



INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION AND MANAGEMENT

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CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

- Garg Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19-22 June.

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FEASIBILITY STUDY OF E-SERVICING ON IRANIAN MUNICIPALITIES (G2C): A CASE STUDY OF AHWAZ MUNICIPALITY

DR. MEHRDAD ALIPOUR
VISITING PROFESSOR, INTERNATIONAL UNIVERSITY OF CHABAHAR
SCIENTIFIC BOARD MEMBER
MANAGEMENT DEPARTMENT, ZANJAN BRANCH
ISLAMIC AZAD UNIVERSITY
ZANJAN, IRAN

SHAHIN KOLIVAND AVARZAMANI
FINANCIAL MANAGER
AHWAZ MUNICIPALITY
IRAN

ABSTRACT

Since the late 1990s, governments at all levels have launched electronic government projects aimed at providing electronic information and services to citizens and businesses. The objective of this study is to study the feasible and usage of public e-services to citizens in Ahwaz municipality. E-business has enabled the development of e-services and thus establishes a new service for citizens is needed and necessary. Thus, the purpose of the feasibility study is that Ahwaz Municipality can establish electronic service for its citizens. Data were collected from managers, experts and employees of Ahwaz municipality about e-service. The method of conducting the research is descriptive and for gathering data we used questionnaire. The results obtained from the data analysis show that all the relations are meaningful at the %5 of deviation using single sample T-test were confirmed in spectrum of the greatest possibility respectively in five operational, temporal, legal, Financial and economical, and technical variables and all hypothesizes are accepted. Also, using freedman test, the ideal position of variables in the given municipality from the managers' perspectives is as follows: 1) Operational 2) temporal 3) legal 4) Financial and economical 5) technical.

KEYWORDS

E-Government, E-municipality, E-Services, E-city, Information technology (IT), E-citizen.

INTRODUCTION

The necessity of saving time and expenses and also the inefficient handy service practices have motivated the city to mechanize the services, up to the point that the citizens won't see the necessity to attend the city in person and receive their documents automatically through their personal computers (The Ahwaz City Study Centre). The different urban services combine various existing system channels together, though improving the customer relation management and citizen's satisfaction, expense reduction and creating more revenue for the municipalities. Thus the establishment of the e-services is one of the key elements and a necessity, but considering the fact that the risk is a component of each project, so it must be managed to be minimized. By utilization of the feasibility study, we can reduce the risk of the establishment of electronic services (Hoffer, Jeffrey & Valacich, 2002, P.133). If the necessity of life in today cities are the focus of services and interaction of using new methods of interaction, utilizing the electronic services for innovation, development and improving the quality of municipal services have many advantages that in this case municipalities as the main centers of municipal services can develop the dimensions of services in the frame of presenting electronic municipal services and use its advantages. (Bannister, 2007, P184)

REVIEW OF LITERATURE

In today's world, by stepping toward industrialization, face to face and direct relations cannot solve our problems anymore. In today's cities we are facing with increasing of population and the increase of urban traffic. Also, previous bureaucratic methods can be proper method in investigating citizens' paper work. Therefore, important organizations such as municipalities are considered as the heart of city. They should avoid previous methods and enter electronic and virtual world. (Reddick, C. G, 2005, P45) In the world in which the activities are done faster and safe and there is no need for population density in physical world, for decreasing many urban problems such as pollution and traffic, the municipal's activities should be done through internet network and electronic database. These measures are one of steps toward e-government. (Chen, ET, 2006, P98)

AUTOMATION

The results of implementation of electronic municipal, is replacing computer systems instead of human element and some sections of municipal through automation are arithmetic operations, preparing reports, etc. This system can be replaced to some sections of municipalities in some cases. (Elahi, shaban, 2002, P171)

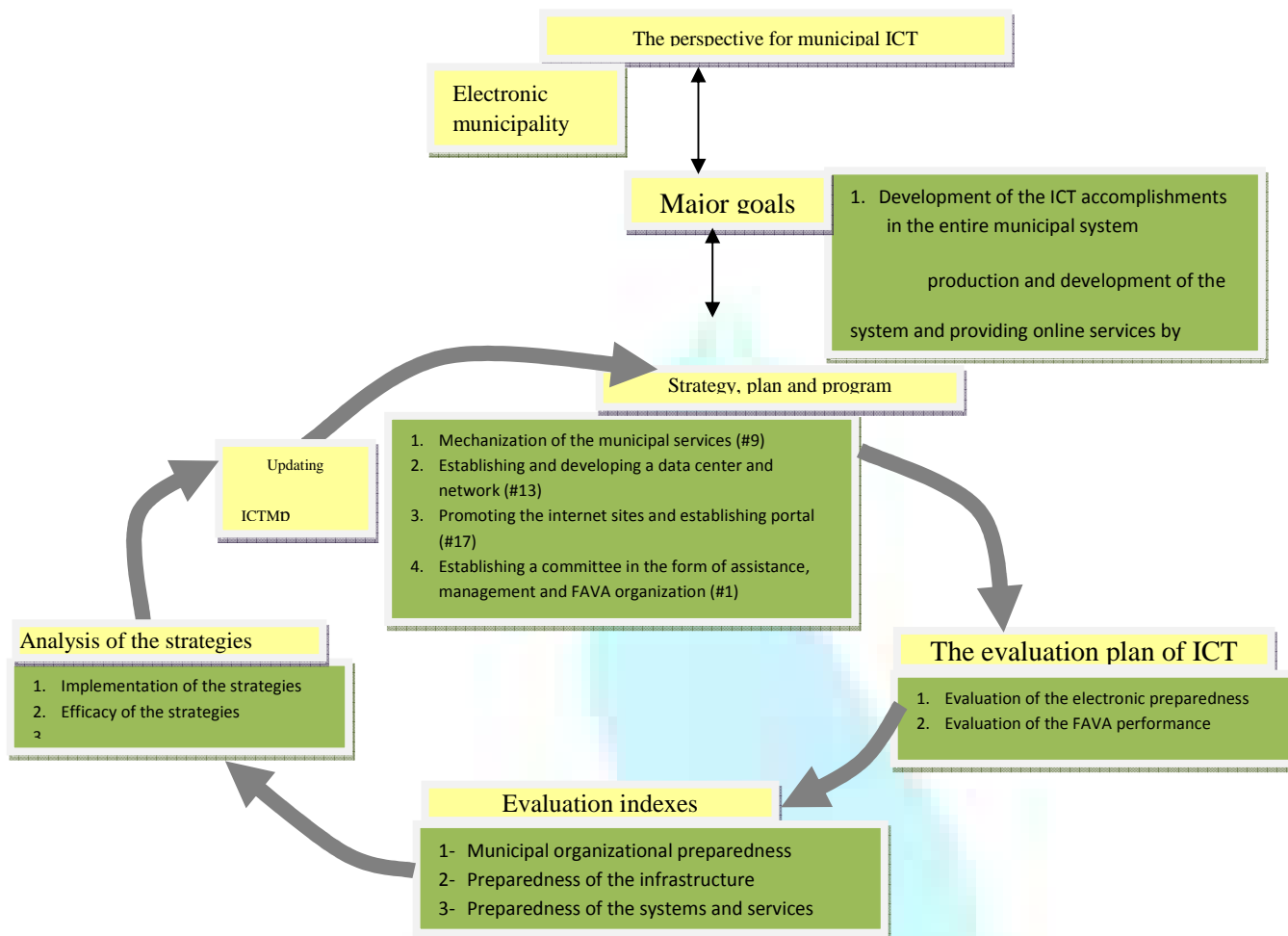
GENERAL AND PROFESSIONAL TRAINING OF USERS

General training of computer along with professional trainings through mechanized systems and workflow and explaining new tasks to the municipal users are among the purposes of this project. (Lu, J. 2001, P85)

INFORMATION AND COMMUNICATION ASSESSMENT LIFE CYCLE

In following cycle, the updating the comprehensive information and communication project with the landscape of major goals has been presented. In this cycle with considering the landscape of realization of electronic municipal for the section of information and technology, the main landscapes are specified and then strategies, plans and programs are determined. (Heiner, 2007, P12)

FIGURE 1: THE PERSPECTIVE FOR MUNICIPAL ICT



WHY MOVE TOWARDS AN ELECTRONIC MUNICIPALITY?

Significant reasons are needed in order to progress from the current status towards the new one, since these reasons will be the charter and perspective of our work. One of the most important reasons for moving towards e-municipality is the ever-increasing needs and requirements of businesses and citizens. In recent years, there’s been an enormous flow of people into big cities and this has increased the need for municipality. .(Hanifi, M,2005,P35)

Therefore, providing services with desirable quality has become so much difficult, and thus, with respect to the growth of municipality services and the establishment of the ICT infrastructures, having e-municipality to provide services in short time and high quality will be a great success for the municipality. Another reason is the improvement of the government and the increase of its services to citizens, and finally, economic growth is a reason for establishing e-municipality. (Reddick, C, 2005, P56)

THE ADVANTAGES OF MUNICIPALITY E-ELECTRONIC

- Providing innovation background in presenting services
- Increasing the diversity and expansion of the domain of services to citizens
- Improving the quality of services and facility in processes
- Increasing the speed, accuracy and availability of citizen to the information of advertisement in any time and place
- Decreasing the problems of metropolises
- Decreasing the commuting and traffics and inappropriate advertisement on the urban environment(Van Brakel,2009,P71)

E-SERVICES

E-services is focusing on the needs of citizens and firms and its purpose is creating interaction between them and governmental organization and their staff in easy, friendly, clear, cheap and effective conditions. This means that people are able to provide and supply their required services through e-government and they can be reached to their request through internet and other mechanized methods .This solution is providing the increasing demands of citizens in services that can provide interaction and unity of different common systems through utilizing of advanced internal and external facilities (ICT).(Chaudhury,A,2002,P36) In fact, its general concept in form of urban e-services include the great domain of all governmental organization regarding different needs of citizens in different business, official, educational, cultural and recreational , tourism, etc. this concept is presented and investigated in relation to e-government and e-cities and virtual cities.(Centeno C,2006,P61)

CHARACTERISTIC OF E-SERVICES

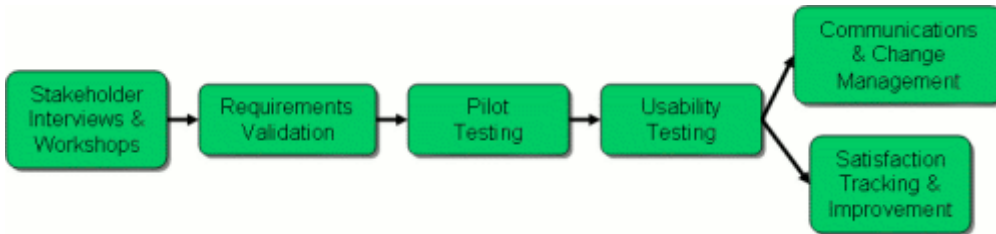
- Giving services information (forms, processes, cost)
- Presenting interational services with the capability of follow-up
- Conducting electronic inquiries
- Presenting combinational services
- Immediate monitoring of services
- Giving information through SMS regarding the price of services(Kessler,2003,P35)

QUALITY

The quality of the electronic services (e-services) has been defined as a seven-dimension phenomenon which is included in two scales: the high quality of the main electronic service scale and recovery scale. (Nissanof, D, 2006, P84)

SIX PHASE PROCESS FOR DESIGNING AN E-SERVICE

FIGURE 2: PROCESS FOR DESIGNING AN E-SERVICE



1- STAKEHOLDER INTERVIEWS AND WORKSHOPS

The purpose is to identify needs and expectations for the e-service from the perspective of key influencers to the process. The interviews and workshops are also used to provide input to the communications strategy and e-services design requirements. An added benefit of this step is achieving buy-in to the process from key stakeholders. (Hanifi, M, 2005, P35)

2- REQUIREMENTS VALIDATION

At the onset of development, it is critical to validate the design requirements for the e-service from the end users' perspective. The requirements can be in the form of a concept description and feature list, storyboards, or a prototype site. We will often test the requirements in focus groups to ensure they meet users' needs and expectations from the e-service, and often, new or different requirements are uncovered in talking to users. This preliminary step saves programming time and money by preventing the development team from wasting resources on unnecessary functionality. It also helps set priorities by identifying which requirements are "core," that is, necessary to have in place at the time of launch for the e-service to be viable. (Elahi, A, 2006, P58) In addition to validating the requirements, the research also gathers users' initial perceptions of the e-service to aid in communications strategy development. This is important since there are often a number of barriers to adoption of a new e-service. In many cases, new e-services are replacing a traditional process that many users are quite comfortable in using, and understanding the benefits of the new e-service helps in communications and change management strategy planning. (Ibid, P36)

3- PILOT TESTING

Once the requirements are validated, the product development team designs a pilot of the e-service functionality for testing. Users are invited to review the pilot and provide feedback on the functionality through follow-up focus groups or depth interviews. This gives users a chance to see the execution of their requirements for the e-service and comment on how well it meets their needs and expectations. The look and feel, navigation, and content are included in the evaluation of the pilot. Users are able to experience the pilot on their own computers to mimic a real situation, which helps them provide feedback on how the system will affect their lives and current processes. As with the previous phases, this feedback can be helpful in communications efforts as well as design. (Grembergen, 2001, P29)

4- USABILITY TESTING

From the feedback collected in the pilot testing, the product development team refines its plans and completes the build-out of the e-service. The full functionality undergoes final testing with users in the form of usability testing. The purpose of this stage is to make refinements that ensure maximum efficiency of use. Testing may identify minor changes, such as labeling, instructions, and navigational tools, to major issues in organization or positioning that can make or break the service. (Helbig, N, 2009, P45)

The most common form of usability testing we utilize for clients consists of one-on-one interviews with users completing specific tasks using the new e-service. This is often followed by a group discussion with participants to uncover more strategic issues. After one or more rounds of revisions to the design and functionality, the e-service is ready for launch.

5- COMMUNICATIONS AND CHANGE MANAGEMENT

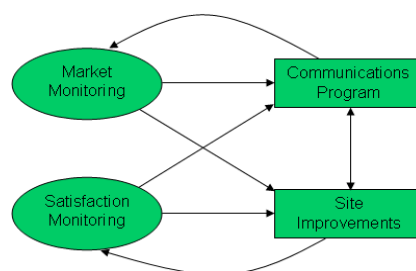
The availability of a new e-service and its benefits need to be communicated to key stakeholders and end-users through a comprehensive communications and change management plan. A new e-service requires users and stakeholders to embrace a new way of achieving a goal or doing business, which may be difficult if current processes work adequately. Therefore, the project team must work to change the mindsets of users and stakeholders to achieve adoption of the e-service. If they fail to do this, the e-service may never reach the critical mass that makes it worthwhile to visit the online storefront.

Through previous steps in designing an e-service, much information is gathered on users' perceptions and potential benefits to them. This information can be directly incorporated in the communications and change management strategy. To assist in developing and refining this effort, a communications tracking survey is useful to measure program success over time. The research helps the communications team set goals and address themes helpful in the communications and change management process. (Nile, J, 2001, P71)

6- SATISFACTION TRACKING

The final phase in implementing an e-service is to monitor user satisfaction over time. The purpose is to troubleshoot problems and identify areas for improvement. One of the more common approaches we use is to capture users' experiences with the new e-service at the time of their visit to the site, collecting data through an intercept web survey. Areas to cover include reliability, perceived functionality, navigational ease, security and clarity of information. After an e-service is launched, management should monitor market perceptions and satisfaction over time, continually incorporating feedback into marketing and development efforts. Taking the time to complete these six phases when designing an e-service helps ensure that users and key stakeholders free themselves of their current processes and embrace a new way of doing business. (Reddick, C, 2004, P56)

FIGURE 3: SATISFACTION TRACKING



E-CITY

E-city is the city in which the affairs of citizens and presenting governmental and private organizations and generally speaking giving services to the citizens is done full-time and with high quality and safety. In these services the real and physical components such as paper and physical environment are replaced with virtual and subtle components and this replacement is done through utilizing information technology and its applications. (Ghaderi Kamran,2000,P65)

Among the advantages of implementing e-city is reducing the cost of commuting, increasing the investment as result of world communication, saving in consumption of limited fuels, facility in doing economic affairs due to 24 hour services, etc. (Seybold.P,2001,71)

E-CITIZEN

These citizens have particular knowledge and skills that help them in receiving electronic services, so one may define e-citizen as a person who has the ability and capability of fulfilling the daily duties of a citizen with all citizenship duties using electronic tools. In sum, an electronic citizen is a citizen who is able and enough skilled to use electronic services of the governments at a desirable level.(Nath, V,2005,P41)

ELECTRONIC GOVERNMENT (E-GOVERNMENT)

In a general definition, an electronic government can practically involve the beds and applications of ICT used by public sector in order to provide services to citizens (G2C, business (G2B) other governmental agents (G2G) and government employees (G2E). conventionally the interaction of citizens and or merchants occurs with a governmental agent and a governmental organization. By presence of ICT, the approaching the service centers to clients will be possible. Citizens can receive governmental information and services in a kiosk or separated internet room located at a governmental organization or near it through a laptop or personal computer (PC) from their home or workplace. It should be mentioned that e-government is not merely a huge information project but it is a multiple-part cultural organizational program based on the technology and transformer of [the shape] of business. However; the IT as well is a vital component of such a transformation and plays a fundamental role in it. in the recent few years, the number of evaluation and ranking models of the e- government have been increased. These models try to estimates the position of each country in attempt for reaching or achieving e-government. In a survey by the United Nations concerning the model, the countries of the world have been categorized based on the three criteria: IT infrastructures, internet presence and human asset. This model does not include cultural and legal infrastructures. In addition , the rate of using e-government by citizens has been neglected.(K. Layne. and J. Lee,2005,P124)s E-government is service-providing and information-providing for public by government using electronic tools. In other words, e- government utilizes the ICT to promote the government's efficacy by means of better access to information and making government more answerable before public [people].(Sarpoulaki.M., Eslami,2010,P36)

E-GOVERNMENT MODELS

Following the several research conducted on the developing trend of E-government and on the effect of electronic services in governmental organizations especially municipalities in the various parts of the world, some models have been introduces as follows: (K. Layne. and J. Lee, 2005, P165)

TABLE 1: E-GOVERNMENT MODEL

Model's name	Stages of implementation
LAYNE.LEE	1- Cataloguing 2- transaction 3- vertical merging 4- horizontal merging
United Nation's model	1- Emergence 2- promotion 3- interaction 4- transaction 5- unity
Kartz group	1- Advent 2- transaction 3- interaction 4- transfer
Dell OTTE Research	1- Distribution and spread 2- two-way administrative transactions 3- multi-purpose portals 4- central portal privatization 5- public services' clustering 6- the unity of interaction and transfer [of the cluster]

THE ADVANTAGES OF E-GOVERNMENT

- 1- Financial sector(Sharifi.H,2004,P32)
 - Increased participation and collaboration with private sector
 - Quick low-cost and certain provisions using electronic provisions or preparations
 - Paving the ways for the electronic trade
- 2- Citizens
 - Promoting the quality of governmental services
 - Improving the condition of citizens due to the proper distribution of governmental services
 - Increased variety in services
 - Providing direct and immediate services for citizens
- 3- Government
 - Reduced costs
 - Reduced administrative violation and corruption
 - Increased power of answerability
 - Increased public participation
 - Strengthening of the democratic pillars

THE VARIOUS ASPECTS OF THE ELECTRONIC TRADE IN GOVERNMENTAL SECTOR

E-government and electronic service is the very electronic trade which has been useful in the public sector. E-government includes the exchange of costs, goods, services and information which is done via electronic media. In this regard, some functions can be mentioned including information giving, service providing improvement, financial discipline and clarification of political affairs. These definitions have often directed the e-government's functions in providing the electronic services and do not indicate even technical and telecommunicative infrastructures.(Chen, ET.,2003,P94)

TABLE 2: THE VARIOUS ASPECTS OF THE ELECTRONIC TRADE IN GOVERNMENTAL SECTOR

	G	B	C
G	Information transmission	Receiving information Monitoring and evaluation	Delivering the information of instructions and regulations
B	Providing services Providing information	Transactions between economical agencies	Preparation and provision
C	Payment of the bills	Awareness of the price Awareness of the services	Shopping markets

- 1- Government to business model: in which the government provide the certain needs of the commercial society through internet, which include registration of the companies to the provision of electronic preparations, in which the government purchase the goods and services consumed required online from the commercial agencies. The services provided assist the development of the commercial agencies especially small and medium agencies through G2B exchanges.(www.mit.gov.in)
- 2- G2G model: these services are provided at two levels: local or national level and international level. G2G is the exchanges between local or central governments or in the form of exchanges between two governments of a country and the government of the other country which is an instrument for international and diplomatic relations.(Alipour.M,Kovarooee,2010,P240)

- 3- G2C model: or government to citizen model: consists of transmission of information to the public, providing citizenship basic services like extending the certificate, filling the tax form and also assisting citizens concerning such services as instruction, treatment, library etc. this model is briefly called citizen model. This model is made available for citizens for establishing communication between governmental institutions and true individuals who consist the countries' citizens using this model of urban services online and electronically. The worth mentioning point is that all models one part of which is government and or governmental institutions are in the form of non-profit activities and most of these services have no income-making aspect and most cases governmental subsidies are seen. Nevertheless, due to the fact that one of its parts is commercial institution or has a commercial nature, in the end it is consumer of the goods or services or information. This model is considered as a subcategory of the electronic business.(Farahmand.A,2008,P65)
- 4- G2E model: it has been designed to provide information for public sector staffs using internet or private network so that they could access human resources like personnel perquisites, retirement, latest news and the other applicative staff information and ultimately instruction and development of the human resources are presented to the staffs.(Castells.M,2003,P105)
- 5- B2B model: the major part of the electronic trade or business are purchases which are not done by consuming undertaking but the producers buy the brokering or intermediating goods from the other producers. In brief, using the B2B between two set of producers, one can increase the quality and speed as well as reducing the costs.(www.ebusiness.edu)
- 6- B2C model: in this method, companies are trying to sell their products to the final consumers through internet. Of course, in this model, the reliance of the buyers and their payments are through internet which have no need to extensive detail and physical observation, some affairs like travel services, book selling, music, sending a gift etc.(van Brakel,2009,p145)

METHODOLOGY

The method of this study is of type surveying- descriptive and is an applicable research (Delavar,2007,P.89).There was used library and field method for collecting the information.

For data collection there was used books, papers, thesis, and domestic and foreign magazines as well as designing a proper questionnaire based on the spectrum of Likert. Population for this study includes superior managements, and sales and marketing experts as well as exports and after-sales services. Sampling method is of simple accidental type and size of sample was calculated according to the given size of population, i.e. 200 people from managers and obtained about 170 using following formula:

$$n = \frac{NZ^2pq}{(N - 1)d^2 + Z^2pq}$$

The variables of this study defined as below:

Dependent variable: electronic services in municipality

Independent variable: Toles model whose factors are under investigation

Toles factors under investigation are as follows:

(Technical, economical, legal, chronological, operational)

In order for analyzing the information there was used descriptive statistics: central indices (mean and mode) and distribution indices (variance and standard deviation).

There was used inferential statistics (i.e. single sample t tests, and Freedman test) for determining the priority and importance of any test hypothesis.

The data analysis, as a stage of scientific method is fundamental in any study by which all researching activities are controlled to achieve related result.

Single sample t test for testing the hypothesis related to independent variables obtained by following table1:

TABLE 3: THE STATISTICAL ANALYSIS AND TEST OF HYPOTHESES

Test	Hypothesis	Sample No.	Sample mean	SD	T test value	d.f	P-value	Result
Hypothesis I: It is theoretically possible for electronic service to be established at Ahvaz municipality network		170	3,4422	0.5058	11.398	169	0.00	Accepted
Hypothesis II: It is economically and financially possible for electronic service to be established at Ahvaz municipality network		170	3,8980	0.4725	24.780	169	0.00	Accepted
Hypothesis III: It is legally possible for electronic service to be established at Ahvaz municipality network		170	4,1055	0.4528	31.842	169	0.00	Accepted
Hypothesis IV: It is temporally possible for electronic service to be established at Ahvaz municipality network		170	4,2662	0.4284	38.535	169	0.00	Accepted
Hypothesis V: It is operationally possible for electronic service to be established at Ahvaz municipality network		170	4,2853	0.4405	38.046	169	0.00	Accepted

Because practical mean of all hypothesis is greater than theoretical mean of Likert spectrum (3), therefore, in 5% error level with p-value=0, all hypotheses are accepted.

In order for prioritizing and determining the importance of any hypothesis, there was used Freedman test .As indicated, in the 5% significant level, it is accepted/ rejected the hypothesis with the same rank. Therefore, five variables may not possess the same importance. Following table indicates the rank of variables in table 2

TABLE 4: TEST RESULT SUMMERY TO PRIORITIZE RESEARCH THEORIES

Sample value	test statistic value	Freedom degree	P-value	Test Result
170	320.304	5	0.000	rejecting Hypothesis of Zero

TABLE 5: INDICATING GRADES OF FIVE VARIABLES OF RESEARCH IN MEASURING POSSIBILITY OF APPLICABILITY

Mean of grades	Variable titles
1.95	Technical
3.48	Financial and economical
3.99	Legal
4.56	Temporal
4.66	Operational

Prioritization of research variables from the viewpoints of respondents based on Freidman test is as following:

- 1- Operational
- 2- temporal
- 3- legal
- 4- Financial and economical
- 5- technical

CONCLUSION

Every advanced technology creates new opportunities and threats for organizations. Changes in technology impose changes in the commercial laws of corporations and transform the social and organizational systems. According to studies, the need for change in traditional methods in municipality is essential. Electronic municipality provides the possibility of rendering information using information technology and relying on the Internet, faster with higher speed and quality and decreases the costs. Advantages like quick access to information, coordination between different organizations, promotion of tourism, possibility of creating more centralized management and more control and supervision and as a result, reduced corruption and time, money, energy and paper saving as well as the possibility of providing municipal services to citizens at any time and any place, is the indication of the importance and necessity of creating an electronic municipality that its necessity is to create a required cultural space for acceptance of electronic municipality for social and economic development and employment of specialists and efficient forces. The results of chapter V confirm the research hypotheses which examined from directors and employees point of views. Also Friedman test is ranking favorable conditions for each variable as follow: operational, temporal, legal, economic, financial and technical ranking that in this study, in implementation of electronic rendering systems of civil services, municipality has the most favorable and unfavorable situation in operational and technical variables respectively.

It is explicit that the most unfavorable situation in the municipality, according to acquired ranking, can be improved easily by attraction of human resources' practical participation as well as call for private sector investment and take necessary actions toward implementation of civil services electronic rendering systems.

In the permanent interpretation of the electronic services' systems following the advanced world, today the satellite networks for the most poor people at the far distant place of the earth that in addition to its wideness and extension due to the prevalence of citizens and rural people of its networks are visible and are welcomed and required by them, it is necessary that in a perfect vital form for country, exert their attempt for creating the electronic infrastructures and subsystems in order to providing urban and rural electronic services.

But particularly, the priority of the variables in this study indicate that, in spite of the necessity for implementation of the electronic services systems, it is necessary that the Ahwaz municipality attempts to bringing about these sorts of systems with the help and support of the government and private sector at the earliest convenience.

Operationally, the condition is completely prepared for implementation and delay is in no way justifiable.

- Moreover, of legal view, the condition is fully ready for implementation of the systems for providing electronic urban services and not only there is no restraint but also the additional condition on the diagnosis and encouraging have an emphasis state as well.
- The economical and financial complicated condition is associated in such a way that merely lower than 50% of the participants evaluated the possibility of the implementation of the urban electronic providing services' systems using financial resources of Ahwas to be favorable. It is recommended that the necessary cooperation be made by municipality in the execution of electronic services' intelligent systems of the economical and financial power of the private section including Ahwazi citizens or outside Ahwaz by summoning the capital absorption and in economical view as well, the capital participation or cooperation absorption is one of the serious and approved needs of the government especially with regard to the economical jihad (campaign) year.
- Is related to the technical field in the feasibility assessment in this research that like the obtained results, namely more than 70% of the subjects evaluated the municipality power for bringing about the electronic systems to be poor technically, it is completely true and this weakness can be removed and promoted by absorbing the cooperation and participation of the private sector of the government especially the private sector.

REFERENCES

1. Bannister F. (2007). The curse of the benchmark: an assessment of the validity and value of e-government comparisons, *International Review of Administrative Sciences*, 73 (2), 171-188
2. Castells, Manuel (2003), *Information era: Economics, society and culture: emergence of network community*, nd2 version, publications of blokul, Educational of Vibolitin, Oxford, pp.1 – 5
3. Centeno C, van Bavel R and Burgelman JC (2005) "A prospective View of e-Government in the European Union" *The Electronic Journal of e-Government* Vol. 3, No. 2, pp 59-66, available online at www.ejeg.com
4. Chaudhury, Abijit; Jean-Pierre Kuilboer (2002). *E-Business and e-Commerce Infrastructure*. McGraw-Hill.
5. Dellavar, Ali, 2009, *Research methodology in human sciences*, virayesh
6. Chen, ET., 2002. *E-Government Issues and Practices*. University of Massachusetts Lowell. International Association for Computer Information Systems Vol. 3. Available at: http://www.iaacis.org/iis/2002_iis .[Accessed Sep 2,2010]
7. Economist Intelligence Unit and Pyramid Research (2002); *E-Readiness rankings*, July 2002.
8. Elahi, Shaban and Rajab Zadeh, Ali, (2003), "Expert systems: smart pattern of decision making" company of commercial publishing dependent on commercial Studies and researches.
9. Grembergen wim van(2001) *Information Technology evaluation Methods & Management*, Idea Group
10. Hamd Hussein Amin Elahi, (2006), *Electronic commerce*; online available at <http://aminollahi.blogspot.com>
11. Hanifi Mohamed, (2005), *the weekly banking news*, the Central Bank of Iran
12. Heiner and Iyer (2007) *E-Service opportunites and Threats*, *Journal of value chain management*, 1, 11.
13. Helbig, N; Gil-García, J; Ferro, E (2009). *Understanding the complexity of electronic*
14. Hoffer Jeffrey A, George Joey F., valacich Joseph s.(2002) *Modern Systems Analysis and Design*, Third
15. John Niles, (2001) *Technology & Transportation The Dynamic Relationship*, Discovery Institute Vol. X No. II
16. K. Layne. and J. Lee.(2005) *Developing a Fully Functional E-government: A Four Stage Model*, *Government Information Quarterly*, Vol. 18 No. 2, pp. 122-36.
17. Kessler, M. (2003). *More shoppers proceed to checkout online*. Retrieved January 13,
18. Lu, J. (2001). *Measuring cost/benefits of e-business applications and customer satisfaction*", *Proceedings of the 2nd International Web Conference*, 29–30 November, Perth, Australia, 139-47
19. Alipour.M,kovaroee.M,2010, *Marketing management(new approach)*, mahkame
20. Nath, V.(2006) , "Digital Govrnment Models: moving towards good governance in developing countries",
21. Nissanoff, Daniel (2006). *Future Shop: How the New Auction Culture Will Revolutionize the Way We Buy, Sell and Get the Things We Really Want*, Hardcover, The Penguin Press, 246 pages.
22. Seybold, Pat (2001). *Customers.com*. Crown Business Books (Random House).
23. Sharifi, H., Zarei, B., 2004. *An Adaptive approach for implementing e-government in Iran*, MSc .Thesis, The University of Liverpool Management School,
24. Sarpoulaki .M., Eslami Rad .A., Saleknia .A., 2008. *E-Government concept and spatial information*
25. van Brakel, P.A.(2009) *Proceedings of the 11th Annual Conference on World Wide Web Applications*, Port Elizabeth, 2–4 September
26. Gaderi, Kamran, 2000, *Tomorrow solution of E banking today at the first E banking*.
27. Reddick, C. G(2005),. *Citizen international with e-government*, www.sciencedirect.com
28. Amir Farmanbar, Aziz Dolat Khah (2008), *Electronic Municipality*, publication of Roshani-Elm o Danesh
29. <http://www.investopedia.com/terms/b/brickandmortar.asp>
30. [//news.bbc.co.uk/1/hi/business/597388.stm](http://news.bbc.co.uk/1/hi/business/597388.stm)
31. <http://ebusiness.mit.edu>
32. [/www.mit.gov.in](http://www.mit.gov.in)

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