

Comparison of E-Government Portals to Various Countries around the World to identify the basic requirements in the Design of the E-Government Portal: A Literature Review

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Abstract—Electronic Government (e-Government) is a simple-identified phenomenon in globally. E-Government (front office) is the application of information technology through average person field companies to obtain to its people in the current and effective technique (Al-Taie, M. Z. and S. Kadry). The citizens now seeking to interact with government online and the government is seeking to share resources and information security and the possibility of using the portal continues to grow, the portal focusing on content and may help to provide real work for the government to make the portal provide electronic services by the government through the internet easy to use as much as possible (Thomas & Streib, 2003). "Government Information Portal (GIP)", which is the origination of e-government. The definition, GIP is the core of e-government and is interaction channel an important between the government and people, normally, the architecture of GIP is complex, in which its goal is to provide integrative government information sharing with a variety of services (chen,2010).

The purpose of this study is to make comparison between the different types of e-government portals for different countries in the world, based on previous studies. This comparison will help to identify the main requirements in the design of any e-government portal, where the portal is easy to use for different users who have different levels in the use of IT technologies. The study provides an overview of the literature related to the topic conducted by move on to explain the model of the front office in detail. This will be rigorous studies of web portal for the base of this research about how to develop the interface easy to use and secure.

Keywords— Comparison of E-Government Portals.

I. INTRODUCTION

THE phrase e-government is used to explain the use of ICT in assisting government procedures, enhance people, and supply government services. The provision of the web for public application increases the use of e-government (Durickovic & Kovacevic, 2011). Certainly, the Internet is the most persistent technological development that can be leveraged by every establishment. Iraq's government and its

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people are the same (Marini & Ramasamy, 2013). With the many beneficial effects of ICT in business, it is difficult to assume a modern stage business working without the use of ICT. ICT spreads throughout every factor of the 21st century companies.

The citizens are the most important factors for the government therefore to increase social welfare to improve the situation of the individual within the government to modernize public services and to meet the requirements of the citizen (Idikat & Tuğba, 2004).

II. THE CURRENT STATE OF E-GOVERNMENT

The current state of e-Government was analyzed based upon the existing infrastructure, e-Government state, front office and back office (National IT Industry Promotion Agency, Philippines, 2012). In e-government front office, computer systems are used to make services and share information within and through, and e-government front office remains at enhanced comfort of homes and personal locations. Among the benefits of e-government includes e- payments; also it could be seen in e-payment, which saves time and reduces queuing at the front offices (Ansah, Kwansah, Blankson& Kontoh, 2012). The concept is presented illustratively in Figure 2.1.

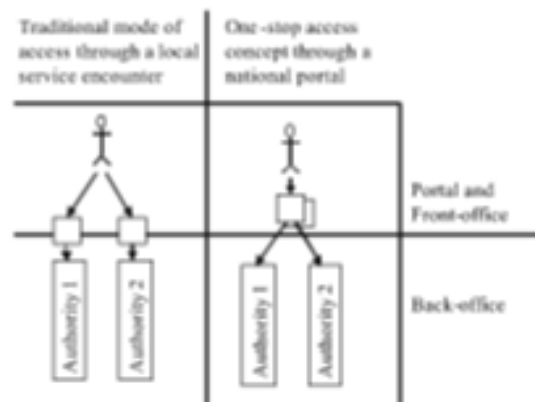


Fig. 2.1 One-stop center e-government to access all kinds of public services (Ansah, Kwansah, Blankson& Kontoh, 2012)

III. FRONT OFFICE SYSTEM

In the United Kingdom (UK), (Shareef, Hamid & Dastbaz, 2012) discovered that a front office of e-government portal evolved from the ability to provide information (basic site) to electronic publishing (e-publishing). Later, the interactivity became more intensified, with various utilities provided in the portal, which eventually transactions were made available in the portal including also finance flow. Finally, the portal became holistic, including being able to support user needs at any time anywhere. The evolution is depicted in Figure 2.2.

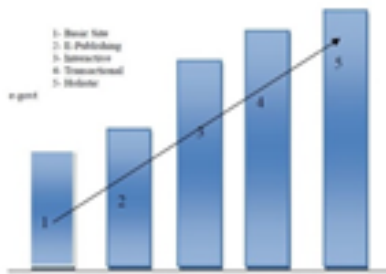


Fig. 2.2 The UK e-government evolution model (Shareef, Hamid, and Dastbaz, 2012)

IV. FRONT OFFICE ARCHITECTURE

Figure 2.3 shows a schematic view of how the front office architecture can be implemented (Chen, 2010). Serving a page request starts with a request for content data. Based on either a request parameter or on the type of content requested, the extraction process queries the content map to retrieve the appropriate data and create the page template. This gives a skeleton page, with many of the navigation links now resolved to content in the content map. The result then goes to the content aggregation process, which is driven by the data retrieved from the content map and populates parts of the page with data from the content management system. Finally, a rendition process converts the content to the presentation form required. Page layout in the front office architecture depends primarily on an interaction between the extraction and the rendition components. The extraction component will determine what page elements are present by the data that it extracts from the content map. Meanwhile, the rendition component will then organize those page elements on the final rendered page.

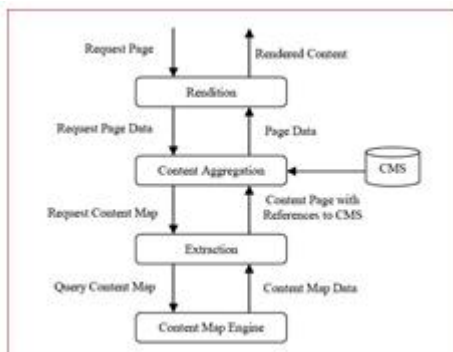


Fig. 2.3 The Architecture of the Front Office (Qing Chen, 2010)

V. E-GOVERNMENT PORTAL

The e-government portal provides several services which can be classified using the service areas that have the highest effect and are of the greatest benefit to the customers. These services vary in accordance with end users' requirements and ICT capability, which variety has provided increase to the development of various applications of e-government. Generally, these services could be organized into three, as illustrated in Figure 2.4. (Halah, 2010).

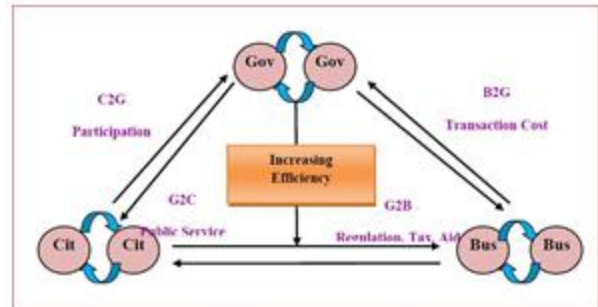


Fig. 2.4 Relationship among Citizen, Business and Government (Halah, 2010)

The citizens believed the biggest benefits of e-government portal include increased government accountability to citizens and more access to information for citizens and the most effective in terms of cost and efficiency of the government (Alfawwaz, 2011), in addition to that there are some benefits:

- I. Avoid personal interaction: the provision of public services without any interaction with the staff of government
- II. Control: e-government exercises more control over the delivery of the service than through another method.
- III. Convenience: access to public services at any time, any place and in any way it wants citizen.
- IV. Cost: e-government portal provides opportunities to overcome the barriers of time and distance in the delivery of public services and citizens can choose the time and place to deal with the services provided by the government in order to save money as well.
- V. Personalization: Allocation of services to citizens through the use of modern technology (ICT).
- VI. To increase government efficiency and cost-effectiveness and ease of access to public information.

VI. MALAYSIA EG PORTAL

The Malaysia e- government Portal Guideline which has been provided by "Malaysian Administrative Modernization and Management Planning Unit (MAMPU)" The design of the portal for the Malaysian government should focus on the outline of the design and interface portal, and must provide basic interface design through the layout of the site and the use of colours and dealing with error messages (Mahmud, Hussin, Othman, & Dahlan, 2010). Based on this observation, the usability problems are:

- I. Assist and software documentation :the portal does not supply assist and software documentation for end user

- II. Visibility of system status: users cannot identify whether the link has been visited or not. The link should modify its colour when the user has visited it.
- III. Error avoidance : means an easy task to identify, and clear navigation
- IV. Use chunking: The content of the portal is scattered and contain a lot of irrelevant information recognition rather than recall: This portal supplies advertisement for the company that relate to tourism like travel agency and hotels. Advertisement will interrupt users during the navigation
- V. Match between system and the real world: this portal should use metaphor such as icon map for map link and icon compass for travel guide. Design with metaphor will be more natural.

In this Figure 2.5 shows the functions in e-government portal in Malaysia by stages: enter, exploration (explore) and transaction (transact).The functionality of each design features must be emphasized to ensure the users need and requirements are addressed (Mahmud, Hussin, Othman & Dahlan,2010)

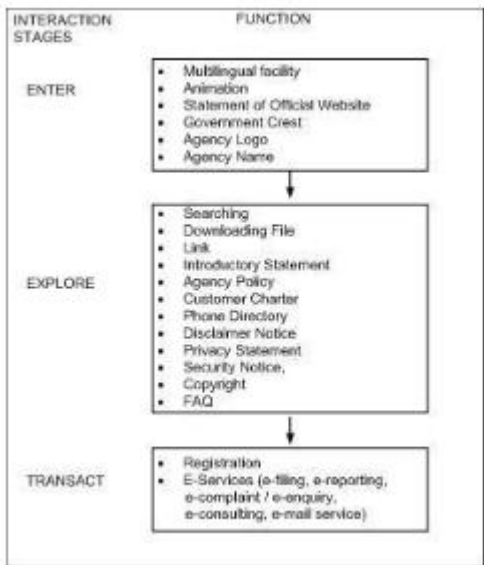


Fig. 2.5 functions in e-government portal in Malaysia (Mahmud, Hussin , Othman & Dahlan ,2010)

The implementation of e-government in Malaysia has led to the following suggestions (Haidar & Bakar, 2012) to make e-government portal more efficient and effective, so that it could attract the citizens to access the portal:

- I. Provide ways for citizens to express their reactions, inquiries, and complaints.
- II. Find out the opinions of citizens, including the latest technologies.
- III. Meet the security requirements until they are sure that the citizens' deal with e-government services are secured and kept confidential.
- IV. Transparency is essential to win the trust of citizens.

VII. PUNJAB AND PORTAL OF E-GOVERNMENT (SUWIDHA)

Single user friendly window disposal and helpline for applicants (SUWIDHA) from Punjab (Chander& Kush, 2012). Many services are provided by SUWIDHA centers in Punjab and some of the services provided by SUWIDHA portal:

- I. Certificate birthday
- II.Issuance of a certificate of death
- III.The issuance of a certificate of nationality
- IV.Issuance of a certificate to the victims of terrorism
- V.Issuance of a certificate of fighters
- VI.Issuance and renewal of cards fighters
- VII.Children and the disabled protesters

Retirement for the elderly and widowsIn SUWIDHA portal in Punjab have been analysed in detail on the basis of the relevance of the services. Various metrics chosen for the purpose are shown here in table 2.1 below.

TABLE 2.1
THE MAIN ELEMENT TO EVALUATE THE WEB PORTAL(CHANDER& KUSH,2012)

Home page	Availability of Pull down menu and other options	Running news or text on the portal	Pictures and services sufficiency	Font size and accessibility
Contact us	Accuracy and reliability of information	Clarity and efficiency	User convenience	Timeliness and relevance

VIII. THE E-GOVERNMENT DUBAI PORTAL

The e-government portal (www.dubai.ae), Government launched in Dubai in 2001 electronic portal, which is the entrance to the electronic services provided by the government of Dubai local was built and implement portal at the direction of the commission of all government departments in the United Arab Emirates have been implemented site by a group of professionals and specialists in government electronic line with the requirements of laid by World Wide Consortium (W3C). Electronic portal at Dubai government provides more than 2, 300 service where it is organized into four sections–citizens, residents, guests, and businesses (Sethi& Sethi, 2008). Links to numerous government departments, latest happenings, how-to section, and most used products and services, and general information services are available on the home page. As a first step in the direction of usage of e-Services, the “How-To” section provides a step-by-step guideline for government procedures and dealings that are conducted manually or electronically. By February 2008, the adoption rate had arrived at 91% of the more than 2, 300 services available through the portal (Dubai e-government Website, 2008).

The new portal consists of four main sections: online services, living in Dubai, going to Dubai and doing work in Dubai. This project is expected to be met with great success as Intel projects in that there'll be eight million Internet users in the Arab world.

IX. PORTAL IN MYANMAR

In 1996, a working group was formed from several government ministries in Myanmar, including the Ministry of Communications, Ministry of Science and Technology and the Ministry of Education make every effort in the implementation and development of information technology projects in Myanmar (Oo, Lwin, Oo, Aung& Ohn,2012). In 2003, some ministries began firing the website offers its own

responsibilities and many services offered to citizens, even in 2008, the number of ministries that ticked the website is 28 government ministry; most staff and employees in those government ministries did not have much knowledge, skills and expertise to develop and release e-government portals and so they must be determined by external ICT professionals and technicians to develop and implement those portals. The turn of 2011 saw the new development of e-government environment in Myanmar to evaluation factor for Myanmar portal:

- I. Ease of Navigation
- II. Content Relevancy and Usefulness (CRU)
- III. Security Protection (SP)
- IV. Interactive Communications (IC)
- V. Ease of Online Transaction (EOT)
- VI. User Friendly Interface (UFI) 7- Comprehensive Content Coverage (3C)
- VII. Loading and Processing Speed (LPS)
- VIII. Up-to-Date Content (UDC)
- IX. Proper Multimedia (PM)"

X. HARYANA PORTAL (IN INDIA)

Haryana is one of the smaller states of Indian Union with only 1.37% area (44212) Km and 2.09 % population (around 253 lacs) of India Haryana is one of the states of India, one of the states in advanced information technology in India, the citizen in this state is providing his services through a central electronic services are delivered either by traditional mail or electronic delivery (Chander& Kush,2012) . Through the electronic the portal Haryana portal got on the second place for best electronic project by the community computer in India; advantages of this portal is to eliminate corruption and middlemen in the traditional processes(Chander& Kush,2012). The citizen can use this service anywhere, anytime without the need to visit many offices, and the aim of this portal to improve the relationship between the citizen through electronic transactions. Many services are provided by these centres at district level and some of the services provided by e-DISHA centres in Haryana are here as follows:

- I. Bills (Water, Telephone, Mobile Phone, Electricity Bills),
- II. Results & provisional certificates
- III. Kinds & methods
- IV. Acceptation of applications for all transactional services
- V. Human action writing through standard human action templates
- VI. E-mail interaction & internet browsing
- VII. Costs of farming & important goods
- VIII. Information on government work, tenders
- IX. Government recommendations
- X. Panchayats development works
- XI. Discharge of money
- XII. Agriculture inputs accessibility
- XIII. Ration cards and PDS information
- XIV. Public grievances
- XV. Blood bank information

XI. THE PROPOSED ARCHITECTURE FOR JORDAN E-GOVERNMENT PORTAL

The Jordanian government has a long-term vision for the E-Government through the creation of a society deals with electronic services effectively(Al-Omari,2006),it is through the provision of electronic services and strengthen the infrastructure and skills development and modernization of the laws in order to get on the e-government effective and easy to use through the portal of e-government, where there is the structure of a proposed electronic services through the portal of e-government of Jordan will be the hierarchy as follows:

- I. Communication services
- II. Economic services
- III. Education and training services
- IV. Health services
- V. Transportation services
- VI. Industry services
- VII. Labor services
- VIII. Natural resources and environment
- IX. project land, book a land for population/services projects

The actual process of implementation of the above services on three levels. The first level: linking a specific system with the centers for databases and the second level is the middle class (business logic) and third levels is responsible for the electronic payment, and are implementing these levels through the support infrastructure for e-government through the portal, including contributing to the provision of economic services great to Jordan.

XII. CONCLUSION

This study analyzes each model in detail in order to determine the requirements for the design of the e-Government. The results of the analysis and evaluation of each model reveal that some of those portals have been designed very well, which fit with the user's convenience and speed of obtaining the required service and ease of use. Besides, they ensure the user's gateway to personal information and the confidentiality of the process of transferring information between agents of the governmental and non-governmental organizations associated with and registered in the portal. Nevertheless, some portals are complex and need to re-design a suit with the needs of the users. Through the results, the basic requirements in the design of any e-Government portal are (1) Home page design must be easy and contains a small amount of text, (2) increase the accessibility for different users have education level, (3) make the portal more say for use through add the multimedia technologies to deal with services, (4) increase security to ensure the confidentiality and integrity of information, (5) several ways to get feedback, and (6) several ways to easily and continuously connect to the active section, which helps to discover the problems faced by the portal users. On top of that, data and news must be updated on a daily basis in order to stimulate the users to enter into the portal through the gate on an ongoing basis and find out the latest news and the latest services provided to him. These requirements will help in designing the portal.

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