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The Arab City in Light of the Digital Revolution in the Administrative and Tourism Sector

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Abstract:

The digital revolution of information and communication has changed many of the administrative, physical and marketing concepts in the world. Administrative services that provide public services to citizens, most of these devices have a direct connection through computer networks. Various countries of the Third World, including Arab countries, have recognized the importance of information systems, and many of them have, to varying degrees, entered this field in order to participate in scientific, economic and urban utilization. Most government administrative bodies in Arab cities are currently facing urgent pressure to face the challenges of this technological change, as the impact of modern information systems in all fields of development is evident. It is no longer possible to think of development in any physical, social or economic field without paying attention to issues related to information systems and Economic resources.

The research aims to study the impact of the use and application of information systems on government administrative bodies and tourism sector in the Arab city, as well as to monitor the current situation of these devices by highlighting the most important problems faced, and the most important obstacles that prevent the use of information systems optimally.

To achieve the objectives of the research, which has been summarized in five main parts, where the first part discusses information systems as a gateway to good management development. The second part deals with the manifestations of the application of information systems in government administrative bodies, while the third part monitors the expected impact of the application of information systems in tourism sector.

Part four presents the most important problems faced by government administrative bodies in the application of information systems. The fifth part of the research sheds light on the most important obstacles that hinder the optimal use of information systems technology in Arab cities. The research concludes with a summary of the most important points raised.

Keywords: Knowledge, information, administrative bodies, E-Government, smart tourism.



المستخلص:

لقد غيرت الثورة الرقمية للمعلومات والاتصالات العديد من المفاهيم الإدارية والمادية والتسويقية في العالم. الخدمات الإدارية التي تقدم خدمات عامة للمواطنين. معظم هذه الأجهزة لها اتصال مباشر عبر شبكات الكمبيوتر. لقد أدركت العديد من دول العالم الثالث ، بما في ذلك الدول العربية ، أهمية نظم المعلومات ، ودخل الكثير منها ، بدرجات متفاوتة ، هذا المجال من أجل المشاركة في الاستخدام العلمي والاقتصادي والعمراني.

تواجه معظم الهيئات الإدارية الحكومية في المدن العربية حالياً ضغوطاً ملحة لمواجهة تحديات هذا التغيير التكنولوجي ، حيث يظهر تأثير نظم المعلومات الحديثة في كافة مجالات التنمية. لم يعد من الممكن التفكير في التنمية في أي مجال مادي أو اجتماعي أو اقتصادي دون الاهتمام بالقضايا المتعلقة بنظم المعلومات والموارد.

يهدف البحث إلى دراسة تأثير استخدام وتطبيق نظم المعلومات على الهيئات الإدارية الحكومية في المدينة العربية ، وكذلك رصد الوضع الحالي لهذه الأجهزة من خلال إبراز أهم المشكلات التي تواجهها ، وأهم المعوقات التي تحول دون ذلك. استخدام نظم المعلومات على النحو الأمثل.

لتحقيق أهداف البحث التي تم تلخيصها في خمسة أجزاء رئيسية ، حيث يناقش الجزء الأول نظم المعلومات كبوابة لتطوير الإدارة الجيدة. أما الجزء الثاني فيتناول مظاهر تطبيق نظم المعلومات في الأجهزة الإدارية الحكومية ، بينما يرصد الجزء الثالث الأثر المتوقع لتطبيق نظم المعلومات في القطاع السياحي للمدن العربية

يعرض الجزء الرابع أهم المشكلات التي تواجه الأجهزة الإدارية الحكومية في تطبيق نظم المعلومات. يسلط الجزء الخامس من البحث الضوء على أهم المعوقات التي تحول دون الاستخدام الأمثل لتكنولوجيا نظم المعلومات في الأجهزة الإدارية الحكومية في المدن العربية. ويختتم البحث بملخص لأهم النقاط التي أثرت.

الكلمات المفتاحية: المعرفة، المعلومات، الهيئات الإدارية، الحكومة الإلكترونية، السياحة الذكية.



Introduction:

Perhaps the most important problems of the Arab countries is the problem of administration in general and government administration in particular rather than the problem of poverty or lack of resources and so on. Natural and human resources are rich and multifaceted, but management is the main problem with all its causes and constituents. This, of course, is reflected in the Arab city, which suffers from many different problems. (Afifi,2003)

The material and human resources were the most important resources needed by the government administrative bodies (companies, institutions and ministries) in their work until the role and importance of information* has emerged. (Qandilji, 2002)

Information has played a serious role in the contemporary government administrative bodies. It is one of a modern management tools, essential for communication, coordination and control. Information sharing is also an important factor for decision-making. Information and its systems have become necessary to carry out the various processes and activities within those administrative bodies. (Burhan,1994)

A few years ago, the world has witnessed a tremendous development in information systems at several levels, which necessitates the introduction and use of them in the governmental administrative bodies in the Arab countries, where one of the basic resources of these devices is a strategic weapon in dealing with the current circumstances characterized by rapid change, and intensification of competition not only at the local level but also at the international level, so that these devices can overcome all the routine obstacles on the one hand and adapt to the nature of the times and electronic products with the other (Haidar,2002), as well as information technology in education and learning, e-learning, distance education, and integrated education and the most important constraints and disadvantages.

1. Information system: Introduction to achieve well management development:

Information systems are automated systems consisting of a set of components that are used to receive data resources and turn them into information products. Figure (1) is a conceptual model of the components of the information system showing the most important resources and activities. Information systems deal with all activities related to information, and make decisions to run the administrative apparatus for the purpose of increasing its efficiency and effectiveness by providing information and strengthening the decisions of officials .(*El-Kurdi and other,2000,p32*)

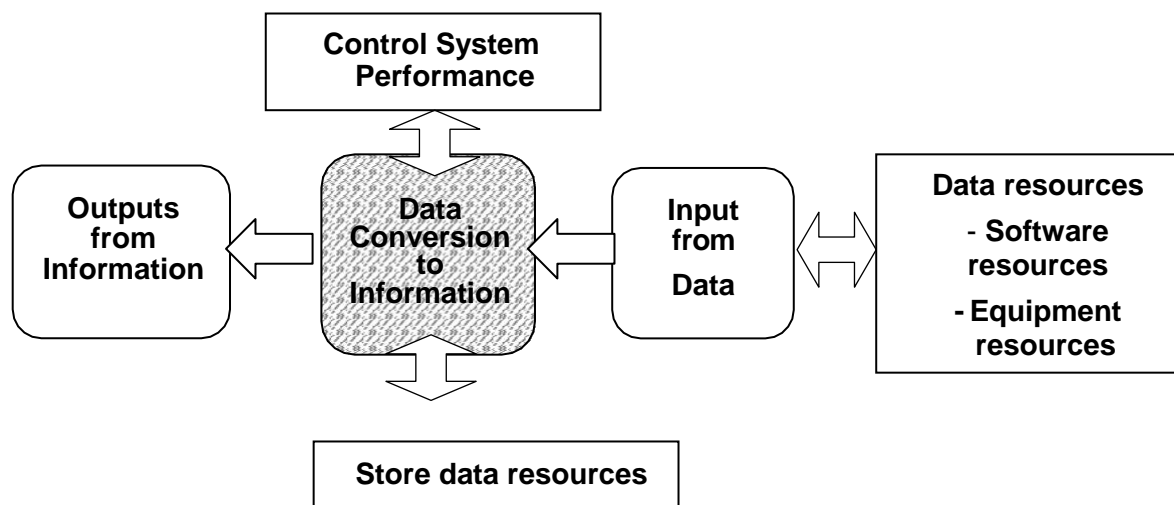


Figure (1) Information system components model / AL.salim,Jaber,Kazem 2020)

Information plays an important role in integrating external variables with the needs, capabilities and abilities of administrative bodies. There are many trends in the administrative bodies highlight the need for an information system, the most important of which is the tendency to increase specialization, division of labor, the emergence of new methods of decision-making, and the trend towards decentralization in management and temporary employment to take advantage of certain skills, to perform specific tasks, the emergence of the phenomenon of globalization and the shift towards a services economy (*Haidar,2002,p25*)

*Information in the research means digital information in the sense that all forms of information (text, graphics, still images, motion pictures, etc.) become digital and transmitted through the network by intermediate electronic devices (Mahmoud,2004).



1.1.Importance of information for administrative bodies:

Government administrative bodies are the main producers of information for public use, and in developing countries they are often the only producers of economic, social and urban information (*Burhan,1994,p85*). Officials in administrative bodies view information as one of three: a resource, an asset, or a commodity.

1.1.1. Information as a Resource:

Information is one of the resources used to achieve the objectives of a project, just like money, raw materials, machinery and other resources that officials are working hard to exploit and coordinate between them to achieve the benefit of the project. For example, providing officials with good information on consumer demand for project products will enable them to schedule production in the best profit possible and minimize inventory levels.

1.1.2.Information as an Asset:

Information can be viewed as an asset owned by management, like buildings, machines and materials that contribute to the production process. This underscores the importance for officials to treat information systems as an investment, which gives the administrative system a comparative advantage in the face of competitors in markets.

1.1.3.Information as a Commodity:

Information can be considered a commodity produced by management, whether for internal use such as monitoring, performance appraisal or decision support, or for sale in markets such as the production of media films (*Gordon, 1999,p76*).



1.2. The importance of information systems for administrative bodies:

Information systems use all types of technology to process, process, and store and transmit information in electronic form, which is known as information technology, which includes computers, communications, networking, fax machines and other equipment. The information system processes the data and presents it to users, possibly an individual or group of individuals who run the output of the information system themselves as a result of the availability of computers.

The outputs of many systems may be routinely used to control the performance of the administrative system itself or to simplify the operation of user commands. Decisions about the technology used in the administrative apparatus are the key to the success of the administrative apparatus. For example, in the United States, 50% of the capital invested in management is related to information.

There are about 63 computers per 100 workers, while some sources estimate that one in three employees use the computer. The percentage of managers who use computers in their work is about 88%. US corporate spending on information technology in 1996 was (\$ 500 million), while the total amount spent in the world was about \$ 1 trillion (*Haidar,2002,p31*).

1.3.Types of information systems used in administrative bodies:

Information systems used within government administrative bodies to assist in the operations of different administrative levels can be divided into four main types:

13.1. Processes Processing Systems:

These are systems for automated processing of basic routine operations to support various operating activities within the administrative system. The most important functions of these systems are data processing and production of reports. Examples of process processing systems include: personnel system, financial system, warehouse system and inventory tracking (*Qandilji,,2002,p45*).

13.2. Management Information Systems:

It consists of a set of regular processes that support the various administrative levels with the information necessary to assist them in the implementation of business and decision-making within the administrative body, and examples of these systems: marketing information system, finance information system, senior management information system (*Ismail,2000,p98*).

13.3. Decision Support Systems

It supports decision-making activities within the administrative system in which the decision-making process is the basis of the administrative process. Administrators in government agencies and bodies face many problems related to planning, setting up plans, analyzing alternatives, and choosing the best solutions to optimize the use of available and other resources (*Haidar,2002,p44*).

This variety of problems results in a diversity in the nature and form of information needed by administrators, which requires the establishment of information systems capable of meeting different information needs at all levels of management, and in various functional areas, especially that making a sound decision has become one of the challenges facing managers today due to fluctuations .The enormous administrative fields under the trend



towards the globalization of administrative bodies and the complexity of the variables they face (*Burhan,1994,p90*)

134. Office Information Systems

Aiming to improve the efficiency of the work of the secretarial and administrative staff through the possibility of modifying or changing the structures of office activities, these systems use modern techniques to facilitate the processes: information processing, storage and retrieval of information, transfer of information.

2. Aspects of Application of Information Systems in Government Administrative Bodies:

Information and communication systems are moving forward rapidly and come with every day new, and we can say that the computer and communication has been playing a major role in society in general and in the development of the performance of government administrative bodies in particular.

Admittedly, it is very difficult to draw a picture of the ultimate technology. However, this technology is still mainly concentrated in the developed world, and therefore the study of the achievements of this technology and its applications, especially in the area of government management of urban activities in the city. The study of future projects and perceptions in these countries contributes significantly to the development of key points of the features of the future society (*Mitchell,2000,p6*)

2.1. The Emergence Of What Is Known As E-Government:

With the development of the concepts of information systems, and the advent of computer and communications technology in the second half of the twentieth century, various types of computer-based information systems have emerged, each seeking to meet specific needs in different areas of management, each working to contribute in one way or another to improve the effectiveness of organizational performance and administrative. This has had a direct impact on government administrative bodies, in terms of upgrading their efficiency and improving the way they function (*Ismail,2000,p106*)

Thus, what is known as the e-government, which adopts modern methods of information technology and systems in order to simplify administrative procedures in obtaining documents, decisions and various urban services for citizens and thus conduct their daily work related to the various government agencies and institutions through the means of information and communication, and aims to help decision-makers in Government agencies to make timely decision (*Al-Freih,2003,p67*).

2.2. Significant Variation In The Application Of Information Systems:

A mediator to cities across the developed world finds great variation from place to place in the extent to which governments are responding to the phase of the information and communication revolution. In places such as Western Europe, America, Malaysia and Japan, we find a clear vision for the next phase and a strong readiness for it, by initiating the governments to develop the necessary infrastructure to serve the next stage, especially the so-called the information superhighway.

Experiments have already begun in the cities of these regions on how emerging concepts and future perceptions affect how urban functions are performed. For example, the Clinton



Administration has considered and adopted digital revolution since the election of 1992 in terms of creating the necessary infrastructure.

In particular, the subject of the information superhighway route is a major priority issue (*Masmoudi,1998,p55*). In Malaysia, the information superhighway route has been in operation since 1997. The Malaysian pilot project awaits several steps of future development, including the development of seven key areas for the implementation of e-government projects, multi- purpose smart cards, smart schools and remote health services (*Al-Thawra Magazine,no.11474,2001*).

On the other hand in the third world countries, we note the extent of the lag behind the progress and lack of technology in all obvious areas. For example, the rate in Africa in the number of telephone lines at the rate of one phone line per 100 people in 1995, while the ratio was 50 phone lines per 100 people in Europe. While in some countries in Asia, the situation is not very different from Africa. In Indonesia, the rate was two telephone lines per 100 people (*Mahmoud,2001*).

2.3. Clear Differences In The Provision Of Information Service:

It is noted that there is a disparity in the provision of information services at the level of one city, where there are within the city enjoy all areas of urban services and other areas deprived of them. These differences exist both in developing and developed countries. As long as there are clear differences between cities and at the level of one city in the availability of modern technology (information and communication), there are also differences in the extent of the impact of this technology on the promotion and development of the city in general.

In addition, the short period of technological change did not allow for large-scale changes ,but changes appeared here and there . For example, companies such as **IBM** were able to close entire office buildings and replaced them with offices scattered throughout the city, partly because of the adoption of this institution experience of working timework (*Qandilji,2002p81*). Some countries, such as Japan and Korea, have developed special technological zones such as Tsukuba Science City near Tokyo, which includes about 50% of scientific research institutions in Japan which is regarded the biggest scientific academy in the world.

In Britain, about a third of local bank branches have been closed since 1985 until now after the adoption of the concept of electronic cash machines (*Mahmoud,2001*) .The next part of the paper examines the expected effects of information systems on government administrative bodies in Arab cities .Then monitor the current situation of these devices by highlighting the most important problems faced by these devices, and then a statement of the most important obstacles that prevent the use of information systems optimally, see Figure (2).

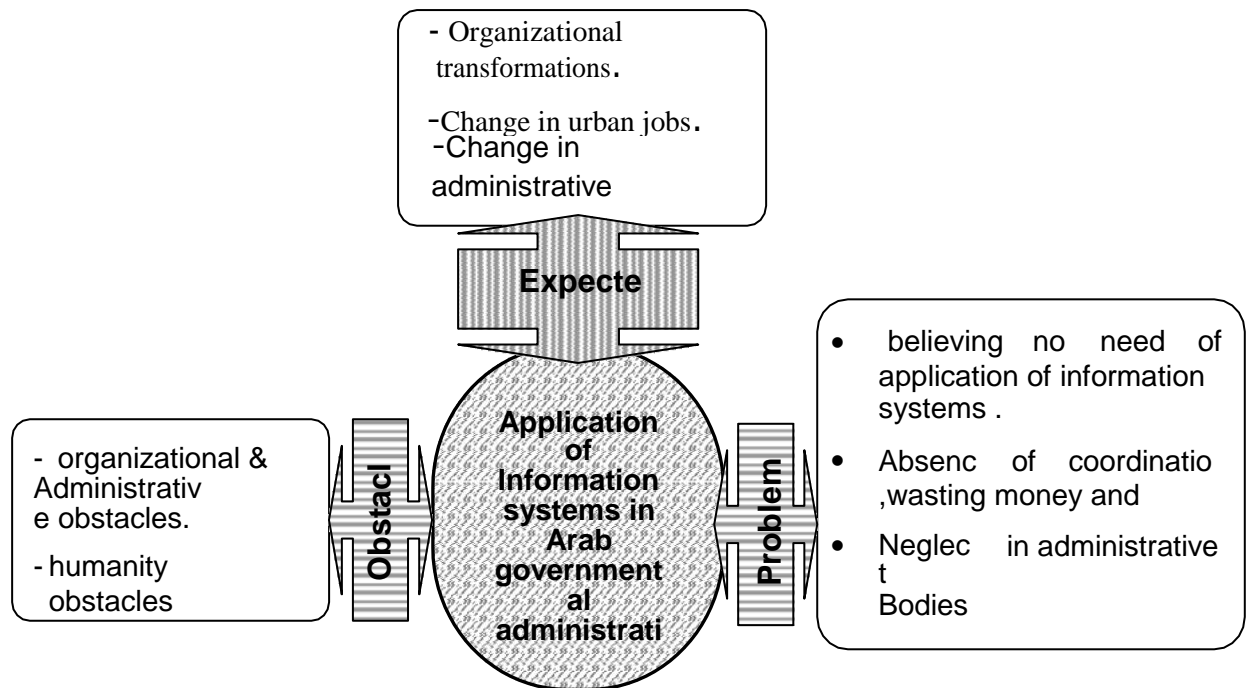


Figure (2), monitoring current state of the government administrative bodies for information systems application / Ai-salim and others ,2020

3. Expected impacts of information systems in tourism sector in Arab cities:

Many people use the Internet through different methods before they travel, and during and after their travel, with the aim of downloading an application that helps them to identify a specific destination, as well as of course to publish photos of the trip through "social media channels"

Observers say that the digital revolution has brought about a paradigm shift in the tourism sector, especially in the way people prepare for their trips, both at home and abroad and in the style and method they spend.

According to the World Tourism Organization, digital technologies are expected to continue to push the travel experience on its path to becoming smoother and better.

The use of many technologies including "Internet of Things, location-based services, artificial intelligence, enrichment and virtual reality, and blockchain technology" offer more attractive, efficient, comprehensive, economic, social and environmental tourism experiences sustainable than it's the previous one, facilitating innovation and rethinking In operations with the aim of facing any challenges.

3.1. Smart Tourism:

The rapidly increasing population of cities in the world has led to these cities facing many impacts and challenges around the world. The infrastructure of these cities faces many pressures, due to the increasing population, which exceeds 50%. By 2050, the urban population is expected to reach 66% of the world's population. Therefore, it has become very important for cities around the world to consider preparing them to face many challenges arising from globalization, urbanization, climate change, social values ... etc in these cities. That is why the concept of smart cities appeared. Over the



past decade, the emergence of new technology has led to the emergence of smart cities that aim to provide stakeholders with solutions based on effective technology and high efficiency. Many countries of the world have started applying (Building) Information and Communication Technology to improve the quality and effectiveness of life and to improve its economy and sustainability. Accordingly, emerged the Smart Tourism.

3.2. What is the smart tourism:

is an important component of smart city.(*H. Jianhua and others, 2014,p991-994*) Tourism is one of the major components of economic growth for communities worldwide. A key requirement of tourism has been to attract more and more tourists from different parts of the world. Smart tourism refers to the application of information and communication technology, such similar to the smart cities, for developing innovative tools and approaches to improve tourism.(*S. P. Mohanty and others,2018,p33-37*) Smart tourism is reliant on core technologies such as ICT, mobile communication, cloud computing, artificial intelligence, and virtual reality. It supports integrated efforts at a destination to find innovative ways to collect and use data derived from physical infrastructure, social connectedness and organizational sources (both government and non-government), and users in combination with advanced technologies to increase efficiency, sustainability, experiences.(*SMART TOURISM TOOLS*) The information and communication technology tools used for smart tourism include IoT, mobile communication, cloud computing, and artificial intelligence. It combines physical, informational, social, and commercial infrastructure of tourism with such tools to provide smart tourism opportunities. The principles of smart tourism lie at enhancing tourism experiences, improve the efficiency of resource management, maximize destination competitiveness with an emphasis on sustainable aspects.(*Chulmo and othes,2015,p41-47*) It should also gather and distribute information to facilitate efficient allocation of tourism resources and integrate tourism supplies at a micro and macro level ensuring that the benefits are well distributed. They are observed to be effective in technologically advanced destinations such as smart cities.(*Chulmo and othes,2016*)

3.3. Smart Tourism Destinations:

Any destination can be a smart tourist destination if it consists of the following;

- Soft smartness; includes collaborations, innovation, and leadership
- Hard smartness; refers to all the technology and infrastructure

However, the availability of any of the above does not make for a smart destination. It depends on the availability of hard smartness which enables improvement of human capital and smart decisions based on the application of technology and infrastructure.(*Chulmo and othes,2016*)

3.4. Smart tourism requires the following attributes:

1. Technology embedded environments
2. Responsive processes at micro and macro levels
3. End-user devices
4. Stakeholders that actively use smart platforms



3.5. Smart Tourism Tools:

Smart tourism tools refer to a combination of mobile hardware, software, and networks to enable interaction between tourists, stakeholders, and physical objects. The communication must be able to provide personalized services and real-time information for making smart decisions. Three specific smart tourism tools are mobile applications, augmented reality, and near-field communications,

3.5. Applications:

Applications must be able to provide information which will help tourists in making informed choices such as making reservations, translation services, direction guidance, audio guidance, etc. (*SMART TOURISM TOOLS: LINKING TECHNOLOGY TO THE TOURISTIC RESOURCES OF A CITY*). It should also allow real-time communication between stakeholders and customers.

1. Examples include Via Hero which allows users to have personalized trips created with the help of local residents. (<https://plus.google.com/+travelandleisure/posts.2018>)

3.6. Challenges of Smart Tourism:

Reliance on smart devices for running applications and power for the functioning of the system.

The existence of a gap between digital and non-digital devices, it does not cater to the needs of those who want to experience tourism outside of the smart city realm. Higher amounts of knowledge and infrastructure.

Enterprises which are already affected by tourism will be further pushed down with the onset of smart tourism. (*Chulmo and othes,2015,P41-46*)

Today, nobody doubts that technology and travel are the perfect combination. This joint force also plays a crucial role in the way we travel: from the vacation destination we choose, all the way to what we do once we're there and even in the time after we've come back from our adventure. It is so prevalent, that according to a Google Travel study, and 74% of travelers plan their trips on the Internet, while only 13% still use travel agencies to prepare them.

4. Problems Faced By Government Administrative Bodies In Arab Cities:

In most Arab cities, government administrative organs currently live under a number of far-reaching developments under the new world order, which required these administrative bodies to be prepared to assume unconventional pivotal tools and responsibilities (*Abdul Salam,2000*). Throughout the twentieth century, there have been changes and developments in ideas and concepts regarding the role and status of the state and its expected contributions to the prosperity and well-being of mankind. This development has been accompanied, in the role of the state, by continuous efforts to develop and raise the efficiency and capabilities of administrative bodies and government institutions (. *Darwish ,1982,p112*).

4.1. Belief That Information Systems Are Not Urgently Needed:

The impression that enters the mind at first glance is that the right environment for the application of information systems is the environment of the private sector, because it seeks profitability in competition markets, and works in an environment characterized by rapid



changes and sudden and difficult to predict, nor is it subject to political and social constraints Government, making him more free to change the directions of his movement and areas of work at any time.

In government bodies, it is different, they operate in an environment where the primary party is the government, which is the most stable and authoritative entity in society, where the consumer (the applicant) seeks it, especially in developing countries. This service is fundamental and well known, and profit is unlikely as a primary goal. Accordingly, there is a belief in many Arab countries that there is no need or need to apply the fundamentals and principles called for by information systems (*Abu Bakr, 2001p90*).

4.2. Lack of Coordination and Waste of Money and Effort:

Most government administrative bodies in Arab cities concerned with the development of information and the application of information systems overlook the importance of coordination. Although, some Arab countries have established huge centers for scientific research, it brought together a number of skilled technicians and specialists, and tried to carry out several achievements in the field of software, inventions and information systems, but these institutions did not coordinate among them, which made them waste their money and efforts due to conflicting projects at the level of Arab countries.

For example, there were several Arab parties working simultaneously on the project of the Arabic Automated Reader OCR, but the workers in these projects did not benefit any of them from the efforts of others, and everyone has been spending effort and money in this area, and then everyone abandoned their projects at once when Sakhr has achieved its pioneering step in this project. This type of scientific research, which does not enjoy any strategic horizon, not only wastes effort and money, but it also wastes the Arab opportunity to achieve real information development (*Yousif, 2003*).

4.3. Neglect in Government Administrative Bodies

The administrative bodies in Arab cities face many modern challenges, especially service agencies such as municipalities that draw the civilization of the city and perform vital functions. The old city with a long history is the city that must provide the services of the twenty-first century, and face a steady increase in population, and the development of the needs of individuals for different services, in addition to facing the industrial challenge on the outskirts and environmental problems.

The reality is that these municipalities do not make the best use of the available information resources by the best means and examples to achieve the results for which they were found. Vital institutions (*Al-Jaafari, 1983, p75*)

4.4. Incomplete Communications and Information Infrastructure:

Despite the efforts of the government administrative apparatus in many Arab cities to keep pace with technological development, the picture is generally unsatisfactory. "There is a thirst and hunger for how to enter the information society in a wide and not a narrow way, because so far our doors are narrow and Internet penetration and usage in the Arab countries is lower than most countries This is due to many reasons, the most important of which is that the communications and information infrastructure is not as good as it should be. There are some exceptions to some of the Gulf countries that have moved forward in this area. For example, in the UAE, distance learning experiments are being conducted to



expand the field of formal and non-formal education for remote populations.

5. Obstacles to the Use of Information Systems in Government Administrative Bodies in Arab Cities:

Although many of the government administrative bodies in Arab cities have been able to acquire advanced devices and systems in the field of information technology, but most of them are still unable to take full advantage of the potential of these devices and systems, and use them as an effective tool in the development of information resources of the community.

Studies and research on the use of this technology in various countries of the third world, including Arab countries, unanimously agree that these countries face a set of constraints and obstacles that impede the effective transfer of this advanced technology and its use in real development (*Burhan,1985*). The most important obstacles related to the use of information systems in government administrative bodies in the Arab cities can be classified into three main obstacles: organizational and administrative, human, and technical.

5.1. Organizational and Administrative Obstacle

The most important constraints associated with the use of information technology in Arab cities are the lack of planning, coordination and control of activities related to the use of this technology, as a result of the lack of a unified technical policy at the state level in this area. Interest in most Arab countries is still limited to the process of formulating a unified technical strategy that helps in unifying the concepts and bases of using this modern technology and the elements of optimal use of its great potential.

The trend continues to be to maximize the potential of this technology, regardless of the extent to which different administrations can benefit from it, resulting in waste and squandering in these public resources.

In a field study conducted by a foreign company on nine Arab countries and included in a report issued by the World Economic Forum, which is held every year in the city of Davos, Switzerland, these countries were classified in light of their relationship to the use and application of information systems within their government administrative bodies into three categories as follows ((*Yousif,2003*)).

- Countries with fast growth: are the United Arab Emirates and Kuwait.
- Emerging countries: Jordan, Lebanon, Egypt and Saudi Arabia.
- Developing countries, namely Syria, Oman and Morocco.

In practice, there is a huge gap between the expected benefits that the information systems are supposed to provide to the administrative organs in the Arab countries and the benefits already obtained. This is due to two main reasons (*Burhan,1994*):

- A.** Information systems were introduced to administrative units without any changes in organizational structures or operational procedures. The use of information systems was primarily intended to automate existing manual procedures.
- B.** Information technology is introduced in each government department, sometimes in



each department independently of other departments and departments, and it is rare to have an interdepartmental policy for the implementation and use of information in administrative bodies.

Thus, the main problem in most Arab countries is the actual absence of national policies. This has been confirmed by many researches in conferences and seminars held in this area, and pointed to the need to accelerate - given the urgent need - the development of a national policy in the field of information systems and the use of computers. Although this idea has been accepted by various governments in many Arab countries, few have begun to actively engage in this area (*Yousif,2003*).

5.2. Human Obstacles:

The human element is the most important element in any system, because without this element cannot achieve any desired goals, equipment, machinery, devices and all means of modern technology are only inert elements without the human element (*Al-Jaafari,1983*). Although the Arab countries have a human capital of about 273 million people, more than half of them are of working age (15-60 years), they do not actively contribute to the development and use of information systems and computers in administrative bodies (*Shio,1983*) 20 due to the following characteristics which most Arab countries are involved in this field are:-

- The high illiteracy rate in the Arab countries, which is about 39% compared to 22.5% globally, according to the Human Development Report 2002 (*Al-Freih,2003*).
- Scarcity of technical cadres specialized in this area, especially for development cadres such as analysts, programmers, maintenance engineers and others, as these cadres are only able to improve the level of use of information technology in a scientific and effective. This phenomenon of scarcity is not limited to Arab countries, but extends to most developing countries.
- The large gap between IT professionals and the beneficiaries of this technology makes communication and understanding between these two groups weak. As a result, systems are designed that do not meet the needs of the beneficiaries in most cases, meaning more time and resources are wasted.

Emphasis must therefore be placed on ensuring appropriate communication to create continuous coordination and cooperation throughout the systems construction phase from the initial study until the completion of the implementation and selection process to ensure access to effective systems that meet actual needs (*Burhan,1985*).

- The use of information systems in government administrative bodies in some Arab countries, especially those with large labor force, faces social problems due to the mechanization caused by the reduction of jobs and the abolition of many jobs, which leads to the resistance of workers to any new technology, and creates many social issues.
- The possibilities of using this technology to threaten the personal freedoms of individuals and other social factors will have a significant impact in resisting the use of this technology. Some studies indicate that networks of companies and



institutions are violated at a rate of 12 to 15 times each year, and the more technological advancement the more difficult it becomes to protect information networks and the higher the cost of such protection, which requires planning to address it and cultural and social preparation to accept this technology (*Haidar,2002,p31*).

- The resort to the use of foreign cadres and dependence in some Arab countries, especially those with abundant financial potential, and these cadres are often less interested - as a result of lack of belonging - to identify the real requirements and needs of those who use information systems, in addition to problems arising from the difficulty Communication and understanding between foreign and national cadres (*Al-Freih,2003,p15*).

5.3. Technical and technique obstacles

These obstacles are represented in the weak prevalence of information and communication systems technology (ICST) in many Arab countries. Some of these technologies entered the Arab countries relatively late compared to the developed countries, and the Arabic content on the internet is relatively small and dealing with the names of websites in English, which contributed to find a barrier for those who are not fluent in English.

To overcome this problem, need to find more Arabic sites and support the establishment of standard specifications for the development of internet site names in Arabic. One of the reasons for the low prevalence of ICSTs is also the lack of public awareness of the services provided by ICSTs, and no doubt that there is a need to raise awareness among the Arab peoples (*Shio,1983,p44*).

When comparing the statistics of the Arab countries with those of the developed countries in the field of fixed telephone spreading, as in Figure (3). In the field of personal computers, as in Figure (4), or in the field of internet spreading, as in Figure (5), we find that most of the Arab countries did not exceed global rates and still need to take quick and serious steps to increase these ratios in order to catch up with the developed countries, while some of the Arab Gulf countries have exceeded the global rates and are moving at a serious pace in this area (*Metwally,2003,p65*).

The lack of adequate infrastructure to ensure the provision of such information services well and covers all parts of the country at an appropriate cost is also one of the reasons impeding the spread of these technologies in some Arab countries. Figure (6) compares the cost of dial-up internet service in some Arab countries and some developed countries, and we note that the cost of these services is relatively high in most Arab countries, especially when taking into account that the average per capita income in many Arab countries is lower than in developed countries (*Al-Freih,2003*).

The most important technical and technique obstacles facing the optimal use of computer technology in government administrative bodies in the Arab countries can be summarized as follows:

- Difficulty in selecting suitable devices due to the large number of different types and systems, the absence of clear bases for differentiation between them, in addition to the rapid development of these machines. This is further complicated by the intensity of competition in the computer market, making selection difficult.

Some types and systems may sometimes impose themselves on the market, contrary to what the user wishes to obtain.

- Problems with the operation of the equipment, such as malfunctions, speed of repair, preventive maintenance, supplier responsibility and commitment to the various undertakings. As well as problems resulting from the irregularity of electricity and other problems associated with working conditions such as humidity, heat and others (*Qandilji,2002*).
- High speed of obsolescence of electronic computers, which in most cases leads to significant changes in existing systems, where it requires financial resources and a large period of time, which makes it difficult to make a proper assessment or a feasibility study or other important decisions.
- Failure to follow the scientific methods to determine the needs of the various units and equipment of electronic computers, and this can only be done through a feasibility study from a technical and economic point of view, which ultimately leads to a mismatch between the possibilities available and the actual needs (www.ituarabic.org).

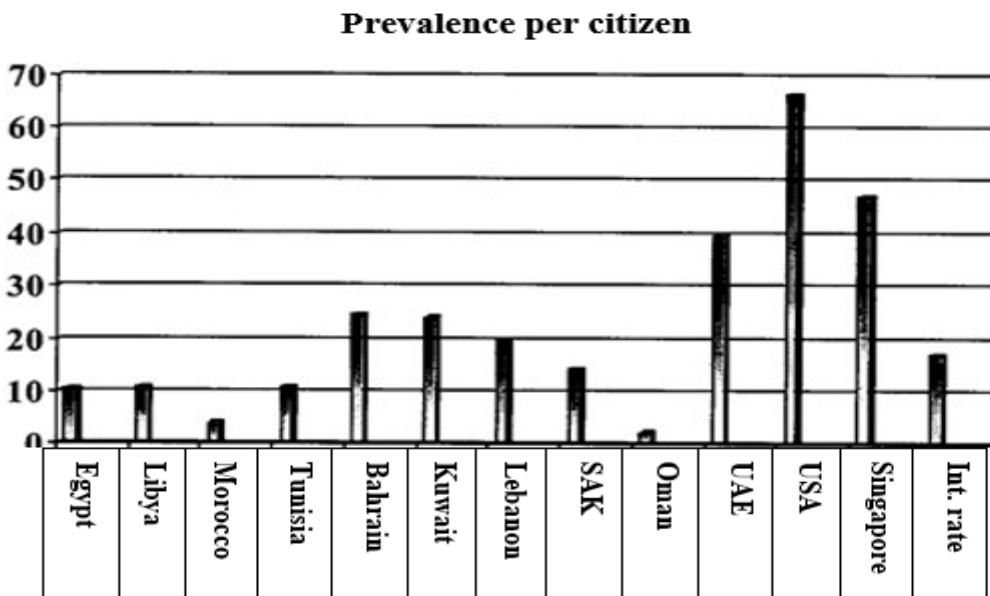


Figure (3) The prevalence of fixed telephones in some countries in 2001 (*Al-Freih,2003*)

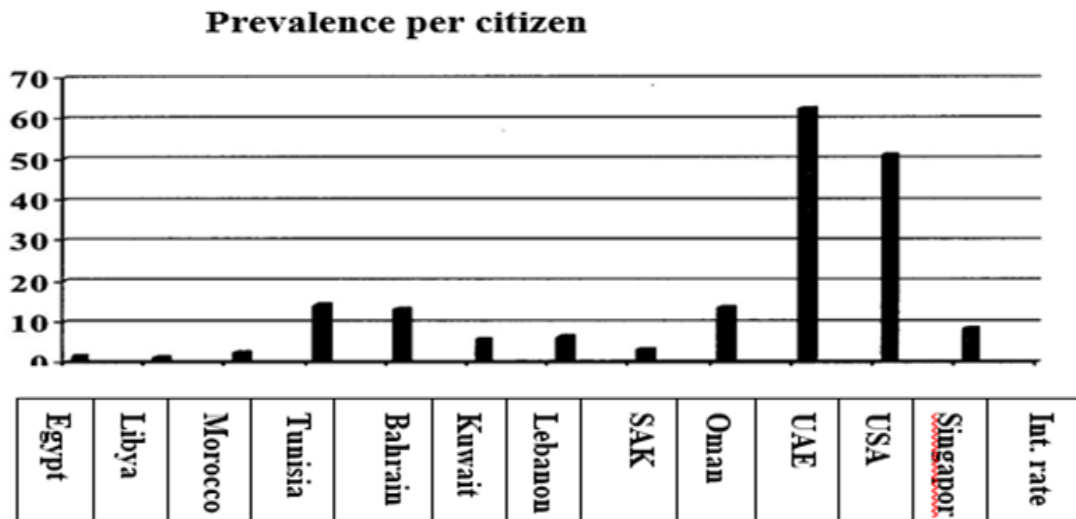


Figure (4) the proliferation of personal computers in some countries in 2001 (Al-Freih, 2003).

Prevalence per citizen

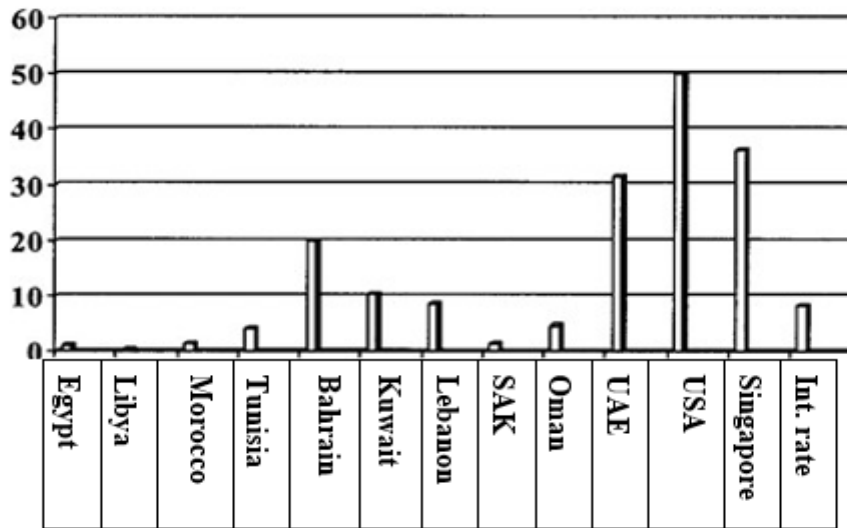


Figure (5) Internet penetration in some countries in 2001 (*Al-Freih, 2003*).

Price in Saudi Riyal

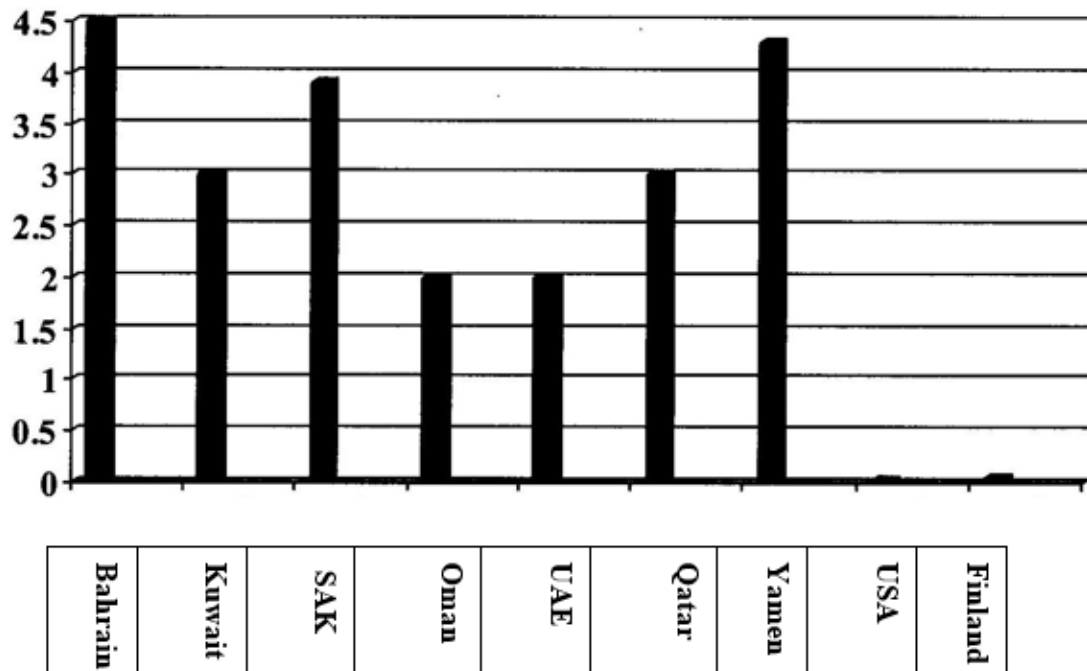


Figure (6) the cost of dial-up Internet in some countries in 2003
(*Al-Freih, 2003*).



Conclusions:

Information is one of the strategic resources in any administrative body, where it is not possible to perform many basic operations or make any decision without relying on information. Information in the administrative bodies is an investment that can be strategically exploited to obtain a competitive advantage. As such, information systems are seen by management as an area in which opportunities can be created or value added.

There is no doubt that it is necessary to recognize the tremendous impact of the successive developments in information technology and systems on the Arab governmental administrative bodies, and its impact on the urban activities in the Arab city. Many of the ways in which these agencies or bodies operate, the means by which they achieve their objectives, and many of the prevailing organizational beliefs will change.

It has become imperative under information and technology systems, government administrative bodies in most Arab cities are rediscovering themselves, reviewing their services, focusing on the applicant, organizational structure, and the use of technology. Their success will depend more than ever on understanding the nature of change and anticipating and using technology in a way that makes use of its advantages.

Setting up of information systems in the government administrative bodies of in Arab cities has become an urgent necessity, as it has become a new source of strength of these administrative bodies contributes to improve the efficiency and effectiveness of performance. Accordingly, government administrative bodies in Arab cities should formulate policies and strategies to develop their information resources and stimulate the use of information systems, in order to develop and promote those bodies in line with modern developments in order to achieve more effective growth in government services.

Failure to initiate timely and effective action in this area will have serious consequences related to the ability of government administrative bodies to provide effective support for the urban, economic and social development of the Arab city.



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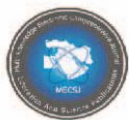


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