

A Proposed Requirement for Developing a Mosque Portal

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Abstract: Now a days, the mosque institution in Malaysia is increasingly becoming the focus of the Muslim community in organizing various activities not only religious activities but also non-religious activities. Mosque portal development is in line with the current situation where it can be used as a medium in conveying information and closer relationship between the mosque organizations with the community. In studying the development for mosque portal, types of information requirements for portal will be examined. Before this there is no standard or guideline that can determine what kind of information needs appropriate to a mosque portal. Therefore, the aim of this study is to provide a complete requirement for mosque portal development in Malaysia. In order do so, a study on the portal requirements will be explored by browsing the existing mosque portals in Malaysia and next the main requirements of mosque portal will be shortlisted. Then, these requirements are evaluated by selected respondents using a questionnaire. The of the questionnaire will determined the essential requirements to be included in the mosque portal.

Key words: Mosque portal, mosque portal requirement, mosque portal guideline, determine, mosque, results

INTRODUCTION

Several organizations have engaged the portal concept and applied according to the organization's needs. Portal ability is to increase the status and ranking of the organization and improved customer satisfaction (Mudimigh *et al.*, 2010). A mosque portal can be categorized as a vertical portal because this portal is focused on the needs of user population where it encounters their needs and organization's needs as well (Zhu *et al.*, 2004; Detlor, 2000). Mosque portal aims to become the reference or destination site for any mosques in Malaysia. It provides information related to the mosque such as the location map, mosque's organization management, mosque histories and organized activities. Mosque portal also serves reference topics related to Islam on the Internet (Jamsari, 2010).

There are many mosques portal developed in Malaysia there are some similarities and differences between these portals. Each mosque has their own style in creating the portal because no standards or guidelines that they can be referred. Most mosques portal displays basic information such as profiles, vision and mission organizational charts, prayers time and announcements of activities organized by the mosque. This study will determine the important requirement that should be in the

portal and describe the appropriate information to those requirements. Further, this requirement can be used as reference for any mosques that are interested to have their own portal.

Extension rule-based theorem proving method: There are several categories of mosques in Malaysia such as the National, State, Regional and District Mosque. This category is assigned to mosque based on the location, size, function and organized activities. The role of the State Mosque is different from the role of the Regional Mosque. Therefore, the function of mosque category may vary depending on mosque's management and activities organized for the community. The portal also acts as information centre which cover all mosques in every states of Malaysia. Mosque portal will add data about all mosques in Malaysia from time to time into the database so that it is updated. Therefore, this portal serves to consolidate the Muslim community in Malaysia in general and strengthen ties among members of the mosques in those particular regions.

From our observations of the mosque portals available on the internet we can conclude that there are three categories of common information included in almost mosque portal. The categories of information are as follows:

- Mosque profile, history, mission and vision organizational charts, functions and objectives, location maps, prayer time and imam's profile
- Programs and activities, announcement, news and gallery
- Islamic learning, Online Khutbah, Online Hadith and article

A frame work for university portal that focuses on the personalized characteristics of the person who visiting the site. Portal tools and specified information that is displayed from a university database is based on what the user needs. A university portal offers a number of benefits to users of the system which are first act a central location to get the information (Zhu *et al.*, 2004). Analysis of user requirements is part of the User Centered Design (UCD) which increase the probability the system implementation that matches user needs and behaviors. UCD can help to overcome some of the barriers to implement the successful of the university portal because staff and students may have different system requirements. Thus, the architecture of portal provides three key features: web-based, personalized and integrated.

A framework for healthcare portal is the combination of Knowledge Management (KM) and IT which focused on knowledge integration and sharing to improve the healthcare system in Malaysia. This framework used KM tools named K-sharing practice where medical expert sharing their knowledge for helping others in decision making (Nasir and Dominic, 2011; Passornpakorn *et al.*, 2013). With the introduction of social networks, websites, blogs, portal among the community, K-sharing is very popular. Ministry of Health collaborates with Non-Governmental Organizations (NGOs) that work with technology that has the capability to educate the people. This has started to develop a web page about a particular disease to promote early detection of breast cancer. This framework concentrate on combining three elements; KM, IT and healthcare in appropriate ways for Malaysian culture. The proposed framework a based on case study scenario that consists of three parts; the portal, user or benefit of portal and the contributor.

Another study proposes a design framework for e-Health applications that are capable to give information with dynamic and adaptation to the e-Health knowledge base. They use the Personal Health Record (PHR) web portal framework to collect and store personal health information (Raza *et al.*, 2009). From Information stored in the PHR they add intelligent services to detect health problems to notice or warning to the patient and also to propose self-care method based on that information. To

develop a system that can meet the diverse needs of patients, a framework consists of six components, health portal device interface, the Personal Health Record (PHR) services, decision-making, variable service and service manager are proposed. The system must be atomic, extensible and flexible. Thus, the component in this system is design as a service (Passornpakorn *et al.*, 2013).

According to framework for web portal in ubiquitous pervasive environment, it proposed a number of factors to be consider when designing a framework (Raza *et al.*, 2009). First, provide access to the real time information. Second, the fact the application interact with specific hardware should not be aware by user. Third, the proposed framework should be able to control the congestion in the network (Raza *et al.*, 2009). Current portal constantly communicate with the portal server for each query, causing delays and generate high internet traffic. The idea behind regional local is the queries which are intended for the same region, the query is solved locally rather than to route it through the internet.

Portal framework based on personalization is also has been reviewed. This approach is study on the user pattern which can describe the characteristic of their behaviors. There are three stages of personalization mechanism. First, monitor the behaviors of users based on user interface to gather the required data. Second, match the user pattern with the portal dynamically. Third, composition of outlet that suited to the user behavior (Ma *et al.*, 2006; Chen *et al.*, 2010). When users with different backgrounds visit the information portal, they usually hope the system can display information in their favorite style and familiarize to their own personal characteristics and browsing behaviours (Rooslan *et al.*, 2005).

MATERIALS AND METHODS

In constructing a requirement for mosque portal, several steps were taken we explore and research some of the mosque portals were developed in Malaysia. There are 10 portals that have been navigated that consisting of a portal focused on the state and a portal that focused on the mosque itself. This is the first phase that we named requirement gathering. This will serve as a benchmarking for the implementation of the same portal that fits the philosophy of the mosque organization and field. This step will help in determining the requirements that should be in the mosque portal. It also provides an overview of how the requirement of mosque portal looks like and defines the functions and services that the portal provides. Those requirements will determine the mosque

organizations own needs because there is no portal that fits to all organizations (Mudimigh *et al.*, 2010). Afterward, the requirements that have been determined must be actionable, measurable and related to the mosque portal needs and objectives.

Next, we have to analyze the requirement gathered in the first step. This step involves a survey questionnaire of users to define the requirements which are necessary and which are not. The results and findings of this study will depend on the full utilization of statistical data collected and analyzed using SPSS. Then, the final requirement for the mosque portal will be determined in this stage, the feasibility of which is shown to have similarities with other portals and may also have additional requirements.

The main requirement of the mosque portal has been divided into five content area or categories, including its information's items to be analyzed. Category B1 is about Mosque Profile which identifies the basis information of mosque. For Category B2 indicate the organization's information including profile of imams and bilal. Category B3 is about facilities and services offered by the mosque. Activities and programs organized by mosque in the Category B4. The last category which is B5 is presenting related information and Islamic Education (Table 1). The respondent of this study covers the lecturers at Kolej Poly-Tech Mara Alor Setar and staffs at Pejabat Agama Negeri Kedah. Most lecturers chosen are those involved in the teaching of Islamic courses and also from other fields. Meanwhile, staffs at Pejabat Agama were selected according to directly involved in the mosque management. In this study, data was collected using a questionnaire of 30 respondents.

Measurement: To ensure the research is conducted effectively and efficiency, the detailed of the procedures of obtaining information is needed in conducting the study in order to solve the problem. We will use the descriptive research (quantitative research) method which was primarily used to obtain the information need for the purpose of the study. The questionnaire was divided into three sections to study the necessary requirements of mosque portal development.

Section A of the questionnaire comprised of demographical background of the respondents. The demography of respondents consisted of four questions: organization, gender, age and experience of browsing mosque portal. Section B is a part of the instrument that was aimed to test the variable or items constructed. This section is divided into 5 subcategories to represent the content area of mosque portal where all relevant

Table 1: The list of items for each content area

Points	Description
B1: mosque profile	
History	Vision and mission
Function and objective	Customer chartered
Imam's note	Building architecture
Location maps	contact us
B2: mosque organization	
Organization chart	ImamBilal
B3: facility and service	
Facilities	e.g., Hall, lecture Room
Services	e.g., Islamic courses
Class	
Download	e.g., Download form
B4: activity and program	
Announcement/New	Gallery
B5: information and islamic education	
Current issues	Islamic courses
Calendar/takwin	Online khutbah
Prayer time	Online surah/hadith
Financial report	article

Table 2: Layout of questionnaire

Section	Variables	No. of items
A	Demographic profile	4
B	Content areas/category of information	
B1	Mosque profile	8
B2	Mosque organization	3
B3	Facility and service	3
B4	Activity and program	3
B5	Information and islamic education	9
C	Commentsand and suggestions	-

requirements listed and will be measured by the respondents. Section C is about comment and user suggestions for requirement of mosque portal (Table 2).

A limitation of this study is that involves a small number of respondents where only 30 questionnaires are collected. In addition this study covers only certain places and organizations that located in the religion office and private college.

RESULTS AND DISCUSSION

Table 3 shows summarized the demographic characteristics of respondents. The demography of respondents consisted of four questions: organization, gender, age and experience of browsing mosque portal. Most of the respondents are working in the private sector (80.05%) and majority of them aged between 26-40 years (80.0%). Approximately, 57% of the respondents are female and the rest are male respondents. Based on the question of whether the user has experience of browsing the mosque portal, 56.7% of respondents answered yes, the remaining 43.3% answer no which means they never surfing the mosque portal.

Mosque portal requirements analysis: The next phase of the result is to determine the most important requirements

Table 3: Summary of respondent's profile (n = 30)

Demographics/Category	Frequency	Percentage (%)
Organization		
Government	3	10.0
Private	24	80.0
Others	3	10.0
Total	30	100.0
Gender		
Male	13	43.3
Female	17	56.7
Total	30	100.0
Age		
Under 25	3	10.0
26-40	24	80.0
41-55	3	10.0
Above 55	0	0.0
Total	30	100.0
Experience		
Yes	17	43.3
No	13	56.7
Total	30	100.0

Table 4: Mean and SD for items in mosque profile

Mosque profile	Mean	SD
History	4.73	0.52
Vision and mission	4.57	0.82
Function and objective	4.67	0.66
Customer chartered	3.23	1.48
Imam's note	3.77	1.45
Building architecture	3.57	1.30
Location maps	4.63	0.56
Contact us	4.70	0.65

Table 5: Mean and SD for items in mosque organization

Mosque	Organization mean	SD
Organization chart	4.60	0.72
Imams	4.53	0.73
Bilal	3.83	1.29

for mosque portal development. Respondents will evaluate each item based on their agreement toward the mosque portal requirements. Regarding of items in mosque profile Table 4 shows the mean for history is (4.73), vision and mission is (4.57), function and objective is (4.67), location maps is (4.63) and contact us is (4.70). The mean of these 5 items is more than 4.00 which considers good value and represent the respondents agreed or strongly agreed with these items. The value whereby below 4.00 refer to item customer chartered (3.23), Imam's note (3.77), building architecture (3.57) are consider medium or less important for mosque portal needs.

For content area of mosque organization, Table 5 shows the mean for organization chart is 4.60 and for Imams is 4.53. Bilal information got the lowest mean (3.83) which is <4.00 compared to the other items. Table 6 and 7 show the mean value for all items for facility and service area and activity and program area is reach more than 4.00 where the mean value for facilities is (4.60), services is (4.57), download is (4.10), announcement is (4.80), news is (4.57) and gallery is (4.30). In the category of information and Islamic Education area, results in Table 8 shows the mean for current issues is (4.13), calendar is (4.70), prayer time is (4.97) Islamic courses is (4.67), Online Khutbah

Table 6: Mean and SD for items in facility and service

Facility and service	Mean	SD
Facilities	4.60	0.72
Services	4.57	0.68
Download	4.10	0.99

Table 7: Mean and SD for items in activity and program

Activity and program	Mean	SD
Announcement	4.80	0.48
News	4.57	0.68
Gallery	4.30	0.84

Table 8: Mean and SD for items in related information and islamic education

Information and Islamic Education	Mean	SD
Current issues	4.13	1.07
Calendar	4.70	0.53
Prayer time	4.97	0.18
Islamic courses	4.67	0.55
Online Khutbah	4.37	0.72
Online Hadith	4.33	0.76
Online Surah	4.33	0.88
Article	4.10	0.76
Financial report	3.27	1.60

is (4.37), Online Hadith and Online Surah are (4.33) and Article is (4.10). Meanwhile, the item financial report got the lowest mean (3.27).

There are 56.7% of the respondents had experience surfing the mosque portal where indicated they know and are familiar how the portal look like what are the requirement available in the portal and what kind of information they really need. Therefore, the items that have been evaluated are more accurate and reliable because of assessed by those who experienced. The mean value of item history, vision and mission, function and objective, location maps and contact us are more than 4.00 which represent the respondents agreed or strongly agreed with these items. These items are the most important requirement and are found in almost of mosque portal now. The other three items customer chartered, Imam's note and building architecture got the mean below than 4.00 which indicate less referred by the user when visit the mosque portal.

The organization chart and the imam profile are important where the mean value is above 4.00. Bilal information is considered less important to the users based on the low mean (3.83) which is <4.00. Content area of activity and program is the most important for existing mosque portals in Malaysia where it is displayed on the portal homepage. Most portals focused on the publicity of activities organized to the community. Therefore, all items in this category agreed and approved by the user where the mean value is above 4.00. For category of information and Islamic Education area, the results show that the majority of items have agree and strongly agree from respondents in which the mean value exceeds 4.00 except for items financial report which the mean value is

3.27, denote it is less important for requirement of mosque portal. Most of the respondents commented that the financial report is very privacy, important and maybe need presented to the public but not through the portal.

CONCLUSION

The portal will be a good communication platform with the capability to connect people for good intentions. Mosque institutions increasingly important in recent years, the development of mosque portal is very relevant in the current technology. A well implemented mosque portal can offer a number of benefits to a user and close the relationship between mosque to the public and local community.

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