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STUDENT SATISFACTION ANALYSIS OF ONLINE TUTORIAL THROUGH INFORMATION SYSTEM QUALITY AND PERSONAL SERVICES OF ONLINE TUTORIAL AT UNIVERSITAS TERBUKA

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Abstract

Providing the users of learning supports with superior service has enabled UT to build and grow service commitment that can contribute to the needs of society, employees, and, most notably, students in online tutorials (tuton). Designed in a web-based environment, online tutorials is one of UT learning supports that offers versatility of tutorial experience. One of the indicators whether optimal service applies to the business operations is measuring the satisfaction level of students as service users. This study aimed to figure out the satisfaction level of tuton students in terms of the quality of information system and personal service of online tutors at Universitas Terbuka. Data were acquired from 50 tuton-student respondents at UT 2017.1. The study found that the level of student satisfaction positively and significantly affected the variable of system quality, information quality and personal service of online tutors. The most dominant variables, in descending order, were system quality, personal service of online tutors and information quality. On that basis, this study settled on a framework of tuton-student satisfaction with respect to the improvement of system quality of tuton application, information quality and personal service of online tutors.

Keywords: satisfaction, analysis, information, quality, services.

1. INTRODUCTION

Establishing distance higher education has allowed UT to provide all citizens with access to higher education without time and space barriers. It is the era of Information and Communication Technology (ICT), and teachers and students are widely opting it for its benefits. Advances of technology offer new options in how to run learning activities replete with digital devices. The confluence of technology and education has prompted human capital to prioritize skills for national growth. To that end, UT has set up gradual improvement in every aspect of its education products and services. As one of academic support services at UT, tuton serves as an alternative to on-campus tutorial, which primarily works with students who opt to take up tutorial experience in an online environment with broader flexibility of time and space. Tutorials serve as learning support services that aim to overcome the challenge of achieving a range of academic skills. Tutorials at UT fall into several categories, which are written tutorials, online tutorials, radio tutorials and face-to-face tutorials. As such tutorials are multimedia-designed, tutors are prompted to integrate their material presentations into a proper platform. In online tutorials, tutors assist and facilitate students academically. They respond to students' questions or opinions in discussions and evaluate their assignments. By the end of tutorials, tutors provide assessment on their academic achievement on a particular course and incorporate feedback into subsequent tasks for improvement. Students may be admitted to online tutorials with 8 initiation courses and 3 assignments. In addition, they may take on tutor-student discussion or student-student interaction. To make sure that the learning activities and environment are properly set up to support effective learning, tutors heavily depend on the quality of system, information and services provided by tuton supervisors. Internal-service quality reflects and encourages how tutors perform their tasks. Numerous issues arise during the implementation of online tutorials; students' failure to make online submission of initiation assignments due to upload problems; limited access to the web pages due to loading problems; and initiation scores are occasionally released by the end of meeting. When such issues arise, they are likely to affect the outcome of online tutorials and, ultimately, lower student convenience during tutorial experience. To resolve such issues, a study on satisfaction of tuton students through the quality of information system and personal service of online tutors at Universitas Terbuka is mandatory. These are the focuses of this study that aimed to measure the effect of system quality, information quality and personal service of tutors on tuton-student satisfaction.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT System Quality

2.1. System Quality

The notion of information system quality lies in how the system is perceived and used. Davis et al. (1989) perceive it as “ease of use” when it comes to experiencing new technologies. It represents the degree to which users feel that the new-technology experience does not require considerable effort and lets them spend time on other tasks, which in turn improves their time management and overall work performance. Studies by DeLone and McLean (1992), McKinley et al. (2002), Rai et al. (2002), McGill et al. (2003), Almutairi and Subramanian (2005) and Livari (2005) demonstrate similar findings that information system quality positively affected user satisfaction.

2.2. Information Quality

Identifying information quality means determining whether the content of particular information has the characteristics or attributes that make it meaningful and purposeful. Information quality, as posited by Kadir (2010), is heavily related to conveying certain knowledge based on relevance and timeliness. Likewise, O'Brien (2005) classifies a number of dimensions that define information quality, which are timeliness, currency, frequency and time period. Information quality has long been associated with system use, user satisfaction and net profit (DeLone and McLean, 1992). In addition, Kotler et al. (2004) in Tjiptono (2006) state that attractive web pages that serve as information platforms are likely to represent and define how business operations are running for potential visitors and customers. Turban and Gehrke (2000) shed light on online business where the quality of web contents either attracts potential customers or drives them away to competitors. Furthermore, O'Brien in his book “System Analysis and Design Method” classifies 3 dimensions of information quality – time dimension, content dimension and form dimension. Time dimension deals with the time in which the information is presented. Content dimension focuses on the content of the presented information, while form dimension focuses on how the information is presented.

2.3. Contact Personnel Service

Contact personnel constitutes an individual or a group of individuals through which service delivery runs and with which customers do direct interactions in a service setting. According to Nguyen and Leblanc (2002), contact personnel is an individual at the front line of organizations who interacts with public in service-purchase encounters. As high-contact service, contact personnel for tuition is of crucial importance, as put by Lovelock and Wright (2002) that state, “In high-contact service, service personnel is central to service delivery.” Lovelock and Wright (2002) further state, “In the eyes of the customers, service personnel may also be seen as an integral part of the service experience.” Nguyen and Leblanc (2002) classify what influences contact personnel: a. Appearance b. Competence c. Professionalism. While appearance refers to the combination of attire, hairstyle, make-up and personal hygiene, competence is defined by the personnel's expertise and experience. Customer perception on real-time service is defined by a number of factors in addition to the company value and achievement. The manner, courtesy and appearance of the personnels make indelible impression on customers. Shamdasani and Balakrishnan (2000) put additional traits into the categories: a. Expertise b. Similarity c. Knowledge d. Hospitality e. Mutual Disclosure. Good customer service means having quick access to service delivery. In a service setting, contact personnels are in a position to respond a number of inquiries and complaints quickly and accurately. High-performance human resources score good business. They serve as service providers within service companies who set the tone for whatever customer interaction proceeds to. Contact personnels are closely related to marketing; marketing brings customers in, and contact personnels keep them coming back.

2.4 Student Satisfaction

Satisfaction is the nature of an individual. Each individual holds different levels of satisfaction with respect to a prevailing value system (Rivai, 2004). Higher valuation on a particular activity that fulfills what an individual desires will result in higher satisfaction of the given activity. Highly-satisfied individual reflects positive attitudes, and vice versa.

2.5 Hypothesis Development

This study proposed a number of hypotheses:

H1: System quality had a positive and significant effect on tuton-student satisfaction.

H2: Information quality had a positive and significant effect on tuton-student satisfaction.

H3: Tutor's personal service had a positive and significant effect on tuton-student satisfaction.

3 METHOD

3.1 Research Design

This study was designed as an explanatory research that sought to verify hypotheses by explaining a phenomenon based on a scientific approach. This study provided three independent variables – system quality, information quality and tutor's personal service – and one dependent variable – tuton-student satisfaction.

3.2 Participants

The method of data collection used cross-sectional analysis. The population comprised the entire online tutors, and the target population included online tutors in Faculty of Economy, Universitas Terbuka, 2017.1. Samples were obtained from convenience sampling, and questionnaires were taken online. 60 respondents were selected as samples from which data were used to make inferences.

3.3 Instrument

Data collection used questionnaires with a 5-point likert scale, ranging from "1= Strongly Disagree" to "5= Strongly Agree."

Table 1. Variable and Indicator

Variable	Indicator	Code
System Quality (X1)	X1.1 Tuton application enables tutors to interact with students.	A1
	X1.2 Tuton application enhances tutorial experience.	A2
	X1.3 The features of tuton application meet tutors' needs in conducting online tutorials.	A3
Information Quality (X2)	Time Dimension	
	1. Timeliness I am notified well in advance regarding the implementation of online tutorials.	B11
	2. Currency (Up-to-date Information) Universitas Terbuka keeps me updated regarding the implementation of tuton.	B12
	3. Time-Period Universitas Terbuka keeps notifying me of when the end of tuton approaches.	B13
	Content Dimension	
	1. Accuracy The tutorial courses are the assigned courses.	B21
	2. Relevance The tutorial courses meet the curriculum requirement.	B22

3. Scope Information about how to attend tuton is comprehensible.	B23
4. Performance Information about how to attend tuton is useful.	B24
Form Dimension	
1. Clarity Information about how to attend tuton is clear and concise.	B31
2. Detail Each information from tuton supervisors is thoroughly presented.	B32
3. Order Steps in tuton implementation are well ordered and elaborated.	B33
4. Presentation Information about tuton implementation is presented in additional platforms such as video.	B34
5. Media Each information is meaningful and purposeful with respect to the succesful implementation of tuton.	B35

3.4 Data Analysis

The analysis began with the process of developing the instrument which was measured using validity and reliability test to avoid errors that might affect the accuracy of data collected. Then, multiple linear regression was completed to acquire the result of model testing, the effect between the variables and the dominant variables. In terms of validity test, an item was a valid measure only to the extent that it scored above 0.40 at a significance level of 95% within a group of items representative of the content of the trait to be measured. In terms of reliability test, Cronbach's Alpha, coefficient and item-total correlation were applied to measure whether each variable was reliable. Each variable scored above 0.60, which generated reliable variables and indicates internal consistency. To figure out the effect between variables, p-value must score $\leq 0,05$ to ensure significant effect of the independent variables on the dependent variable, at a confidence level of 95% and a maximum deviation level of 5%.

4 RESULTS

4.1 Validity and Reliability

The results of validity and reliability test are presented in the following table:

Table 2
Results of Validity and Reliability Test

Variable	Indicator		Validity	Cronbach's Alpha	Reliability
	Min.	Max.			
X1	0.801	0.908	Valid	0.860	Reliable
X2	0.440	0.94	Valid	0.857	Reliable
X3	0.739	0.823	Valid	0.776	Reliable
Y	0.517	0.952	Valid	0.852	Reliable

Source: SPSS Output, processed in 2017

The result shows that the minimum values stand above 0.2, and the alpha values

4.2. Frequency Distribution

The recapitulation of frequency distribution of respondents regarding the assessment of system quality, information quality and tutor service and tuton-student satisfaction is presented in Table 3.

Table 3. Recapitulation of Student Assessment on System Quality, Information Quality and Tutor Service at UT

Cross tabulation of Respondents' Answers

Count	Respondents' Answers			Total
	Low	Moderate	High	
Variable X1	0	8	52	60
X2	0	19	41	60
X3	0	20	40	60
Y	2	20	38	60
Total	2	67	171	240

Source: SPSS Output, processed in 2017

The majority of respondents perceive information quality, system quality and tutor's personal service as high, which indicates that UT consistently meets its customer requirements and expectations in the three areas. Likewise, tuton-student satisfaction is perceived as high. Student satisfaction sets off a profit chain of links between quality, productivity and customer satisfaction.

4.3. Multiple Regression Analysis

Multiple linear regression was used to measure the effect of the independent variables on the dependent variable presented in Table 4.

Table 4. Results of Multiple Regression

Independent Variable	Dependent Variable	t	Sig t
System Quality (X1)	Tuton-Student Satisfaction (Y)	3.285	.002
Information Quality (X2)		8.630	.000
Tutor Personal Service (X3)		4.042	.000
R ²			.929
Adjusted R ²			.925
F			376.5
Sig F			.000

Source: SPSS Output, processed in 2017

The output is interpreted as follows:

1. R² of 0.92 (92%) is the simultaneous effect value of system quality, information quality and tutor service on tuton-student satisfaction. The remaining 8% constitutes other factors not included in the model.
2. F_{Cal.} of 242.4 with alpha probability level of 0.00 (less than 0.05) indicates that system quality, information quality and tutor service simultaneously had positive and significant effects on tuton-student satisfaction.
3. T_{Cal.} of 3.285 with alpha probability level of 0.002 (less than 0.05) indicates that system quality had a positive and significant effect on tuton-student satisfaction, given that the other factors that might affect the system quality remained constant. Hypothesis 1, that system quality positively and significantly affected tuton-student satisfaction, is accepted.
4. T_{Cal.} of 8.630 with alpha probability level of 0.000 (less than 0.05) indicates that information quality had a positive and significant effect on tuton-student satisfaction, given that the other factors that

might affect the information quality remained constant. Hypothesis 2, that information quality positively and significantly affected tuton-student satisfaction, is accepted.

5. T_{Calc} of 4.042 with alpha probability level of 0.00 (less than 0.05) indicates that tutor service had a positive and significant effect on tuton-student satisfaction, given that the other factors that might affect the tutor service remained constant. Hypothesis 3, that tutor service positively and significantly affected tuton-student satisfaction, is accepted.

A good information system should be user-oriented, which means that the system is essentially designed for user convenience. User satisfaction of information system refers to the degree to which the outcome of the use of an information system meets the user expectation. It is perceived as a positive condition the user experiences after using the system due to its ease of use (Santoso, 2009).

Information quality generates output from information system that relates to the value, benefit and relevance of the information addressed to the system users. A good information quality addresses its users' needs, which in turn leads to satisfaction of using the information system (Radityo and Zulaikha, 2007).

Contact personnels are equally important, given that oftentimes they are the only direct links customers have with a company when it comes to product or service inquiries and/or complaints. In addition to customer links, contact personnels help distinguish a company from its competitors. When two or more companies sell products or services with similar qualities and at similar prices, pulling off extra effort into customer services may give one company a competitive advantage over another.

5 CONCLUSION

The results are concluded as follows:

- f. The variable of system quality, information quality and tutor service simultaneously had positif and significant effects on tuton-student satisfaction. The ability to retain and to improve the quality in the three areas is imperative to tuton experience and, ultimately, the level of service UT is able to provide to students.
- g. The variable of system quality closely relates to the availability, usability and performance of an overall system. Quality means that a system fits for the implementation of tuton and therefore meets the requirements set for tuton-student satisfaction.
- h. The variable of information quality affects tuton-student satisfaction so long as it addresses students' needs. Accurate, timely and well-presented information is likely to improve how students perceive the quality of information, and, in turn, how they perform their tasks.
- i. The variable of tutor service that reflects user orientation supports students and focuses on their major needs and priorities. Students, hence, are able to connect with appropriate resource for consistent and reliable service.

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