Factor Effect on Saudi Student to Use University Portal in Saudi Arabia

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Abstract: Ministry of Education in Saudi Arabia aims to develop the knowledge in the nation. Higher education is responsible for directing university education, adopted policy, encouraging research and formulating rules. Saudi Arabia has adopted a policy to introduce information and communication technologies to cater for its rapid economic development. Most of government administrative agencies in the Saudi Arabia face great pressure in order to overcome the challenges of introducing such technologies. There are a 28 universities in Saudi Arabia. Portals can be basically defines as the gateways that help in integrating the information from various sources and provide it on a single window for its end users. This study aims to investigate the various factors that help in encouraging the students to use the university portal. An online survey questionnaire was collected from 91 students from various universities in Saudi Arabia, reviewed numbers of papers. The findings reveals seven factors user satisfaction, system quality, interaction, accessibility, efficiency, behaviour and e-Service factors which considered significant to motivate and attract student to use university portal and also increase the satisfaction of students in Saudi Arabia universities.

Key words: Saudi Arabia, universities, students, accessibility, efficiency, defines, interaction

INTRODUCTION

Saudi government has a number of ministries to manage kingdom. One of the important ministries is Ministry of Education. It was ministry of high education. Higher education is important matter for any countries. Universities represent Higher education in all countries. Some of those universities are public and other private. Developing country use universities and academic staff to achieved their objective (Bornmann, 2013). Moreover, governments use universities as strategies to improve lifestyle. One of the main objectives for ministry of education in Saudi Arabia is improving students performance at Saudi universitie. Ministry of Education in Saudi Arabia has 28 universities. All these 28 universities is governed by the by the government of Saudi Arabia. Saudi government distributes those universities in different state in order to cover all cities. Those universities have a number of branch and college. Some of those universities have all subjective. Saudi government provides and assist budget for each universities depending on size and capacity.

Saudi Arabia is one of the developing countries which has a few unique characteristics and is quite different from few other developing countries. The fact that Saudi Arabia is the leading exporter of petroleum is one of the key factors which have helped the country to develop at a rapid pace as compared to the other developing countries. However, Saudi Arabia is also a strict follower of Islamic laws and this has made the development as a modern economy a bit of challenge due to gender segregation in the education system. This has made the people governing the education system to find different ways to improve the higher education system and benefit from it. Although, the Information and Communication Technology (ICT) has been developing in a faster pace in the Saudi Arabia's higher education system in the last few years, the effect of this is not helped in generating the expected outputs.

University portal: The web portal can be defined in general as the knowledge management system that helps the organizations or the corporate to reuse, share, exchange and create new knowledge (Mansourvar and Yasin (2010). It actually supports the process of knowledge management generally, a portal defines as a web site with a highlighted feature: provides quick access to services and personalized information. Portals connect users not only with everything they need but also with every one they need and provide all the tools they need to work together.

The web-based gateway that provides access to all the related end users to the different resources of backend seamlessly is called a university portal (Bringula, 2013; De Luca et al., 2011). These portals will provide a much customised view of both the software as well as the hardware resources which is very specific to their particular domain. One of the biggest challenge in

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building a efficient university portal is to increase the accessibility of the most updated information and also adapt to the ever increasing service requirements services (Thomas-Alvarez and Mahdjoubi, 2013). One of the main features that a university looks into is that it looks to have an efficient portal that works with end users (i.e., the visitors staffs and also the students) and help in building an university portal which is designed for the good of the public and meets the expectation of the university as well as the customers.

The whole dynamics using a university portal has changed due to the rapidly developing information technology. This has become much more dynamic and has become even more responsive to cater to the needs of the academic community. It has become one of the platforms for the students and the teachers to communicate with the help of the university website. It integrates the enterprise applications along with the various available information and the contents. The usability of a university portal entirely depends on the way in which its end users make use of the information and interact with the portal. It mainly includes the accessible standards, page layouts, various graphics designs along with the content design (Hassan, 2013).

Factors: One of the critical issues in the university portal is the influence of the end users satisfaction level on the use age of the university portal. Therefore, different factors influence on student to use and interact with university portal. The research conducted by Shaltoni *et al.* (2015) on the various factors influencing the student satisfaction on the university portal in the developing countries has concluded that there are basically three main factors influencing the student's satisfaction level. These three main factors are the availability of the educational services, the quality of the information and finally the system quality. These three factors are the major determinant of the end users satisfaction. The findings have shown that one of the major concerns of the students is the availability of the different e-Services. This study aims to find the most important factors which influence positively to improve the Saudi university portal.

User satisfaction: One of the definition given for user satisfaction by DeLone and McLean (1992), actually defines the user satisfaction as the recipient's response to the information system's output. However, the researchers Wixom and Todd (2005) defined it as one of the object-based attitude. Few more researchers referred the user satisfaction as the response of the end users to the system they use (Lee and Kwon, 2009).

The end user satisfaction can also be referred to as the measure of the successful interaction between the various information system and also it different users.

The satisfaction of the users will provide a surrogate which is significant to the critical product of the existing or new information system (Longinidis and Gotzamani, 2009). These things cannot be measured one of the examples of such factor is the organizational effectiveness. It may also be defined as the total sum of the end users attitudes or the feelings towards the different factors that affect a particular situation (Bailey and Pearson, 1983). Another way of defining the user satisfaction is in terms of the use of the system and the acceptance of the portal which is the practical way of measuring the success of the information system (Zviran *et al.*, 2006). Another metric to measure the end user is the actual success of the information system in the very competitive market and the level of understanding of the end-users about the product characteristics and the product features (Gatchalian, 1999).

System quality: One of the metric used to measure the information processing is the system quality (DeLone and McLean, 1992). The main factors that are included in the system quality are the availability of the system as well as the response time of the system. These are the two perceptual measures (Yen and Lu, 2008). However, due to the complexity involved in the library portals and also the academic web portals the researchers related to the information science also take into account the task flow while measuring the system quality (Hong *et al.*, 2002).

Some of the measures which is included in the service quality are quality of documentation, the user interface consistency, the ease of use and also the bugs in the information system. Even the program code quality and the maintainablity may also be one of the meausres to service quality (Ainin *et al.*, 2012). Another way of defining the information system is the different characteristic of the information system which effects the quality of the information system output (Roldan and Leal, 2003). Service quality may also include certain technical features which is related to the other IT and othrt network equipment (Aasheim *et al.*, 2006; Delone and McLean, 2003).

Interaction: The interactions basically involves three different operations which are the interaction between the peers who use the same products, the end users and the service provider's employees and the third one is the users and the web portal. Eventough the use of IP web portal is a self managed process, the user may still prefer to get assistance from a knowledgeable person who is responsive and caring to help them to guide and trouble shoot few problems. The guidance may also be done without the human involvement and using only certain tools like e-mails, live chats, discussion forums and the

message boards. This will not only help in reducing the customers concerns but also helps in grsaping the customer feedbacks (Yang *et al.*, 2005).

One of the main factor which contributes to the positive learning outcomes ins the learning enviornment which encourages collaboration and social interactions (Anonymous, 1995). The satisfaction of the students with the online learning enviornment can be increased with the help of the collaborative learning tools (Bonk and Cunningham, 1998; Gunawardena and Zittle, 1998). This will also encourage the enviornment of group work and quick feedback. This will give the users to share their experiences and gain new perspectives which otherwise they would have not been exposed to. This will help to encoursge an enviornment of interaction which can catalyse a meaningful and active learning expereiences (Gunawardena and Zittle, 1998).

Accessibility: Another important factor for the user satisfaction is the accessibility of the website (Lin and Lu, 2000). The accessibility includes two important features, i.e., the availability of the systems which are related such as the on line services, computers and the modem which helps in accessing the websites. The second feature is the responsiveness of the website. The customers will expect to have a web based service which will be available at all the time with the desired speed of log-on, search and access with a added feature of speedy web page download (Yang *et al.*, 2005).

One of the unique characteristics of the network these days is that they do not have any boundaries. The cyberspace in todays world is very crowded and the users have many different sources and choices of information. The geographical distances is totally dimenished, so, it is very important for the websited to provide 24/7 service to the users. In case the customers or the end users are made to wait for downloading or gaining access to the information the users will shift to some other source instead for wasting time. Hence, it is impossible to retain the web customers if the downloading speed is slow as the customers have many different potential sources for the information (Kuo *et al.*, 2005).

Efficiency: The computer self efficacy can be defined as the belief in the capability of an individual to solve the problem, desemminate the information and also to make decision using the technology available. Bin Masrek (2007). The individual who has a high level of computer efficacy will be able to engage more in computer related tasks and should show persistance in completing the computer related tasks successfully (Johnson *et al.*, 2001). In contrast an individual who has a very low level of computer self efficacy will not be able to complete the computer related tasks. They are more likely to give up when the come across performance obstacles and avoid

any computer related tasks. The past researche's have concluded that the influence of computer self efficacy is very significant on the degree or level of acceptance and usage of the IT related services (Boyle and Ruppel, 2004; Brown, 2002; Chan, 2001; Hwang and Yi, 2002). The effect of computer self efficacy is huge on the intranet computing enviornment. The managers feel that the end users ability to use is computer is an important factor influencing the intranet computing enviornment (Tang, 2000). In another research on the computer sefl efficacy ot was found that the users ability to use the computer and related devices is crucial in the user satisfaction with the intranet (Young, 2001). The web self-efficacy is a crucial factor to be considered in this study as the study is related to the portal in the web enviornment. The term web-efficacy may be defined as the an individual's belief in executing the cources related to the internet whichis needed to achieve the intended usage goals. There are many studies to support that the web self-efficacy is one of the important determinant for the internet usage and satisfaction (Kurniawan *et al.*, 2002; Roca *et al.*, 2006). Hence, the study hypothesisis that the the web-self effecacy will significantly effect the portal effectiveness dimensions, i.e., user satisfaction, system quality, information quality and the service quality.

Behavior: An individual's behaviour is actually determined by the behavioural intention of an individual and inturn the beavioural intentions are a function of an indivudals attitude towards the behaviour. This is suggested by the Theory of Reasoned Action (TRA) Fishbein. The attitude towards a typr of behaviour is actually defined as an indivudal's negatove or a positive feelings about performing a set of behaviour. If an individual perceives that the result of performing a certain behaviour is positive then his attitude autmatically will be postive towards that perticular behaviour. The various research in this area have suggested that the attitude towards an information system will finally be influential in the success of the information system (Mahmood *et al.*, 2001). In one of the research by Hussein (2005), he predicted that attitude towards an information system is one of the strongest predictor of four dimensions of the information system effectiveness (i.e., information quality, system quality, user satisfaction and perceived usefulness). Hence, the study proposes the hypothesis that the attitude towards the portal will significantly affect the portal related dimensions (i.e., information quality, system quality, service quality and user satisfaction).

e-Service quality: The measure of service quality is determined by the actual difference between the customer's expectation from the service and the actual perceptions of the service they actually receive

Table 1: Preliminary study content

Questions	Answers	
	Yes	No
Do you use the university portal	81	10
Does your university portal provide space to mention the summary of your interests and your personality in general	13	78
Can you know the material or subjects that you want via.your account on university portal	49	42
Can you communicate with your lecturers via. your account on university portal	16	75
Can you get information about other students via. your account on university portal	4	87
Can you know about new policies via. your account on university portal	34	57
Can know the activities held inside or outside the university students via your account on university portal	43	48
Does university portal provides service to share your opinion on a certain idea with leaders at the university	14	77
Does university portal provides service to download software that you need during your studies	16	75
Does university portal provide sending and receiving your evaluation of your assignment from lecturers	22	69
Can you see the detail of the grades for each course via.your account on university portal	38	53
Does university portal notified you with what is new at the university 40 through the methods of e-Communication such as e-Mail or mobile	51	
Does university portal let you to know the contracts signed by the university with international universities	16	75
Can you discuss with your colleagues some problem related with your study via. your account on university portal	5	86
Does the university portal lets you receive your teacher notes or you can share your feedback	12	79
Does your university portal allow you to download scientific material that given by teacher in the class (e-Learning)	15	76
Does university portal design and services motivating you to interest and use the portal	26	65

Table 2: Student comments feedback

Question	Comments	Number of students
Is there any service that you need to be include in university portal	Need space in portal to introduce my self (profile) include interest, favourite	2
	Easy contact with lecturers about any related details to student courses	20
	Listing activities inside and outside university	2
	Deep details about grade, attendance and absent	17
	Design of university portal	3
	Online discussion between students	5
	Download computer software	3
	Registration details (enrolling subjects, dropout)	3
	Awareness of using portal	2
	e-Learning	5
	Share decision with university leaders	5
	International collaboration	2

(Parasuraman *et al.*, 1985). The actual understanding of the various attributes of service that a customer use while they evalute a service and their definition of the quality of service can help the organization to develop many different effective ways to improve the service they offer.

The most widely used metrics used to measure the quality of a e-Service is the responsiveness, fullfillment (Yen *et al.*, 2008), usability/intuitive operations (Rodgers *et al.*, 2005), contact (Ozkan *et al.*, 2009) and support materials (Hakkinen and Hilmola, 2008). The reason for using these metrics is because in the web enviornment the personal interaction is replaced by the system's interface.

The measure of the service quality in the web based system can be defined as the extent to which these services can help in effectively and also effeciently communicating online, purchasing and the delivery of the products and the services (Li *et al.*, 2002).

The main difference between the web-based and the traditional services quality are as follows (Kuo *et al.* 2005).

In normal circumstances the web-based customer service is likely to be more efficient than the traditional services. The customer service throught the websites can normally provide close connections between the companies and the customers as well as between cutomers themselves. The main disadvantage of the traditional customer service is the fact that it is mote time consuming and labour intensive.

Active and passice receipients: Another main advantage of the web based customer service is that the customers are active and central players in the process of marketing and selling process. They have more control in the online enviornment (Wolfinbarger and Gilly, 2001). The uniqueness of the web based customer service is that they normally provide only the information and the customers themsleves do the self service shopping for their products. The traditional services rely more on the human resource which sometimes be an disadvantage.

Preliminary study: Online survey questionnaire was collected from 91 students from various university in Saudi Arabia. Table 1 present the content of preliminary study and the respondents answer.

Table 2 presents the students comments feedback about above services which provide in university portal.

From preliminary study the researcher come out with several factors which effect on students in Saudi Arabia universities. By studying these factors that will help Saudi universities to improve their university portal and increase the student satisfaction about all services that offered via. the portal. In the study, presents the factors which come from preliminary study.

Preliminary study factors:
- User satisfaction
- Software center
- e-Learning material
- Motivation
- University policy
- Interaction
- Knowledge sharing
- University policies
- Feedback
- e-Service
- International collaboration
- Evaluation
- Online discussion
- Course details

MATERIALS AND METHODS

The researchers used various databases such as (Science Direct-international Journal of Information Management- Springer- Google Scholar) to find evidence of the importance of university portal to enhance the portal services which provide to students in Saudi universities. Also, to determine the most important factors which able to attract students to use university portal. The researchers conducted a preliminary study with 91 students from various university in Saudi Arabia. These include Saudi students and academic staff.

This study investigates the importance of university portal and investigate the factors the most important factor which can attract student to use the portal and influence on their satisfaction in Saudi universities to enhance and improve all services which student need in university portal at Saudi Arabia.

RESULTS AND DISCUSSION

The above preliminary study and related work highlights the importance of university portal to improve Student services and increase the satisfaction of students to use and interact with portal and their teachers. Also, make universities to develop their portals and achieve the objectives of universities.

CONCLUSION

This study examine the most important factors which influence positively to improve the Saudi university portal. In fact, studying factors which influence user satisfaction to use university portal is considered most important to come with good services that offer to students in university portal. This study come with seven factors user satisfaction, system quality, interaction, accessibility, efficiency, behaviour and e-Service factors which considered significant to motivate and attract student to use university portal in Saudi Arabia universities.

LIMITATIONS

The findings from the preliminary study highlighted some of the problems faced by students in Saudi universities like lack of the services that provide to students in existing university board, lack of announcements of university activities, lack of communication between students and university leaders, lack of contacts environment between lecturers and students, lack of communication along with other universities (international cooperation), lack of semester grade details and lack of details information about student profile.

RECOMMENDATIONS

This study looks for factors enhancing students services to motivate them to use university portal and increase their satisfaction. The university needs to consider how to make the most of the identified factors to assist academic staff and student in using portal. Enhancing their awareness about using portal in the academic field will improve their level of interaction between academic staff and student to increase their satisfaction. It is important to have tools to measure the satisfaction of academic staff and students at Saudi universities.

Therefore, it is necessary to focus on all the identified factors and develop a conceptual model of university portal that incorporates students services expectation in Saudi Arabia.

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