20.1					
The general average of the responses of the study sample on the axis of the extent availability of IT system activities.						2.15693	0.45656	90.628	0.000	

Table (27.4) Shows the answers of the study sample on the axis (availability of IT systems activities, From the table it is noted that the Item (the institution seeks to use and provide modern information technology systems instead of old methods of work) came in the first place, the answer rate (sometimes) was high on this Item and was equal to (57.1%). The average responses of the study sample were (2.234), which is greater than (2) the default average of the tripartite Likert scale and the standard deviation (0.613).

The Item "the organization provides training programs and administrative development to develop your skills and administrative abilities" in second place, the answer rate (sometimes) was high on this Item and was (57.9 %). The average responses of the study sample were (2.204), which is greater than (2) the default meaning of the tripartite Likert scale and the standard deviation (0.617).

The Item (The Foundation conducts training courses on the use of the IT system) came in third place, The answer rate (sometimes) high on this Item is equal to (72.8 %), and that the average answers to the study sample is equal to (2.103) which is greater than (2) The default average for the tripartite Likert scale, and standard deviation (0.512).

The Item (the Foundation to participate in seminars and courses related to information technology and processing) came in fourth place ,the answer rate (sometimes) high on this Item is equal to (68.5%), and that the average answers to the study sample is equal to (2.087) which is greater than (2) the average default for the tripartite Likert scale, and standard deviation (0.555).

The overall average of the responses of the study sample on the axis of (the availability of IT system activities) is equal to (2.15693), with a standard deviation (0.45656), Since the arithmetic average is greater than the default average, (2) means that the Bank of Jomhuryia has the activities of the IT system.

The value of (t-test) calculated for all the terms of this axis and its total score is greater than the tabular value is equal to (1.645). As the level of morale is less than

(0.05) the level of morale adopted in the study, which enables the generalization of the results obtained from the sample On the study community.

The results of the table (27-4) show the extent of the lack of effective and planned training activities, and the weak effectiveness of these activities is directly reflected in the level of administrative performance in the institution under study. The researcher concludes that:

1. The institution under study provides training programs, but these programs are unplanned and useless, meaning that there are no effective and planned training programs.
2. The institution under study does not continuously seek to participate in seminars and conferences related to information technology.
3. The information systems used within the institution under study still did not reach the level for optimal performance that provides the actual information needs of senior management.

Functional Data Analysis:

Sex:

Table :28.4. Shows the Frequency and relative distribution of the study sample by Sex.

Sex	Repetition	Percentage
Males	282	76.6 %
Fe males	86	23.4 %
Total	368	100.0 %
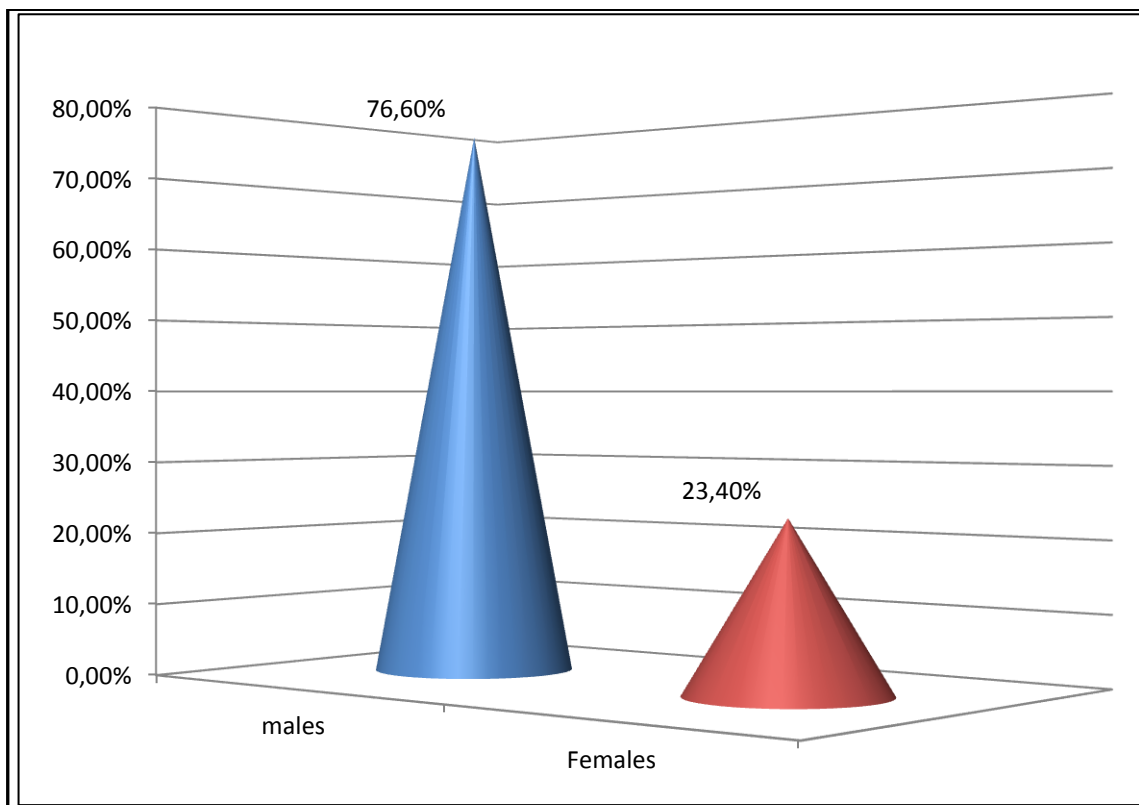
Figure 6.4. Shows the Percentage of the Study Sample by Sex.

Age:

Table29.4. Shows the Frequency and Relative Distribution of the Sample by Age.

Age	Repetition	Percentage
Less 30	35	09.5 %
40-31	117	31.8 %
50-41	150	40.8 %
60-51	58	15.8 %
61 Above	8	02.1 %
Total	368	100.0 %
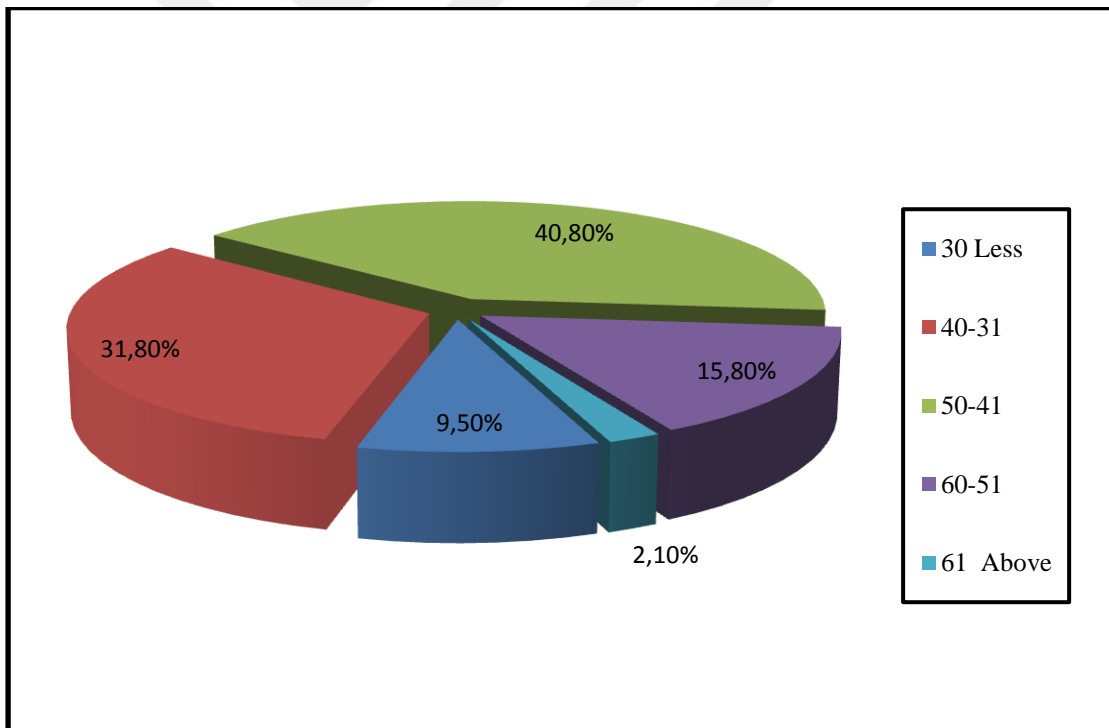
Figure 7.4. Shows the Percentage Distribution Of Sample Items by Age.

Scientific Qualification:

Table 30.4. Shows The frequency and Relative Distribution of the Study Sample According to the Scientific Qualification.

Qualification	Repetition	percentage
Diploma	76	20.7 %
Bachelor	238	64.7 %
Masters	50	13.6 %
Ph.D	04	1.1 %
Total	368	100.0 %
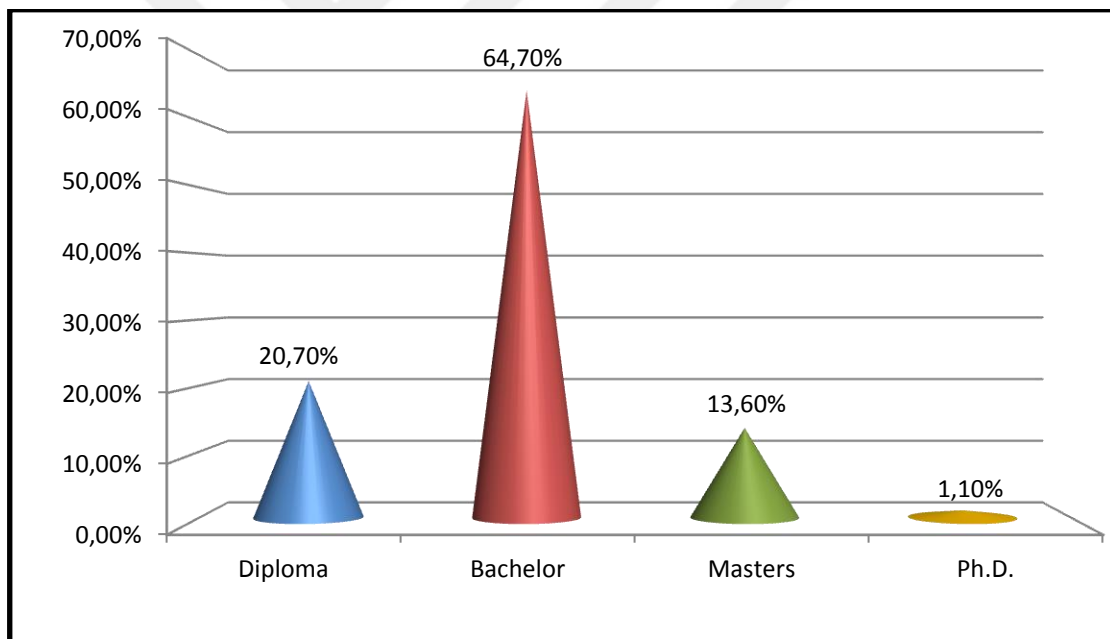
Figure 8.4. Shows the Percentage Distribution of the Study Sample According to the Scientific Qualification.

Administrative Level:

Table 31.4. Shows the Frequency and Relative Distribution of the Study Sample by Administrative Level.

Administrative level	Repetition	Percentage
Senior Management	57	15.5 %
Middle Management (Supervisory Level)	189	51.4 %
Executive Management	122	33.1 %
Total	368	100.0 %
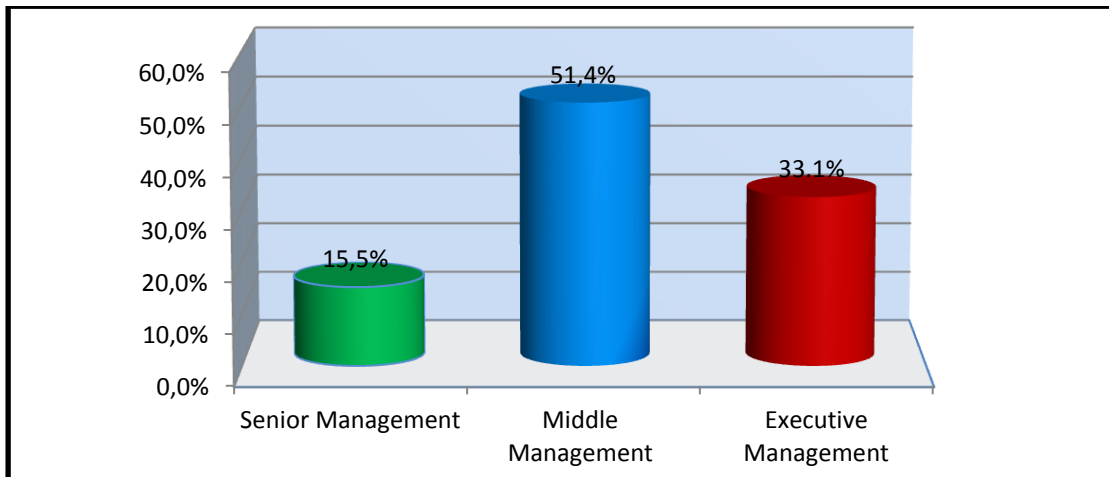
Figure 9.4. Shows the Percentage Distribution of the Study Sample by Administrative Level.

Term of Service in the Current Job:

Table 32.4. Shows the Frequency and Relative Distribution of the Study Sample According to the Length of Service in the Current Job.

Level	Repetition	Percentage
5 years	24	65 %
10 - 6	64	17.4 %
15 - 11	70	19.0 %
Above 16	210	57.1 %
Total	368	100.0 %
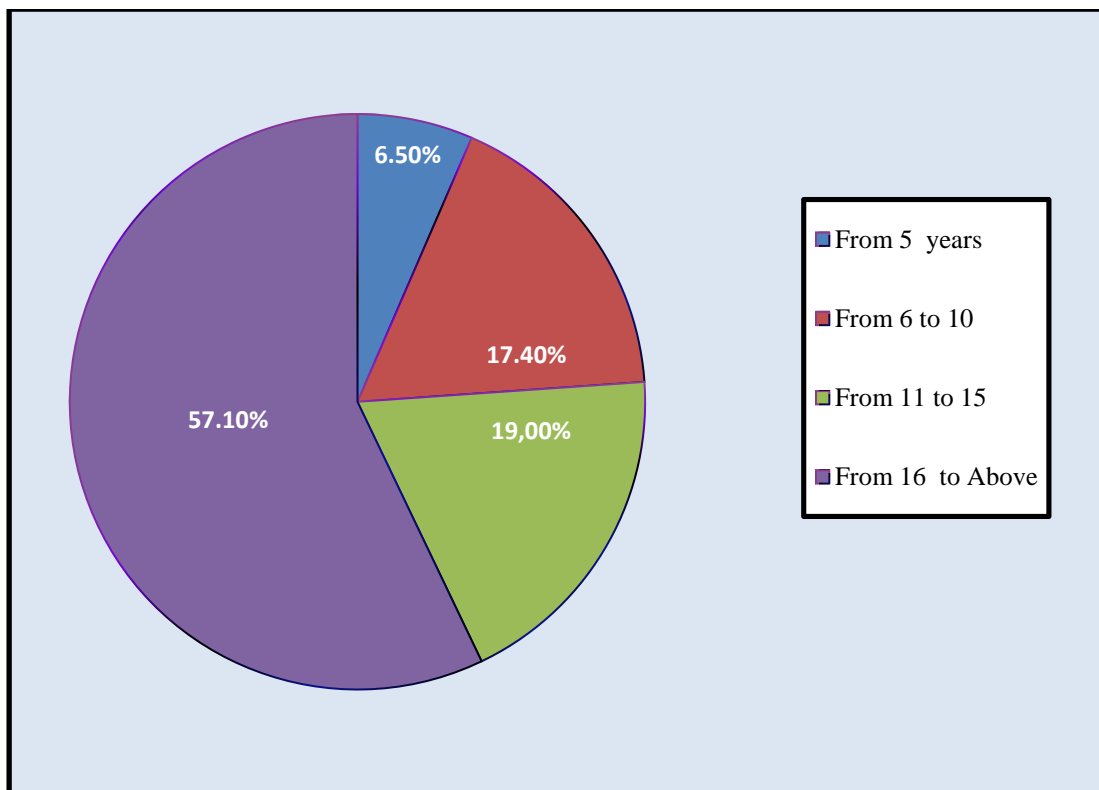
Figure 10.4. Shows the Frequency and Relative Distribution of the Study Sample According to the Length of Service in the Current Job.

4.4.4. Testing Hypotheses

In order to test the validity of the study hypotheses at the level of confidence (95%) and the significance level (0.05), where we accept the relationship between the variables of the study or not, the statistical program (SPSS) was used to find the calculated values of the correlation coefficients (Pearson), and The simple regression coefficient and the variance of the value (F) and compare them with the value of the statistical significance (0.05) adopted to accept or reject the hypotheses as follows:

1. Acceptance of the hypothesis if the value of the calculated significance of any test is less than the value of the statistical significance level (0.05).
2. Rejected of The hypothesis if the value of the calculated significance of any test is greater than the value of the statistical significance level (0.05).

Before applying the regression analysis to test the hypotheses of the study, the researcher conducted some tests in order to ensure the adequacy of the data for the assumptions of regression analysis to ensure that there is no strong correlation between the independent variables in the study, the researcher tested the variance inflation coefficient, which is called the (VIF) for the independent variables, and the (Tolerance test) for each independent variable.

Table 33.4. Test the Coefficient of Variance Inflation and the permissible variation of Independent Variables.

N	Independent sub-variables	(VIF)	(Tolerance)
1	Time dimension problems	1.575	0.635
2	Official dimension Problems	1.710	0.585
3	Content dimension problems	1.911	0.523

It is clear from the table (33.4) that the (VIF) value for all independent variables was less than (10) and ranged between (1.575) and (1.911), because this measure considers that if its value exceeds (10), This indicates that there is an overlap between the independent variables. If less than (10) means that there is no overlap

between the independent variables in their effect on the dependent variable. It is also shown that the permissible tolerance value for all the independent variables was greater than (0.05) and ranged between ((0.523) and (0.635)), As the greater the permissible variance, the greater the non-interference between the independent variables, and thus it was ascertained The absence of a problem related to the existence of a high correlation between the independent variables of the study.

In order to verify the follow-up of the study variables for natural distribution, the researcher calculated the value of the (skewness) coefficient for all the variables of the study. It indicates that the data are close to normal distribution if the value of the spindle is less than (1.96) and greater than(-1.96) At a significant level equal to (0.05), and Table (34-4) shows this.

Table 34.4. Results of the Analysis of the (Torsion Coefficient) of the Study Variables.

N	Variables	Std. Deviation	Variance	Kurtosis	(Skewness)
1	Time dimension problems	0.47549	0.226	0.124	0.082
2	Official dimension Problems	0.48927	0.239	- 0.276	0.492
3	Content dimension problems	0.41683	0.174	0.002	0.351
4	Decision making	0.34482	0.119	- 0.128	-0.243

It is clear from the Table (34.4) that the value of the (Torsion Coefficient) for all the variables of the study was less than (1.96) and greater than (-196). It ranged from (0.492) to (-0.243). Therefore It can be said that there is no problem with the assumption of the statistical distribution of the variables of the study. This result reinforces the smaller values of other dispersion tests, since the smaller these values, the less the difference in responses.

The First Main Hypothesis:

H1-There is a statistically Significant impact of IT efficiency on the quality of administrative decision in the bank under study.

This hypothesis aims to identify the impact of IT efficiency on the (quality of the administrative decision) in the bank under study. The statistical tests of this hypothesis showed the following results:

Pearson Correlation Coefficient was used to find the relationship between the dimensions of the IT problems as an independent variable and the quality of the administrative decision in the Institution under study as a dependent variable, as shown in Table (35-4).

Table 35.4. Pearson Correlation Coefficient between the problems of Information Technology and the Quality of Administrative Decision.

IT problems	Pearson correlation coefficient
Time dimension problems	-0.142[**]
Official dimension Problems	-0.316[**]
Content dimension problems	-0.348[**]
The total dimensions of IT problems	-0.333[**]

**correlation at a significant level (0.01)

It is clear from the Table (35.4) that there is a significant Correlation between all dimensions of the independent variables of the dimensions of the problems of information technology and the variable dependent on the quality of the administrative decision. The values of this relationship ranged between (-0.142) and (-0.348) at a significant level (0.01) The correlation between the total dimensions of the IT problems and the dependent variable was the same as the quality of the administrative decision (-0.333) at a significant level (0.01), which is a strong correlation relationship (reverse), means that the more (IT problems the less the quality of the administrative decision and vice versa).* For the purpose of testing the main hypothesis, a regression

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analysis was used to demonstrate the validity of the model to test the main hypothesis, as shown in Table (36.4).

Table 36.4. Results of the Variance Analysis of the Regression to Confirm the Validity of the Model to Test the Main Hypothesis.

Source	Degrees of Freedom	Total Squares	Average Squares	Calculated (F) Value	Level of Significance (F)	The Coefficient of Determination (R^2)
Regression	3	6.467	2.156			
The error	364	37.170	0.102	21.108	0.000	0.148
Total	367	43.637				

The Table (36.4) shows the validity of the model to test the main hypothesis based on the high value of (F) calculated (21.108) at the level of significance (0.000), which is below the level of the value of the statistical significance adopted by the study (0.05), and degrees freedom (364) The same table shows that the dimensions of the main independent variable (IT problems) in this model account for (14.8%) of the variance in the dependent variable (the quality of the administrative decision), which is an explanatory power, indicating, that there is an important impact of the dimensions of the main independent variable (The information technology) in the dependent variable (the quality of the administrative decision).

Based on the validity of the model we can test the validity of the main hypothesis, using the method of (multiple regression analysis), so the equation that represents the relationship between the independent variable and the dependent variable is as follows:

The dependent variable $= \propto + x_1\,\beta_1 + x_2\,\beta_2 + x_3\,\beta_3 +$ Random error

Where:

α = represents a constant value.

β = the slope of the straight line (regression coefficient).

x = Dimensions of creativity.

Table 37.4. Shows the Results of Multiple Regression Analysis to Test the Impact of the Dimensions problems of IT on the quality of the Administrative Decision.

Dimensions of the independent variable		Regression Coefficient (β)	The random error	Beta	Calculated (t) Value	Level of Significance (t)
Fixed		2.818	0.085		33.260	0.000
x_1	Time Dimension problems	0.094	0.044	0.130	2.136	0.033
x_2	Official Dimension Problems	-0.137	0.045	-0.194	-3.072	0.002
x_3	Content Dimension problems	-0.250	0.055	-0.302	-4.517	0.000

It is clear from the Table (37.4) that the relationship between the dimensions of the independent variable (efficient of Information technology) and the dependent variable (the quality of the administrative decision) can be represented by the following equation:

Quality of administrative decision = 2.818+ β_1(0.094) + β_2 (-0.137) + β_3 (-0.250)

It means, there is an effect on the dimensions of the independent variable (IT problems) in the dependent variable(The quality of the administrative decision). The value of the (beta coefficient) ranged from (-0.302 to 0.130). The calculated level of significance for each dimension, The calculated significance level for each dimension (Time dimension, Official dimension, content dimension) is equal respectively (0.033, 0.002, 0.000), which is below the level of the statistical significance of the study

(0.05). And therefore it is desirable to leave these dimensions in the model and increase its validity.

Based on the results of the previous statistical tests of the main hypothesis, the hypothesis that there is a statistically significant impact on the problems of information technology is accepted on the quality of the administrative decision in the bank under study**.**

First Sub-Hypothesis:

There is a statistically significant effect of the independent variable (Time Dimension) on the quality of the administrative decision in the bank under study.

This hypothesis aims to Measure the effect of the variable of modernity (Inappropriate information) on the quality of the administrative decision in the bank under study. The statistical tests of this hypothesis showed the following results-:

For the purpose of the test, the regression analysis was used to demonstrate the validity of the model for the test, as shown in Table (38-4).

Table 38.4. Shows the Results Of the Analysis of Variance of the Regression to Confirm the Validity of the Model for Testing.

Source	Degrees of Freedom	Total Squares	Average Squares	Calculated (F) Value	Level of Significance (F)	Correlation Coefficient R	The coefficient of Determination (R^2)
Regression	1	2.061	2.061				
The error	366	41.576	0.114	18.147	0.000	0.217	0.047
Total	367	43.637					

It is clear from the Table (38.4) the validity of the model for the test based on the high value of (F) calculated (18.147) at the level of significance (0.000), which is below the level of the value of the statistical significance adopted by the study (0.05) and degrees of freedom (1,366). And that the correlation coefficient is equal to (0.217). It is clear from the same table that the term "inappropriate information" in this model

explains the (4.7%) of variance in the dependent variable (the quality of the administrative decision), which is weak explanatory power, For the term in the dependent variable, the quality of the administrative decision of the bank under study.

Based on the validity of the model, we can test its validity using the simple regression analysis method.

Table 39.4. Shows the Results of Simple Regression Analysis to Test the Effect of the Variable of Modernity (Inappropriate Information) on the Quality of the Administrative Decision in the Bank Under Study.

Independent variable	Regression Coefficient (β)	The random error	Beta	Calculated (t) value	Level of Significance (t)
Stability	2.472				
Time dimension problems	-0.109	0.026	-0.217	-4.260	0.000

It is clear from the Table (39.4) that the relationship between the independent variable ((time dimension problems) (modernity) "inappropriate information") and the dependent variable (the quality of the administrative decision in Institution under study) can be represented by the following equation:

Quality of administrative decision =2.472 + (- 0.109 × inappropriate information) + 0.026

It means, there is an effect for the independent variable ((time dimension problems) inappropriate information)) in the dependent variable (The quality of the administrative decision in the bank under study), where the value of the coefficient (Beta) (-0.217) and the value of (t) calculated (-4.260) with level of significance (0.007) Which is below the level of the statistical significance adopted by the study (0.05).

This hypothesis aims to Measure the effect of variable of ((Timing) (Delay access the information in a timely manner)) on the quality of the administrative decision in the bank under study.

For the purpose of the test, the regression analysis was used to demonstrate the validity of the model for the test, as shown in Table (40-4).

Table 40.4. Shows the Results of the Analysis of Variance of the Regression to Confirm the Validity of the Model for Testing.

Source	Degrees of Freedom	Total Squares	Average squares	Calculated (F) value	Level of Significance (F)	Correlation Coefficient R	The Coefficient of determination (R^2)
Regression	1	0.190	0.019				
The error	366	43.618	0.119	0.160	0.690	0.021	0.000
Total	367	43.637					

It is clear from the Table (40.4) that the validity of the model for the test is based on the (F) calculated value of (0.160) at the level of significance (0.690), which is greater than the level of the statistical significance adopted in the study (0.05) and degrees of freedom (1,366). And that the correlation coefficient is equal to (0.021). It is also clear from the same table that the term (Delayed access to information in a timely manner) in this model interprets (0.0%) of the variance in the dependent variable (the quality of the administrative decision), indicating that we do not have sufficient information for the effect of term (Delayed access to information in a timely manner) in the dependent variable (the quality of the administrative decision) in the bank under study.

Based on the results of the previous statistical tests of the first sub-hypothesis, the hypothesis is accepted, Which states that there is a statistically significant effect for time dimension problems on the quality of the administrative decision in the bank under study.

Second Sub-Hypothesis:

There is a statistically significant effect of the Official dimension on the quality of the administrative decision in the bank under study.

This hypothesis aims to Measuring the effect of the variable of *(*Comprehensiveness) (Lack of information required (in numeric language)) on the quality of the administrative decision in the bank under study.

For the purpose of the test, the regression analysis was used to demonstrate the validity of the model for the test, as shown in Table (41.4).

Table 41.4. Shows the Results of the Analysis of Variance of the Regression to Confirm the Validity of the Model for Testing.

Source	Degrees of Freedom	Total Squares	Average Squares	Calculated (F) Value	Level of Significance (F)	Correlation Coefficient R	The Coefficient of Determination (R^2)
Regression	1	2.805	2.805				
The error	366	40.832	0.112	25.145	0.000	0.254	0.064
Total	367	43.637					

It is clear from the Table (41.4) the validity of the model for the test based on the high value of (F) calculated (25.145) at the level of significance (0.000), which is below the level of the value of the statistical significance adopted by the study (0.05) and degrees of freedom (1,366). And that the correlation coefficient is equal to (0.254). It is clear from the same table that the term (Lack of information required (in numeric language)) in this model explains the (6.4%) of variance in the dependent variable (the quality of the administrative decision), which is weak explanatory power, For the term in the dependent variable, the quality of the administrative decision of the bank under study.

Based on the validity of the model, we can test its validity using the simple regression analysis method.

Table 42.4. Shows the Results of Simple Regression Analysis to Test the Effect of the Variable of Comprehensiveness ((Lack of Information Required (in Numeric Language)) on the quality of the Administrative Decision in the Bank Under Study.

Independent Variable	Regression Coefficient (β)	The random error	Beta	Calculated (t) Value	Level of Significance (t)
Stability.	2.508	0.026	-0.254	-5.014	0.000
Official Dimension problems	-0.131				

It is clear from the Table (42.4) that the relationship between the independent variable ((Lack of information required (in numeric language)) and the dependent variable (the quality of the administrative decision in Institution under study) can be represented by the following equation:

Quality of administrative decision = 2.508 + (- 0.131 ×(Lack of information required)+ 0.026

It means, there is an effect for the independent variable ((Lack of information required (in numeric language)) in the dependent variable (The quality of the administrative decision in the bank under study), where the value of the coefficient (Beta) (-0.254) and the value of (t) calculated (-5.014) with level of significance (0.007) Which is below the level of the statistical significance adopted by the study (0.05).

This hypothesis aims to Measure the effect of the variable of (Clarity) (Ambiguous information (unclear)). on the quality of the administrative decision in the bank under study.

For the purpose of the test, the regression analysis was used to demonstrate the validity of the model for the test, as shown in Table (43.4).

Table 43.4. Shows the Results of the Analysis of Variance of the Regression to Confirm the Validity of the Model for Testing.

Source	Degrees of Freedom	Total Squares	Average Squares	Calculated (F) Value	Level of Significance (F)	Correlation Coefficient R	The Coefficient of Determination (R^2)
Regression	1	0.426	0.426				
The error	366	43.211	0.118	3.610	0.058	0.099	0.010
Total	367	43.637					

It is clear from the Table (43.4) the validity of the model is not valid for the test based on a decrease value of (F) calculated (3.610) at the level of significance (0.058), which is below the level of the value of the statistical significance adopted by the study (0.05) and degrees of freedom (1,366). And that the correlation coefficient is equal to (0.099). It is clear from the same table that the (*Clarity*) (Ambiguous information (unclear)). in this model explains the (1.0 %) of variance in the dependent variable (the quality of the administrative decision), which is weak explanatory power, Which indicates that we do not have sufficient information about the existence an effect of the independent variable (*Clarity*) ((Ambiguous information (unclear)) on the dependent variable (the quality of the administrative decision) at the bank under study.

This hypothesis aims to Measure the effect of the variable of (*Arrangement*) (Lack of the required quality of information)) on the quality of the administrative decision in the bank under study.

For the purpose of the test, the regression analysis was used to demonstrate the validity of the model for the test, as shown in Table (44.4).

Table 44.4. Shows the Results of the Analysis of Variance of the Regression to Confirm the Validity of the Model for Testing.

Source	Degrees of Freedom	Total Squares	Average Squares	Calculated (F) Value	Level of Significance (F)	Correlation Coefficient R	The Coefficient of Determination (R^2)
Regression	1	4.914	4.914				
The error	366	38.723	0.106	46.444	0.000	0.336	0.113
Total	367	43.637					

It is clear from the Table (44.4) the validity of the model for the test based on the high value of (F) calculated (46.444) at the level of significance (0.000), which is below the level of the value of the statistical significance adopted by the study (0.05) and degrees of freedom (1,366). And that the correlation coefficient is equal to (0.336). It is clear from the same table that the term (Lack of the required quality of information) in this model explains the (11.3%) of variance in the dependent variable (the quality of the administrative decision), which is weak explanatory power, Which indicates that the existence an effect of the independent variable (Arrangement) (Lack of the required quality of information) on the dependent variable (the quality of the administrative decision) at the bank under study.

Based on the validity of the model, we can test its validity using the simple regression analysis method.

Table 45.4. Shows the Results of Simple Regression Analysis to Test the Effect of the Variable of Arrangement (Lack of the required quality of Information) on the Quality of the Administrative Decision in the Bank Under Study.

Independent variable	Regression Coefficient (β)	The Random error	Beta	Calculated (t) Value	Level of Significance (t)
Stability.	2.584				
Official Dimension problems.	-0.173	0.025	-0.336	-6.815	0.000

It is clear from the Table (45.4) that the relationship between the independent variable (Lack of the required quality of information) and the dependent variable (the quality of the administrative decision in Institution under study) can be represented by the following equation:-

Quality of administrative Decision = 2.584 + (- 0.173 ×(Lack of the required quality of information)) + 0.025

It means, there is an effect for the independent variable Arrangement (Lack of the required quality of information) in the dependent variable (The quality of the administrative decision in the bank under study), where the value of the coefficient (Beta) (-0.336) and the value of (t) calculated (-6.815) with level of significance (0.007) Which is below the level of the statistical significance adopted by the study (0.05).

Based on the results of the previous statistical tests of the second sub-hypothesis, the hypothesis is accepted, Which states that there is a statistically significant effect for official dimension problems on the quality of the administrative decision in the bank under study.

Third Sub-Hypothesis:

There is a statistically Significant effect of the Content dimension on the quality of the administrative decision in the bank under Study.

This hypothesis aims to Measure the effect of the variable of (accuracy) (Inaccuracy in information) on the quality of the administrative decision in the bank under study.

For the purpose of the test, the regression analysis was used to demonstrate the validity of the model for the test, as shown in Table (46.4).

Table 46.4. Shows the Results of the Analysis of Variance of the Regression to Confirm the Validity of the Model for Testing.

Source	Degrees of Freedom	Total Squares	Average Squares	Calculated (F) Value	Level of Significance (F)	Correlation Coefficient R	The coefficient of Determination (R^2)
Regression	1	6.330	6.330				
The error	366	37.307	0.102	62.096	0.000	0.381	0.145
Total	367	43.637					

It is clear from the Table (46.4) the validity of the model for the test based on the high value of (F) calculated (62.096) at the level of significance (0.000), which is below the level of the value of the statistical significance adopted by the study (0.05) and degrees of freedom (1,366). And that the correlation coefficient is equal to (0.381). It is clear from the same table that the term (Inaccuracy in information) in this model explains the (14.5%) of variance in the dependent variable (the quality of the administrative decision), which is weak explanatory power, Which indicates that the existence an effect of the independent variable (Inaccuracy in information) on the dependent variable (the quality of the administrative decision) at the bank under study.

Based on the validity of the model, we can test its validity using the simple regression analysis method.

Table 47.4. Shows the Results Of Simple Regression Analysis to Test the Effect of the Variable of (accuracy) (Inaccuracy in Information) on the quality of the Administrative Decision in the Bank Under Study.

Independent variable	Regression Coefficient (β)	The Random error	Beta	Calculated (t) Value	Level of Significance (t)
Stability.	2.615				
Official dimension problems	-0.186	0.024	-0.381	-7.880	0.000

It is clear from the Table (47.4) that the relationship between the independent variable (Inaccuracy in information) and the dependent variable (the quality of the administrative decision in Institution under study) can be represented by the following equation:

Quality of administrative decision =2.615+ (- 0.186 × (Inaccuracy in information)) + 0.024

It means, there is an effect for the independent variable (Inaccuracy in information) in the dependent variable (The quality of the administrative decision in

the bank under study), where the value of the coefficient (Beta) (**-**0.381) and the value of (t) calculated (**-7**.880) with level of significance (0.007) Which is below the level of the statistical significance adopted by the study (0.05).

This hypothesis aims to Measure the effect of the variable of (*Correlation*) (Contradictory information)) on the quality of the administrative decision in the bank under study.

For the purpose of the test, the regression analysis was used to demonstrate the validity of the model for the test, as shown in Table (48.4).

Table 48.4. Shows the Results of the Analysis of Variance of the Regression to Confirm the Validity of the Model for Testing.

Source	Degrees of Freedom	Total Squares	Average Squares	Calculated (F) Value	Level of Significance (F)	Correlation Coefficient R	The Coefficient of Determination (R^2)
Regression	1	4.184	4.184				
The error	366	39.453	0.108	38.814	0.000	0.310	0.096
Total	367	43.637					

It is clear from the Table (48.4) the validity of the model for the test based on the high value of (F) calculated (38.814) at the level of significance (0.000), which is below the level of the value of the statistical significance adopted by the study (0.05) and degrees of freedom (1,366). And that the correlation coefficient is equal to (0.310). It is clear from the same table that the term (Contradictory information**)** in this model explains the (9.6%) of variance in the dependent variable (the quality of the administrative decision), which is weak explanatory power, Which indicates that the existence an effect of the independent variable (Contradictory information) on the dependent variable (the quality of the administrative decision) at the bank under study.

Based on the validity of the model, we can test its validity using the simple regression analysis method.

Table 49.4. Shows the Results of Simple Regression Analysis to Test the Effect of the Variable of (Correlation (Contradictory Information**))** on the quality of the Administrative Decision in the Bank Under Study.

Independent Variable	Regression Coefficient (β)	The Random error	Beta	Calculated (t) Value	Level of Significance (t)
Stability	2.560	0.027	-0.310	-6.230	0.000
Content Dimension problems	-0.169				

It is clear from the Table (49.4) that the relationship between the independent variable (Contradictory information) and the dependent variable (the quality of the administrative decision in Institution under study) can be represented by the following equation:

Quality of administrative decision = 2.560 + (- 0.169 × (Contradictory information) + 0.027

It means, there is an effect for the independent variable (Contradictory information) in the dependent variable (The quality of the administrative decision in the bank under study), where the value of the coefficient (Beta) (**-0.310**) and the value of (t) calculated (**-6.230**) with level of significance (0.000) Which is below the level of the statistical significance adopted by the study (0.05).

This hypothesis aims to Measuring the effect of the variable of (*Completeness*) (Lack of information (Not integrated)) on the quality of the administrative decision in the bank under study.

For the purpose of the test, the regression analysis was used to demonstrate the validity of the model for the test, as shown in Table (50.4).

Table 50.4. Shows the Results of the Analysis of Variance of the Regression to Confirm the Validity of the Model for Testing.

Source	Degrees of Freedom	Total Squares	Average Squares	Calculated (F) Value	Level of Significance (F)	Correlation Coefficient R	The Coefficient of determination (R^2)
Regression	1	0.081	0.081				
The error	366	43.556	0.119	0.677	0.411	0.043	0.002
Total	367	43.637					

It is clear from the Table (50.4) the validity of the model is not valid for the test based on a decrease value of (F) calculated (0.677) at the level of significance (0.411), which is below the level of the value of the statistical significance adopted by the study (0.05) and degrees of freedom (1,366). And that the correlation coefficient is equal to (0.043). It is clear from the same table that the (Completeness) (Lack of information (Not integrated)) in this model explains the (0.2 %) of variance in the dependent variable (the quality of the administrative decision), which is weak explanatory power, Which indicates that we do not have sufficient information about the existence an effect of the independent variable (Lack of information (Not integrated)) on the dependent variable (the quality of the administrative decision) at the bank under study.

Based on the results of the previous statistical tests of the third sub-hypothesis, the hypothesis is accepted, Which states that there is a statistically significant effect for the (Content dimension problems) on the quality of the administrative decision in the bank under study.
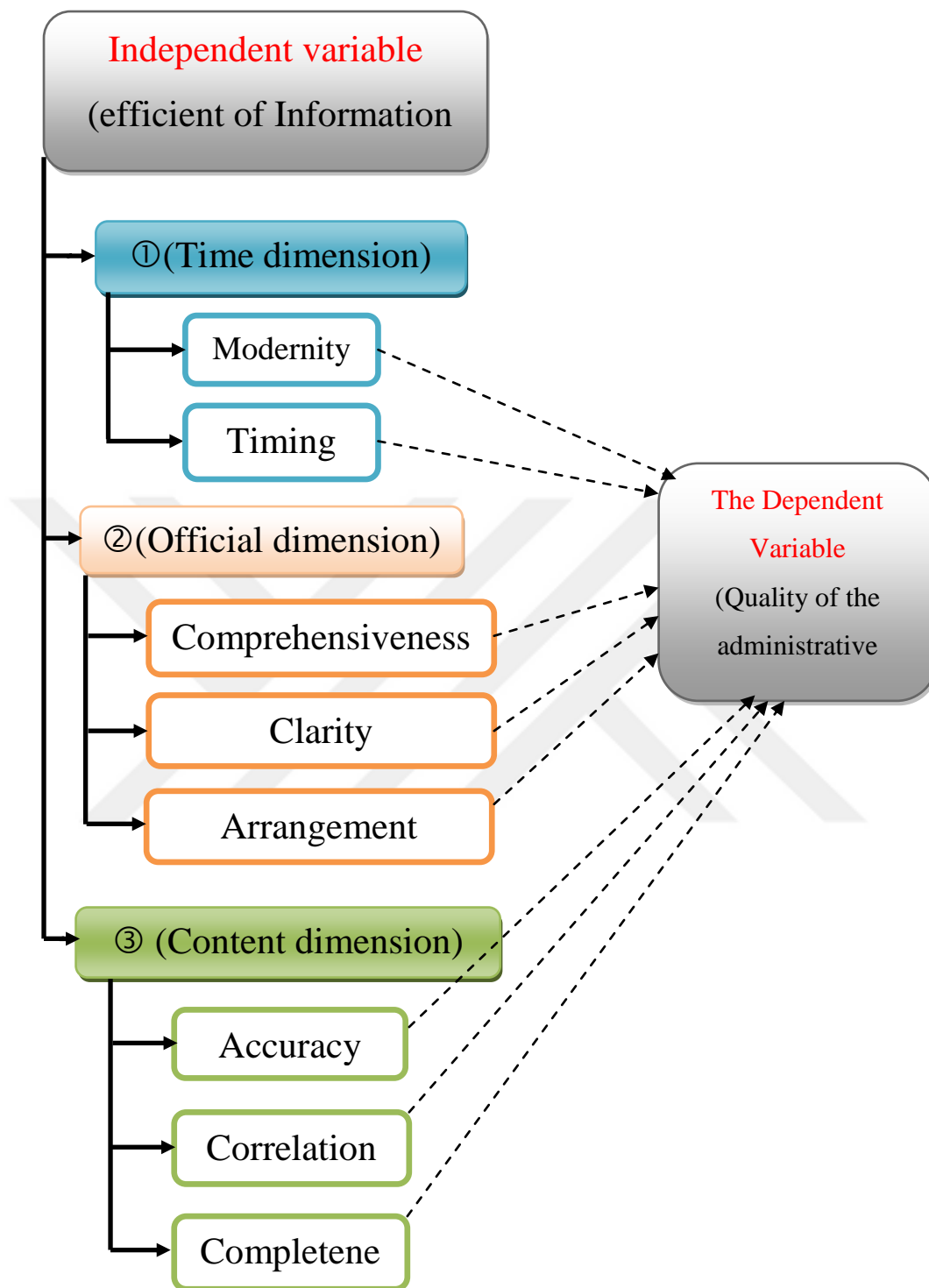
Source**:** Prepared by the Researcher.

Figure 11.4. The Default Analytical Model Of the Study.

The Second Main Hypothesis:

H2-There are statistically significant differences About the dimensions of the study Attributable to personal factors (Gender, Age, Academic qualification, administrative level, Length of service in the current job).

Gender:

Table 51.4. Shows the Results of (t-tes) for Comparison Between Males and Females about Variables of the Study by Gender.

Sex / Variables	Males 282 = N		Females 86 = N		Calculated test Value (t)	The Value of the Moral level of the Viewer (p-value)
	Arithmetic (x̄) mean	Standard Deviation (s. d)	Arithmetic Mean (x̄)	Standard Deviation (s. d)		
Time dimension problems	2.0000	0.47910	2.0349	0.46521	-0.595	0.552 Not Statistically) (Significant
Official dimension problems	1.7707	0.48404	1.7674	0.50893	0.054	0.957 Not Statistically) (Significant
Content dimension problems	1.8830	0.41150	1.9070	0.43582	-0.467	0.641 Not Statistically) (Significant
Information Technology	1.8701	0.38129	1.8866	0.41375	-0.344	0.731 Not Statistically) (Significant
Decision making	2.3197	0.34712	2.2027	0.32315	2.780	0.006 (Statistically Significant)

It is clear from the table (51.4) that the value of (t) calculated to mean the differences between the male and female averages (for decision making) is greater than the tabular value of (t) Which is equal (1.645). Since the value of the corresponding moral level is less than (0.05) the level of morale adopted in the study, it can be said that there are statistically significant differences between males and females to the decision-making process, Where males are more committed to the quality of decisions than females.

For the rest of the variables, the value of (t) calculated to mean the differences between the male and female averages is less than the tabular value (t) of (1.645). Since the value of the observed moral level is greater than (0.05) the level of morale adopted in the study, Accordingly It can be said that there are no statistically significant differences between males and females for these variables.

Age:

Table 52.4. Shows the Results of the Analysis of the Variance to Test the Differences between the Variables of the Study by Age.

Dimensions	Source of Contrast	Total Squares	Degrees of Freedom	Average Squares	F value	Level of Significance
Time dimension problems	Between groups	3.256	4	0.814	3.707	0.006
	Within groups	79.719	363	0.220		
	Total	82.975	367			
Official dimension problems	Between groups	1.727	4	0.432	1.820	0.124
	Within groups	86.127	363	0.237		
	Total	87.854	367			
Content dimension problems	Between groups	1.232	4	0.308	1.787	0.131
	Within groups	62.534	363	0.172		
	Total	63.766	367			
Information Technology	Between groups	1.274	4	0.319	2.135	0.076
	Within groups	54.147	363	0.149		
	Total	55.421	367			
Decision making	Between groups	0.852	4	0.213	1.807	0.127
	Within groups	42.785	363	0.118		
	Total	43.637	367			

Table (52.4) Shows that the calculated value (f) for temporal time problems is greater than the value of f (tabular) with degrees of freedom (04) and (363), And a moral level (0.05), which is equal to (2.37), and that the level of moral corresponding to this dimension less than (0.05) the level of morale adopted in the study, indicating that there are statistically significant differences between the age of the respondents on this dimension.

The value of (f) calculated for the rest of the dimensions is less than the value of (f) of the table with degrees of freedom (04), and (363) and the significant level (0.05) which equals (2.37), and the corresponding level of morale is greater than (0.05) Which indicates that there are no statistically significant differences between the ages of the respondents on these dimensions.

Since the results of the (f) test for the time dimension problems indicate that there are significant differences between the average age of the respondents, one of the comparative tests should be used, so the researcher used the Shifa test to examine the statistically significant differences between the mean age and the following table (53-

Shows That:

Table 53.4. Shows the Results of the Shifa test for Age Differences about (Time Dimension problems).

Age	N	Mathematical averages
		1
30 or less	35	1.7286
31-40	117	2.0299
41-50	150	2.0300
51-60	58	2.0862
61 And above	8	1.9375

From the previous table, there are significant differences in the mean age for the (time dimension problems).

Educational Qualification:

Table 54.4. Results of the Analysis of the Variance to Test the Differences on the Variables of the Study by Educational Qualification.

Dimensions	Source of Contrast	Total Squares	Degrees of Freedom	Average Squares	F value	Level of Significance
Time dimension problems	Between groups	0.984	3	0.328	1.456	0.226
	Within groups	81.991	364	0.225		
	Total	82.975	367			
Official dimension problems	Between groups	0.135	3	0.045	0.186	0.906
	Within groups	87.719	364	0.241		
	Total	87.854	367			
Content dimension problems	Between groups	0.431	3	0.144	0.826	0.480
	Within groups	63.334	364	0.174		
	Total	63.765	367			
Information Technology	Between groups	0.152	3	0.051	0.333	0.802
	Within groups	55.270	364	0.152		
	Total	55.422	367			
Decision making	Between groups	0.322	3	0.107	0.903	0.440
	Within groups	43.315	364	0.119		
	Total	43.637	367			

Table (54.4) Shows that the calculated value of (f) for all dimensions is less than the value of (f) (tabular) with degrees of freedom (03), (364) and level of moral (0.05) which is equal to (2.50), And that the corresponding moral level is greater than (0.05) The level of the moral adopted in the study, which indicates that there are no significant differences in the dimensions of the study attributed to the educational qualification**.**

Administrative Level:

Table 55.4. Results of the Analysis of the Variance to Test Differences on the Variables of the Study by Administrative Level.

Dimensions	Source of Contrast	Total Squares	Degrees of Freedom	Average Squares	F Value	Level of Significance
Time Dimension problems	Between groups	0.463	2	0.231	1.024	0.360
	Within groups	82.513	365	0.226		
	Total	82.976	367			
Official Dimension problems	Between groups	0.146	2	0.073	0.303	0.739
	Within groups	87.708	365	0.240		
	Total	87.854	367			
Content Dimension problems	Between groups	0.118	2	0.059	0.338	0.713
	Within groups	63.647	365	0.174		
	Total	63.765	367			
Information Technology	Between groups	0.039	2	0.020	0.130	0.878
	Within groups	55.382	365	0.152		
	Total	55.421	367			
Decision Making	Between groups	0.268	2	0.134	1.128	0.325
	Within groups	43.369	365	0.119		
	Total	43.637	367			

Table (55.4) Shows that the calculated value of (f) for all dimensions is less than the value of (f) (tabular) with degrees of freedom (02), (365) and the moral level (0.05) which equals (3.00), And that the corresponding moral level is greater than (0.05) The level of the morale adopted in the study, indicating that there are no significant differences in the dimensions of the study attributed to the administrative level.

Length of Service in the Current Job:

Table 56.4. Shows the Results of the Analysis of the Variance to Test the Differences between the Variables of the Study by the Length of Service in the Current Job.

Dimensions	Source of Contrast	Total Squares	Degrees of Freedom	Average Squares	F Value	Level of Significance
Time Dimension problems	Between groups	0.784	3	0.261	1.158	0.326
	Within groups	82.191	364	0.226		
	Total	82.975	367			
Official Dimension problems	Between groups	0.652	3	0.217	0.908	0.437
	Within groups	87.202	364	0.240		
	Total	87.854	367			
Content Dimension problems	Between groups	1.013	3	0.338	1.958	0.120
	Within groups	62.753	364	0.172		
	Total	63.763	367			
Information Technology	Between groups	0.461	3	0.154	1.017	0.385
	Within groups	54.961	364	0.151		
	Total	55.422	367			
Decision Making	Between groups	0.393	3	0.131	1.101	0.349
	Within groups	43.245	364	0.119		
	Total	43.638	367			

Table (56.4) Shows that the calculated value of (f) for all dimensions is less than the value of (f) (tabular) with degrees of freedom (03), (364) and the moral level (0.05) which equals (2.50), And that the corresponding moral level is greater than (0.05) The level of the morale adopted in the study, Which indicates that there are no statistically significant differences in the dimensions of the study due to the length of service in the current job**.**

4.4.5. Results Of The Study

The study showed a number of important results related to the test of hypotheses presented in this study related to information technology and its role in the development of the administrative skills of the administrative leaders in the financial institution under study (Jumhouria Bank), as follows:

1. The introduction of the computer early in the financial institution under study and worked on its operation and use in all departments and sections.

2. Although the financial institution is able to obtain the components of the IT system represented in (specialized human elements, physical elements, non-material elements), it notes the weak effectiveness of the use of these elements, due to the lack of knowledge of the administrative leaders in the financial institution under study the importance of technical Information, and then not to be careful to learn and benefit from them.

3. Although there are components of the IT system, these components have not reached the point where they provide a basis for supporting decisions taken at the level of the institution.

4. The use of the computer in this institution is characterized by a focus on its use in separate functional work that was done independently of each other. The reason is that most of the applications of this technology are still mainly directed towards automating some routine work, and this is considered in the system currently used within the institution Financial studies.

5. IT systems contributed to the organization in automating some routine work in the departments of that institution, but the results of this use were not at the level of investment as well as efforts in this area.

6. The administrative leadership in the financial institution under study depends mainly on the decisions made on the methods of personal experience, intuition, and personal judgment, because of their lack of knowledge of the dimensions information technology systems and the tools available for scientific analysis that will save time and effort and accuracy of decision-maker.

7. The lack of direction of the administrative leadership within the institution under study to the use of quantitative methods (research operations or statistical

methods), where the use of a weak percentage on some simple statistical methods, due to the modest scientific qualification of some of these leaders and thus lack of awareness of the importance of these methods.

8. The financial institution under study still faces some difficulties and obstacles that limit the process of building integrated information systems based on the available information technology. The reason for this is the lack of high-level technical personnel to build advanced information systems within that institution.

9. The weakness of the effectiveness of training programs within the financial institution under study, the reason is that the training programs are not planned and not based on the study of the actual needs accurately.

10. A weakness of the information system within the financial institution under study, where the focus is on the use of the information system in the decision-making routine to a large extent, as well as in the daily routines only and not based on the rationalization of administrative decisions.

4.4.6. Recommendations

Through the results obtained, the researcher can recommend some recommendations that will help improve the use of IT systems in the process of developing the managerial and leadership skills of the administrative leaders within the financial institution under study. These recommendations include:

1. The efficiency and effectiveness of computer use within these institutions should be evaluated in light of a set of clear criteria and objectives that should be developed by the concerned departments in advance, to what extent the use of the computer within the financial institution under study contributed to the completion of the work in terms of speed and accuracy In doing business, and based on it and in line with what has been achieved and what the institution seeks to achieve, the performance criteria are compared to the actual performance of what has been achieved.

2. Evaluate the current state of the equipment, and systems used within the financial institution under study, and then seek a comprehensive vision of the needs of the said institution of hardware and software systems, and this will expand the use of computers to include non-routine work.

3. Provide the necessary human and material resources for computer management within the financial institution in question to enable it to perform its functions properly and strengthen its human and technical capabilities to take the initiative as a technical and advisory body in order to develop the skills and abilities of these leaders within that institution.

4. To exert more effort and attention to the implementation and development of training programs in this field on a continuous basis for individuals whose work requires direct dealing with this technology by effectively engaging this category in the training of the development of information and technology systems in order to use these systems in a way In order to ensure that the desired results are achieved and thus create the capable cadres over time to use the technology as required.

5. Link existing systems used within the departments of that institution and seek to find a consensus between them to form an integrated system based on

technical bases and concepts and modernize and benefit from them at all levels of management of that institution.

6. Strengthening communication between the computer administration and all departments and departments within the financial institution under study, especially those that rely on the information technology system as well as using the computer on a continuous basis for coordination and cooperation between computer administration and other departments and departments.

7. Encourage employees of computer departments within the institution to stay in their business and continue with them so as not to lose the experience and information they have obtained and urge them to do more with good incentives, whether material or moral.

8. The importance of information technology planning is to prepare and create the appropriate environment and ensure the best use of this technology, in addition to the importance of developing long-term plans to deal with all developments in the future IT market. One of the essentials to ensure the effective and efficient use of information technology is optimal and planned use.

9. Encourage the establishment of close relations between the financial institution of study and other institutions specialized in this technology, local and foreign exchange of experiences in the areas of computer and information technology and this will expand the use of the computer to solve problems related to the conduct of business within the financial institution under study.

10. Expanding the establishment of conferences and seminars in the field of computer and information technology, in order to participate in this field from the various specialized bodies in the training to cope with the latest developments in the field of computers and information technology used in financial institutions in developed countries. The operation of information systems and use them in all areas of their business to make the best use.

REFERENCES

Abiss, T. K. (2010). Management Information System and Its Importance in Decision-Making Process. *Babylon Journal for Social Sciences, 18*(3).

Adegbola, M. A. E. (2010). *Management Information Sytem-Design Development*. Nigeria: National Open University of Nigeria.

Adeoti-Adekeye. (1997). The importance of management information systems. *Library Review, 46*, 318-327.

Afërdita, B. (2015). Management Information System and Competitive Advantage. *Mediterranean Journal of Social Sciences, 6*(1).

Agyeman, E. D. (2015). *LEADERSHIP, GOVERNANCE AND PUBLIC SECTOR CORRUPTION*. Paper presented at the 36TH ANNUAL MANAGEMENT WEEK CELEBRATION OF THE UNIVERSITY OF GHANA BUSINESS SCHOO, ACCRA.

Ahmed, I., Shahzad, A., Umar, M., & Khilji, B. A. (2010). Information technology and SMEs in Pakistan. *International Business Research, 3*(4), 237.

Ali Abdul Salam Al-Amari, A. H. A.-A. (2000). Statistics and Probability and Application. *Valletta: ELGA Publications, p. 195*.

Ali Abdul Salam Al-Amari, A. H. A.-A. (reference previously). p. 195.

Al-Bayati, M. M. (2005). Analysis of statistical data using the statistical program spss. *Amman: Dar Hamid*, p.49.

al., A. A. e. (2011). The Role of Management Information System (MIS) and Decision Support System (DSS) for Manager's Decision Making Process *International Journal of Business and Management, 6*.

al., A. M. e. (2011). Information and Communication Technologies as Agricultural Extension Tools. *Scientific Bulletin – Economic Sciences, 10*(1).

al., C. J. A. e. (2001). An investigation of factors affecting how engineers and scientists seek information. *Journal of Engineering and Technology Management-JET-M, 18*, 131-155.

al., C. L. P. G. e. (2010). Importance of Management Information System in ElectronicInformation Era. *S-JPSET, 1*(2).

al., G. v. S. e. Constraints for Information and Communications Technologies implementation in rural Zambia. *Nelson Mandela Metropolitan University*.

al., G. v. S. e. (2013). Constraints for Information and Communications Technologies implementation in rural Zambia. *Nelson Mandela Metropolitan University*.

al., L. M. e. (2015). Review on Management Information Systems (MIS) and its Role in Decision Making. *International Journal of Scientific and Research Publications, 5*(10).

al., M. K. e. (2000). The importance of information technology in port terminal operations. *International Journal of Physical Distribution & Logistics Management, 30*, 331-344.

al., R. L. e. (2012). *Introduction to Management Information Systems*. Castelló de la Plana: Publicacions de la Universitat Jaume.

al., U. J. G. e. (2008). *Business Processes and Information Technology*. USA: South-Western-a Division of Thomson Leaerning.

al., W. J. K. e. (2007). *The Role of the Information and Communication Technology Secro in Expanding Economic Opportunity*. New York: The Fellows of Harvard College.

Alcami, C. D. C. R. L. (2012). *Introduction to Management Information Systems*. Castelló de la Plana: Universitat Jaume I. Servei de Comunicació.

Al-Nasr, M. A. (2004). Rules and stages of scientific research, a guide in writing research and preparation of master's and doctoral dissertations. *Cairo: Nile Group*, p. 183.

Al-Nasr, M. A. op. Cit. *P. 184*.

Baruchson-Arbib, J. B. S. (2008). The application of cost–benefit and least effort theories in studies of information seeking behavior of humanities scholars: the case of Jewish studies scholars in Israel. *Journal of Information Science, 34*(2), 131-144.

Bennis, W. (2009). *On Becoming a Leader*. NY: Perseus Books Group.

Berisha-Shaqiri, A. (2015). Impact of Information Technology and Internet in Businesses. *Academic Journal of Business, Administration, Law and Social Sciences, 1*.

Blanchard, H. (2015). Situational Leadership Management Essay. Retrieved from https://www.ukessays.com/essays/management/hersey-blanchard-situational-leadership-management-essay.php

Bogabol, A. O. A. (2014). The Need for Management Information Systems on Strategic Planning Process in Libyan Health Service Organizations. *IOSR Journal of Business and Management (IOSR-JBM), 10*(10), 13-26.

Bohoris, G. A. (2006). Leadership vs Management. *Business Excellence / Performance Management view*.

Boulesnane, S., & Bouzidi, L. (2013). The mediating role of information technology in the decision-making context. *Journal of Enterprise Information Management, 26*(4), 387-399.

Bowman, B. (2000). Three Stage Model of MIS Planning. *Elsevier Science Publishers B.V, 6*, 11-25.

Bratton, J., Grint, K., and Nelson, D. L. (2005). *rganizational Leadership*. USA: Library of Congress Publishing.

Bronstein, J. (2010). Selecting and using information sources: source preferences and information pathways of Israeli library and information science students. *IR- Information Research, 15*.

Bryan, V. (2010). Information Technology Management. *Florida'Atlantic'University*.

Buzzell, R. a. G., B. (2005). *The PIMS Principles: Linking Strategy to Performance*. New York: New York Free Press.

Caldwell, J. G. (2009). Approach to Management Information System Design

Chan, S. L. (2000). Information technology in business processes. *Business Process Management Journal, 6*(3), 224-237.

Chandra, S. (2014). Limitations Of Management Information Systems. Retrieved from http://ezinearticles.com/?Limitations-Of-Management-Information-Systems&id=8575013

Collis, J., & Hussey, R. (2013). *Business research: A practical guide for undergraduate and postgraduate students*: Palgrave macmillan.

Common, R. (2013). *Human Resource Management and Development*. London: SOAS University of London.

Dasho Karma Ura, a. P. O. d. P. (2012). *Advancing Technologies for Asian Business and Economics: Information Management Developments*. USA: Information Science Reference.

David McGuire, a. K. H. (2007). Portrait of Transformational Leader: the Legacy of Dr. Martin Luther King Jr. *Leadership & Organization Development Journal,, 28*, 154-166.

Dede, C. (1989). The Evolution of Information Technology: Implications for Curriculum. *Educational Leadership*.

Digesara, A. N. (2013). Review of MIS Management Information Systems. *Interdisciplinary Journal for Contemporary Business Research, 4*.

Easterby-Smith, M. T., & Thorpe, R. A. Lowe (2002) Management Research: An Introduction: London, Sage.

Fink, L. (2011). How do IT capabilities create strategic value? Toward greater integration of insights from reductionistic and holistic approaches. *European journal of information systems, 11*(20), 16-33.

Fung, H. P. (2013). Using Big Data Analytics in Information Technology (IT) Service Delivery. *Internet Technologies and Applications Research, 1*(1), 6-10.

Furgan, M. (2014). Importance of Management Information System. *International Journal of Advancement in Engineering Technology, Management and pplied Science, 1*(4).

George R. Goethals, a. o. (2004). Encyclopedia of Leadership 4 NY: Sage Publications, Inc.

Gressel, A. I. S. (2017). Information and reformation in KM systems: big data and strategic decision-making. *Journal of Knowledge Management, 21*(1).

Grover, G. D. B. V. (2005). Types of Information Technology Capabilities and Their Role in Competitive Advantage: An Empirical Study. *Journal of Management Information Systems, 22*(2), 253-277.

Gummesson, E. (2003). All research is interpretive! *Journal of business & industrial marketing, 18*(6/7), 482-492.

Haigh, T. (2011). The History of Information Technology. *Annual Review of Information Science and Technology, 45*, 431-487.

Harsh, S. B. (2010). Management Information System. *Department of Agricultural Economics- Michigan State University*.

Harwood, T. G., & Garry, T. (2003). An overview of content analysis. *The Marketing Review, 3*(4), 479-498.

Henderson, K. (2012). The Disadvantages of Information Technology in Business. Retrieved from http://smallbusiness.chron.com/disadvantages-information-technology-business-4020.html

Iorga, A. S. C. (2016). *Employee Resistance to Organisational Change Through Managerial Reengineering*. Paper presented at the Proceeding of the 10th International Management Conference- Challenges of Modern Management, Bucharest-Romania.

Isazadeh, A. (2014). Information Society: Concepts and Definitions. *Tabriz University*.

Jain, D. M. K. S. a. M. S. (2013). Leadership Management: Principles, Models and Theories. *Global Journal of Management and Business Studies, 3*, 309-318.

Jee, M.-K. K. a. K.-y. (2007). Factors Influencing Strategic Use of Information Technology and Its Impact on Business Performance of SMEs. *ETRI Journal, 29*(August 2007).

Johnson, J. D. (2003). On contexts of information seeking. *Information Processing and Management, 39*, 735-760.

Joudeh, M. (2008a). Basic Statistical Analysis Using Spss. *Amman: Dar Wael*, p. 256.

Joudeh, M. (2008b). Basic Statistical Analysis Using Spss. *Amman: Dar Wael*, p. 267.

Karaca, H. (2010). *The Effects of Transformatıonal Leadershıp on Employees' Perceıved Leadershıp Effectıveness in Publıc Organızatıons: Federal Emergency Management Agency Case.* (Doctotat), University of Central Florida, Florida.

Karim, A. J. (2011). The Significance of Management Information System for Enhancing Strategic and Tactical Planning. *Journal of Information Systems and Technology Management, 8*(2), 459-470.

Kenchakkanavar, A. Y. (2014). Types of E-Resources and Its Utilities in Library. *International Journal of Information Sources and Services, 1*(2).

Kennerley, M., & Mason, S. (2008). The Use of Information in Decision Making, Literature Review for the Audit Commission. *Centre for Business Performance, Cranfield School of Management*.

Kesan, R. C. S. J. P. (2005). *Governance characteristics of information technology.* Paper presented at the National Conference on Digital Government Research, Atlanta, Georgia, USA.

King, W. R. (2010). Strategic Planning for Management Information System. *MIS Quarterly*(March 2010).

Kovacevic, A., & Majluf, N. (1993). Six stages of IT strategic management. *loan management review of International Studies, 3*(4), 77-87.

Kundishora, S. M. (2013). The Role of Information and Communication Technology ICT) in Enhancing Local Economic Development and Poverty Reduction. *Zimbabwe Academic and Research Network*.

Lankoun Letchow. (Previous reference). Previous reference. *P. 114*.

Latife Abdourahman, N. A. H. A. (2011). *Leadership Theories and Its Types.* (Master), Mohammed Ben Saahoud, Riyadh.

Lewin, K. L., Ronald. (1939). An experimental approach to the study of autocracy and democracy: A preliminary note. *Sociometry, 1*(3/4), 292-300.

Lucas-Jr., H. C. (2011). Top Management Problem Solving and Information Systems. *Center for Research on Information Systems- New York University, CRIS 1/11*

Madewell, C. D. (2013). A Summary of Approaches, Issues, and Constraints in Information Technology (IT) Alignment over the Evolution of IT Management. *Informational Paper*(July 13, 2013).

Mahoney, M. S. (1988). The History of Computing in the History of Technology. *Annals of the History of Computing, 10*, 113-125.

Maslanka, A. M. (2004). *Evolution of Leadership Theories.* (Master), Grand Valley State University, Allendale, Michigan.

Matthew R. Fairholm , a. G. W. F. (2009). *Understanding Leadership Perspectives - Theoretical and Practical Approaches*. NY: Springer Science + Business Media, LLC.

Michálek, D. (2011). Benefits of Management Information Systems and Important Conditions for Successful Implementation and Running.

Mittal, P. (2012). *Analysis and Design of Information Systems*. New Delhi: Excel Books Private Limited.

Mohamed, R. S. S. (2014). Barriers to Implementing Information Technology in Developing Countries. *School of Engineering, Griffith University-Australia*.

Molla, R. H. a. A. (2009). *Understanding Information Technology*. Ghana: University of Ghana Business School.

Morton, M. S. S. (2000). *Strategıc Plannıng and Management Informatıon Systems some Implıcatıons of Present Research*. England: the British Computer Society.

Naiem, M. (2008). The Syrian Human Resources In The Information Technology Age. *Tishreen University Journal for Research and Scientific Studies - Economic and Legal Sciences Series, 30*.

Nikoloski, K. (2014). The Role of Information Technology in the Business Sector. *International Journal of Science and Research, 3*(12).

Okpokwu, T. (2016). *LEADERSHIP AND CORRUPTION IN GOVERNANCE- A CASE STUDY OF LIBERIA*. (Master), SIT Graduate Institute, Vermont.

Orabi, T. G. A. (2016). The Impact of Transformational Leadership Style on Organizational Performance: Evidence from Jordan. *International Journal of Human Resource Studies, 6*.

others, L. M. R. (2017). Assessing public leadership styles for innovation: a comparison of Copenhagen, Rotterdam and Barcelona. *Public Management Review, 19*, 134-156.

Palvia, P. P. a. S. (1988). The Feasibility Study in Information Systems: An Analysis of Criteria and Contents. *Information & Management, 14*, 211-224.

Remenyi, D., & Williams, B. (1998). *Doing research in business and management: an introduction to process and method*: Sage.

Ricke, M. (2015). Characteristics of Successful Leaders. *South Dakota State University*.

Roederer, J. G. (2012). On the Concept of Information and Its Role in Nature. *Geophysical Institute, University of Alaska-Fairbanks,*.

Rudo, P. (2013). Important Stages in the Data Processing Cycle.   Retrieved from   http://www.enterprisefeatures.com/6-important-stages-in-the-data-processing-cycle/

Sacher, R. K. A. (2016). *Trait Theories of Leadership*. Paper presented at the 6th international conference on science, technology and managment, New Delhi-India.

Sarrocco, C. (2005). Elements and Principles of the Information Society. *World Summit on the Information Society (WSIS),*.

Shamsuddi, Y. H. A. (2014). The Meaning of Management Information Systems and its Role in Telecommunication Companies in Yemen. *American Journal of Software Engineering, 2*(2), 22-25.

Shilpa Jain, M. K. S. (2013). Leadership Management: Principles, Models and Theories. *Global Journal of Management and Business Studies, 3*, 309-318.

Silverman, D. (2013). *Doing qualitative research: A practical handbook*: SAGE Publications Limited.

Soumitra Dutta, T. G. B. L. (2015). *The Global Information Technology Report 2015*. Retrieved from Geneva:

Spacey, J. (2015). Types of Information Technology.   Retrieved from https://simplicable.com/new/types-of-information-technology

Spears, L. C. (2010). Character and Servant Leadership: Ten Characteristics of Effective, Caring Leaders *The Journal of Virtues & Leadership, 1*(1), 25-30.

Stoner, R. F., Gilbert. (1995). *Management*. USA: Prentice Hall.

Taylor, S. J., & Bogdan, R. (1984). Introduction to qualitative research methods: The search for meaning.

Thomas Cummings Warren, a. o. (2001). *The Future of Leadership: Today's Top Leadership Thinkers Speak to Tomorrow's Leaders* (First ed.). NY: Jossey-Bass.

Tofan, C. A. (2013). Information System- A Component of the Management System. *Review of General Management, 17*(1), 188-194.

Tomey, A. (2009). *Nursing Management and Leadership*: sutlib2.sut.ac.th.

Tossy, T. (2014). Major Challenges and Constraint of Integrating Health Information Systems in African Countries: A Namibian Experience. *International Journal of Information and Communication Technology Research, 4*.

Tshaou, L. (2004). Administrative Statistics, Arabization of Abdul Mardi Hamid Azzam. *Riyadh: Dar al-Marikh, p. 86.*

UNCTAD. (2003). *Information and Communication Technology Development Indices*. Retrieved from New York & Geneva:

UNESCO. (2009). *Developing Management Information Systems for Community Learning Centres- A Guidebook*. Bangkok-Tailand: UNESCO Asia and Pacific Regional Bureau for Education.

USG. (2017). *Information Technology Hnadbook: IT Handbook Version Control*. Retrieved from Georgia:

Valorinta, M. (2011). IT alignment and the boundaries of the IT function. *Journal of information technology, 11*(26), 46-59.

W. Gleen Rowe, a. L. G. (2013). *Cases in Leadership* (Second ed.). Los Angelos, London and New Delhi: Sage Publication.

Wassennar, A. B. J. M. W. D. A. (1990). Impact of Information Technology on Organizations: The State of the Art. *lnfernational Journal of lnformafion Management, 10*, 35-53.

Yadeta, G. D. (2016). *Role of Management Information System in Business Organisation*. Paper presented at the Proceedings of Academics World 18th International Conference, Boston-USA.

Yin, R. K. (2003). Case Study Research: Design and Methods. edition: Thousand Oaks, CA: Sage.

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T.C

Karabuk University

INSTITUTE OF SOCIAL SCIENCES

Questionnaire About

Information Technology and its Role in the Development of the

Management Skills of Administrative Leaders

(DECISION-MAKING SKILLS)

In the Financial Sector in Libya

Greetings

It is essential for a successful administrative leader in any place or institution, you must pause and consider stands where it stands in the midst of the rapid development of information technology and increased competition, reduced and position your organization administered or holding a lead.

It is intended in this questionnaire development and application of information and experiences, They are also technical capabilities and information associated with the ability to use all the different means of communication to get data converted to operational information or processing information available and ready to face the problems of various kinds. The questions in this questionnaire give you the opportunity to express your feedback very clearly on this subject, And don't forget to answer with precision and objectivity are key to the success of this modest work which seeks a researcher from which to obtain a doctoral degree in business administration.

I thank you in advance for your collaboration with me in answering the questions contained in the list, please do not write your name on the questionnaire and if there are any comments please write them on the last page.

✎: The researcher.

<u>Questionnaire For Administrative Leaders:</u>

Please kindly answer the questions in the questionnaire while noticing the following:

* This questionnaire is not intended to measure your information or skills, but it is a tool for identifying the level of IT usage in your organization.

* The accuracy of the information you provide will be the basis for the success of this research.

* The information provided in this questionnaire will be used for the purpose of scientific research only and not for publication.

* Please answer all questions with a (✓) that reflects your answer.

Group I:

Q1-Explain to what extent the IT system is used to provide you with the necessary information to help you develop your leadership skills in order to make any of the following decisions?

S.N	Degree of use / Type a for decisions	Not used at all	Not used to some extent	I have no specific opinion	Fairly used	Frequently used
1	Strategic decisions (Long term)					
2	Interim decisions (Medium-term)					
3	Routine decisions (Daily)					

Q2-To What extent does the institution in which you work in uses any of the following means of communication between administrations within the same institution and between different financial institutions?

S.N	Degree of use / Type of method	Not used at all	Not used to some extent	I have No specific opinion	Fairly used	Frequently used
4	(FAX)					
5	(Internet)					
6	(e- mail)					

Q3-Determine your actual position with regards of what you actually do when you make a decision to address a problem?

S.N	Position / Problem	Never	Sometimes	Always
7	I can identify the problem easily.			
8	I can gather all the facts that I need before making a decision.			
9	I don't need a long time to get the information that I need when making the decision.			
10	I use the computer to get the information that I need when making decisions.			
11	Pinpoint accuracy several alternatives to solve any possible problem that I'm having.			
12	I can accurately establish alternatives to the solution.			
13	Follow up the implementation of decisions to ensure that it is implemented in the right way.			

Q4-How much do you rely on each of the following methods in your decision making process based on your IT system?

S.N	Degree of use / The method used	Not used at all	Not used to some extent	I have no specific opinion	Fairly used	Frequently used
14	Quantitative methods and tools mean (Operations research and statistics) .					
15	The method of trial and error.					
16	The method of personal experience.					
17	Intuition and personal judgment.					
18	Participatory management and are intended to: provide an opportunity for employees to participate in the decision-making process.					

Group II:

Q5-To what extent is the information provided to you for decision-making accompanied by the following problems?

S.N	The extent of the problem / Type of problem	To a very small extent	Pretty average	To a large extent
19	The contradiction in information.			
20	The lack of information required (numerically).			
21	Unavailability of the required quality of information.			
22	Inaccuracies in the information.			
23	Lack of adequate information.			
24	Mystery accompanying information (unclear).			
25	The delay in the arrival of timely information.			
26	Lack of information (non-integrated).			

Q6- The lack of use of the information technology system, especially the computer and the quantitative and behavioural methods in making your decisions refers to:

S.N	The reason / The answer	Yes	No
27	Lack of knowledge of these methods.		
28	Not satisfied with the usefulness of these techniques.		
29	The difficulty of applying these methods.		
30	Senior management is not satisfied with these methods.		
31	Most of these methods are not appropriate for the Organization's environment.		

Q7- The reasons for the failure of financial and administrative institutions to optimize the use of IT systems includes:

S.N	The reason	I do not agree at all	I disagree to some extent	I have no specific opinion.	I agree to some extent.	I completely agree
32	Members of the administrative leaders in financial institution, have a lack of knowledge the dimensions of information technology and therefore their inability to make optimal use of them.					
33	The important challenge facing administrative leaders is computerizing work.					
34	Members of administrative leadership in financial institution do not have adequate training in using the required information technology.					
35	Information technology is disliked by administrative leaders in financial institution and therefore unwilling to learn and employ them.					
36	Raising the performance of the administrative leaders requires training all the employees of the institution on how the new work methods, and stages of the scheme of information implementation in terms of skills and the culture of work					

Group III:

Q8- What is the availability, use, efficiency and effectiveness of each component of the IT system?

S.N	Degree of availability / Elements	Does not exist at all	Exists but needs improvement	Exists and works very efficiently
37	The human element specialized in the design, development and use of IT systems.			
38	The physical element represents the set of devices and equipment used to process information such as a computer.			
39	The non-material component is intended as a set of software and procedures taken to process information and data.			

Q9-What is the availability and efficiency of each of the following IT system management systems?

S.N	Degree of availability / Type System	Does not exist at all	Exists but needs improvement.	Exists and works very efficiently
40	The computer system is designed to handle the information and data available so that the uncertainties surrounding the decision-making process are less			
41	Administrative Communication System ,This system allows the exchange of information and opinions between different administrative units.			
42	Performance Appraisal System (PAS) aims to identify the performance levels of management personnel and their ability to achieve the target performance level			
43	The incentive system is intended to motivate individuals to work and maintain loyalty to the organization			
44	Internal Audit System The objective of the internal audit system is to evaluate the administrative levels and the various activities of the institution			

Group IV:

Q10- To what extent is the IT system relied on in the organization you work in?

S.N	Degree of availability / Type of activity	Never happen	Sometimes	Always
45	The data and information office has an integrated and up-to-date information system.			
46	Relying on computer automation in all administrative functions.			
47	Information system meets the actual needs of the senior management of the information needed.			

Q11- To what extent are the following activities available at the institution where you work?

S.N	Degree of availability / Type of activity	Never happen	Sometimes	Always
48	The Foundation provides training and management development programmers to develop skills and management abilities.			
49	The Foundation conducts training courses on the use of the IT system			
50	The Foundation seeks to use the provision of modern information technology system instead of the old ways of working			
51	The Foundation participates in seminars and courses related to information technology and how to process it.			

Q12-Indicate whether there are new advanced technologies newly introduced to the institution in which you work in and is not present in other financial institutions.:

…………………………………………………………….

③- Functional data:

* Gender: Male □   Female □

* Age: 30 or less □   31 - 40 □   41 - 50 □   51 - 60 □   61 and More □

* Educational qualification: Diploma□   Bachelor □   Mba □   phd□

* Name of the department or branch that you're working in now:

………………………………………………………………………………………

* Administrative level:…………………………………………………......…………

* Current job: Senior Management □   Middle Management□

                        Operational management □

* Length of Service in Current job: 5 years or less □   6 - 10 □

                                         11 - 15 □   6 and More □

Notes:……………………………………………………………………………

<div align="center">With my sincere appreciation and gratitude</div>

✎:<u>The researcher</u>.

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