PRESENTING A SAMPLE ELECTRONIC CITY

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Abstract: *Today, the value of establishing an electronic city is not unknown to any expert in the field of information technology .About a decade is past since the discussion of electronic city began in Iran, and despite some progress ,the achievements have not been as expected. Some of the most important challenges of establishing electronic city in Iran are: Management challenges, and lack of plan and a consistent model to establish an electronic city. Defining parts of the electronic city, substructures, planning and set up stages are vital factors for success in this field. in this article discusses several models for establishing electronic city and finally ,considering the regional situation of our country and obstacles for establishing electronic city in Iran introduces a general view of establishing electronic city in Iran ,so that by using it plans for establishing stages of electronic city could be drawn.*

Keywords: *Electronic city, GARTNER model, The United Nations model, stages of establishing, Electronic city in Iran*

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1. INTRODUCTION

Reviewing the literature of project management of information technology has revealed the success factors in these projects, some of these factors are as follows:

Crisis management, management of different teams, good communication, proper goals Team work and effective management of changes [1]. Although these factors are very important in establishment of electronic city, but special models for establishment of electronic cities have been drawn by different international organizations, and different countries, after considering their own regional conditions, have followed different procedures. Considering all these facts, the necessity of research becomes obvious in order to be able to draw a proper model for our country.

2. DEFINITION OF ELECTRONIC CITY

The effect of information and communication technology on various urban activities is such that, citizens, managers, philosophers, and information technology experts view and define electronic city differently. In an electronic city, the everyday work of all the residents may be done in the shortest time possible, with the least cost at any place and time .Although no Electronic city has been established in the world yet, but the fast pace of different cities in this direction is an indication of fast evolution of virtual dimensions in the cities .In continuation, various models for establishing electronic city will be explained.

3. THE UNITED NATIONS MODEL

Research done by the United Nations in 2002 presents a five stage model for establishment of electronic government which is possible to be expanded into electronic city. The United Nations has designed this model to find out the evolution condition of countries which in a way, also shows how ready they are to adopt information technology [2].This model, in a practical way, has dealt with presenting the five stages, which are as follows:

3.1. FIRST STEP: THE STAGE OF COMING INTO EXISTENCE

In this stage, countries participate in a web by making a web site .Governmental offices make their own internet sites also, the information on these sites are not sufficient and rarely get updated and the necessary information to explain how to access services is not given to the users. Information is usually in the form of products, services, addresses, and contacting other web sites and also accessible in the form of answering usual questions.

3.2. SECOND STEP: PROMOTION OR DEVELOPMENT STAGE

In this stage the numbers of web site pages are increased and there will be more information. Also, internet sites will be more active. Information will be presented in a larger variety and more acive, updated faster, and would be accessible in the form of catalogs, newsletters and Search engines.

3.3. THIRD STEP: INTERACTIONS STAGEY

In this stage, providing information will be organized according to the needs of users, and users would be able to contact the relative organization by email or by completing the electronic forms. Therefore, in this stage, there is more mutual relationship between customers and organizations. Also information banks would be available to users by search engines to be able to search information and customers can order products and use services on line, which means they can only look at information and product they need.

3.4. FOURTH STEP: THE STAGE OF INTERNET PURCHASE OR EXCHANGE

In this stage, users can use on line services, and pay for it on line with the needed security.

3.5. FIFTH STEP- THE INTEGRATION OR INSERTION STAGE

In this stage all governmental information and services are easily accessible by internet. All organizational tasks and duties are electronically integrated, and in the digital space. The distinctive borders of offices are removed. Researches done by the United Nations show which countries are in what stage of the five step model .For example, in 2002, 32 countries? Were in coming to existence stage ,65 countries in the promotion stage ,and 55 countries in the promotion stage, and 17 countries in the insertion stage and no country in the world have reached the integration stage [3].

4. GARTNER MODEL

In this model, the electronic government establishment consists of four phases which could be used for establishment of electronic city as well; these stages are as follows [4]:

4.1. FIRST STEP- THE STAGE OF COMING INTO EXISTENCE

In this stage, web sites are used to provide basic information about governmental organizations in such ways as their mission, important addresses, and other necessary information.

4.2. INTERACTION STAGE

In this stage, web sites become capable of providing more services such as, searching possibility, contacting web sites, and providing necessary forms for public services.

4.3. PROCESS OF PAYING ON LINE FOR PRODUCTS AND SERVICES

In this stage, paying on line for needed services such as, paying tickets and taxes, and renewal of driving licenses would be possible by web sites.

4.4. EXCHANGE STAGE

This stage is the long term goal of the existing programs to establish electronic government. This stage emphasizes on presence of management tools for proper relationship with customers, governmental and nongovernmental organizations .In this stage, the role of people in governmental activities, based on webs, becomes stronger. For example, electronic voting would be possible. This stage would also emphasize expansion of internet communication among different organizations, and participation in decision making.

5. DEVELOPMENT OF INFORMATION TECHNOLOGY MODEL (UNDP)

2UNDP model has been provided by cooperation of several reliable international institutions to expand information technology in developing countries which include the following titles, and each title contains the relative function as well:

- ✓ Substructure development.
- ✓ Providing proper communication networks.
- ✓ Public accessibility development.
- ✓ Human resources development.
- ✓ Expert training.
- ✓ Increasing user's technical skills.
- ✓ Policy development.
- ✓ Gathering clear and comprehensive policies.
- ✓ Development of supervisory and legal framework.
- ✓ Spiritual ownership rights.
- ✓ Fair tax system.
- ✓ Development of content and usage.
- ✓ Development of segmental and par segmental functions of hygiene, electronic treatment Electronic trading and training.

- ✓ Users' localization.

- ✓ Development of accessibility to all users.

- ✓ Development of organizations.

- ✓ Establishing and expansion of small and medium companies.

- ✓ Establishing and development of growth centers.

- ✓ Financial support and credit.

- ✓ Supporting increase of efficiency

- ✓ Providing accessibility to local and international markets for the private sector.

6. TORENTO MODEL OF ESTABLISHING ELECTRONIC CITY

TORENTO electronic city authorities have considered three stages to establish electronic city, which include?

- ✓ Design stage

- ✓ Establishment stage

- ✓ Stability stage

In the first stage, the strong and weak points and also opportunities and threats to electronic city and its dimensions would be designed. Then the needed substructure would be provided and finally, the process of consistent improvement of electronic city under the title of stability process begins [5].

7. TIPE MODEL OF ESTABLISHING ELECTRONIC CITY

Authorities of Type electronic city believe in three stages for establishing electronic city which include [6]:

- ✓ Using information technology in city activities

- ✓ Electronic connection in city activities

- ✓ Integration of activities

The first stage is about looking for usage of information technology that is applicable in the city .In other words; city activities in regard to information technology are reengineered.

The second stage identifies connection between activities and tries to electronize them and in the third stage all related activities will be integrated and as a result, a consistent and unified system based on information technology will be provided for management of city activities [7].

8. SUGGESTED MODEL FOR ESTABLISHMENT OF ELECTRONIC CITY IN IRAN:

After examining several information development models ,electronic government models and electronic city models, also considering obstacles in establishing electronic city in Iran, now the following model can be suggested, which includes different aspects such as, application, substructure and establishment of electronic city. This model has been presented with consideration of above obstacles that has been mentioned in the attachment in order to include ways for solving regional problems. Parts of other models have been used in this model, however, each part has been chosen considering the regional conditions, which will be explained in the continuation.
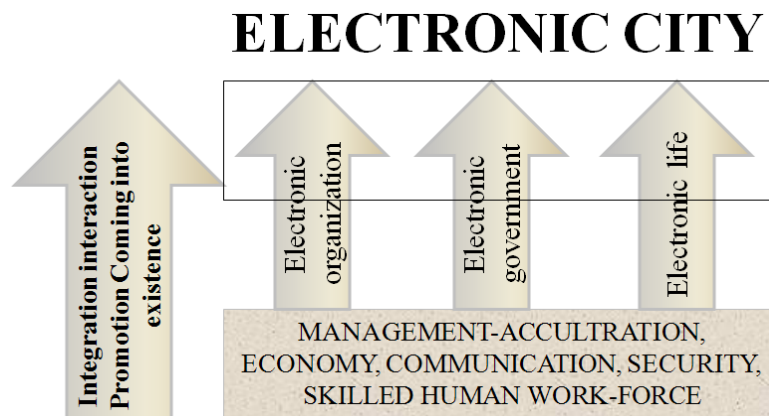

Figure1: Proposed model of electronic city

✓ Providing internet facilities and designs for governmental organizations and private sector.

✓ Forming electronic city management and guiding group with proper structure.

✓ Increasing general awareness of government workers and citizens about capabilities of information technology.

✓ Providing networks in city equipments and equipping units with softwares and hardwares.

9. STAGES OF ESTABLISHING ELECTRONIC CITY IN IRAN

With a broad look at establishment of electronic city, the process could be divided into four principal sections which include coming into existence, promotion, interaction and integration.

Coming into existence: In the first stage ,a field study and investigation of the present conditions of the city and the rate of substructures – as mentioned in the previous sections

must be done, furthermore ,the experience of other electronic cities should be compiled, and finally considering the collected information, the applied process of establishment of electronic city will be set: starting neutral networks for offices and providing most of the necessary substructures will also be done in this stage . The followings are among things to be done in this stage:

- ✓ Collecting electronic codes and virtual interactions, also identifying and solving present problems.
- ✓ Necessity of comprehensive cooperation of all governmental and public sections, and coordination problems.
- ✓ distrust of authorities and managers about information technology and its necessity to use them, economical, technical ,cultural and training obstacles could not be ignored either , but at present ,we are faced with the most basic part of establishing electronic city which is ,management , and solving the above mentioned problems , great steps could be taken to accomplish this goal.

10. CONCLUSION

After understanding the necessity of establishment of electronic city, a model is needed do so. To provide a model, it is necessary to examine different models of electronic cities in the world and their establishment stages, the regional conditions should also be considered to be able to find a practical model. In this article, considering these stages, an electronic city was suggested and its parts were explained so that future plans could be drawn to accomplish the task.

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