

## **Measuring the Factors of Iranian Governmental Organizations' Enterprise Portals**

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### **Abstract**

This research investigates factors of enterprise portals of governmental organizations of Iran. Methods used in this research are literature and descriptive survey. Data was gathered by a researcher-made checklist for enterprise portal factors in the enterprise portals of governmental organizations of Iran. The checklist contains six factors that are content management, document management, collaboration and communication, user experience and relationship management, news and security. These factors contained 38 criteria and 49 extracted questions. Research population includes all of the websites of governmental organizations of Iran that claimed that they were enterprise portals; they are 97 enterprise portals which were identified from the Portal of Electronic Services of Iran in June 2008. The results of the research showed that content management, document management and security had qualified degrees whereas other factors i.e. collaboration and communication, user experience and relationship management and news had disqualified degrees. The comparison of the portals revealed that the portal of Tejarat Bank in content management, the portals of President Deputy Strategic Planning and Control, Industrial Development and Renovation Organization of Iran and Hamedan Municipality in document management, the portal of Tejarat Bank in collaboration and communication, the portal of Ports and Maritime Organization in user experience and relationship management, the portal of Hamedan Municipality in news and the portals of Products and Services Coding National Center of Iran, Kish Free Zone Organization, Iranian Blood Transfusion Organization, Hamedan Municipality, Ministry of I.C.T , Social Security Organization, Ministry of Cooperatives and East Azarbaijan Industries and Mines Organization in Security had the highest degrees.

**Keywords:** Enterprise Portals, Factors, Governmental Organizations, Iran.

### **Introduction**

Accelerating rush in the development of information available on the web has led to the advent of new kind of web programs called search engines. A search engine is a tool designed

to search and retrieve information required by the user. In the course of time, search engines such as Yahoo, Lycos, and Excite have been converted into portals. Portals are not limited to search engines, but tools like email, calendar, dialogue, etc. are provided for users as well.

After successful accomplishment of Yahoo in the late 1990s, which was the first internet user portal, many of information technology companies have appreciated useful advantages of this technology and initiated to use enterprise portals in the organizations which faced information management problems. Organizations found out that in addition to helping with information management, these portals can help them achieve collaboration and communication among their staff, providers, customers and stakeholders. Since late 1990s, many organizations have taken firm steps to take advantage of this useful technology to establish effective communication with in-house users (staff and relevant stakeholders) and out-house users (providers and customers).

Nowadays, with the advent of internet and other information technology tools, governments tend to provide citizens electronically with goods, services and information. That is why the concept of electronic government has become one of the most highly acclaimed subjects in developed countries during recent decades. Performance of the electronic government leads to the reduction of hierarchical administration pattern, horizontal structure of government, shortening of decision-making process, decline of administrative corruption and more precise planning. One of the major channels to materialize electronic government is enterprise portals. These kinds of portals make it possible to access information and services of any organization from a single point. Citizens and commercial sectors will be able to have easy access and interaction with government officials by a simple and structured method and personalization and customization of information and services become possible. Therefore, In the course of achieving an electronic government many of governmental organizations around the world, including Iran, have initiated enterprise portals to be able to develop their field of activities and prepare a suitable ground for such developments. Enterprise portals enable governmental organizations to have access to their citizens.

### **Statement of the Problem**

Each governmental organization offers services that are used both internally and externally. Only easy access to current information and services is useful for making decisions or else organizations are not able to reach their intended goals to provide customers with services in a better way. In today's advanced world with technology improving with an accelerating speed, organizational users are facing a large amount of information from various sources, which causes information overload. As enterprise portals having special factors are able to eliminate these problems and provide users with the required information in an appropriate time, the main object of this research has been the identification of those factors and measuring them in Iranian governmental organizations' enterprise portals.

### **Research Significance**

Nowadays, governments mostly use information technology and telecommunication particularly internet and web-based networks to serve governmental organizations and citizens, commercial sectors, employees and other nonprofit organizations. Some organizations have recently implemented and used enterprise portals to deliver information and applications to their employees. Parallel with the implementation of enterprise portals in all countries of the world, many governmental organizations in Iran are implementing their own enterprise portals. Therefore, identifying current performance of these enterprise portals and examining their factors can help webmasters in improving the factors of enterprise portals and consequently promoting of the electronic government.

### **Research Objectives**

The main goal of this research is to identify factors of enterprise portals and measure those factors in Iranian governmental organizations' enterprise portals.

### **Research Questions**

- 1- Generally, what are the factors of enterprise portals?
- 2- What are the measures of using the enterprise portals' factors in Iranian governmental organizations' enterprise portals?

### **Research Hypotheses**

- 1- More than 50% of existing criteria in each factor of Iranian governmental organizations' enterprise portals have qualified degrees.
- 2- More than 50% of Iranian governmental organizations' enterprise portals have qualified degrees in view of each factor.

### **Research Variables**

In this research, independent variables are the factors of governmental organizations' enterprise portals. Dependent variables are governmental organizations' enterprise portals which are appraised on the basis of their factors.

### **Operational Definitions of the Research**

Portal : Web portals are Internet-based applications that enable access to different sources (providers) through a single interface (Mahdavi, Shepherd & Benatallah, 2004). They provide personalization, single sign-on and content aggregation from different sources (Java Community Process, 2003). Moreover, they can help users to find the desired information, service or product from among a large number of providers without having to navigate through them all one-by-one (Mahdavi, Shepherd & Benatallah, 2004).

Governmental Organizations: In Dictionary.com (2008), the governmental organization is defined as a management unit of the government. In this research, it refers to all organizations that their activities are supervised by the supreme leader and regulated by the government, parliament and the justice department; their budget is provided by the government.

Enterprise Portal: Bock (2001) defines the enterprise portal as a single point for collecting, organizing, transferring and publishing of organizational knowledge. In this research, enterprise portals are all Iranian governmental organizations' websites with the self-claim of being enterprise portals.

### **Research Population**

The population studied in this research includes all Iranian governmental organizations' websites with the claim of being enterprise portals with grand total of 97, which in July 2008 were identified in the Portal of Electronic Services of Iran. This research covered the entire research population and sampling was not used. Out of the afore-mentioned figure, 11 had no email addresses, 3 were not available at the time of research, 3 of them had just a basic communication form without the possibility of dispatching attached file of the questionnaire and 11 had out of order emails in the time of delivering the questionnaire. Considering these explanations, the grand total of portals reached to 69 to which the checklist was sent and 43 replied it back (see Table 8).

### **Research Design**

In general, this research has used the following methods:

1- The first method is library survey. Since no standard checklist pertaining to enterprise portals' factors was available, a checklist was designed for the factors of Iranian governmental organizations' enterprise portals.

2- The second method is the descriptive survey to be able to examine enterprise portals' factors in Iranian governmental organizations' enterprise portals.

### ***Data Gathering tools***

Data for measuring existing factors of governmental organizations' enterprise portals was gathered with a researcher-made checklist in a library survey. This checklist contained six factors called content management, document management, collaboration and communication, user experience and relationship management, news and security; these factors divided into 38 criteria and 49 extracted questions. For examining the checklist validity, the point of views of enterprise portal experts and university faculty members were used. Reliability of the checklist was verified by Chronbach's Alpha ( $\alpha=0.862$ ).

### ***Data Analysis Method***

For answering the checklist items in this research, a ten-point scale from 1 to 10 was used. SPSS and Excel programs were used for implementing descriptive and analytical statistics.

### **Review of Literature**

Studies in the field of enterprise portals in Iran indicate that since portal technology is a new phenomenon, very few researches have been carried out in this field.

Raol, Koong, Liu & Yu (2002), in a research entitled “An identification and classification of enterprise portal functions and features”, have identified and categorized the main functions and features of enterprise portals. In this research, they used a classification scheme to categorize various functions and features. They chose 17 software sellers for the research. Findings of the research indicate that only one product with its enterprise portal named Plumtree is the most complete supplier. Enterprise portals having all 10 functions and features have been examined. A thorough examination of the portal functions indicated that about one third of these vendors do not have 100% of the functions. Nine of the functions were classified as established and the remaining function was classified as maturing in two-tier schematic model. A total of 50 portal features were found to support the ten functions examined. Within the ten functions, the distribution of these 50 features was found to be quite different. Based on the criteria established for this research, there were 38 established features, three maturing features, and nine new or minor features. Skratulja (2003), in his thesis entitled “Considerations for enterprise portal selection”, has identified some points which organizations should take into account when choosing enterprise portals. In his research, Skratulja considered “selecting organization” as the central analyzing unit, and obtained a range of perspectives from users in various contexts. Many of these considerations were supported by the empirical evidence. These considerations include ability to pull and push, personalization and customization, aggregation and integration, managing both users and the content. Malik (2004), in his thesis analyzed the different needs and requirements of employees located in the countries where Intranet is being used as a main channel for internal communication and collaboration. At the same time, the study also pointed out the problems faced by employees regarding information management and collaboration. Focus-group interviews and online survey was conducted in Finland, Norway and Sweden. A total of eight employees from various departments participated in the interviews, and ninety-eight employees expressed their opinions by online survey. Considering the importance of different portal functionalities and feedback from employees, a sample corporate portal was designed. This study concluded with some practical suggestions and different portal management models for attaining maximum value through this corporate portal. Hejazi (2005), in his thesis entitled “Effectiveness of information services with implementing defense portal”, has done a

research on typical employees and users of information centers of technical colleges of Malek Ashtar, Imam Hossein and Dana Information Network with the purpose of evaluating their views about the functionality of information center , with the use of portal technology. Hypothesis of the research which was examining connection between dependent variable “defense service effectiveness” and independent variable “implementation of defense portal” with using Uman-Vitny method for examining with 92% **confidency** level and 1% error factor; Also significant correlation examined between effective factors of “information conformity”, “easy use of portal”, “personalized regulation of portal”, “measure of users’ acquaintance with web skills” with effectiveness of information services by Spierman correlation factor which accordingly with factors of 47%,47%,42% and 40%, indicated significant correlation. Aghighi (2005), in his master thesis has investigated straits of achieving a unified portal for materializing electronic government. Results of the research confirm that portal designed in the Sistan-Baluchestan province has not the necessary integration. Databases of various bureaus and the state portal do not accord with the same standards. Also, there is not a government base for the citizens to obtain their necessary information and services. Additionally, there is not a unified identification structure to obtain in enterprise portal. Zakerifard (2008), in her thesis entitled “measuring elements of knowledge portals in campus portals and presenting an appropriate model”, using a checklist has compared 19 foreign universities (including 33 elements of knowledge portals). Results of the research indicate that most of the examined universities have taken advantage of at least one knowledge portal and their designs have used fewer elements causing share and transfer of knowledge.

### **Research Findings**

This section shows the descriptive statistics relevant to the criteria of 43 Iranian governmental organizations’ enterprise portals:

The checklist produced for the enterprise portals had 6 factors and in total 38 criteria were identified. In the next section, descriptive statistics relating to the criteria existing in each factor will be mentioned.

#### ***Criteria related to content management factor***

Criteria of customization, personalization, content creation, content template, subscription/alert, preview, images gallery and updating which are related to content management factor are measured for 43 Iranian governmental organizations’ enterprise portals by two measures of tendency to center (Average) and distribution measure (Standard Deviation). Results are indicated in Table 1:

Table 1

*Measures Resulted from Evaluations of Criteria Related to Content Management*

Criterion	Average	Standard Deviation
Updating	9.1	1.9
Images Gallery	9	1.6
Customization	7.5	2.4
Content Template	7.2	3.1
Content Creation	6.8	2.9
Subscription/Alert	6.8	3
Personalization	6.6	3.1
Preview	5.8	3.5

As indicated in Table 1, criteria of customization, personalization, content creation, content template, subscription/alert, images gallery and updating have qualified degrees<sup>1</sup>, while criterion of preview has disqualified degree. In general, criterion of updating with the average of 9.1 of 10 has the highest degree and criterion of preview with 5.8 of 10 has the lowest degree among the criteria related to content management factor in Iranian governmental organizations' enterprise portals.

***Criteria related to document management factor***

Criteria of online editing, document profiling, document scanning, workflow management, article creation and electronic journals and articles are related to document management factor which were measured for 43 Iranian governmental organizations' enterprise portals. Results are shown in Table 2:

Table 2

*Measures Resulted from Evaluations of Criteria Related to Document Management*

Criterion	Average	Standard Deviation
Article Creation	7.9	2.6
Document Profiling	7.8	3.2
Online Editing	7.5	3.5
Electronic journals and Articles	6.6	3.9
Document Scanning	6.2	3.9
Workflow Management	5.4	3.5

Data Analysis resulted from document management factor indicates that online editing, document profiling, article creation and electronic journals and articles have qualified degrees

while document scanning and workflow management have disqualified degrees. As mentioned in Table 2, the criterion of article creation with the average 7.9 of 10 and the criterion of workflow management with the average 5.4 of 10 have respectively the highest and lowest degrees in document management factor.

***Criteria related to collaboration and communication factor***

The criteria of discussion forums, email, document sharing, chat, contact with website designers, experts' findings, online survey, and employee corners which are related to collaboration and communication factor are evaluated in 43 Iranian governmental organizations' enterprise portals. Table 3 illustrates the results of this evaluation:

Table 3

*Measures Resulted from Evaluations of Criteria Related to Collaboration and Communication*

Criterion	Average	Standard Deviation
Email	6.9	4.3
Experts Finding	6.1	2.9
Discussion Forums	5.8	3.5
Online Survey	5	3.4
Contact with Site Designers	4.5	3.2
Document Sharing	4.5	3.6
Employee Corners	4.3	3.6
Chat	3.9	3.6

Results obtained from analysis of data related to collaboration and communication factor indicate that only criterion of email have qualified degree, while criteria of discussion forums, document sharing, chat, contact with website designers, experts' findings, online survey and employee corners have disqualified degrees. Generally, email with the average of 6.9 of 10 has the highest degree and chat with the average of 3.9 of 10 has the lowest degree among the criteria relevant to collaboration and communication factor.

***Criteria related to user experience and relationship management factor***

The criteria of simple search, advanced search, internationalization, site map, link to relevant sites, organizational chart, frequently asked questions, help in using site which pertain to user experience and relationship management factor were evaluated in 43 Iranian governmental organizations' enterprise portals. Results are shown in Table 4:



Table 4

*Measures Resulted from Evaluations of Criteria Related to User Experience and Relationship Management*

Criterion	Average	Standard Deviation
Link to relevant sites	8.4	2.3
Site Map	7.6	3.6
Simple Search	7.3	3.8
Organizational Chart	5.7	3.8
Frequently Asked Questions	4.6	4.1
Internationalization	3.9	2.4
Help in Using Site	1.5	1.8
Advanced Search	1.4	1

As indicated in Table 4, criteria of simple search, site map and link to relevant sites have qualified degrees while criteria of advanced search, internationalization, organizational chart, frequently asked questions and help in using site have disqualified degrees. Making a comparison among the criteria in user experience and relationship management factor in Iranian governmental organizations' enterprise portals has revealed that the criterion of link to relevant sites with the average of 8.4 of 10 has the highest degree and the criterion of advanced search with the average of 1.4 of 10 has the lowest degree.

#### ***Criteria related to news factor***

Criteria of general news, related organizational news, press release, conferences and symposia, advertisements and commercial offers which are related to the news factor evaluated in 43 Iranian governmental organizations' enterprise portals. Results obtained of this evaluation are shown in Table 5:

Table 5

*Measures Resulted from Evaluations of Criteria Related to News*

Criterion	Average	Standard Deviation
Related Organizational News	9.9	0.8
Conferences and Symposia	6.7	4.3
Advertisements and Commercial Offers	5.5	4.5
Press Release	4.7	4.4
General News	2.1	2.8

Analysis of data related to news factor indicates that criteria of related organizational

news and conferences and symposia have qualified degrees, while criteria of general news, press release and advertisements and commercial offers have disqualified degrees. In general, related organizational news with the average of 9.9 of 10 has the highest degree and general news with the average 2.1 of 10 has the lowest degree among the criteria pertinent to the news factor.

#### ***Criteria related to security factor***

The criteria of authentication, authorization and membership related to security factor were evaluated in 43 Iranian governmental organizations' enterprise portals. Table 6 illustrates the results of this evaluation.

Table 6

*Measures Resulted from Evaluations of Criteria Related to Security*

Criterion	Average	Standard Deviation
Authentication	9.5	2
Authorization	8.6	2.3
Membership	4.6	4.4

Analyzing data resulted from security factor indicates that the criteria of authentication and authorization have qualified degrees while the criterion of membership has disqualified degree. Making a comparison among these criteria revealed that authentication criterion with the average of 9.5 of 10 has the highest degree and membership function with the average of 4.6 of 10 has the lowest degree.

#### ***Descriptive statistics relevant to factors of Iranian governmental organizations' enterprise portals***

As indicated in earlier sections, each of the factors has some criteria; for example, content management factor has 8 criteria which each of them had scaled from 1 up to 10, by calculating the average of those criteria, the average of content management factor was obtained. Calculation of averages of other factors was done accordingly.

Table 7

*Measures Resulted from Evaluations of Factors in Iranian Governmental Organizations' Enterprise Portals*

Factor	Average	Standard Deviation
Security	7.5	1.9
Content Management	7.3	1.8
Document Management	7.1	2

Factor	Average	Standard Deviation
News	5.8	1.5
Collaboration and Communication	5.1	1.6
User Experience and Relationship Management	5	1.4

Considering Table 7, it can be observed that factors of content management, document management and security have qualified degrees while factors of collaboration and communication, user experience and relationship management and news have disqualified degrees, by making comparisons among the factors, it is shown that security factor with the average of 7.5 of 10 has the highest degree and user experience and relationship management with the average of 5 of 10 have the lowest degree.

### ***Descriptive statistics related to the comparison of Iranian governmental organizations' enterprise portals***

In comparative evaluation of each enterprise portal in view of factors, following results are obtained:

- Regarding existing criteria in content management factor, Tejarat Bank with the average 9.9 of 10 has the highest degree.

- Regarding existing criteria related to document management factor, the enterprise portals of President Deputy Strategic Planning and Control, Industrial Development and Renovation Organization of Iran and Hamedan Municipality each with 10 of 10 have the highest degree.

- Regarding criteria related to collaboration and communication factor, enterprise portal of Tejarat Bank with the average of 7.6 of 10 has the highest degree.

- Regarding criteria related to user experience and relationship management factor, enterprise portal of Ports and Maritime Organization with the average 7.9 of 10 has the highest degree.

- Regarding existing criteria related to news factor, Hamedan Municipality enterprise portal with the average of 9 of 10 has the highest degree.

- Regarding existing criteria in security factor, Products and Services Coding National Center of Iran, Kish Free Zone Organization, Iranian Blood Transfusion Organization, Hamedan Municipality, Ministry of I.C.T, Social Security Organization and Ministry of Cooperatives and East Azarbaijan Industries and Mines Organization, each with the average 10 of 10 have the highest degrees.

### ***Results of hypotheses testing***

In this section results of hypotheses testing of the research are explained. Binomial Test was used. Results obtained from hypotheses testing are as follows:

- More than 50% of existing criteria in content management, document management and security factors in Iranian governmental organizations' enterprise portals have qualified degrees.

- More than 50% of existing criteria in collaboration and communication, user experience and relationship management and news factors in Iranian governmental organizations' enterprise portals have disqualified degrees.

- More than 50% of Iranian governmental organizations' enterprise portals have qualified degrees in regard to factors of content management, document management, news and security.

- More than 50% of Iranian governmental organizations' enterprise portals have disqualified degrees in regard to factors of collaboration and communication and user experience and relationship management.

## Results

**Question 1:** In general, what are the factors of enterprise portals?

For measuring existing factors in Iranian governmental organizations' enterprise portals, it is necessary to treat this question. Since there is not a standard checklist in the field of enterprise portals' factors to answer this question, a library survey was carried out and enterprise portals' factors by using related sources were identified and studied. Then by using these factors, a checklist was conducted which was categorized into 6 factors and 38 criteria as follows:

- Content Management factor: Includes criteria of customization, personalization, content creation, content template, subscription/alert, preview, images gallery and updating.

- Document management factor: Includes criteria of online editing, document profiling, document scanning, workflow management, article creation, electronic journals and articles.

- Collaboration and communication factor: Includes criteria of discussion forums, email, document sharing, chat, contact with website designers, experts' findings, online survey and employee corners.

- User experience and relationship management factor: Includes criteria of simple search, advanced search, internationalization, site map, link to related sites, organizational chart, frequently asked questions and help in using site.

- News factor: Includes criteria of general news, related organizational news, press release, conferences and symposia and advertisements and commercial offers.

- Security factor: Includes the criteria of authentication, authorization and membership.

**Question 2:** What are the measures of using the enterprise portals' factors in Iranian governmental organizations' enterprise portals?

By using the checklist obtained from answering the first question, factors and their related criteria existing in Iranian governmental organizations' enterprise portals were examined.

Measures of factors and their criteria in Iranian governmental organizations' enterprise portals in two modes of qualified and disqualified degrees were examined, considering Tables 1, 2, 3, 4, 5 and 6, functions degrees resulted as follows:

Criteria that have qualified degrees in Iranian governmental organizations' enterprise portals included customization, personalization, content creation, content template, subscription/alert, images gallery, updating, online editing, document profiling, article creation, electronic journals and articles, email, simple search, site map, link to related sites, related organizational news, conferences and symposia, authentication and authorization.

Criteria that have disqualified degrees in Iranian governmental organizations' enterprise portals included preview, document scanning, workflow management, discussion forums, document sharing, chat, contact with website designers, experts' findings, online survey, employee corners, advanced search, internationalization, organizational chart, frequently asked questions, help in using site, general news, press release, advertisements and commercial offers and membership.

Considering Table 7 in view of factors in Iranian governmental organizations' enterprise portals, it is indicated that content management, document management and security factors have qualified degrees and other factors that are collaboration and communication, user experience and relationship management, and news have disqualified degrees.

### **Discussion**

A qualified degree of existing criteria in content management factor such as customization and personalization, content creation, content template, subscription/alert, images gallery and updating in these portals causes a related and updated content based on users' role and their priorities and interests to appear on their main page. By using customization criteria in these portals, the user can change look and feel of own page as desired and also the system with personalization criteria and being familiar with portal users will display related content on their page. The high degree of existing criteria in document management factor such as online editing, document profiling, article creation, electronic journals and articles in these portals shows the control, management and fine indexing of organizational documents, and consequently causes the retrieval of related documents needed by users. These portals generally in the field of factors such as collaboration and communication, user experience and relationship management and news did not act well. With respect to collaboration and communication, low level of existing criteria indicates that in these portals interaction and interchange of ideas and thoughts among users in different fields cannot be carried out smoothly. Improvement of this factor in these portals can lead to the development of tasks related to team work in organizations such as working on the projects, plans and programs. Interpretation of the results obtained from user experience and relationship management factor revealed that the important problem for users to use portals is

to find existing information and services in them, as this task is usually done either by searching in portal's search engine or by using site map. Enterprise portals examined in terms of site map and simple search have altogether functioned well, but in the field of advanced search which allows more specific retrieval of information they have performed weakly. If users not being familiar with how to use portals well enough, using criteria such as frequently asked questions and help in using the site can be useful, as these two in studied enterprise portals have low degrees. Link to related websites may lead users to more information and services in other sites that in this field, portals have performed well. In the area of organizational chart—which is a map of organizational relations among different sections in organizations and can help users to understand the structure and system of organizations—these portals have gained fine degrees as well. In addition, in the field of internationalization which includes use of different languages and translation facilities that can help to increase international communications, they have not a good performance. In the field of news factor that improves users' knowledge about the latest events, portals in respect of related organizational news and conferences and symposia had fine performance but in respect of general news, press release and advertisements and commercial offers they could have acted better. Qualified degrees of authentication and authorization in security factor indicate that a user must have permission for entering the system and portals' managers define authorization to existing sources and programs for users according to users' role, which indicates care of these portals' managers for conserving sensitive information, programs and services in their organizations.

### Conclusion

In this research, enterprise portals' factors in the government sector were assessed.

The results indicate that on average, these portals in respect of content management factor, document management and security have functioned at a good level. According to research results, the degrees of enterprise portals' criteria in the field of collaboration and communication are weak; therefore, portals' managers have to pay more attention to this factor. A high level of this factor can assist in increasing individuals' relations and improving the team work towards the promotion of the organizational goal. Portals' owners should help to improve the factor of user experience and relationship management to find information easier, helping users by adding search engines with advanced features. Also basic instructions must be provided for using portals and portal managers should consider the internationalization of their own portals by creating pages in different languages. In this research, the identified research population which was 98 enterprise portals included a small part of governmental organizations as compared to the number of 1035 governmental organizations' websites registered at the Portal of Electronic Services of Iran in July 2008. Therefore, in order to reach a high level of electronic government in Iran, governmental

organizations must pay more attention to the enterprise portal phenomenon.

Table 8

*List of Governmental Organizations Which Answered the Checklist*

Governmental Organizations	Portal Address
Product & Services Coding National Center of Iran	<a href="http://www.irancode.ir/">http://www.irancode.ir/</a>
Tehran Municipality	<a href="http://www.tehran.ir/default.aspx">http://www.tehran.ir/default.aspx</a>
Mashhad Traffic & Transportation Organization	<a href="http://www.mashadtraffic.ir/">http://www.mashadtraffic.ir/</a>
The Research Institute of Hawzah and University	<a href="http://www.rihu.ac.ir/portal/Home/">http://www.rihu.ac.ir/portal/Home/</a>
Judiciary of Islamic Republic of Iran	<a href="http://www.judiciary.ir/">http://www.judiciary.ir/</a>
Razi Vaccine and Serum Research Institute	<a href="http://www.rvsri.ir/Portal/Home/">http://www.rvsri.ir/Portal/Home/</a>
Agricultural Research, Education and Extension Organization	<a href="http://www.areo.ir/HomePage.aspx?TabID=0&amp;Site=DouranPortal&amp;Lang=fa-IR">http://www.areo.ir/HomePage.aspx?TabID=0&amp;Site=DouranPortal&amp;Lang=fa-IR</a>
Institute of Management and Planning Studies	<a href="http://www.imps.ac.ir/">http://www.imps.ac.ir/</a>
Supreme Council of Information & Communication Technology	<a href="http://www.scict.ir/Portal/Home/Default.aspx?CategoryID=72ec3b79-8eb2-40bf-8308-">http://www.scict.ir/Portal/Home/Default.aspx?CategoryID=72ec3b79-8eb2-40bf-8308-</a>
Kish Free Zone Organization	<a href="http://www.kish.ir/HomePage.aspx?TabID=4769&amp;Site=DouranPortal&amp;Lang=fa-IR">http://www.kish.ir/HomePage.aspx?TabID=4769&amp;Site=DouranPortal&amp;Lang=fa-IR</a>
Ministry of Welfare & Social Security	<a href="http://www2.refah.gov.ir/c/portal/layout?p_l_id=">http://www2.refah.gov.ir/c/portal/layout?p_l_id=</a>
National Cartographic Center	<a href="http://www.ncc.org.ir/HomePage.aspx?TabID=0&amp;Site=NccPortal&amp;Lang=fa-IR">http://www.ncc.org.ir/HomePage.aspx?TabID=0&amp;Site=NccPortal&amp;Lang=fa-IR</a>
Ministry Of I.C.T.	<a href="http://ict.gov.ir">http://ict.gov.ir</a>
Iran National Carpet Center	<a href="http://persiancarpetnc.ir/fa/default.aspx">http://persiancarpetnc.ir/fa/default.aspx</a>
Industrial Development and Renovation Organization of Iran	<a href="http://www.idro.org/portal/">http://www.idro.org/portal/</a>
Khorasan Razavi Construction Engineering Organization	<a href="http://www.nezammohandesi.ir/">http://www.nezammohandesi.ir/</a>
Iran Fisheries Research Organization	<a href="http://www.ifro.ir/portal.aspx">http://www.ifro.ir/portal.aspx</a>
Social Security Organization	<a href="http://www2.tamin.org.ir:6060/web/sso/home">http://www2.tamin.org.ir:6060/web/sso/home</a>
Statistical Center of Iran	<a href="http://www.sci.org.ir/portal/faces/public/sci">http://www.sci.org.ir/portal/faces/public/sci</a>
Iranian Blood Transfusion Organization	<a href="http://www.ibto.ir/HomePage.aspx?TabID=0&amp;Site=DouranPortal&amp;Lang=fa-IR">http://www.ibto.ir/HomePage.aspx?TabID=0&amp;Site=DouranPortal&amp;Lang=fa-IR</a>
Isfahan Sport Organization	<a href="http://www.esfahansport.ir/user/Index.jsp">http://www.esfahansport.ir/user/Index.jsp</a>
President Deputy Strategic Planning & Control	<a href="http://www.spac.ir/Portal/Home/">http://www.spac.ir/Portal/Home/</a>

Governmental Organizations	Portal Address
Foundation of Martyrs and Veterans Affairs	<a href="http://www.isaar.ir/HomePage.aspx?TabID=0&amp;Site=DouranPortal&amp;Lang=fa-IR">http://www.isaar.ir/HomePage.aspx?TabID=0&amp;Site=DouranPortal&amp;Lang=fa-IR</a>
Khorasan Razavi Institute for the Intellectual Development of Children and Young Adults	<a href="http://www.kpf-khr.ir/">http://www.kpf-khr.ir/</a>
Tehran Commerce Organization	<a href="http://www.tcommerce.ir/KtePortal/Default.aspx">http://www.tcommerce.ir/KtePortal/Default.aspx</a>
The Ministry of Housing & Urban Development	<a href="http://www.mhud.gov.ir/Portal/Home/default.aspx?categoryid=home">http://www.mhud.gov.ir/Portal/Home/default.aspx?categoryid=home</a>
Hamedan Municipality	<a href="http://www.hamedan.ir/">http://www.hamedan.ir/</a>
Ministry of Cooperatives	<a href="http://www.icm.gov.ir/">http://www.icm.gov.ir/</a>
Organization for Investment Economic & Technical Assistance of Iran	<a href="http://www.investiniran.ir/home-fa.html">http://www.investiniran.ir/home-fa.html</a>
Tejarat Bank	<a href="http://www.tejaratbank.ir/portal/default.aspx">http://www.tejaratbank.ir/portal/default.aspx</a>
Zanjan Agri-Jahad Organization	<a href="http://www.zanjan.agri-jahad.ir/HomePage.aspx?TabID=0&amp;Site=DouranPortal">http://www.zanjan.agri-jahad.ir/HomePage.aspx?TabID=0&amp;Site=DouranPortal</a>
East Azarbaijan Industries & Mines Organization	<a href="http://www.ea-imo.gov.ir/HomePage.aspx?TabID=0&amp;Site=DouranPortal">http://www.ea-imo.gov.ir/HomePage.aspx?TabID=0&amp;Site=DouranPortal</a>
Ministry of Education	<a href="http://medu.ir/">http://medu.ir/</a>
Trade Promotion Organization of Iran	<a href="http://www.iranexporters.org/">http://www.iranexporters.org/</a>
Endowments and Charity Affairs Organization of the Islamic Republic of Iran	<a href="http://www.awqaf.ir/">http://www.awqaf.ir/</a>
Ministry of Interior's	<a href="http://www.moi.ir/Portal/Home/Default.aspx?CategoryID=Home">http://www.moi.ir/Portal/Home/Default.aspx?CategoryID=Home</a>
Ports & Maritime Organization	<a href="http://www.pmo.ir/">http://www.pmo.ir/</a>
Khorramshahr Ports & Maritime Organization	<a href="http://www.khport.ir/HomePage.aspx?TabID=0&amp;Site=DouranPortal&amp;Lang=fa-IR">http://www.khport.ir/HomePage.aspx?TabID=0&amp;Site=DouranPortal&amp;Lang=fa-IR</a>
Iran Municipalities & Rural Management Organization	<a href="http://www.imo.org.ir/HomePage.aspx?TabID=0&amp;Site=ImoPortal&amp;Lang=fa-IR">http://www.imo.org.ir/HomePage.aspx?TabID=0&amp;Site=ImoPortal&amp;Lang=fa-IR</a>
Ministry of Energy	<a href="http://www.moe.org.ir/HomePage.aspx?TabID=0&amp;Site=DouranPortal&amp;Lang=fa-IR">http://www.moe.org.ir/HomePage.aspx?TabID=0&amp;Site=DouranPortal&amp;Lang=fa-IR</a>
The Ministry of Jihad-E-Agriculture	<a href="http://www.maj.ir/portal/Home/Default.aspx?CategoryID=Home">http://www.maj.ir/portal/Home/Default.aspx?CategoryID=Home</a>
Islamic Republic of Iran Police	<a href="http://www.police.ir/Portal/Home/default.aspx?categoryid=home">http://www.police.ir/Portal/Home/default.aspx?categoryid=home</a>
Qom Agri-Jahad Organization	<a href="http://www.qum.agri-jahad.ir/portal/Home/">http://www.qum.agri-jahad.ir/portal/Home/</a>



### End Note

1. Cut-point =>7

### References

- Aghighi, A.(2005). *Investigating straits of achieving a unified portal for materializing electronic government, Case study: Sistan-Baluchestan State portal*. Zahedan: Sistan Baluchestan University.
- Bock, G.E. (2001). Enterprise portals promise to put an end to corporate interanet chaos. *Enterprise Application Webtop*, 440(2), 132-133.
- Daniel , E., & Ward , J.(2006). Integrated service delivery exploratory case studies of enterprise portal adoption in UK local government. *Business Process Management Journal*, 4(1), 113-123.
- Dictionary.com. (2008). Governmental Organizations. Retrieved on March 25, 2008 from <http://dictionary.reference.com/>
- Hejazi, A. (2005). *Effectiveness of information services with implementing defense portal*. Tehran: Malek-Ashtar.
- Java Community process. (2003). JSR 168 portlet specification. Retrieved on March 03, 2008 from [www.jcp.org/en/jsr/detail?id](http://www.jcp.org/en/jsr/detail?id)
- Mahdavi, M., Shepherd, J., & Benatallah, B. (2004). An collaborative approach for chaching dynamic data in portal applications. Retrieved on March 20, 2008 from <http://crpit.com/confpapers/CRPITV27Mahdavi.pdf>
- Malik, A. (2004). *Analyzing the user's needs for corporate portal: Case of a Finnish multinational school of economics and business administration*. Helsinki.
- Raol, J.M., Koong, K.S., Liu, L.C., & Yu, C.S. (2002). An identification and classification of enterprise portal functions and features. *Industrial Management & Data Systems*, 102(7), 693-702.
- Skratulja , F.S.(2003).*Considerations for Enterprise Portal Selection*. Melbourne.
- Zakerifard, F. (2008). *Measuring elements of knowledge portals in campus portals and presenting an appropriate model*. Tehran: Alzahra.

