



# Research on student portal usage and its issues: a case study on Saudi Arabia universities, academic perspective

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## Abstract

With the rapid development of information and communication technologies (ICTs), having a website is inevitable for the organizations. Ministry of Saudi Arabia has adopted a policy to use ICT to universities to improve their university portals and services that they offer. Although having good ICT infrastructure in the Saudi Arabian universities, the usage of university portal still low. This paper aims to identify the current situation of student's portal usage and its content issues that face student in Saudi Arabia universities, and how to solve these issues to produce good quality of portal content that can encourage the students to use the student portal. An online survey questionnaire was collected from 40 academic staff from various universities in Saudi Arabia, and reviewed a numbers of papers. The findings reveal that there is a lack of student's portals contents, awareness of using ICT, and training and guidance. By enhancing quality of content that will increase the student satisfaction to use the portal, and that will help the university to produce good portal to their students.

**Keywords:** Web Site; ICT; University Portal; Saudi Arabia.

## 1. Introduction

Saudi Arabia's Ministry of Higher Education has continuously been working in close association with Saudi Universities for enhancing the quality of higher education so as to make sure that university graduates have the expertise and learning outcomes which correspond with international benchmarks and employment market needs [1]. In spite of a robust ICT infrastructure in the universities of Saudi Arabia, the utilisation of university portal by students is quite low [2]. Several universities in the country spend a lot on ICT every year but this outlay does not deliver adequate enhancement in ICT services and utilisation. Several universities have sufficient ICT infrastructure, yet they do not utilise it optimally for several reasons, such as the status of their resource planning [3].

Moreover, with the swift advancement of information and communication technologies (ICTs), possessing a website is unavoidable for business entities. The entities get the chance of introducing themselves as well as their service offerings. Furthermore, ICTs, especially those pertaining to the internet, have transformed the manner in which services are rendered in higher education. With the progress of web applications, students have been subjected to fresh features which encourage interactivity and personalisation. One of the key advancements in the digital era is portals. Entities providing higher education, especially universities in advanced nations, are greatly involved in portals that emerged as a vital tool for delivery of service and communication between administrative personnel, faculty members and, most significantly, students [4]. University websites intend to offer information to an extensive diversity of users. Users of such kinds of websites are primarily bothered about the ease of discovering information in an opportune manner [5], [6].

The aim of this study is to discuss student portal usage in Saudi Arabia universities to identify the issues that student faced in the portal during their study. This paper organized into the following sections: literature review, study method, result and discussion, and conclusions.

## 2. Literature review

A well designed university portal will help the user to get access to different backend resources'; it acts as a gateway between the users and the backend resources [7, 8]. As explained earlier a university portal will help and provide its final individual customers with a specialised view which matches their need of both the software as well as the hardware resources that is very specific to the user's domain. One of the major challenge is to build a university portal which is updated regularly with the latest information and also is ready to adapt to the increasing services [9]. The main concern of the university is to build a portal that controls and coordinates as well as it interacts and takes feedback from the customers, visitors, staff, and students which will support the end-users to achieve to build a portal that will meet the expectation as well as the building standards that are assigned for the good of the public.

The expected function of the university website is changed over a period of time with the developing information technology. It has become more of a responsive website and also has turned out to be very dynamic based on the demands and the requirements of the different

academic community. These days the communication between the teachers and students are also done through these websites sometimes. These websites actually integrate the application, content and the information together to help the end user. The understanding of the users need is a key element in the usage of the university portal. It mainly includes four important things namely the accessibility standards, page layout, the graphic design and most importantly the content design [10].

Gul and Saqib [11] evaluate the usage of King Abdul Aziz university portal to identify portal usage issues. Throughout this assessment, Heuristic evaluation was conducted by experts as well as by the survey done. By the results it is clear that the portal doesn't conform to many standards of design, content, user support and navigation.

Bringula [7] determined the influence of faculty- and web portal design-related factors on web portal usage. The study showed that web portal usage could only be achieved by focusing on the technical and non-technical considerations in developing a web portal. The study recommended that web portal designers should ensure that the uploading and messaging mechanisms of the web portal are always functional and reliable.

The quality of the data in an institutional website of the basic and the secondary school was analysed and measured by [12]. The results of this research findings suggested that the main issue is the lack of interactivity with the contents in the web portal and also the lack of protection against unauthorized accesses as well as manipulations.

The study by Elsayed [13] investigate university portal of king abdulaziz and its content issues, as per the findings of the study the Abdulaziz University (KAU) had totally ignored the content of the portal and the study suggested the university to focus more on the way it governs, creates and finally delivers the web content.

### 3. Method

This paper use quantitative approach, online a survey consisting of two parts, demographic part and using university student portal part. The second part uses a Likert scale questionnaire (Strongly disagree, Disagree, Neither, Agree, Strongly agree). The questionnaire distributed to all participants in different Saudi universities. Each item in second part was indicating a positive attitude towards the using of university student portal and the respondents were asked to respond on a five point Likert scale rang.

The online survey sample was 40 participants conducted on the using student portal from point of view academic staff in different Saudi universities. The highest percentage was 82.5 % male participants and the percentage of female was 17.5 %. The sample distributed to both local and international staff with percentage 87.5 % for Saudi staff and 12.5 % for international staff.

### 4. Result and discussion

The data collected via online questionnaires by using google doc and distributed to participants to identify the issues that they faced when they use student portal. The following sections describe the demographic of participants and the questionnaires related to portal contents.

#### 1) Gender

Table 1 describe the distributions of participant's gender. The highest number and percentage was male (n= 33 , 82.5 %). Females were (n= 7, 17.5 %).

**Table 1:** Participants Genders Distributions (N= 40)

Gender	Number of participants	%
Male	33	82.5
Female	7	17.5
Total	40	100

#### 2) Age

Table 2 describes the respondents' age distributions in the university. 9 participants (22.5%) were under 30 years, 12 participants (30%) were in the range of 30-34 years, 8 participants (20%) were in the range of 35-39 years, 2 participants (5.%) were in the range of 40-44 years, 2 participants (5.%) were in the range of 45-49 years, and 7 participants (17.5%) were in the range above 50 years.

**Table 2:** Participants Age Distributions (N= 40)

Age	Number of participants	%
Under 30 years	9	22.5
30-34 years	12	30
35-39 years	8	20
40-44 years	2	5
45-49 years	2	5
+50 years	7	17.5
Total	40	100

#### 3) Nationality

Table 3 describes the nationality of the participants. There was 35 participants (87.5%) from Saudi Arabia, and 5 participants (12.5%) from other nationalities.

**Table 3:** Participants Nationality Distributions (N= 40)

Nationality	Number of participants	%
Saudi	35	87.5
Non Saudi	5	12.5
Total	40	100

#### 4) Academic Position

Table 4 describes the academic positions of participants. There were 22 participants (55%) working as lecturers, (n=9, 22.5 %) assistant professor, (n=4, 10 %) associate professor, (n= 1, 2.5%) full professor, and (n= 4, 10 %) teacher assistant.

**Table 4:** Academic Position Distributions (N= 40).

Academic position	Number of participants	%
Lecturer	22	55
Assistant professor	9	22.5
Associate professor	4	10
Full professor	1	2.5
Teacher Assistant	4	10
Total	40	100

### 5) Years of Experience

Table 5 presents the distributions of experience years of using university portal for participants. (n= 17, 42.5%) for participant with less than 5 years' experience, 11 participants (27.5%) have experience within 5-9 years, 4 participants (10%) have experience within 10-14 years, 8 participants (20%) have experience above 15 years.

**Table 5:** Experiences Years of Using University Portal Distributions (N=40)

Years of Experience	Number of participants	%
Less than 5 years	17	42.5
5-9 years	11	27.5
10-14 years	4	10
+15 years	8	20
Total	40	100

### 6) Full Details

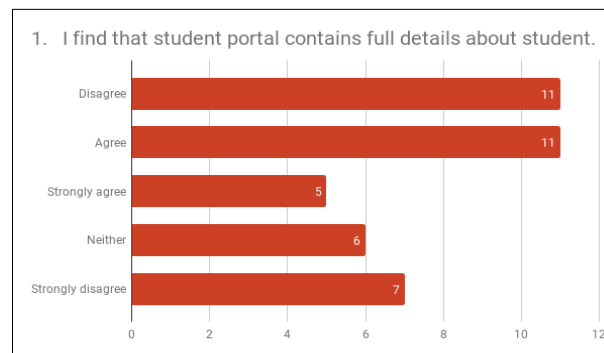
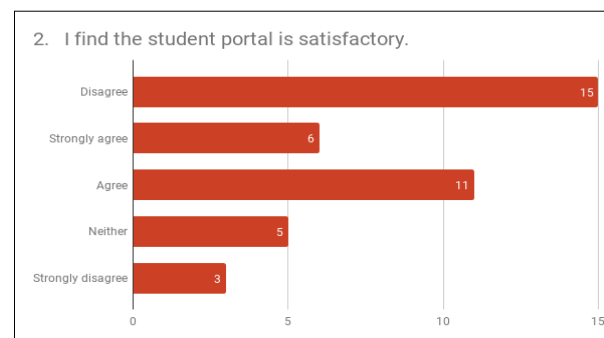
**Fig. 1:** Student Full Details.

Fig 1, presents the respondents view about the details in student portal. The percentage of agree and disagree (n= 11, 27.5%), strongly agree (n= 5, 12.5%), neither (n= 6, 15%), strongly disagree (n=7, 17.5%). From the above information its clear there is lack in student portal about student details in the portal.

### 7) User Satisfaction

**Fig. 2:** User Satisfaction.

In the above fig 2, presents the respondents satisfaction about their student portal. The highest percentage was disagree (n= 15, 37.5%), agree was (n= 11, 27.5%), strongly agree (n= 6, 15%), neither (n= 5, 12.5%), strongly disagree (n=3, 7.5%). From the above information its clear the respondents are not satisfying about their portal.

### 8) Queries and Complains

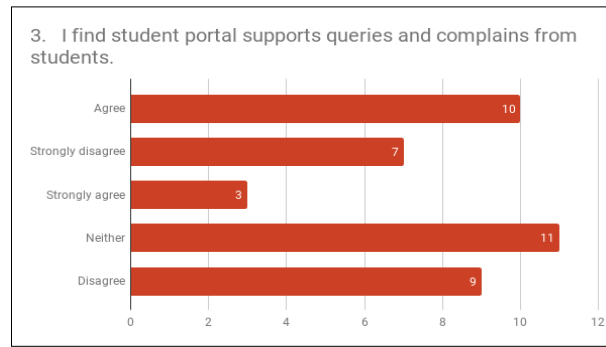


Fig. 3: Queries and Complains.

In the above fig 3, presents the respondents view about support queries and complains from students about their portal. The percentage of disagree was (n= 9, 22.5%), agree was (n= 10, 25%), strongly agree (n= 3, 7.5%),neither (n= 11, 27.5%), strongly disagree (n=7, 17.5%). From the above information its clear the student portal supports the queries and complains.

9) Organization Productivity

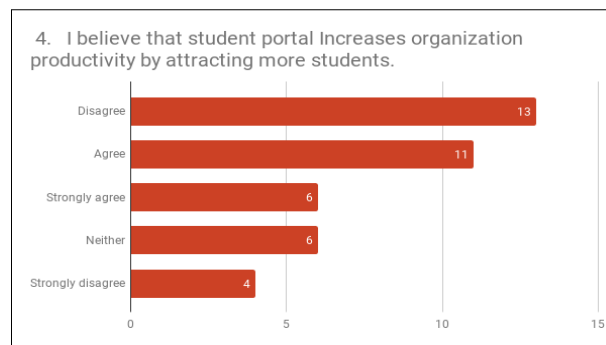


Fig. 4: Organization Productivity.

Fig 4, presents the respondents view about the productivity of student portal. The percentage of disagree is (n= 13, 32.5%), agree was (n= 11, 27.5%), strongly agree (n= 6, 15%), neither (n= 6, 15%), strongly disagree (n=4, 10%). From the above information its clear the opinion of respondents about the productivity of the portal is not important and not effect on attracting students.

10) Ease of Use

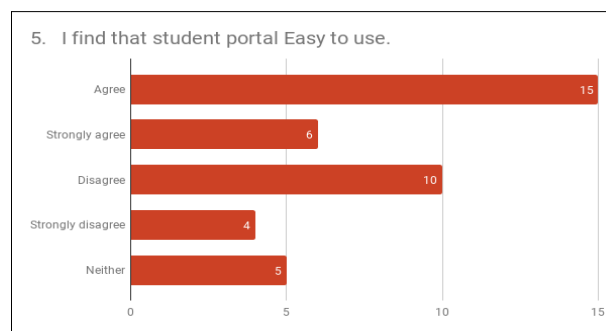
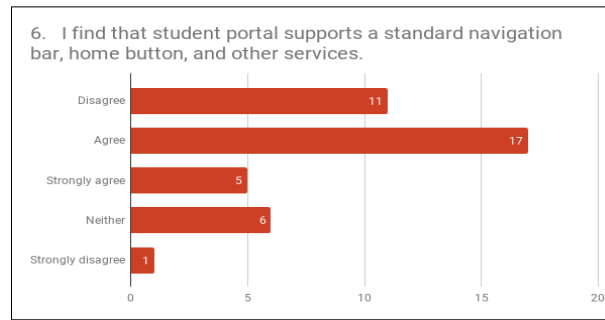


Fig. 5: Ease of Use.

In the above Fig 5, presents the respondents view about the ease of use student portal. The percentage of agree (n= 15, 37.5%), strongly agree was (n= 6, 15%), disagree (n= 10, 25%), neither (n= 5, 12.5%), strongly disagree (n=4, 10%). From the above information its clear the portal is easy to use from students.

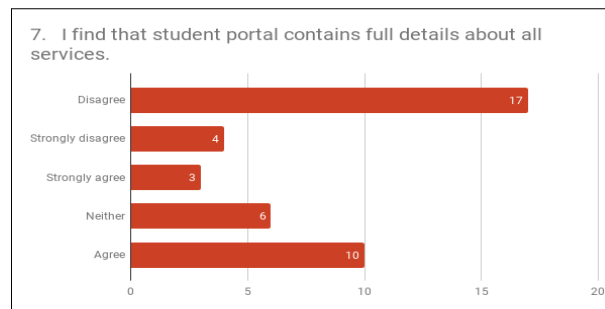
11) Standard Navigation Bar of Services



**Fig 6:** Standard Navigation Bar of Services.

In the above fig 6, presents the respondents view about standard navigation bar and other services in student portal. The percentage of disagree (n= 11, 27.5%), agree was (n= 17, 42.5%), strongly agree (n= 5, 12.5%), neither (n= 6, 15%), strongly disagree (n=1, 2.5%). From the above information its clear the student portal support the navigation bar and the other services.

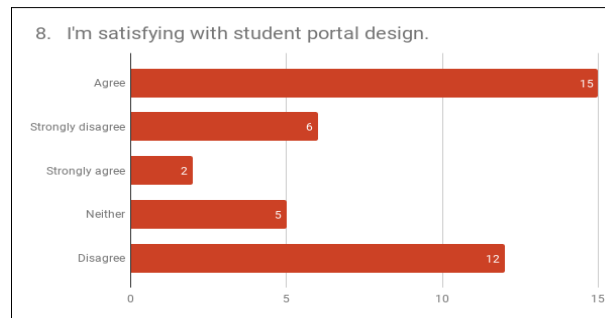
#### 12) Full Details about Services



**Fig. 7:** Full Details about Services.

Fig 7, presents the respondents view about the details of all services in student portal. The highest percentage was disagree (n= 17, 42.5%), agree was (n= 10, 25%), strongly agree (n= 3, 7.5%), neither (n= 6, 15%), strongly disagree (n=4, 10%). From the above information its clear there is a lack about the details of services and contents in the portal.

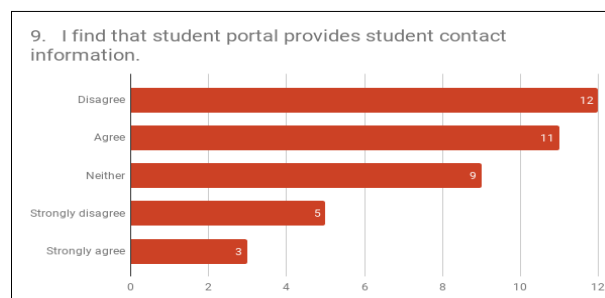
#### 13) Portal Design



**Fig. 8:** Portal Design.

In the above fig 8, presents the respondents view about their satisfaction about student portal design. The highest percentage was agree (n= 15, 37.5%), strongly agree was (n= 2, 5%), strongly disagree (n= 6, 15%), neither (n= 5, 12.5%), disagree (n=12, 30%). From the above information its clear the respondents are satisfying about the portal design.

#### 14) Contact Information



**Fig. 9:** Contact Information.

In the above fig 9, presents the respondents view about providing contact information to user in student portal. The highest percentage was disagree (n= 12, 30%), agree was (n= 11, 27.5%), strongly agree (n= 3, 7.5%), neither (n= 9, 22.5%), strongly disagree (n=5, 12.5%). From the above information its clear the portal is not provides contact information to the user.

15) Up to Date Information

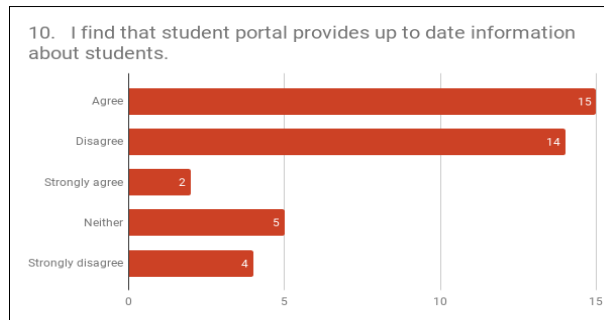


Fig. 10: Up to Date Information.

In the above fig 10, presents the respondents view about student information update in student portal. The highest percentage was agree (n= 15, 37.5%), disagree (n= 14, 35%), strongly agree (n= 2, 5%), neither (n= 5, 12.5%), strongly disagree (n=4, 10%). From the above information its clear some universities have update for their students information and others not have update.

16) Providing Assistance

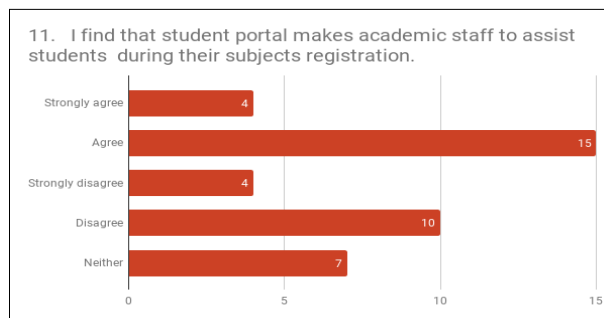


Fig. 11: Providing Assistance.

In the above figure 11, presents the respondents view about registration process via student portal. The highest percentage was agree (n= 15, 37.5%), disagree was (n= 10, 25.6%), strongly agree (n= 4, 10%), neither (n= 7, 17.5%), strongly disagree (n=4, 10%). From the above information its clear the respondents are satisfying about their registration process via the portal.

17) Contact with Web Administration

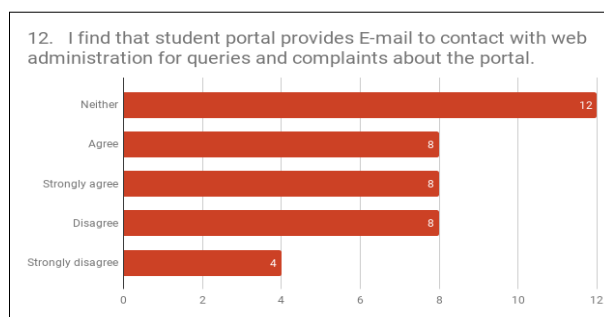
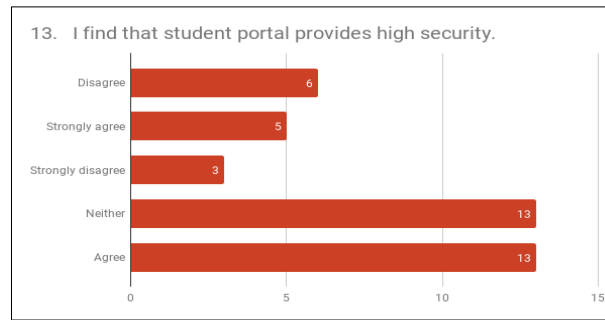


Fig. 12: Contact with Web Administration.

In the above figure 12, presents the respondents view about the providing email to contact in student portal. The highest percentage was neither (n= 12, 30%), agree, strongly agree, and disagree was (n= 8, 20%), strongly disagree (n=4, 10%). From the above information its clear there some universities support email to contact with web administration and the others not support.

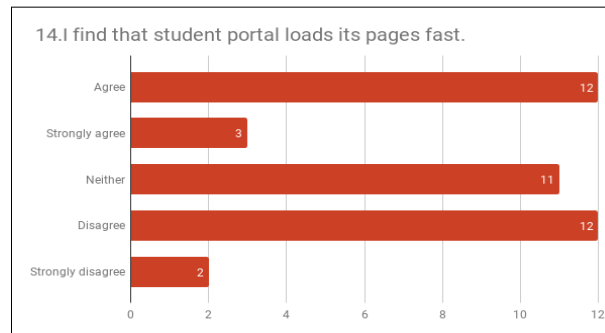
18) Portal Security



**Fig. 13:** Portal Security.

In the above fig 13, presents the respondents view about the security in student portal. The percentage of disagree (n= 6, 15%), agree and neither (n= 13, 32.5%), strongly agree (n= 5, 12.5%), strongly disagree (n=3, 7.5%). From the above information its clear the security in the portal is high.

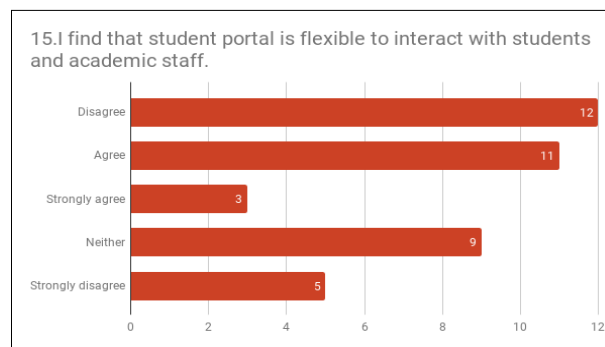
#### 19) Loading Page



**Fig. 14:** Loading Page.

In the above figure 14, presents the respondents view about the loading page in student portal. The highest percentage of agree and disagree are (n= 12, 30%), strongly agree was (n= 3, 7.5%), neither (n= 11, 27.5%), strongly disagree (n=2, 5.1%). From the above information its clear some of respondents are satisfying and some of the not satisfied about the speed of loading page in the portal.

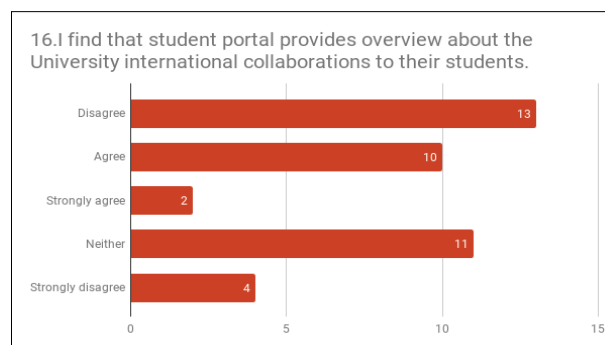
#### 20) Interaction



**Fig. 15:** Interaction.

Fig 15, presents the respondents view about the interaction between students and their lecturers via student portal. The highest percentage was disagree (n= 12, 30%), agree was (n= 11, 27.5%), strongly agree (n= 3, 7.5%), neither (n= 9, 22.5%), strongly disagree (n=5, 12.5%). From the above information its clear there is a lack in the interaction between students and their lecturers via student portal.

#### 21) International Collaboration



**Fig. 16:** International Collaboration.

In the above fig 16, presents the respondents view about the details of university international collaboration in student portal. The highest percentage was disagree (n= 13, 32.5%), agree was (n= 10, 25%), strongly agree (n= 2, 5.1%),neither (n= 11, 27.5%), strongly disagree (n=4, 10%). From the above information its clear the respondents don't know about the university collaboration through in their student portal.

## 22) Services

Table 6 presents the participants services which providing in different student portals in Saudi Arabia universities.

**Table 6:** Services

No.	Service	Participant number	Response rate	Lack of service
1.	Profile	24	60%	
2.	E-learning	19	47.5%	✓
3.	E –portfolio	7	17.5%	✓
4.	University library	20	50%	
5.	E –newsletter	6	15%	✓
6.	International program	4	10%	✓
7.	University activities	14	35%	✓
8.	University calendar	24	60%	
9.	University policies	14	35%	✓
10.	Portal guidelines	12	30%	✓
11.	Course registration	24	60%	
12.	Course and grades details	16	40%	✓
13.	Computer software center	6	15%	✓
14.	E –book or E- journals	9	22.5%	✓
15.	Students achievement	9	22.5%	✓
16.	Online discussion	9	22.5%	✓
17.	Students assignments Evaluation	10	25%	✓
18.	Audio and video materials	9	22.5%	✓
19.	Evaluation	11	27.5%	✓
20.	University achievement	9	22.5%	✓
21.	Student Feedback	8	20%	✓
22.	Help desk	17	42.5%	✓

## Participants Services Needs

Table 7 present the participants services need to be in the portal to improve student portal in Saudi Arabia.

**Table 7:** Participants Services Needs

Service need	Participants needs
Full student admission and registration system	
Computer software center (Plagiarism tools such as Turnitin)	
Employee full system.	
E-learning material(upload, download, correct and submit homework)	
help-desk	
Online discussion	
Students information contact	Participants needs
E-library	
Good design interface to motivate student and lecturer to interact	
Easy to use. Fast accessing to the services.	
Single sign-on (SSO) service	
Forums	
High security	
Course pages	
Student feedback	
E-book	

The above results show the participants response from different universities and they give their opinion about their portal usage and their content need that they want to be in their student portal. Based on their views, this study found there are many content issues that faced the students in there portal. These issues such as: lack in student details, lack in details of all services, lack in providing student contact, lack in interaction between student and academic staff, lack in providing details about international collaboration. Also table 7 presents the participants needs about the content and the services that should be involved in portal content. Therefore, according to Hassan [10] The main concern of the university is to build a portal that controls and coordinates as well as it interacts and takes feedback from the customers, visitors, staff, and students which will support the end-users to achieve to build a portal that will meet the expectation both of student and academic of staff. Thus, university should improve the student's portal based on their students need and provide the good quality of portal that help them in their study and increase their satisfaction about their portal.

## 5. Conclusion

Nowadays, the most commonly used web discovery tool for effective and efficient delivery of information for student is student portal. It not only provides electronic resources but also provides a better online environment which: enriches learning and research activities by providing timely, suitable access to relevant and appropriate resources and enables users to focus on fruitful use of collections accessible on the portal. The purpose of this study to determines the student portal current situation and the issues that face student to use the portal. The study found that the student portal need to be improved in order to help the students in their study needs and produce good quality of portal content for them. The result reveals that there are some issues facing student when they are using the student portal such as: lack of content and lack of awareness, and lack of training and guidance...ect. Therefore, in the future work there is a need to improve student portal in order to enable the effective of use the portal. Thus, by improving student portal that will increase the student satisfaction to use



the portal, and that will facilitate the university to improve the student portal in Saudi Arabia universities and produce good portal to their students.

## References

- [1] Smith, L. and A. Abouammoh, Higher Education in Saudi Arabia: Reforms, Challenges and Priorities. Vol. 40. 2013. 1-13. [https://doi.org/10.1007/978-94-007-6321-0\\_1](https://doi.org/10.1007/978-94-007-6321-0_1).
- [2] ALTAMEEM, A., WHAT DRIVES SUCCESSFUL E-LEARNING? AN EMPIRICAL INVESTIGATION OF THE KEY TECHNICAL ISSUES IN SAUDI ARABIAN UNIVERSITIES. *Journal of Theoretical & Applied Information Technology*, 2013. 53(1).
- [3] Althonayan, M. and A. Papazafeiropoulou. Evaluating the Performance of ERP Systems in Saudi Arabian Higher Education: A Stakeholders' Perspective. In *Proceedings of the 2nd International Conference on Information Management and Evaluation (ICIME 11)*. 2011.
- [4] Al-Busaidi, K.A., The payoff of corporate portal usage in an academic institution. *Campus-Wide Information Systems*, 2012. 29(5): p. 368-379. <https://doi.org/10.1108/10650741211275125>.
- [5] Mustafa, S.H. and L.F. Al-Zoua'bi. Usability of the Academic websites of Jordan's Universities an evaluation study. in *Proceedings of the 9th International Arab Conference for Information Technology*. 2008.
- [6] Saeed, S., I.A. Malik, and F. Wahab, Usability evaluation of Pakistani security agencies websites. *International Journal of E-Politics (IJEP)*, 2013. 4(3): p. 57-69. <https://doi.org/10.4018/jep.2013070105>.
- [7] Bringula, R.P., Influence of faculty-and web portal design-related factors on web portal usability: A hierarchical regression analysis. *Computers & Education*, 2013. 68: p. 187-198. <https://doi.org/10.1016/j.compedu.2013.05.008>.
- [8] De Luca, V., et al., A Web API Framework for Developing Grid Portals. *Procedia Computer Science*, 2011. 4: p. 392-401. <https://doi.org/10.1016/j.procs.2011.04.041>.
- [9] Thomas-Alvarez, N. and L. Mahdjoubi, Testing the effectiveness of a web-based portal system for the building control sector. *Automation in construction*, 2013. 29: p. 196-204. <https://doi.org/10.1016/j.autcon.2012.02.018>.
- [10] Hassan, Y.F., Cellular Automata For Adaptive Web Portal Structure In Egyptian Universities. *International Journal of Engineering Sciences & Emerging Technologies*, 2013. 6(2): p. 133-141.
- [11] Gul, H. and M. Saqib, Usability Evaluation of an Educational Website in Saudi Arabia. *VAWKUM Transactions on Computer Sciences*, 2015. 8(2): p. 1-9. <https://doi.org/10.21015/vtcs.v8i2.382>.
- [12] Salvador, P. and Á. Rocha. An Assessment of Content Quality in Websites of Basic and Secondary Portuguese Schools. in *WorldCIST (1)*. 2014. [https://doi.org/10.1007/978-3-319-05951-8\\_8](https://doi.org/10.1007/978-3-319-05951-8_8).
- [13] Elsayed, A.M., Web content strategy in higher education institutions: the case of King Abdulaziz University. *Information Development*, 2016: p. 0266666916671387. <https://doi.org/10.1177/0266666916671387>.