E-University Environment Based on E-management

Ghazi.I. Raho [1,] Muzhir Shaban Al-Ani[2], Khattab M. Ali Al-Heeti[3,]

[1] Amman Arab University -Jordan
[2] Anbar University-Iraq
[3] Essex University-UK

ABSTRACT:

The management of resources and processes using communication networks may call e-management. This work presented an e-management approach at the university environment. This approach including, the control off all flow of data (incoming and out coming) in addition of data protection in which data are separated in different sits. A check list questionnaire is implemented for data collection from different levels of staff at the computer sciences faculty of the indicated University. The obtained results indicated that (50.75 %) of the tested sample are accepted the new environment of management and the other percentage (49.25 %) is not satisfy with this environment for many reasons such as lack in the use of computer, lack of familiarity with the internet, the culture of the community is limited on the use of e-management and there is lack of potential in providing the infrastructure require for the project of e-management.

KEYWORDS: *E-management-university-administration, E-learning and E-government.*

I. INTRODUCTION

Management involves identifying the mission, objective, procedures, rules and the manipulation of the human capital of an enterprise to contribute to the success of the enterprise. E-System is one of the mutations the science and technology. The electronic administration and management concentrated on the branches of the E-systems, in additional to this development is the availability of computers and provides Internet are integrated these factors to help the prosperity of the E-administration and E-management-Administration is '*the effective management of the coordination and control of business processes and the electronic information they create*'. This definition has two main objectives: first increase the efficiency of administrative processes within institutions and second lessen the administrative burden faced by all staff during this process. Ambitions to develop and implement electronic administration have a positive effect on the reality of the administration of the conventional speed, accuracy and maintain databases of damage, fire, theft or tampering. E-administration is used computers and the Internet, Uses the Internet to support communication between the administration and citizens in general and students in the university in particular. Will be discussed in our reflection on this electronic administration at the university, as well as how to maintain the confidentiality of information stored and protected from the unauthorized access through the application of a new mechanism to maintain the integrity of the information or the application of a mechanism exists and is applied in other database. Will be the work of a questionnaire to various segments of the layers of the university to identify extent of their emphasis to the application of administration, at the same time to identify their culture about their awareness of the concept of the new electronic administration, the possibility of their application within what is available from the staff or infrastructure required for the success of the new administration and disposal of the old constraints [1,2].

II. E- MANAGEMENT

Nowadays electronic management or online management introduced in real applications in the developed countries, but in addition developing countries and those countries in the transition period to the market economy begin to apply this concept [3].

Consists of two words a sentence management and electronics, management deals with the art of fulfilling the tasks of the manpower working in the organization (university) to reach the desired goals to the student and staff, and the main operational functions are planning, organization, control, and decision-making. Also known as the organization of tasks within the limits of available resources, monitoring and directing staff to complete in order to achieve the goals set to the university.

Electronics is the branch of science, engineering and technology that deals with electronic circuits involving active electronic components such as vacuum tubes, all types of transistors, all types of diodes and circuits. Furthermore is simply the transition from completion of the transactions and delivery of public services from the traditional method of manual to electronic format for optimal use of time and money and effort. In other words, and "Electronic administration" is the completion of administrative transactions and delivery of public services via the intranet without requiring the student to move to the university to complete their transactions with the associated waste of time and effort and energies. E-management is based on the concept of a new and sophisticated than the modern concept of "contact and do not travel or come" and conveyed a step forward so that the "enter on the site and do not fall in site of the university [4].

According to the definition of e-management, the conceptual model is shown in figure (1). Conceptual model of E-management is included of three phases: input phase, transforming phase and output phase. In each phase, the electronic technology, communication technology, information technology and network technology are required to implement it. In the input phase, electronic technology is introduced and it is the original part of the whole model. The transforming phase involves electronic source, electronic speed and electronic service. The last phase is the output phase which refers to the electronic organization; here, it is equal to the electronic enterprise. The electronic management using technology is used to improve and facilitate the governing process besides maintaining electronic records for the best performance and results of the work flow integration of information [5,6].
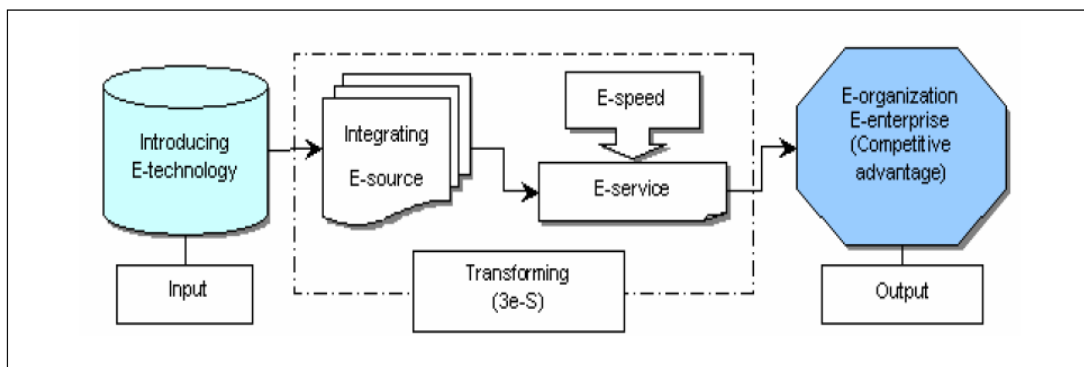

Figure (1) E-management conceptual model

III. DIMENSIONS OF ELECTRONIC MANAGEMENT

There are many dimensions related to e-management as shown in figure (2) and mentioned below [7]:

- Management Paperless; as it depends on the electronic archive and e-mail, manuals and notebooks and electronic voice messaging systems and applications, follow-up mechanism.
- Remote management; as they rely on electronic communication, and other modern means of communication.
- Real-time management; where she works 24 hours straight.
- Event Management rigid regulations; as they work through institutions based on the knowledge industry.
- Management anytime, anywhere; lastly it can be added that you can manage and monitor your organization anytime, anywhere.
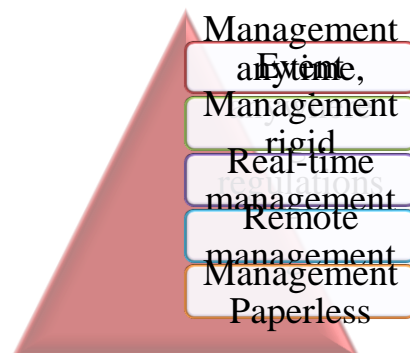

Figure (2) E-management dimensions

IV.   RELATED WORKS
Recent noticeable studies in personal identification based on the E- management, below some at these researches:

Matei et al. developed concept soft public sector reform, and explored it within the boundaries of electronic administration practices. International competition and internal raising expectations have push governments across the world to reordering their relationships with the surrounding environments. In this case, they mostly switched to a newer paradigm, based not on affirmation and mechanical theories, but on the concept of a living, biological system [8].

Hossein Rahman et al. applied their approach using two approaches: descriptive method and survey method. This paper demonstrated that among 25 factors, classified in 6 main factors: managerial, cultural-social, humanistic, technical-technological organizational structural and environmental factors. The main factors that are preventing the implementation of E-management in Iran are cultural, environmental and organizational factors [9].

Francisco J. López Carmona concerned that electronic administration is a main component of the citizen service strategies within public administrations. The City Council of Madrid proposed a multichannel approach that employs the elements of electronic administration, drawing together the various services and ensuring coherence in the services provided whilst attempting in order to guarantee the highest levels of accessibility to all people irrespective of their background [10].

Antonio Muñoz- Cañavate et al .proposed the basic lines of electronic administration applied in Spain. They discovered that complexity of the Spanish political-administrative system makes such a study challenging, in view of the considerable degree of autonomy and competence soft regional administrative bodies and local agencies with respect to the central government. The former result being more visible in the17 regions of Spain. A series of legal instruments are maintained by the central government that allows a certain common framework of action to be imposed. The diverse programs aimed directly to develop common main tools for the regions and municipalities in Spain. This study described the legislative framework in which Spain's electronic administrative system has developed [11].

AmelAttour-Oueslati et al. contributed to the knowledge on the various issues raised by local electronic administration and proposed an analytical framework for the evaluation of the potential local online service offerings. Examination of how local public administration has developed in France is based on evidence from a dedicated survey of a sample of French communes. The analysis will enable us to identify the relative effort and performance in the development of local electronic administration based on the particular socio-economic characteristics of the communes [12].

V.   OBJECTIVES OF E-MANAGEMENT
There are many great benefits and applications of electronic management at the university environment:
- Build a state of art management environment.
- Integrates digital teaching, researching, and living.
- Expedite the information flow.
- Find a strategic move to an e-campus.
- Find a simplified method of working.

In additional- management has many benefits, including:
- To   simplify   procedures   and reduce   the cost   and give more quality   of service. Shorten the time of the completion of management transactions.
- Accuracy and objectivity in the operations performed.
- Facilitate communication between the student and with the university inside and outside the country.
- Reduce use of paper, which is significantly positive impact on the university's work.
- Continuous monitoring and tracking inside and outside the organization.

VI.   E-MANAGEMENT PROPOSED MODEL
E-management governance is one of the important concepts in the present era and the structure of transition to e-management includes many stages as shown in figure (3). At these stages, after the lifting of data via the official website of the University, will store the data in two different positions, one will be available to the users (teachers &students), but the other part of the data will be hidden In which the system after different

periods depending on the system design compare the data and discover of difference between the original data available at the university and the data on the site of the university.

The mean difference is obtained after verifying the identity of the visitor to the electronic management system, where each person requesting his information. It is important to make sure of the identity of the user or person according to the mechanism applied at the system. For example, every person should know that there is a question randomly asked then he/she must have the ability to answer. On the other hand the program will be closed and it will not be allowed to enter again until you obtain a license from the director of system.The bottom of the figure shows that the model used in data protection and identity of the applicant to make sure the information or documents.
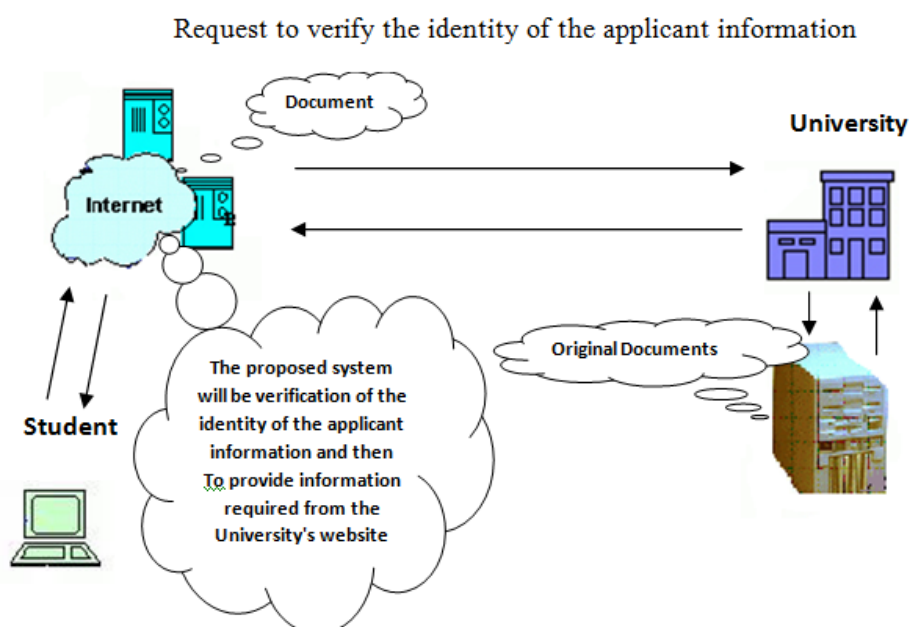

Figure (3) the structure of proposed e-management model

VII. RESULTS AND ANALYSIS

All know that there are many restrictions in applying electronic environment in Arab countries comparing that with the developed countries. Electronic management in the university is an important issue in education, training and development. A proposed model is implemented to protect the privacy of data and documents and to facilitate all flow of data in the environment. Then we have conducted questionnaire check list to a different layers in order to evaluate the response.

The questionnaire involves a simple description of our proposal, motivation, and the expected consequences. Then, we have selected four groups of management staff. The questionnaire also includes some guidance questions and it is separated into three levels as shown in figure (4) and denoted bellow:

Level one (general computer usage): This level of questions are concentrated of the usage of computer and computer programs.

Level two (Internet usage): This level of questions is concentrated of the usage of Internet and e-mail.

Level three (management concepts): This level of questions is concentrated of the traditional management and e-management concepts.
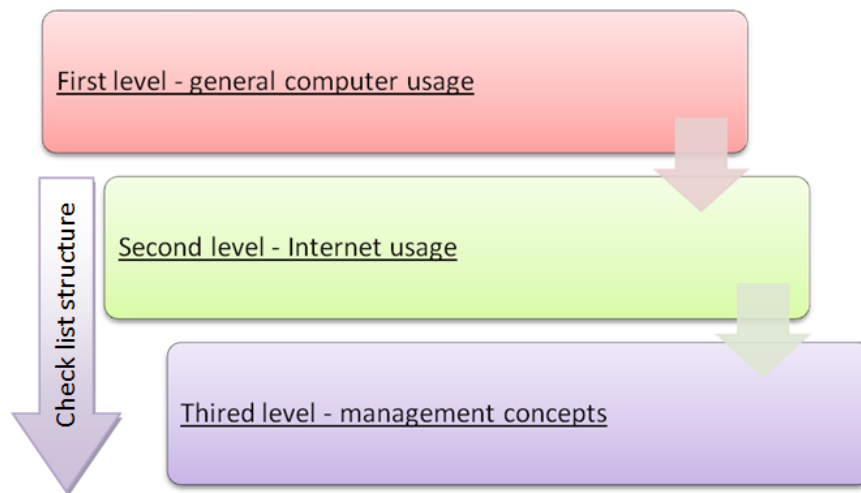
Figure (4) check list structure

The data are collected from 20 members of the group related to the management sectors. These members are selected to be the test sample of our project. Two out of 20 check lists are not true so the total accepted check lists are 18 members. The results examined the tested sample in conclusion of their agreement of our proposal or not.

The most important results of this questionnaire are shown in Table (1). From this table, we can notice that the ratio of support from the management specialized in the field of electronic management is (50.75 %). This can be used as an indicator for the acceptability of the proposal to move the wheel of electronic management forward in our university and society. It is clear that our society is very complex to accept e-environment and the obtained results are acceptable.

Table (1) the Questionnaire Results

Administrative Officer	Director	Head of Department	Dean
% Accept	%Accept	% Accept	% Accept
39 %	63 %	48 %	53 %

The results obtained from the questionnaire check list indicated that the traditional management environment is receipt e-management at the present time for many reasons. we can mention that part in which were discovered during the survey: ignorance of the work of many management during the introduction of computers, weaknesses in the usage of the Internet, the lack of the infrastructure for the establishment of electronic management, many unaware of the subject department electronic and much more by the listener, the other part of the work cannot programs through the management computer and the Internet.

VIII.   CONCLUSION

The Internet is one of the most important discoveries that allows fast communication between organizations and make the world as a small village. The electronic management is the most important applications of information technology .Therefore this project should support the electronic management although there are many obstacles that find the application of electronic management, but this could justify staying on the traditional management. Implementing the e-Management brings changes within the universities, predominantly within their culture.
Interested in network management is essential in providing services via the World Wide Web (Internet) as the key in the exchange of information and communication, and provide solutions, consults and document in the best of the management mechanisms. The obtained result indicates a good initial step for the application of electronic management. An important issue is to understand the concepts of e-environment including e-management and also it is important to concentrate on the benefits and feasibility of the great that will be get via the application of this environment. The obtained results indicated that 50.75 % of the tested sample is accepted e-environment of management which is an acceptable ratio.

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AUTHORS

[1]**Ghazi Ibrahem Raho,** Associated professor at Computer Information System& Information Technology at Amman Arab University – Amman – Jordan .Doctoral Fellowship (1988) Research & Computer –University of Marseilles - France. Ph.D. (1981), in Computer Information System& Information Technology, College of Planning Cybernetics - ASE – Romania. M.Sc. (1979), in Computer Information System& System Analysis College Of Planning & Cybernetics – Romania. Postgraduate Diploma (1980), in Information &Applied mathematics UNESCO, Bucharest. B .Sc.(1976) Statistics Almustanseriy university Baghdad –Iraq.

Muzhir Shaban Al-Ani received B.Sc. Degree in Electronics and Communication Engineering from the University of Sulaimaniya (Iraq) 1979, Higher Diploma Degree in Communications and Electronics Engineering from the University of Baghdad (Iraq) 1981, M.Sc. Degree in Communications and Electronics Engineering from the University of Baghdad (Iraq) 1983, B.Sc. Degree in Telecommunications Engineering from the Ministry of Higher Education (Spain) 1992 and Ph.D. in Information Technology Engineering from the University of Valladolid (Spain) 1994.

Mr. Al-Ani worked as Associate Dean of the Al-Anbar Institute (Iraq) 1985-1986, Head of the Department at the Anbar Institute (Iraq) 1986-1988, Head of Software Engineering at the Al- Mustansiriya University (Iraq) 1997-2001, Faculty Member of the College of Engineering at the Al-Mustansiriya University (Iraq) 1997-2001, Dean of the Faculty of Computers and Information Systems at the University of Technology (Iraq) 2001-2003, Chairman of the Faculty of Computers and Information Systems at the University of Technology (Iraq) 2001-2003. Member of the University Council of University of Technology (Iraq) 2001-2003, Member of the Faculty Council of Computer in Amman Arab University (Jordan) 2007-2009, Member of the University Council of Amman Arab University (Jordan) 2008-2009 and Computer Science Faculty member of Al-Anbar University 2009-present.

Khattab M. Ali was born in Anbar-Iraq at 1978. He received his B.Sc. from Al_M'ammon college university at 2000, Baghdad, Iraq. He received MSc. degree from CS Department in Al-Bayt University, Jordan 2008. He joined in 5 January 2005 Computer Sciences Department, Almaref College University, Al-Anbar, Iraq. Since 2009 till now he joined as Assistant Instructor at the college of computer, Information System Department, Al-Anbar University, Iraq.