A Proposed Transformation Model for Integration Between E-justice Applications and E-commerce Services

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---ABSTRACT---
The electronic services become an important integral part of the Information Systems which supported by the term e-government. Many traditional business systems are now shifting to electronic systems and that in the midst of tremendous information, which is stored inside these systems. There are many researches in business information systems and their importance and advantages. Transforming business information systems to gain profit especially in government services is more difficult. This paper discusses the factors effects on the transformation of business information system represented in the State Council of Egypt information systems as a case study to an electronic inquiries system.

Keywords - **BIS, electronic inquiries system, e-government**, e-justice.

1. INTRODUCTION

There are many different researches interested in business information systems structure (software, hardware, people, etc…), usage and advantages. BIS is a group of interrelated that work correctively to carry out input, process, output, storage and control actions in order to convert data into information products that can be used to support forecasting , planning , control ,coordination, decision making and operational activities in an organization.

The concept of BIS is used in different area financial, human resource, enterprise resource planning and etc… The Egyptian State Council as one of judicial organizations, which separates the disputes that arise between the people and government agencies applying the concept of BIS through using and developing the information systems in the field of administrative or judicial proceedings.

This paper is going to discuss releasing and enhancement of electronic inquires services of judicial proceedings. In addition to how to take advantage of the huge information traded in the state council to gain maximum profit with using e-commerce services.

This paper provides new framework concentrating on the factors that effects on the relation between the information system in one hand and how to take advantage from the produced information on the other hand. In addition, it provides an overview of the literature on business information systems and its relation with judicial information systems (section 2). Besides, it discusses the Egyptian State Council as case study (section 3). Synthesis model for transformation process from e-justice applications to e-commerce services (section 4).The paper ends with a conceptual framework for establishing electronic information services (section 5), followed by section summary of (section 6).

2. BUSINESS INFORMATION SYSTEMS AND THEIR RELATIONS WITH JUDICIAL INFORMATION SYSTEMS

The global availability of the Internet for the exchange of transactions between service maker and receiver has fueled the growth of electronic service. By replacing manual and paper-based procedures with electronic alternatives and by using information flows in new and dynamic ways, electronic service can enhancement in accelerate Litigation, delivery, and payment for goods and services while reducing companies' operating and inventory costs.

Different studies concentrated on web information systems as a research point [1], [2], [3], [4] and [5]. These researches focused on the rules based adaptation of web information systems and constructing a web information system development methodology.

This research concentrating on the exploratory of a frame work that establish for construct a principle of the steps establishing electronic information service. Besides, it draws attention of using different aspect of communication and information technology for achieving the objectives of this research.

Although the State Council is the only judicial own dismissal in certain disputes within Egypt, but this gives us an incentive to further improve the quality of service queries to the owners of suits.

The motivation for this research comes from analyzing the enterprise information system of the case study on the hand. More than 130,000 lawsuits in circulation are per

year recorded and queried through the systems of council state. Also, Contribute to the establishment of the principle of prompt justice through the use of information technology with the motivation for enhancing the web inquiry services.

Precise figures for e-commerce in Egypt are elusive, but according to an online survey conducted by Arab advisors Group, 2.36 million Egyptians used e-commerce in Egypt [12]. Recent research findings concluded that 22.4% of Egyptian Internet users buy online, and pays their bills over Internet [13]; research results revealed that the most purchased product category over the Internet is electronics followed by Software applications and then the payment of bills via Internet [9].

Furthermore, The Egyptian government decided to establish the law of electronic signature and activate it between its companies, institutes and the enterprises. In October 1997, the Internet Society of Egypt: E-commerce Committee (ISE/E2C) was established to catalyze and build awareness of e-commerce in Egypt. The government wanted to raise its efficiency in order to accelerate the Egyptian economic growth [15].

A study in Egypt found main contributory factors to non-adoption include: awareness and education, market size, e-commerce infrastructure, telecommunications infrastructure, financial infrastructure, the legal system, the government's role, pricing structures, and social and psychological factors. However in most developing countries there are several barriers in expanding e-commerce including basic resources, lack of infrastructure, environmental factors, education and cultural problems [10].

2.1 The Egyptian Council State' problems

Judicial organizations today, need to customize their services according to their customers' individual needs based on accurate analysis, understanding of available data and changeable business requirements. The Council State under the case study research faced problems mostly related to our research issue. These problems might be restated as following:

1- Council state has no effective communication channels with the owner suites and lawyers through the World Wide Web.
2- The business process of the suite is more difficult for the simple Owners of lawsuits that can track by them selves as a different actions processed in the suites monthly or daily.

Accordingly, there is need to a new framework that has a better inclusive insight into the relationship between a enterprise information systems on the hand and between its outcomes as inquiry services; and enhancing the means of communications and relationships between the Council State and the Owners of lawsuits and lawyers.

2.2 The expected contribution to Owners of lawsuits and lawyers:

According to the increasing concern with the up to date technology in our lives which evolves from the desire for escorting the revolution; impacts directly on concerning with science, applications and their reflections on different trends especially inquires services trends. However, this research will be useful to the following stakeholders:

1- The owners of lawsuits will have an easy method for simple enquiry through using web applications sites or mobile communications
2- The lawyers will have a report for all his Suits traded in the council state.

3. THE EGYPTIAN STATE COUNCIL CASE STUDY

The Egyptian Council State is a unique governmental body in a country or subdivision thereof, though its nature may range from the formal name for the cabinet to a non-executive advisory body surrounding a head of state. It consists of over 15 different branches. The Headquarters of it consist of different departments between Judicial and management departments. As the increasing growth in the use of information technology in light of the use of the term e-government (The term e-government or electronic-government refers to the use of technology and the Internet to enable government and other public sector departments to communicate with each other and the public to deliver services and information.) there is a need for enhancing the electronic services. In addition, there is need for discovering the factors that affecting the improvement of inquiry information services.

Governments have also been able to make use of the new technologies associated with e-business and this has produced a change in the way that government departments operate. The Internet can be used to deliver information and services to the public, employees and business with whom the government departments operate.

The term e-business or electronic-business simply means using digital technology and the Internet to execute business processes. The adjective "electronic", used within the specific contexts of "E-Business" or "E-Commerce", signifies an "anytime access" to business processes. The access to computer networks is in this case stationary. The services are therefore not completely independent of the current geographic location of the user [6].

4. SYNTHESIS MODEL FOR TRANSFORMATION PROCESS FROM E-JUSTICE APPLICATIONS TO E-COMMERCE SERVICES

The last sections discussed the different overviews of concepts and issues about e-commerce and e-services besides the state council of Egypt problem as a case study.

The proposed model will concentrate on three factors (technology factors, human factors and legal factors) that effect on the transformation process for the integration between judicial information systems and e-services as an aspect of e-commerce.

The next sub sections will discuss in details technology, human and legal factors that effect directly in the integration transformation process in more details.

4.1 The technology factors:

Technology factors are the essential ones that effects directly in the transformation or integration processes through information systems. It is not acceptable now to

establish systems that facilitate the work flow process without facilitating the services produced from these systems.

Different research studies concentrated on the technology factors in adoption process such as the current level of technology usage within the organization related to the characteristics of the organization, also affect adoption of e-commerce [8]. Also, the technology factors that affect the adoption process of new technology mentioned in [15]. We focus in the technology infrastructure not only that used in judicial information systems but also the technology infrastructure that makes use of e- services more easiness and available.

The technology factors can be divide into three important elements are software, hardware and communication networking.

The software element includes all the applications used through analyzing, developing, testing and producing the software itself. As there is various different departments through the state council there are different applications used in each part such filling system, court management system and archiving systems.

The hardware element concerns with the machines that used directly in the workflow of data receive, stored and processing. Many PCs are used through different area such front office of receiving law suites in addition to the ones in back office for reducing load on the front office besides other uses.

The communication networking element is using for transferring data through different applications and pcs to the last destinations of its servers with using high security methods, techniques, protocols and standards for securing data.

This sub section concerned in the relationship that interacts between judicial information systems and e-services and how does it effects on this process. As we mentioned before that Its not acceptable now to have an operation systems that stored different valuable data with out having method for delivering the information to the end users.

The neglect in one component of the technology components sponsor affects sabotage in the completion of the transformation process properly, which does not preserve the availability and reliability.

Generally speaking the diffusion and comprehensive utilization of e-commerce is related to the growth of Internet and ICT technologies. Accordingly, the growth of the Internet depends on three factors: The first is the state of development and spread of the telecommunications infrastructure over which the Internet operates; generally, in countries with well developed telecommunications infrastructures, the Internet tends to be growing quickly; the second factor is the skill level of the population. Thirdly, but perhaps most importantly, is the demand for applications, such as electronic commerce, that run over the Internet. Such demand can only be met if there is a legal and commercial environment facilitating the development of those applications. It is apparent that e-commerce in Egypt does not yet enjoy the same conditions

as the west in terms of consumer protection, privacy and security [11].

4.2 The legal factors:

The legal factors affect directly in the systems that being used through the case study. Different obstacles of the Egyptian legal are facing technology development and enhancements as a kind of human technology resistance. Example there is no payable fees without legal. The last example is a canonical base that used in all Egyptian courts that faces any presented electronic services. The security of the sensitive information that is current in circulation is an issue that must keep in mind for trustable services. Different interested research area in the field of legal factors and its affect on adopting technology is not folding yet.

The problem regarding tailoring a law for e-commerce is that many of the crucial issues affecting the economy in general and e-commerce in specific do not have a foundation in the Egyptian legal system.

Nations have two alternatives to deal with the legal and institutional requirements of e-commerce either to have a comprehensive law that regulates all issues related to e-commerce, an option adopted by a large number of nations such as India, Malaysia, Canada and Germany, or opt for passing specific legislation as e-commerce develops, an option chosen by the United States. Egypt, adopts the first option having developed a comprehensive law that deals with e-commerce, while designing a special law for electronic signature.
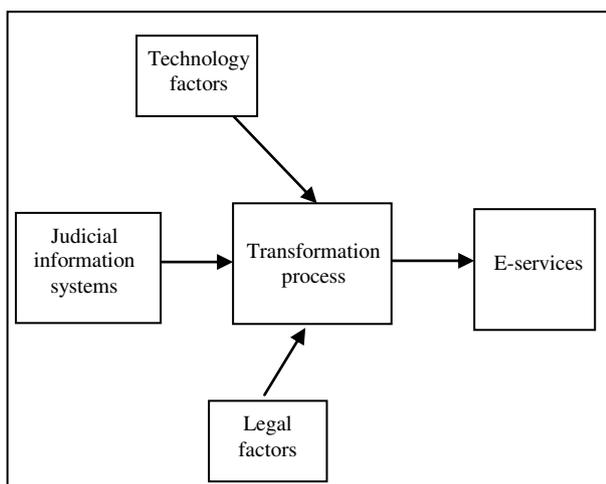
Privacy is an area of e-commerce that requires creative legislative considerations. The panel law in Egypt is very severe on privacy violations. For example a firm cannot monitor employee emails under the current law unless there is permission. In the banking sector, information cannot be given out even between banks without the consent of the customer [7]. Thus the e-commerce legislation addressing privacy must be carefully drafted to take into account Egyptian principles, yet recognizing how those principles may conflict with two issues: national security concerns and e-commerce legislation laws in other countries.

5. CONCEPTUAL FRAMEWORK DESIGN FOR THE PROPOSED TRANSFORMATION MODEL

Based on the previous discussions in sections 1, 2&3 and that derived from the development of the research synthesis model for different factors that were presented in the preceding section, the ultimate conceptual model is given in Fig.1. The present research adopts the following model for exploring the factors that affects the transformation process between e-justice applications and e-commerce services. The model concentrated on the factors that affects directly in the transformation process especially technology and legal factors. It is quite suitable for a case study. This model will guide us through our exploration for enhancing the e-commerce services through the Egyptian electronic courts.

Our model will focus, in details, on the factors those effects on the transformation process between judicial

information systems and e-services. The conceptual framework for transformation process as shown in Fig.1, shows that the technology, human and legal factors have a direct causality relation on the transformation process. Moreover, it concentrates on the preliminary phases before launching the actual online e-services. Due to the highly exploratory nature of this study, all isolated conceptual variables/factors only represent the initial ideas about the discussion of transformation process phase and the affecting factors to deal with in the future.

Figure1: proposed transformation model

6. CONCLUSION

This Paper described terms and findings from significant earlier research, thereby forming a conceptual context and foundation for the exploratory observational study that is central to this research. It discussed in Theoretical exploratory view releasing and enhancement of electronic inquires services of judicial proceedings. In addition to how to take advantage of the huge information traded in the state council to gain maximum profit with using e-commerce services.

This paper provided new framework concentrating on the factors that effects on the relation between the information system in one hand and how to take advantage from the produced information on the other hand. In addition, it provided an overview of the literature on judicial information systems and its relation with e-commerce services. Besides, it discussed the implementation of the Egyptian State Council and its problem as case study. Important factors were mentioned like the need to provide not only online but also more offline services and the importance of adapting communication and the processes behind them to the type of interaction used.

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