Web Application Facilities Can Build Academic Atmospere Promotion Student Satisfaction In College

Wisnalmawati, Choirul Huda, Ifa Khoiria Ningrum, Kukuh Lukiyanto

Abstract: Teaching and learning processes are facilitated through face-to-face and online activities. The web application facility allows students to easily find information related to education and the business world. This study aims to analyze the direct and indirect (mediated by the academic atmosphere) effects of web application facilities on student satisfaction. Research respondents were Postgraduate Program students majoring in Management Masters. Structural Equational Model (SEM) with PLS and SPSS Program were used in the data processing. The results of this study indicate that (1) Web application facilities did not have effects on student satisfaction; (2) The application facilities affect student satisfaction if mediated by the academic atmosphere. There has not been much research in Indonesia because the web usage program is new in Indonesian education. The research results contribute to the development of consumer behavior models. Web application facilities assist soft data storage for accreditation purposes and accelerating graduation of quality students to construct a conducive atmosphere affecting student satisfaction.

Index Terms: academic, application, atmosphere, facilities, satisfaction, student, web.

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1 INTRODUCTION

Satisfaction means comparing expectations with performance. If the expectation is higher than the product or service performance, consumers will be displeased; and vice versa (Kotler and Keller, 2012). Engel (1996) explains the factors affecting satisfaction; they are the performance, value, product delivery, etc. Student satisfaction is different from that of shopping in a store as it is based on the indicators set by a college. Moreover, it will have a positive influence on the institution. Related to the Master of Management Study Program, some of them have problems among which are delayed final-project advisory, and publishing the final-project (as journals) as a graduation requirement; this is difficult for students. Several universities have handled it well; however, some have not yet reached the target of the student publication. A successful outcome of the study program is closely related to the availability of physical and non-physical facilities concerning technology such as the provision of wifi, e-journal, and e-learning to support the teaching and learning process. Higher-education institutions should provide application facilities and technology-based services as they play a very important role in the world of education. Nevertheless, the facilities provided by the institutions do not fully support the student learning process. Application facilities will create a pleasant atmosphere in the teaching and learning process which will encourage students and lecturers to be productive. The academic atmosphere is related to classroom conditions, while the teaching and learning process utilizes application facilities; moreover, the available facilities are up-to-date and the applications can facilitate the storage and maintenance of student data in digital form.

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For this reason, application facilities are needed to create a pleasant academic atmosphere and promote student satisfaction. Therefore, it needs to be scientifically studied.
1.1. The objectives of this study are:
1.1.1 To analyze whether web application facilities directly affect student satisfaction.
1.1.2 To analyze whether web application facilities mediated by an academic atmosphere affect student satisfaction.

2 LITERATURE REVIEW

2.1 Consumer Satisfaction

Consumer satisfaction is the level of one's impression after comparing his experience regarding the product performance with his expectations, (Kotler, 2012); Engel, Roger & Miniard (1994) explain that satisfaction is an evaluation following consumption to select several alternatives meeting the expectations. Facilities are physical and material things, such as the classroom availability of learning equipment, teaching aids, textbooks, libraries, practical-work equipment, and other things that support the teaching and learning process. Web applications must display interesting Web Content. The content should be organized and well managed for easier search of quality information.

2.2 The Relationship of Application Facilities and Student Satisfaction

Sumaedi.et.al (2012); Talukder, Md Shamim (2018) describe the application facilities provided for learning, adequate data storage and ease of administration. According to Tetteh, Godson A. (2018), the indicators for well-facilitated universities are the library has sufficient academic resources, an auditorium, conference rooms, and medical facilities; additionally, the university infrastructures are well maintained. Subrahmanyam (2016) explains that the indicators of satisfaction are a smooth learning process, quick administration process, and available application facilities.

2.3 The Relationship between Facility and Atmosphere

According to Assael (2006), facilities can affect consumer behavior; accordingly, the words of mouth lead to a specific behavior. This is demonstrated by research conducted by Talukder, Md Shamim (2018).

1196

2.4 The Relationship between Atmosphere and Student Satisfaction

According to (Engel, 1996), the atmosphere can affect consumer behavior in which word of mouth is included. This is proven by Sumaedi.et.al (2012) and Cristan-Dabija and Raluca Babut (2014) whose researches shows that the atmosphere affects consumer satisfaction.
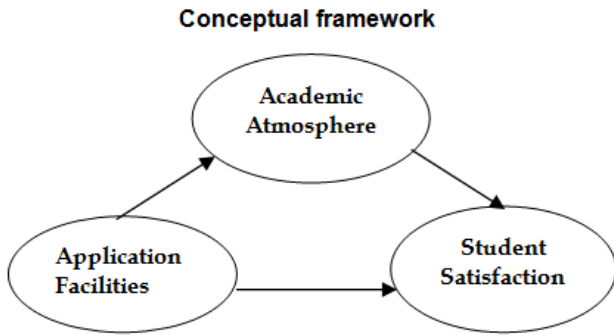
Conceptual framework

Figure 2.1 *Conceptual Framework*

3 HYPOTHESES

3.1   Web application facilities affect student satisfaction
3.2   Web application facilities mediated by the academic atmosphere affect student satisfaction

4 METHODS

The analysis unit of this research was the Master of Management students of 2 universities in Indonesia. There were 100 student-respondents. The hypothesis test was carried out using the Structural Equation Modeling with PLS (Partial Least Square) to examine the effect of variables. Furthermore, the researcher conducted validity and reliability tests. If the r-value is > 0.3, the research items are said to be valid and if the Cronbach alpha value is > 0.7, it is said to be reliable.

TABLE 1
RESEARCH VARIABLES AND INDICATORS

Variable	Operational Definition of Variables	Indicator/Item	Loading Factor
Website content facilities Engel (1996); peter olson (2010); Sumaedi.et.al (2012); Talukder, Md Shamim (2018)	Application facilities are provided for the admission of new students, sufficient data storage and easy digital-based administration.	1. The Master Program has a website with content that clearly explains the admission process of new students. 2. The Master Program has sufficient student data storage application facilities 3. The Master Program has applications to facilitate digital-based administration	0.800 0.905 0.913
Academic atmosphere Engel (1996); Sumaedi.et.al (2012); Talukder, Md Shamim (2018)	The academic atmosphere of the Master of Management study program offers harmonious learning processes, as well as a pleasant, comfortable, and exciting atmosphere in learning with the lecturers and classmates.	1. The Master Program offers harmonious learning processes 2. The Master Program offers a pleasant atmosphere 3. The Master Program creates a comfortable atmosphere in learning 4. The Master Program creates an exciting atmosphere in learning with the lecturers and classmates	0.820 0.826 0.834 0.772
Student Satisfaction Subrahmanyam (2016) Propose Eldegwy. A (2018)	Effective practice of thesis advisory with the lecturer, quick administration process, and available application facilities	1. Students are satisfied with an effective practice of thesis advisory with the lecturer 2. Students are satisfied with the materials delivered by the lecturer 3. Students are satisfied with the graduation being in line with the targets of curriculum	0.744 0.909 0.920

Figure 4.2. The Bootstrapping

TABLE 2 *Research and Discussion Results*

Indicator/Item	Mean
Application facilities	
1. the master of management study program has well-explained content of application facilities for the admission of new students. 2. the master of management study program has sufficient student data storage application facilities. 3. the master of management study program has applications to facilitate digital-based administration.	3.5000 3.7500 3.6700
Academic Atmosphere	
1. The Master Program offers harmonious learning processes 2. The Master Program offers a pleasant atmosphere 3. The Master Program creates a comfortable atmosphere in learning 4. The Master Program creates an exciting atmosphere in learning with the lecturers and classmates	4.0900 4.1500 4.1100 4.2100
Student satisfaction	
1. Students are satisfied with an effective practice of thesis advisory with the lecturer 2. Students are satisfied with the materials delivered by the lecturer 3. Students are satisfied with the graduation being in line with the targets of curriculum	4.1100 4.1200 4.1100

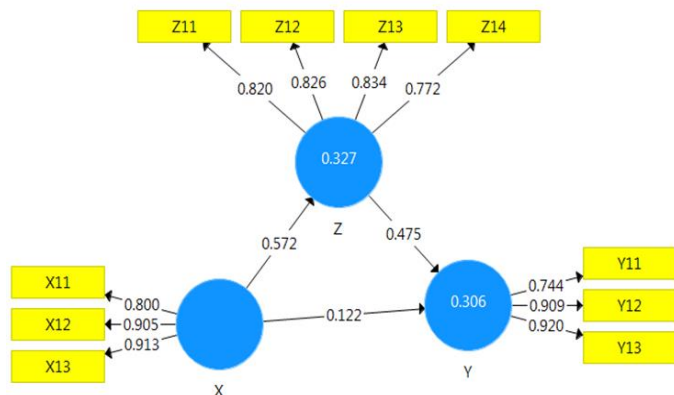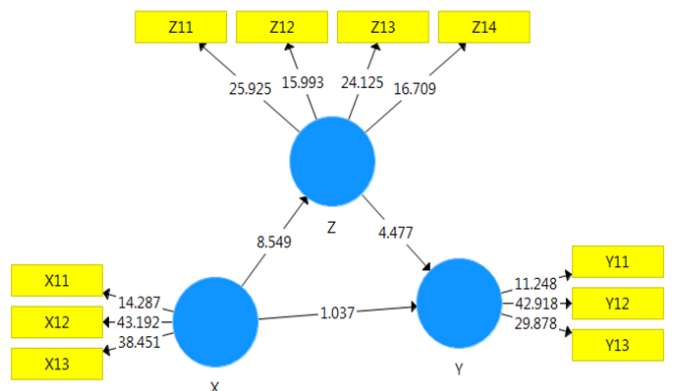The results of the study using PLS are as follows

Figure 4.1. The Algorithm

5 DISCUSSION

Based on the results of data processing, the tests of inter-variable effects can be discussed as follows: Hypothesis tests The first hypothesis test was performed to determine the web application facilities affecting student satisfaction. Web facilities did not directly affect student satisfaction as shown by the path coefficient = 0.122 (P-value = 0.3000). Since the

significance-level was more than 5%, the web application facility does not significantly affect student satisfaction (H1 is not proven). Accordingly, this research does not support previous theories and research by Assael (2006); Talukder, Md Shamim (2018). The reason is that the facilities only support learning activities; the web application facilities are only essential in creating a conducive academic-atmosphere for student satisfaction. The second hypothesis test was to determine the academic atmosphere as mediation as the path of each variable was undetectable. In this case, the web application facilities did not significantly and directly affect student satisfaction. Naturally, the academic atmosphere in this research model was mediated; thus, the academic atmosphere is an important variable that needs to be created in the study program. According to empirical evidence, and academic atmosphere must be created to achieve student satisfaction. Higher education institutions must create a harmonious learning process, as well as a pleasant, comfortable and exciting atmosphere with the lecturers and classmates.

Determination Coefficient (R square)
Academic atmosphere (R21) = 0.327
Student satisfaction (R22) = 0.306

$$Q2 \text{ predictive relevance}$$
$$Q2 = 1 - (1-R21)(1-R22)$$
$$= 1 - (1- 0{,}327)(1- 0.306)$$
$$= 1 - (0.673)(0.694)$$
$$= 1 - 0.4670$$
$$= 0.5329$$

Q2 = 53.29 %, in which web application facilities and academic atmosphere contributed as much as 53.29% to student satisfaction, while the rest (46.70%) was affected by other variables that cannot be detected by the PLS model.

6 CONCLUSION

This research demonstrates that web application facilities do not have a direct effect on student satisfaction. Students continue their campus activities whether the web application facilities are available or not; from this, it can be explained that students do their assignments in cafes or places with wifi since the internet is only a supporting facility. The most important thing is how to create a conducive academic-atmosphere that has an impact on student satisfaction; it offers a harmonious learning process, as well as a pleasant, comfortable and exciting atmosphere with the lecturers and classmates so that this can promote student satisfaction.

7 SUGGESTION

This study shows that web application facilities do not have a

1198

direct effect on student satisfaction. However, the web application facility mediated by the academic atmosphere affects student satisfaction; this indicates that a conducive academic-atmosphere can make students enjoy the process of thesis advisory, experience the benefits of teaching, and consider that the curriculum is in line with market and industry demands. The theoretical contribution of this research is to develop theories of consumer behavior, especially web application facilities that can improve academic atmosphere affecting student satisfaction. The practical contribution is projected to the Master of Management Study Program for developing strategies in building an academic atmosphere to improve student satisfaction, which is to offer a harmonious learning process, as well as a pleasant, comfortable and exciting atmosphere with the lecturers and classmates. In addition, future research can be developed by adding new variables that have not been studied, such as the image of higher education institutions.

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