Examining the Success Factors of Online Student Support System at AIOU

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Abstract
Online student support system has an important central role in open and distance learning (ODL) environment where students are geographically away from teachers and institute. Allama Iqbal Open University (AIOU) is the first Distance Education University in South Asia which provides education to around 1.3 million students annually. To provide administrative and educational support to these large numbers of students an online support system is developed using latest ICT programming tools. In this paper, success factors of this online support system are examined using an Information System (IS) success model. The survey was carried out involving non-probability sampling of 173 students. This success model covers the constructs like information quality, system quality, service quality, perceived usefulness, intention to use and user satisfaction. Survey result shows that majority students are satisfied with this online support system in terms of technical standard and functionality but they are less satisfied in terms of information or response provided to them against their raised queries.

Index Terms— *IS Success Factors, Student Support System, User Satisfaction, AIOU*

INTRODUCTION

Student support system becomes mandatory in ODL due to physical distance between student and institution. In ODL students face more administrative and technical problems as compared with face-to-face students. Student support system is a type of information system whose success can be measured using IS success model. According to (Wu & Wang, 2006), DeLone and McLean's IS success model is one the multi-dimensional model used in many different fields. However, the concept of measuring success of information systems is still not much mature. This model is based on six dimensions which cover system quality, information quality, service quality, user satisfaction, net benefits and intention to use.

System Quality

System Quality measure focus on the usability of the system and it also covers the performance characteristics of system under investigation. System quality may cover access, convenience, customization, data accuracy, ease of learning, ease of use, response time, reliability, interactivity, system accuracy and system features etc.

Information Quality

This measure of success is more related with output. The output required by the user and the output generated by the IS. The more these two are closer the higher the success rate and higher the satisfaction of user.

Service Quality

In this measure of success factor, technical support or help provided by IT department is covered. This may include assurance, empathy, flexibility, interpersonal quality and responsiveness of support team.

User Satisfaction

It covers the level of satisfaction while using an IS. It is very important measure of success. User satisfaction is not an isolated measure it is interlinked with other measures like service quality.

Intention to Use

This measure indicates the frequency the usage or the intention of user in utilizing the system. This also includes actual use, daily use, nature of use, number of transactions etc.

Net Benefits

This measure is the summary of all previously mentioned measures. This is closely related with the benefits of all stake holders involved. (Urbach & Muller, 2012)

A study carried out by (Puri, 2012) to examine the critical e-learning success factors as perceived by students. Six different components in e-learning were identified that includes pedagogical, administrative, technological, evaluation, resource support and interface design. E-learning adoption is a difficult stage for any institution in which these kinds of success factor studies can give better guidance to the institutions.

Success factors influencing Yemeni bank user's shows that majority users are innovators and early adopters of Internet Banking based on the study conducted by (Zolait A. H., 2010). This study also shows the behavioral intention of user's in using internet banking.

Factors affecting the success of small business information system can be measured by user satisfaction ratings. This study was to test the effects on number of employees, their experience and technology. It is proposed to conduct research and focus on effects of various demographic variables on user satisfaction. (Armstrong, Fogarty, Dingsdag, & Dimbleby, 2005)

The similar kind of study carried out by (Rana, Dwivedi, & Williams, 2013) to examine the factors that involve intention to use and user satisfaction. This study was applied on the use of online public grievance redressal system. DeLone and McLean success model has been adapted to measure intention to use and user-satisfaction.

MATERIAL AND METHODS

In this paper, success factors of online student support system deployed at Allama Iqbal Open University has been examined using online questionnaire. The questionnaire comprises of seven sections: demographic details, information quality, system quality, and service quality, intention to use, user satisfaction and net benefits perceived by students. This structure is based on DeLone and McLean success model and modified success model by (Rana, Dwivedi, & Williams, 2013). Questionnaire was placed on online system for the period of one month, open for all users which include students and staff. Using non-probability sampling total of 173 responses was received. Data Analysis was conducted on each success measure and compared with each other using demographic details.

Figure 1: Success Factors Measures

Measure	Question
Information Quality	Q1: AIOU Support System provides the precise information you need? Q2: AIOU Support System provides sufficient

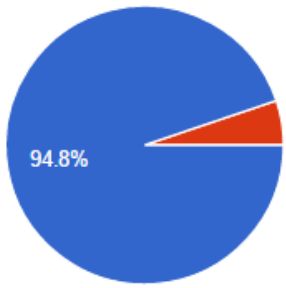
	information. Q3: AIOU Support System provides up-to-date information.
System Quality	Q4: AIOU Support System is user friendly Q5: AIOU Support System is easy to use?
Service Quality	Q6: When you have a problem, AIOU Support system shows a sincere interest in solving it.? Q7: You feel safe in your communication with the AIOU Student support system. Q8: AIOU Student Support system service gives you individual attention.
Intention to Use	Q9: You are dependent on AIOU Student Support System Q10: The frequency of using AIOU student support system is high.
User Satisfaction	Q11: You are satisfied with AIOU Student Support system. Q12: AIOU Student Support system has met your expectation.
Net Benefits	Q13: AIOU Student Support system has made my study easier. Q14: AIOU Student Support system saves my time.

Table 1: List of Questions for each success measure

All these questions were multiple-type, closed-ended and seven-point likert scale type questions. Likert scales (1-5) with anchors ranging from "strongly disagree" to "strongly agree" were used for all non-demographic based questions. (Rana, Dwivedi, & Williams, 2013) . Instrument was prepared in both English and Urdu language mode for better understanding of students.

RESULTS AND DISCUSSION

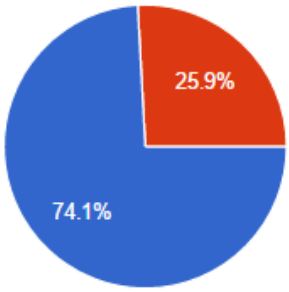
Out of 173 respondents, majority were students (94.8%) where as the staff participation was very low as compared with students due to less in total numbers as illustrated in figure 2.



Student	**165**	94.8%
AIOU Staff	**9**	5.2%

Figure 2: User-type wise distribution

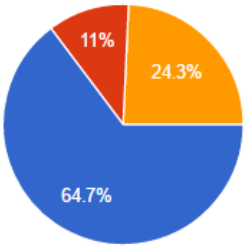
Student being the real beneficiaries of the system actively participated in this survey. Gender wise, male participation (74.1%) was more than females (25.9%) as shown in figure 3. A comparison of gender-wise responses has also been studied in further results.



Male	**129**	74.1%
Female	**45**	25.9%

Figure 3: Gender wise participation

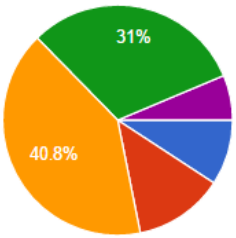
Majority of students belonged to urban area i.e. 64.7%, whereas 24.3% belonged to rural area and 11% were from suburban areas of Pakistan as illustrated in figure 4. Less response from rural area is because of limited internet access and lack of internet awareness.



Urban شہری	**112**	64.7%
Suburban شہر کے اردگرد	**19**	11%
Rural گاؤں یا دیہی علاقہ	**42**	24.3%

Figure 4: Geographic distribution

Education Level تعلیمی لیول



Secondary School (Matric)	**16**	9.2%
Higher Secondary (Intermediate) / FA	**22**	12.6%
Bachelors (BA / B.Sc / B.Ed)	**71**	40.8%
Masters (BS / MA / M.Ed / M.Sc)	**54**	31%
M.Phil / MS / PhD	**11**	6.3%

Figure 5: Education level distribution of respondents

Majority of respondents belong to 21-30 age group and study in bachelor's level degree at Allama Iqbal Open University.

Success Measure	Mean Response (Max 5)
Information Quality	3.27
System Quality	**3.68**
Service Quality	3.38
Intension to Use	3.40
User Satisfaction	3.31
Net Benefits	3.50

Table 2: Overall Mean response

Overall result *in Table 2* shows that system quality is most appropriate in all measures in which respondents gave cumulative score of 3.68 whereas the weak measure which needs improvement is information quality. As already discussed in introduction section, System Quality measure focus is on the usability of the system and it also covers the performance characteristics of system under investigation. System quality may cover access, convenience, customization, data accuracy, ease of learning, ease of use, response time, reliability, interactivity, system accuracy and system features etc. This can be interpreted that online support system quality is comparatively good in terms of technical standards. However, less score in information quality measure can be interpreted that quality of contents provided within the system are not much supportive. This measure of success is more related with output. The output required by the user and the output generated by the IS. The more these two are closer the higher the success rate and higher the satisfaction of user.

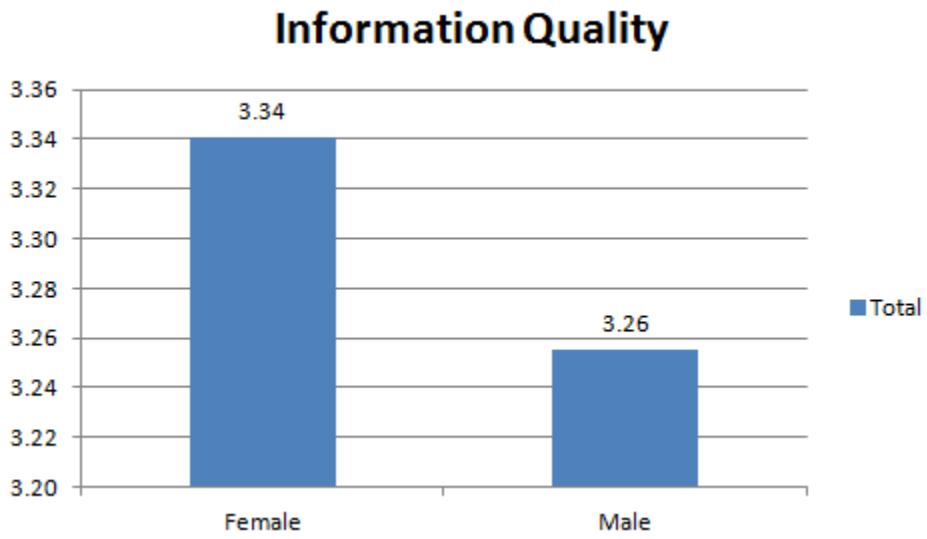


Figure 6 : Gender wise response on Information Quality

Male respondents showed more concern regarding the quality of response received through online support system. If locality is compared with mean response gender wise, result shows that male students of suburban area are less satisfied as compared with male students of urban area as shown below. Females of rural area are most satisfied with information quality.

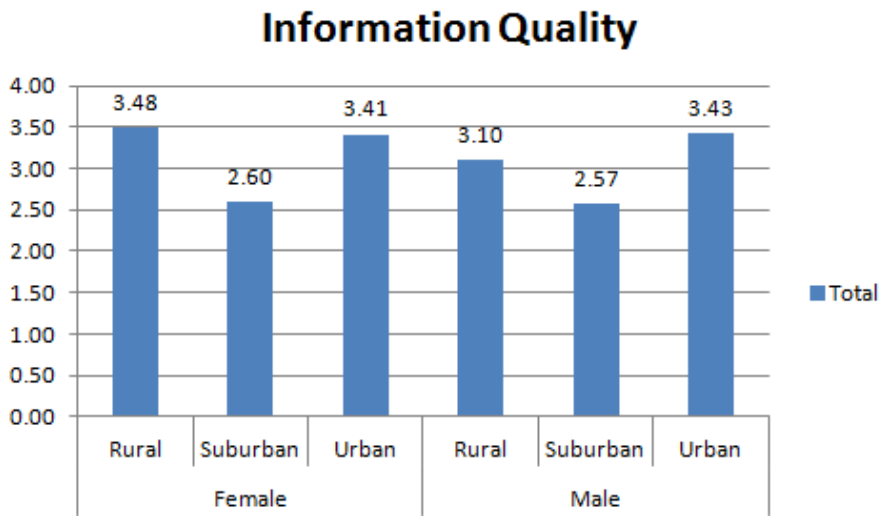


Figure 7: Gender Vs Locality Response on Information Quality

If we compare the results age wise, result shows that students having age less than 20 years are the most satisfied group whereas the age group of 50+ is least satisfied as illustrated in figure 8.

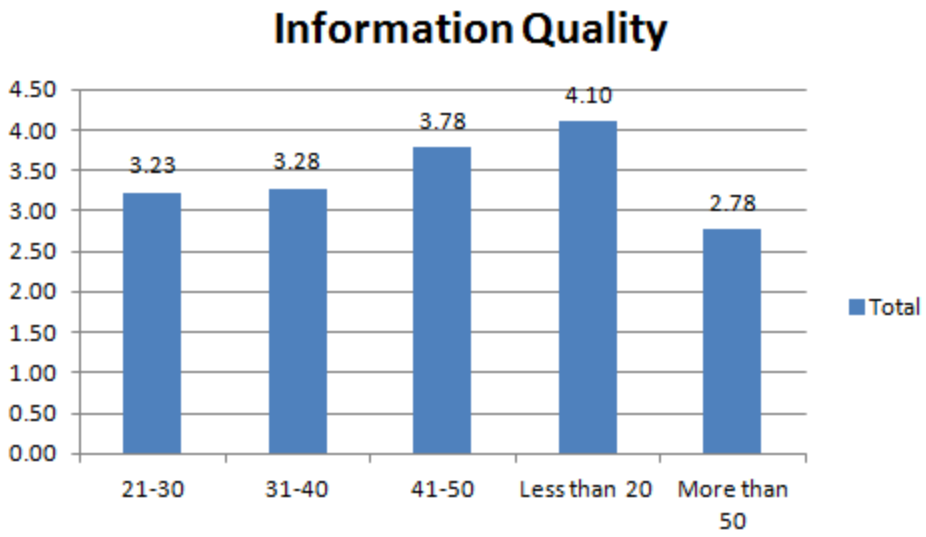


Figure 8: Age wise response on Information Quality

The most satisfying measure is System Quality in which female students from rural area showed maximum satisfaction giving mean score of 4.09 and students having age less than 20 years scored 5 out of 5 showing maximum satisfaction level.

CONCLUSIONS

This survey conducted from AIOU students shows that overall students are satisfied and are using online student support system in order to get their matters resolved. The important success measures to note here is less agreement against information quality questions and high agreement against system quality questions which means the students are satisfied with the system existence but the information provided or response provided through this system is not much helpful as expected by students. Such kinds of results compel us to focus and improve the information quality

measure of the system. In future studies, the similar survey may be conducted again after making necessary improvements to validate them.

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