

Stages of A Sound Transition from Traditional Management to Electronic Management

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Abstract:

The transition from traditional administrative work to the application of information and communication technologies in organizational structure and the use of modern technology, including computer networks, to link organizational units together to facilitate access to data and information to make appropriate decisions, accomplish work, and provide services to beneficiaries efficiently, at the lowest cost, and in the fastest possible time, is the transformation of management from ordinary management to electronic management. The transition to electronic management is not just a technical transformation, but rather a comprehensive process that requires commitment and effective management to ensure success and sustainability.

Keywords: *Electronic management, electronic management infrastructure, information technology, communication networks.*

Introduction:

As a result of the growing progress and in light of the increasing development in the use of modern technologies and the tremendous expansion in the applications of information and communication technology and the remarkable growth of service institutions of all types and forms and with their various services and diverse activities, and the multiplicity of their places of work and those dealing with them whether within the geographical borders of one country or outside it, the role of using technology in managing service institutions has become more effective and influential on the service institution as a whole or those dealing with it, as well as one of the determinants of planning and periodic follow-up and continuous development of performance and continuous raising of competitive capacity. Accordingly, what is called e-management emerged, which is one of the fruits

of technical achievements in the modern era, as developments in the field of communications and the innovation of advanced communication technologies led to serious thinking by service institutions about benefiting from the achievements of the technical revolution, using computers and Internet networks to accomplish work and provide services to customers in an electronic manner, which contributes effectively to solving many administrative problems, whether within the internal environment of the institution or in its external environment, which stand in the way of the development of current administrative systems, in addition to what electronic management is characterized by in terms of speed in completing work and saving time, effort and cost. Talking about electronic management prompts us to raise the following problem: What are the stages of a sound transition from traditional management to electronic management?

To answer this problem, we will discuss the most important basic concepts of electronic management, its benefits, objectives, requirements for its application, stages of its transition from traditional management to technological management, and finally the obstacles to its application.

1. The concept of e-management:

E-management has many concepts, the most important of which can be summarized as follows:

- E-management according to Najm Aboud Najm (2004) is "the administrative process based on the distinct capabilities of the Internet and business networks in planning, directing and controlling the resources and essential capabilities of the institution and others without limits in order to achieve the goals of the institution."

- As for Ahmed Mohamed Ghaim (2004), he defines e-management as "performing operations between a group of partners through the use of advanced information technology in order to increase the efficiency and effectiveness of performance."

- It is dispensing with paper transactions and replacing the electronic office through the widespread use of information technology and converting public services into office procedures and then processing them according to sequential steps implemented in advance. In light of the aforementioned concepts, it becomes clear that electronic administration depends mainly on the use of a mixture of information and communication technology in carrying out all administrative operations of an institution, with the aim of improving its performance and enhancing its competitive position.

2. Benefits of electronic administration:

The great interest that the developed world pays to the use of information technology with its various components is due to the importance and great benefits that the latter provides, and therefore countries began to compete in implementing electronic administration due to the benefits it achieves.

The following are the most important benefits of electronic administration:

- ♣ Simplifying procedures within institutions, which is positively reflected in the level of services provided to citizens, including shortening the time required to complete various administrative transactions.

- ♣ Facilitating communication between the various departments of the institution as well as with other institutions.

- ♣ Accuracy and objectivity in completing various operations within the institution.

- ♣ Speed in completing work using information and communication technologies,

- ♣ Help in decision-making by constantly providing information to decision-makers,

- ♣ Reducing administrative work costs while raising the level of performance,

- ♣ Overcoming the problem of geographical and temporal dimensions,

- ♣ Addressing bureaucracy and bribery,

- ♣ Developing the work mechanism and keeping pace with developments,

- ♣ Planning for future projects,

- ♣ Overcoming daily work problems quickly,

- ♣ Raising the efficiency of employees in the administration.

3.Objectives of e-management:

The main philosophy of e-management is its view of management as a source of services, and citizens and companies as customers or clients who wish to benefit from these services, so e-management has many objectives that it seeks to achieve within the framework of its dealings with the customer and can be summarized in the following points:

- ♣ Providing services to beneficiaries in a satisfactory manner 24 hours a day, 7 days a week,

- ♣ Maintaining the security and confidentiality of information and reducing the risk of its loss,

- ♣ Creating a society capable of dealing with the changes of the technological era,

- ♣ Preserving the rights of employees in terms of developing the spirit of creativity and innovation,

- ♣ Deepening the concept of transparency and avoiding favoritism,

- ♣ Accommodating a larger number of customers at one time, as the ability of traditional management to complete customer transactions remains limited and often forces them to wait in long lines,

- ♣ Abolishing the paper national archive system and replacing it with an electronic archiving system with its flexibility in dealing with documents and the ability to quickly correct errors and publish documents to more than one party in the shortest possible time and benefit from them at any time,

- ♣ Eliminating bureaucracy in its rigid concept and facilitating the division of labor and specialization in it,

- ♣ Improving services: reducing mobility, delivery at any time and in any place, and easy access to information,
- ♣ Improving economic competition: using the Internet for global trade, and providing an opportunity for medium and small companies To enter the competition,
- ♣ Eliminate the effect of the time factor, the idea of summer and winter no longer exists and the idea of taking vacations or leaves to complete some administrative transactions has been reduced to the maximum possible extent,
- ♣ Reduce paperwork, and reuse solutions,
- ♣ Reduce expenses: Integrate systems to support internal and external procedures.

4. Requirements for implementing e-administration:

E-administration represents a comprehensive transformation in the concepts, theories, methods, procedures, structures and legislation on which traditional administration is based. It is not a ready-made recipe or imported expertise that can only be transferred and applied, but rather a complex process and an integrated system of technical, informational, financial, legislative, environmental, human and other components. Therefore, many integrated requirements must be available to implement e-administration and bring it into practical reality.

The shift towards implementing e-administration requires many requirements, the most important of which are:

4.1 Administrative requirements:

The administrative requirements that must be taken into account when implementing e-administration are limited to the following elements:

A- Developing founding strategies and plans:

This requires forming a department or body to plan, follow up, implement and develop plans for the e-administration project and seeking the assistance of consulting and research bodies to study and develop general specifications and standards for e-administration, and integration and compatibility between information related to more than one body.

B- Providing the infrastructure for electronic management:

It is necessary to work on developing various communication networks, in line with the transformation environment that requires a wide

network, and accommodates the huge amount of communications, without neglecting other technical equipment, devices and computers and trying to provide and make it available to individuals and institutions.

C- Leadership and administrative support:

One of the most important factors influencing any project is leadership, which is the main key to the success or failure of any of them, as the support of management and its ability to create a suitable environment for work plays a major role in the success or failure of any work, and the commitment of leadership is considered necessary to support every point of the institution's strategies, as well as the leadership's follow-up of the project and providing feedback will ensure the success and development of the project, and the conviction, interest and support of senior management to apply information technology in all institutions is considered one of the critical factors and helps in achieving the success of the application of electronic management.

D- Developing administrative organization, services and government transactions according to a gradual transformation:

The traditional hierarchical model of the institution that kept pace with the industrial era is no longer suitable for the new business models in the era of information technology and e-business, as we find that the organizational structures suitable for e-business are matrices, networks and living cell organizations arranged in the fabric of communications. The application of e-management requires making changes in the structural and organizational aspects, procedures and methods, so that they are consistent with the principles of e-management by creating new departments or canceling or merging some departments with each other, and re-establishing internal procedures and operations to ensure the provision of appropriate conditions for the application of management

A- Electronic faster, more efficient and effective, taking into account that this transformation takes place within a gradual time frame of developmental stages.

B- Requirement of specialized competencies and skills:

Electronic management requires radical changes in the quality of human resources appropriate for it. This means reviewing current education and training systems to keep pace with the requirements of the new transformation, including preparing

educational and training plans, programs and methods at all levels, in addition to raising awareness among members of society about the culture and nature of electronic management and preparing psychological, behavioral, technical and material readiness and other requirements to adapt to the requirements of electronic management.

C- Establishing and updating legislative frameworks in accordance with developments:

Establishing the necessary legal legislation to implement electronic management before implementation by defining the legal framework that recognizes electronic transformation and during implementation, i.e. completing the necessary legal deficiencies and gaps, which may appear at any stage of the transformation, and after implementation by establishing legal rules that guarantee the security of electronic transactions and determining punitive measures for the category of those involved in electronic management crimes.

- In this context, we find that countries that have adopted e-administration applications have not issued general legislation obligating government departments and institutions to perform all their administrative transactions with citizens remotely, using electronic means in addition to traditional means, as the content of modern legislation in many Western countries may range between approving the principle, i.e. declaring the citizen's right to obtain administrative transactions and public services using information means

- with the exception of what the law explicitly requires the person concerned to attend the administrative centers in person to complete it, and obligating public administrations to provide some electronic services in areas or sectors such as the field of publishing laws, administrative decisions and administrative information, and the field of developing administrative transaction forms via the Internet, in addition to the fields of financial and necessary declarations, so that commercial companies and some categories of merchants are obligated to submit those declarations electronically according to conditions specified by contractual instruments.

D- Administrative reform requirement:

In order to achieve a successful transformation in the application of electronic administration, the principle of administrative reform must be applied, which includes functional specialization in operating electronic programs, experts to secure information, protect programs, transactions, and documents, i.e. an attempt to make radical and

fundamental changes in administrative and technical concepts, the need for conscious and enthusiastic leaders with administrative capacity and rationalization, developing relations between different administrative organizations and searching for solutions capable of improving the achievement of functional service, in addition to the need to extend the rules of evidence regarding electronic actions and the need for new legislation related to electronic signatures and their protection, such as the legislation for adopting electronic signatures in 1998 in the United States of America.

4.2. Human Requirements:

The human element is considered one of the most important resources that can be invested to achieve success in any organization, regardless of its type, and it has great importance in the application of e-management as it is the origin of e-management, as it is the one who discovered it, then developed it and harnessed it to achieve its goals that it aspires to, therefore e-management is from and to the human element. They are the experts and specialists working in the field of knowledge, who represent the human structure and intellectual capital in the institution.

E-management programs are new programs for the employee, and require experiences and skills that are not available in administrative bodies, and the transition to the e-management system changes the structure of work within the administrative body, as the role of computer and Internet professionals appears and increases, and the role of the traditional employee declines, and new jobs appear that may not have been known before within some bodies, and therefore the human development component and the efficiency of the human element play a decisive role in the success of the program, and this confirms that the application of e-management requires radical changes in the quality of human elements suitable for it, and this means the need to reconsider education and training systems to keep pace with the requirements of the new transformation, including plans, programs, methods and educational and training resources at all administrative levels.

4.3. Technical requirements:

This axis forms the cornerstone of the topic of e-administration, and is represented in providing the infrastructure for e-administration, which includes developing and improving the communications network so that it is integrated and ready for use and accommodates the huge amount of communications at the same time, in order to

achieve the goal of using the Internet, in addition to providing appropriate digital technology from equipment, computers, devices, equipment, systems, databases and programs, and providing digital mail services, and providing all of this for individual or institutional use on the widest possible scale.

The technical infrastructure for e-administration is divided into:

A. The hard infrastructure for e-business: It is represented by all land and cellular connections remotely, computers, networks and physical information technology necessary for practicing e-business and exchanging data electronically.

B. The soft infrastructure for e-business: It includes a set of services, information, expertise, software for operating systems for networks and software for applications through which e-business functions are accomplished.

C. Communication networks: We summarize the most important of them in the following: - The Internet (World Wide Web):

It is a giant network of interconnected computers around the world that connects societies with all their sectors and various activities. It enables its users to access various information through these computers.

- Intranet:

It is a private communication network that uses the available resources of the Internet to distribute information within the organization, and only special groups can access it.

- Extranet:

It is an extension of the internal network that allows external groups that are related to the nature of the organization's activity (such as suppliers, customers, and other parties) to view the information displayed by the intranet.

4.4 Security requirements:

Despite all the privileges and services that the information age currently offers, there are major challenges that mostly focus on the confidentiality of information, whether this is related to preserving and storing information electronically or maintaining its confidentiality between institutions or ensuring the existence of the required information and making it available to everyone equally. Information confidentiality includes various axes, including confidentiality, integration, providing information, knowing the date of any

person's access to the information and information security.

To achieve information security and reduce the negative effects on the use of the Internet, e-administration requires taking some measures, including:

- Establishing security policies for information technologies, including the Internet service,
- Adopting a national strategy for information security that ensures the cooperation of public and private sector agencies,
- Establishing laws and regulations that limit electronic theft and violations of information privacy in e-administration.

There are several other requirements to protect the security of information systems, which are:

- The senior management of the institution must support the security of its information systems, and this responsibility must be assigned to specific persons,
- Determining the mechanisms for monitoring and inspection of information systems and computer networks,
- Determining the necessary protection for operating systems and various applications,
- Encrypting information that is saved, stored and transferred on various media, - Keeping backup copies of information systems securely.

5. Stages of a sound transition from traditional administration to e-administration:

The best way to achieve a sound implementation of the e-administration strategy with optimal use of time, money and effort is to divide the plan to reach the final stage of e-administration into three stages, of course, provided that this is done after carrying out a comprehensive and complete administrative reform of the traditional administrative system. These are:

A- The effective traditional management stage: through which traditional management is activated, and an attempt is made to develop and improve it, in parallel with the process of starting to implement the e-management project, as the citizen can thus complete his transactions and procedures easily and without any routine or procrastination, at a time when every individual who owns a personal computer, or via

Kiosks, viewing bulletins of institutions, departments and ministries and the latest data and advertisements via the electronic network, with the possibility of printing or extracting the necessary

forms, and filling them out to complete any transaction.

B- The effective fax and telephone stage: As for this stage, it may be considered the intermediate stage, through which telephone and fax technology is activated, where the customer or citizen can rely on the telephone available in all places and homes, which provides services at a reasonable cost, as it enables individuals to inquire about the procedures, papers and conditions necessary to complete any transaction easily, and people at this stage can use the fax to send and receive papers, forms and others, and at this stage most individuals, or customers and public service seekers have gained experience with regard to the electronic management style. Gaining initial experience in dealing through electronic management technologies leads major traders, administrators and customers at this stage to be able to complete their transactions via the electronic network, given that the number of Internet users at this stage is average, and it is natural that knowledge at this stage is greater than the telephone and fax.

C- The stage of effective electronic administration:

It is the last stage through which the traditional form of administration is abandoned, after the number of users of the electronic network becomes approximately 30% of citizens, and this must be accompanied by the availability of computers, whether personally, through kiosks, or in public areas, so that their cost is also reasonable and easy for all citizens, which allows and enables all individuals to use the electronic network to complete any administrative transaction, in the required manner and in the fastest time and with the least effort, and the lowest possible cost, and with the most effective quantity and quality (quality), and thus public opinion has understood electronic administration, accepted it and interacted with it, and learned the methods of using it.

- The observer of the stages of transformation to electronic administration presented by the proponents of this trend, as indicated by (Mohamed Samir Ahmed, 2009: p. 87), finds that it focused on a transition plan that helps the community integrate gradually, so that there is voluntary acceptance of the electronic administration strategy, which leads to reducing the intensity of resistance to organizational change, which often results when there is a project related to a radical and sudden transformation in administrative methods.

- The aforementioned point of view has paid attention to the necessary equipment and electronic devices, and this is logical, based on the fact that the transition to e-administration requires providing the infrastructure that supports e-business. However, this cannot open up a wide scope for the success of e-administration initiatives, because the latter basically requires the presence of cultural awareness and an appropriate scientific level that is in line with the e-work environment.

The stages of the transition to e-administration must be accompanied by the elimination of electronic illiteracy, by building an information society and forming electronic communication links. In contrast, some studies tend to determine the stages of the transition to e-administration by classifying electronic services and placing them in electronic form on the Internet. Accordingly, the process of transition to e-administration can be summarized according to what these studies see as the following:

1. Services on the Internet in a correct manner according to the type of service, including:

- Personal, commercial, educational and health services,

2. Electronic services according to age stages, including:

- Birth certificate request services, medical examination, school enrollment, recruitment services, electoral services, employment services, selection and employment,

3. Electronic services according to the type Beneficiaries of the service include:

The proponents of this trend always focus on the need to provide some necessary mechanisms, which must accompany all stages of the transition towards e-administration services, which are embodied in the following:

- We must start with the most urgent sectors and eliminate the gap between theory and practice, and possess qualified human cadres,

- The security of transactions and dealings must be maintained,

- Sufficient funding must be provided by searching for a permanent source of fees to cover operating expenses,

- Employing skilled elements and spreading the culture of training, and spreading simplified and advanced electronic culture,

- Raising awareness among citizens and government departments about the benefits and returns of e-administration.

6. Obstacles to the implementation of e-management:

The implementation of e-management faces many challenges that differ from one model to another, depending on the type of environment in which each administration operates. In general, some of the challenges that almost obstruct most e-management programs can be summarized, including:

6. 1. Administrative obstacles:

Some studies tend to identify and attempt to limit the administrative obstacles in the implementation of e-management and attribute them to the following reasons:

- Weak planning and coordination at the level of senior management for e-management programs,
- Failure to make the organizational changes required to introduce e-management, from adding or merging some departments, or divisions, and defining the authorities and relationships between departments, and the flow of work between them,
- The absence of a clear strategic vision regarding the use of information and communication technology, in a way that serves the transformation towards the electronic organizations of the future,
- Administrative and organizational levels and their reliance on traditional methods, and attempts to adhere to the principles of traditional management,
- Resistance to change in organizations by employees who stand against the application of modern technologies for fear of their positions and their career future

6. 2. Political and legal obstacles: These obstacles include the following:

- The absence of effective and supportive political will to achieve a qualitative shift in the transition towards electronic administrations, and to provide the necessary political support to convince administrative bodies of the necessity of applying modern technology and keeping pace with the digital age,
- The absence of bodies at high levels in government agencies that exchange political consultations and review the reports of committees tasked with evaluating electronic transformation programs, to make the necessary decisions to raise and upgrade the electronic readiness index,
- The absence of a protected electronic work environment according to legal frameworks that determine the conditions for electronic dealings, such as the absence of legal legislation that prohibits hacking and sabotaging electronic

administration programs, and determines deterrent penalties for their perpetrators,

- In addition to the problems that arise in light of the transition towards the form of electronic signature and evidence in electronic correspondence, and the difficulty of knowing the dealers via networks, in light of the absence of legal legislation that leads to verifying the identity of the customer, and everything related to the element of privacy and confidentiality in electronic dealings.

6. 3. Financial and technical obstacles: These are centered on

- The high costs of equipping the infrastructure for e-administration, which limits the progress of transformation projects,
- The lack of financial resources to provide training programs and to use highly efficient information technology expertise,
- The weakness of financial resources allocated to e-administration projects, and the problem of technical maintenance of e-administration programs,
- The difficulty of equal access to Internet services, as a result of the high costs of use for individuals,
- Technical obstacles related to information technology at many levels.

6. 4. Human obstacles:

These can be identified as follows:

- Electronic illiteracy among many peoples of developing countries, and the difficulty of communicating via modern technology,
- The absence of training courses and recycling of administrative employees, in light of the transition to electronic administration,
- Poverty and low individual income, led to the difficulty of communicating via electronic administration networks,
- The increase in social differences between the classes of society and its division (classes that have computers and equipment and others that do not), which led to an increase in the severity of dispersion, and the weakness of electronic administration projects,
- The problems of unemployment that may result from the application of electronic administration and the replacement of machines by humans, the latter who refuses and resists the electronic transformation for fear of losing their privileges and position,
- The small number of employees familiar with the basic skills of using computers and the Internet.

6. 5. Security threats:

These are as follows:

- Fear of technology and lack of conviction in electronic transactions, for fear of what they can lead to in terms of infringement and threat to the elements of security and privacy in government services. The loss of a sense of security towards many electronic transactions, such as electronic transfers and financial transactions via credit cards, represents one of the security obstacles facing the application of electronic administration, as one of the manifestations of information security is the preservation of information and not deleting or destroying it. It is worth noting that achieving information security is based on three basic elements:

- ♣ The physical element: by providing physical protection for information systems,
- ♣ The technical element: by using modern technologies to support and protect information security,
- ♣ The human element: by working to develop the skills and raise the capabilities and expertise of workers in this field.

7. Conclusion:

The introduction of information technology, computers and communications is a real revolution in the world of management, which means transforming traditional administrative businesses and services into electronic businesses and services, which work to protect the administrative entity and improve its performance, to achieve the optimal use of services with high speed and extreme accuracy. Thus, electronic management contributes to the processes of facilitating administrative procedures and facilitating the decision-making process and enabling departments to plan efficiently and effectively to benefit from work requirements, and provide quality electronic services according to high technical and technological standards that keep pace with the times. The proper transition from traditional management to electronic management represents a fundamental transformation that can lead to improving the efficiency of administrative processes, increasing transparency and providing better services to beneficiaries. To achieve this transition successfully, well-studied stages must be followed that include careful planning, training and continuous development, and investment in technical infrastructure. The transformation begins with a clear understanding of the organization's needs and determining the desired goals of

electronic management. After that, an implementation plan is developed that includes updating current systems and developing new systems, in addition to training employees to use these systems effectively. Cultural change within the organization plays a crucial role in the success of the transition, as the culture of innovation and continuous development must be promoted among employees and encouraged to adopt modern technologies. In addition, continuous support must be provided to employees and mechanisms must be in place to provide technical assistance when needed. Finally, measuring performance and evaluating results are essential steps to ensure that the desired goals are achieved. This stage should include an analysis of the benefits achieved and the challenges faced in the transition process, with the aim of improving operations and adjusting future strategies. The transition to e-government is not just a digital transformation, but a comprehensive process that requires commitment and effective management to achieve sustainable success.

References:

1. Medhat Mohamed Abu Al-Nasr, Digital Transformation and E-Management: Reality and Hope, Arab Journal of Informatics and Information Security, Vol. 04, No. 11, April 2023
2. Najm Aboud Najm, E-Management (Strategy, Functions and Problems), Dar Al-Marikh, Kingdom of Saudi Arabia, 2004.
3. Ahmed Mohamed Ghanem, E-Management (Present Prospects and Future Aspirations), Modern Library, 2003/2004.
4. Al-Abdullah Mai, Communication Theories, 2nd ed., Dar Al-Nahda Al-Arabiya, Beirut, 2010.
5. Saad Ghaleb Yassin, Administrative Information Systems, 1st ed., Dar Al-Yazouri Scientific, Amman, Jordan, 2009
6. Alaa Abdul Razzaq Al-Salmi, Khaled Ibrahim Al-Sulaiti, E-Management, 1st ed., Dar Wael for Publishing and Distribution, Amman, Jordan
7. Ihab Khamis Ahmed Al-Mir, Human Resources Development Requirements for Implementing E-Management (An Applied Study on Workers in the General Traffic Department at the Ministry of Interior in the Kingdom of Bahrain), Master's Thesis in Administrative Sciences (unpublished), Naif Arab University for Security Sciences, College

- of Graduate Studies, Department of Administrative Sciences, Kingdom of Saudi Arabia, 2007.
8. Mohammed Jamal Akram Ammar, The Extent of the Possibility of Applying Electronic Management in the UNRWA Regional Office in Gaza and Its Role in Improving Employee Performance, Master's Thesis in Business Administration (unpublished), Islamic University, College of Commerce, Department of Business Administration, Gaza, Palestine, 2009.
 9. Abdul Nasser Musa, Mohammed Qureshi, The Impact of Information Technology on the Administrative System in Business Organizations, Journal of Humanities, Issue 21, University of Biskra, Algeria, March 2011, p. 41.
 10. Issam Mohammed Al-Buhaisi, Modern Information Technology and its Impact on Administrative Decisions in Business Organizations
 11. A Survey Study of the Palestinian Reality, Islamic University Journal (Humanities Studies Series), Vol. 14, No. 01, Islamic University, Gaza, Palestine, January 2006, p. 161.
 12. Al-Khalidi Mohammed Mahmoud, Electronic Technology, Kunuz Al-Ma'rifa House for Publishing and Distribution, Amman, Jordan, 2007, p. 20.
 13. Mohammed Samir Ahmed, Electronic Administration, Dar Al-Masirah for Printing, Publishing and Distribution, Amman, Jordan, 2009.
 14. Al-Rifai Sahar Qaddouri, Electronic Government and Ways to Apply It, North African Economics Journal, Issue 07-20