Electronic Management's Contribution to the Development of Managerial Functions

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ABSTRACT
These days, the managerial functions face many and multi challenges, where the most important challenge the technological changes that came by the various components of information technology, especially the internet, extranet, increasing in computer use, and development of administrative thought. The information technology has entered various aspects of managerial functions, as we do not find institution devoid of databases for various functions of the managerial functions, where it became the elements of modern institutions and without it organization can't continue to work, so the change of managerial functions became the most important features of the present time, which should be dealt with the change efficiently. As a result of these change managerial functions has shifted from conventional methods that rely on paper and routine business to electronic methods in business administration.

The need to use paper decreased somewhat, and manager became exercised its activities at any time and in any place more efficiently than in the past. Accordingly, e-management is the latest in the management school, based on the use of the Internet and business networks in the completion of the managerial functions (planning, organizing, directing, and controlling) electronically. This article will try to analyze the relationship between the variables under study.

Keywords: managerial functions, electronic methods, business administration

INTRODUCTION
General Framework
Research Problem
"Electronic Management" and "Managerial functions" taking interest in the various administrative levels in institutions and countries, because of their importance in the development of those institutions. Hence the problem of this research is as follows:

What are the contributions of e-management in developing the managerial functions?

The contents of this problem can be identifying by asking the following questions:

a. Is there a clear vision for e-management?
b. How e-management contributes in the development of planning, organizing, directing, and controlling?

The Importance of Research
This research has a great importance for the following reasons:

a. This research dealt with the employment of information and communication technology for development of managerial functions.
b. This research adds new knowledge contributes to the progress and development of managerial functions in institutions.
c. This research contributes to the achievement of the goals of the institution by reference to how to develop and activate the managerial functions.

Research Objectives

This research seeks to achieve the following objectives:

a. Highlight the importance of managerial functions and increase its effectiveness through the use of information technology.

b. Shed light on the reality of e-management in the institution under study.

c. Identify the degree of implementation of e-management at the college under study and their contribution to the development of managerial functions.

d. Provide some appropriate recommendations in this area.

Research Hypotheses

The main hypothesis of this research is:

"There is a statistically significant relationship between the E-Management and development of managerial functions."

RESEARCH METHODOLOGY

The methodology of this study consists of a group of steps, as follows:

Data Collection

The theoretical side has been relying on the descriptive analytical method for the collection of secondary data sources and scientific references, but the practical side has been relying on the questionnaire to collect the raw data directly from respondents in preparation for analysis using the Statistical Package.

Study Population and Study Sample

Study population Consists of the administrative staff at the Jadara University totaling 142 workers, and random sampling adopted as a method in the selection of the study sample, amounting to 50 workers, The questionnaire was distributed to them through field visits to members of the study sample, I redeem them 40 questionnaire, and after tested it, did not rule out any of them because of the conditions to achieve the correct answer.

The questionnaire was divided into two sections; the first section includes electronic management variable which includes three parts: the first one consist of six phrases, The second includes seven phrases, while the third comprises thirteen phrases; whereas a second section is an managerial functions variable which is five, comprises the first five phrases, the second includes six phrases, the third comprises four phrases, while the fourth includes three phrases, while the last dimension includes three phrases.

The total coefficient of sincerity questionnaire (0.965), while the Cronbach alpha reliability coefficient (0.932), which shows the validity and reliability of the questionnaire. This makes us confident to analyze the results and to answer all questions of research and testing hypotheses.

WHAT E-MANAGEMENT

The electronic management is from of the contemporary approaches that seek to convert the institutions to electronic institutions using information technology in the delivery of all its functional and transactions and administrative functions.
The Concept of Electronic Management

Electronic management has many concepts; the most important may be summarized as follows:

It is the administrative process that depends on the possibilities of the Internet and business networks in the planning, direction and control of enterprise resources in order to achieve the goals of the organization (Najem, 2004). Electronic management can be defined as a strategic approach for the management of the future and dynamic organizations by implementing high-performance system based on technology. The electronic management focusing on integration, automation and artificial intelligence through the use of the rapid development of systematic for achieving the vision of the organization as seen by (Yao, Bin Othman, Aballa, & Omar, 2011). Electronic Management is the umbrella for many of the e-business models. Include electronic management tools for information exchange and cooperation between the various parties to the supply chain. The electronic management includes processes that ensure compatibility of the managerial functions and IT departments with each other and be able to provide services and the availability of security, and good performance for the success of e-business (Seresht, Fayyazi, & Asl, 2008).

Based on the foregoing, it is clear that the Electronic Management relies on confusion between information and communication technology to do all the operations of the special administrative institutions in order to improve performance and enhance competitiveness.

The Benefits of Electronic Management

The great attention given by the developed world using information technology and its various components caused by the importance and the significant benefits offered by the latter, so countries started compete in applying electronic management in view of the benefits achieved. The following are the most important benefits of electronic administration.

The electronic systems can be able to express and identify correctly the costs, and they have the ability to track and record sales. We can also make all these advantages in traditional systems according to (Baker, 2009). The main philosophy of the electronic management its view to the administration as a source of services, citizens and companies as clients or customers want to take advantage of these services, so the electronic management have many goals sought to be achieved in the framework of its dealings with the client, including:

1. Simplify procedures and reduce costs and give more quality service.
2. Shorten the implementation time of an administrative transaction.
3. Accuracy and objectivity in the process carried out.
4. Facilitate communication between the various enterprise departments and with other institutions within and outside the country of the institution.
5. Reduce the use of paper is significantly impacting positively on the work of the Foundation.
6. Reduce the use of paper addresses the problem of saving and documentation of transactions.

The Importance of Electronic Management

The electronic management is a quantum leap from the conventional methods in public administration, this means the delivery of government services and information using electronic means. E-government has brought about a revolution in the quality of services
provided and the most important is transparency in the administration i.e. to provide timely delivery of services, simplification of procedures, and reduction of corruption. According to (Monga, 2008) and in the opinion of (Iulian, 2008), the electronic management is not very difficult, but in the coming years the electronic management will become a prerequisite for companies that wish to enter the competition, and it will be something imposed on them by competitors. It is also crucial that companies be aware of their need for electronic management.

THE ELEMENTS OF ELECTRONIC MANAGEMENT

There are many components and elements of the electronic management, from the point of view of (Shilpa, 2010), For example, the technological, social, cultural, political, and psychological components. (Salmi, 2008), Indicates that the implementation of e-governance require several elements. These elements are as follows devices and equipment, Software of various kinds, Communications, information systems and human resources.

From the perspective of the researcher, the electronic elements of management are made up of computer hardware, software and communication networks and knowledge makers.

Computer Hardware

It means computers and its accessories. Due to the development of computer programs and the continuous increase in the number of users of the devices in institutions, it is better for institution to seek behind owning the latest findings of the hardware makers in the world in order to achieve two main advantages:

a. Provide ongoing development costs and maintenance costs.

b. Appropriate computer hardware to developments of program and software information systems.

Software and Networks

Software is a programs used to run the computer system and take advantage of different capabilities. While networks are the links stretching across the fabric communicative for intranet, extranet, and Internet network which represents the value of the institution and electronic management. (Yasein, 2005).

Knowledge Makers

It is the most important element in the electronic management system of digital leaders, Managers and analysts of knowledge resources and intellectual capital in the organization. The makers of knowledge responsible for elements of strategic collaboration management of electronic management on one hand and change the prevailing ways of thinking to reach the culture of knowledge on the other hand.

Based on the foregoing it can be said that electronic management is management exercised its elements (the software, hardware, networking, and makers of knowledge) and functions (electronic planning, electronic organizing, electronic leadership and electronic surveillance) and in accordance with the requirements of keep up, efficient and effective use of information technology.
THE NATURE OF THE MANAGERIAL FUNCTIONS

The managerial function consists of a specific functions and activities, implementation of it leads to ensure functioning well for all the work of the organization. Thus, this in its role will achieve the desired goals of the institution and surviving in the competitive market. On the whole, the talk about managerial functions means to talk about the following functions:

Planning

Business organizations at the present time live in an ever-changing conditions, because the consumer preferences in constant evolution, and the ways and methods of work in constant evolution. Thus, if organization left its affairs going where a greed and in accordance to chance, in such circumstances, inevitably doomed to failure.

Here, it is necessary for the management of any institution to be concerned to study its current position and what institution want to achieve in the near and distant future, and choose the most appropriate ways that can reach the organization to goals. All this can be achieved only through the planning process. If we look at the destination process, we find that the planning process logically precedes the rest of the other administrative functions, Planning includes the clear and precise identification of the objectives should be directed to the organization's efforts and how they can be achieved (Rifai, 1997). Henry Fayol was defined planning as the process of predict what the future will look like with to prepare for this future.

Business organizations at the present time seeking to excellence in performance and searching for best practices that will enable them to adapt to all variables at the global and local levels, and to catch up with modern technological developments in the production and marketing methods and face the internal and external competition, and achieve the objectives of survive and grow.

Organizing

The second important function of the administrative functions, which are inherent in the process of planning and equivalent in importance. Organizing is a function of the path involves identifying the activities to be performed to achieve the objectives, and identify the individuals who will implement these activities, so as to assign a particular activity to the person who adapted his abilities with the requirements of this activity and determine the positions of power and responsibility, methods of supervision and coordination of activities, in addition to building the organizational structure that shows who does what, and who is responsible for what, etc., and the results to be achieved (Hafez & Wahb, 2007).

Direction and Leadership

Directing it is the process of influencing the behavior of individuals to ensure that focus their efforts on desired goal, including understanding of the nature of human behavior, motivation, leadership and communication (al-Tayeb, 2006). Leadership is the core of directing function, and can therefore be defined as the process of influencing individuals towards the achievement of the goals of the institution. The basic point that should be the focus is that enterprises need for strong leadership and a strong administrative system to achieve efficiency and meet all the current challenges, creating future visions, create efficient organizational structure, and overseeing the daily operations (al-Attiyah, 2003).

Control

Control is a key element and an important component of the administrative process carried out by an admin at any administrative level, the importance appears of being a tool that works
to identify and measure the performance of activities that occur in institutions in order to achieve its objectives. Control is a planned operation that aims to develop standards for performance supposed to be placed in advance for the various aspects of activities, and also satisfying with the desired goals. On the whole control can be defined as the process of measuring and correcting the performance of assigned activities of subordinates in order to ensure that the goals of the organization and plans that are designed to reach them have already achieved (Public, 2009).

Decision-Making

The process of decision-making represent one of the main activities of the leaders of administrators, this process includes a choice between alternatives, they are lifeline of any organization, and if this artery stops working life of the enterprise came under threat; decision-making process is the activity that has a status continuity depends primarily on the information available about the circumstances and the surrounding conditions. In addition, the decision-making process is a pervasive process in the following main functions: planning, organizing, directing, and controlling, where we find that every function of these functions cannot be carried out or exercised by individuals without relying on the decision-making process (Rezqallah, 2000).

ELECTRONIC MANAGEMENT'S CONTRIBUTION TO THE DEVELOPMENT OF MANAGERIAL FUNCTIONS

Electronic management is new style of administration left aroused wide on institutions and their areas of work, strategies and functions, and in fact, the effects are not due only to the technological dimension goal of digital technology, but also to the dimension of the administrative goal of the evolution of management concepts that have accumulated for many decades and became engaged to achieve more administrative flexibility in the mandate and administrative empowerment and team-based management. The digital revolution has contributed in making deep changes in the work environment and methods, including (Najem, 2004):

1. The transition from physical activity management to the default management activity.
2. The transition from direct management of face-to-face to remote management.
3. The transition from hierarchical organization based on a series of commands to the organization's network.
4. The transition from leadership based on tasks or driving workers to mix-based technology - customer.
5. The transition from the concept of control compare actual performance with planned to immediate direct control.

These changes have created two clear trends in the assessment of the effects of these variables on management functions (Baker, 2009):

1. See that the Internet and the digital revolution that could lead to the end of the institutions and the redistribution of management tasks, and therefore the digital revolution has transformed strategies into crumbs, and thus blown traditional management systems and littered principles and entered a new era requires a search for a new style which is a digital management.
II. See that management is management in the same force that confirms the investors that business is business, and therefore, the administration and their functions, although affected by deep and reconsider its dimensions and its past, remains the heart of institutions, although planning, organizing and directing business and control has become is more efficient and effective as a result of reliance on the electronic administration. The following part will be to clarify these different functions in its new form.

Electronic Management Contribution to the Development of Planning Process

As a result of tremendous developments in the areas of information technology and global competitiveness, planning has become more effective and able to keep up with the various developments and changes, where it has become in this way known as "electronic planning" which means determining what is intended done instantly and in the future, depending on the flow of information from inside and outside the institution and cooperation joint between the top and bottom to benefit from the electronic network to meet the requirements of marketing changing and the needs of potential customers and their preferences, according to long-term plans with high flexibility and clear segmentation plans for immediate and short-term (Mafraji, 2007).

Generally, the electronic planning do not differs from the traditional planning in the sense that both are focused on setting goals and determining ways to achieve these goals, but they differ in terms of the mechanisms and practices.

Electronic Management's Contribution to the Development of the Organizing Process

Organization is a complementary function to the planning function where its transformation into reality (Hadid, 2001). As a result of the great changes and developments in the field of the use of information technology organizing process has become more efficient and effective and able to keep up the various developments. In this way organizing it has become known as "electronic organizing." In general can clarify the extent of the contribution of electronic management in the development of the organizing process through the following points (Najem, 2004):

a. Electronic Organizing is flexible organization allows communication and cooperation between different individuals.

b. Wide networking among all employees through internal Intranet network and this is what achieves the links in real time and in every place in the organization. There is no doubt that these links on the intranet will lead to override the existing hierarchical communications in traditional forms of organization.

c. Depending on the business networks and the Internet, it has become possible to achieve new style of institutions working on the production of certain goods as is the case in the Virtual factory or provide services by mediating between other institutions and customers.

d. Convert customers from passive recipients to active participants, through their participation in the design of products that they require and choose properties that they identify via computer whereupon produced institution.

Electronic Management's Contribution to the Development of the Leadership Process

The extent of the contribution of electronic management in the development process of Leadership is clear through the following points (Najem, 2004):
a. Provide a tremendous amount of information per day in each time so as to guide the efforts of workers and their activities.
b. Provide continuous contact between leaders and subordinates through the internal network.
c. Provide continuous communication between leaders, suppliers and other partners via the Extranet.
d. Increased capacity for innovation, fetching services, methods and new products.
e. The ability to increase motivation and completion of tasks.
f. Increase in the desire initiative to solve the problems.
g. Increasing the tasks and the flexibility to adapt to the changing environment.

Electronic Management's Contribution to the Development of the Control Process

Taken on the traditional control it focuses on the past, where the control comes after the planning and implementation. It interested in a comparison between the objectives and criteria specified in terms of the actual performance, from the other hand to determine the time gap between the discoveries of the deviation and corrected. But as a result of the evolution of the great field of information technology control process has become well and efficiently and thus became known as the "electronic control", it allows control of the immediate assistance of the internal network of the institution, thus reducing the time gap between the deviation and corrected, as it is an ongoing process with renewed reveal deviation, through the flow of information and networking between managers and employees, suppliers and consumers, and this is what increases the ability of electronic Control to provide the possibility of follow different processes and functioning of the various decisions and correct errors in all types of institutions (al-Shibli & Nsour, 2009).

There is no doubt that electronic Control achieve effective use of information systems and networks based on the Internet in the full meaning from scrutiny and follow-up of timely manner, comprehensive and this is what will bring it many advantages can be identified as follows (Najem, 2004):

a. Achieve real-time control instead of existing control on the past; they check clicks rather than censorship control reports.
b. They make constant monitoring instead of rotating control with generates a constant flow of information all the time, rather than intermittent conduct in times of periodically spaced.
c. The electronic control motivates relations based on trust and this is what reduces the administrative effort required in control.
d. Help to engage everyone to know what there is in the organization to a large extent in order to achieve control and reduce supplies of surprises and crises in the work of the institution.
e. The electronic control with a time reduced the importance of oversight based on inputs, processes or activities in favor of increasing emphasis on results then it is closer to the control of the results.

Electronic Management's Contribution to the Development of the Decision-Making Process

This is done through the following (Mohammed, 2008):

a. Achieve real-time control instead of existing control on the past; they check clicks rather than censorship control reports.
b. They make constant monitoring instead of rotating control with generates a constant flow of information all the time, rather than intermittent conduct in times of periodically spaced.
c. The electronic control motivates relations based on trust and this is what reduces the administrative effort required in control.
d. Help to engage everyone to know what there is in the organization to a large extent in order to achieve control and reduce supplies of surprises and crises in the work of the institution.
e. The electronic control with a time reduced the importance of oversight based on inputs, processes or activities in favor of increasing emphasis on results then it is closer to the control of the results.
a. Rapid access to accurate data, integration of information, assists management in decision-making through statistical reports.

b. Improving Communication Management, support the ability to specify the various alternatives and evaluate each alternative.

Research Model

**DESCRIPTION AND ANALYSIS OF KEY VARIABLES CORRELATIONS**

This section focuses on the description of the basic variables to research and test the validity of hypotheses set, as follows:

**Description of Key Variables of Research**

This includes a description of the dimensions of the research key variables (electronic management and managerial functions), as follows:

**Description of the Variable of Electronic Management**

The results showed arising from the processing questionnaire as follows:

I. Hardware dimension achieved average of (4.20) with a standard deviation (0.5076), and noted that the value of this average belong to the category (from 4.20 to 5) by Likert scale, which indicates the full consent of the respondents on this dimension, that is, members of the research sample believe that Hardware contribute significantly to the development of managerial functions.

II. Software achieved arithmetical average of (3.89) with a standard deviation (0.50), and noted that the value of this average belong to the category (from 3.40 to 4.19) by Likert scale, and therefore conclude that the degree of approval of the sample on this dimension was "OK", and then we can say that the software as well as contribute to the development of managerial functions.

III. Knowledge makers dimension achieved a good arithmetical average of (3.79) with a standard deviation (0.71), and also noted that the value of this average belong to the category (from 3.40 to 4.19) by Likert scale, and therefore conclude that the degree of approval of the sample on this dimension was "OK, "and then we can say that the knowledge makers contribute well and effectively in the development of managerial functions.

IV. Electronic management dimension as a whole achieved an arithmetical average of (3.90) with a standard deviation (0.45), and also noted that the value of this Belong
to the category average (from 3.40 to 4.19) by Likert scale, and therefore conclude that the degree of approval of the sample on this variable as a whole was "OK", and here we can say that the electronic management contributes significantly to the development of managerial functions.

**Description of Variable of Managerial Functions**

The results showed arising from the processing questionnaire as follows:

I. Planning dimension achieved arithmetical average of (3.99) with a standard deviation (0.64), and noted that the value of this average belong to the category (3.40 to 4.19) by Likert scale, and therefore conclude that the degree of approval of the sample on this dimension was "OK", and therefore conclude that the planning represents the first function of the managerial functions.

II. Organizing dimension achieved arithmetical average of (4.03) with a standard deviation (0.53), and noted that the value of this average belong to category (3.40 to 4.19) by Likert scale, and therefore conclude that the degree of approval of the sample on this dimension was "OK", and then we can say that the organizing is a very important function of the administrative and business functions.

III. Directing dimension achieved arithmetical average of (4.14) with a standard deviation (0.68), and noted that the value of this average belong to the category (from 3.40 to 4.19) by Likert scale, and thus we conclude that the degree of approval of the members of the research sample on this dimension was "OK", this means that the directing is also a very important function of the administrative and business functions.

IV. Control dimension achieved arithmetical average of (3.97) with a standard deviation (0.72), and also noted that the value of this average belong to the category (from 3.40 to 4.19) by Likert scale, and therefore conclude that the degree of approval of the members of the research sample on this dimension was "OK", and then we can say that control is considered as the most important functions of the managerial functions.

V. Decision-making dimension achieved arithmetical average of (3.94) with a standard deviation (0.64), and also noted that the value of this average belong to the category (from 3.40 to 4.19) by Likert scale, and it concluded that the degree of approval of members of the research sample on this dimension was "OK", "and therefore we can say that the decision represents a very important function of functions of the managerial functions, where we find that in every function of previous posts (planning, organizing, directive, control) there is a process of decision-making.

VI. Managerial functions variable as a whole achieved arithmetical average of (4.02) with a standard deviation (0.52), and also noted that the value of this average is great and belong to the category (from 3.40 to 4.19) by Likert scale, and therefore conclude that the degree of approval of the sample on this variable as a whole was "OK."

**ANALYSIS OF CORRELATIONS AND HYPOTHESES TEST**

For this purpose this paper used a Spearman correlation coefficient, the results of processing data questionnaire relating to the two variables at the 5% level of significance and (39)degrees of freedom showed:
Relationship of the Dimensions of the Hardware and the Managerial Functions

This relationship has a very strong correlation coefficient reaching (0.96), which is significantly at the level of (0.05), in addition to that the value of (t) reach to (14.89); this indicates that result of using hardware would contribute to the development of managerial functions and increases effectiveness, through easy access to information and rationing access to it, as well as reducing intensity of the work and reduce costs, besides saving the necessary information to senior management in order to find the right decision. Thus, the result obtained indicate acceptance of the hypothesis, which make sure the presence of a statistically significant relationship between the use of hardware and the development of managerial functions at the level of significance (5%).

Relationship of Software Dimension and the Managerial Functions

This relationship has also a very strong correlation coefficient reaching (0.92) which has significance at the level (0.05), in addition to that the value of (t) reach to (11.22); According to this result the use of software would contribute to the development of managerial functions and increases its effectiveness, and through providing flexible work environment keep pace with all the changes, and to achieve immediate and ongoing oversight to discover deviation and correct it, as well as arrangement the overall resources in a way to make their activities contribute to the achievement of objectives, in addition to providing effective mechanisms for decision-making. Thus, the result obtained indicate acceptance of the hypothesis that make sure the presence of a statistically significant relationship between the use of software development and managerial functions at the level of significance (5%).

The Relationship of the Knowledge Makers Dimension and the Managerial Functions

We also note that this relationship has a very strong correlation coefficient reaching (0.94), in addition to that the value of (t) reach to (6.98); this result indicates that rely on makers of knowledge that would contribute to the development of managerial functions, and through their contribution to serious and effective in the process of planning and setting targets and forecasting, organize and coordinate the human and material resources in a way serving the achievement of those goals, and the transfer of the wishes of the administration from regular language to one of the programming languages that computer can handle. Thus, the result obtained indicate acceptance of the hypothesis that make sure the presence of a statistically significant relationship between the makers of knowledge and the development of managerial functions at the level of significance (5%).

SUMMARY

In the light of the description and analysis of research variables, it can be concluded the following:

1. The electronic management represents a new approach based on the ICT where this approach is characterized by modern advantages, and characteristics that distinguish it from other approaches.

2. Electronic management is available on a range of elements (hardware, software, networking, knowledge-makers) that help Institution in the performance of its business and various administrative functions.

3. The use of electronic management leads to overcome many of the problems that were hindering the process of work, such as the time factor, security Information, barriers of space and time, and others.
4. The application of electronic management in any organization requires the availability of a set of requirements.

5. The application of electronic management increases the effectiveness and efficiency of the performance of employees largely through serious contribution in raising worker productivity, saving time and effort of employees, and reducing costs ... etc.

6. Adoption of hardware and software can access the information in a timely and easily accessible with rationing, and this confirms the validity of the first hypothesis.
REFERENCES


