Artikel 3

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Understanding college students' e-loyalty to online practicum courses in hospitality programmes during Covid-19

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Abstract

This study aims to examine the students' loyalty to an online practicum course for hospitality education during the Covid-19 pandemic in Indonesia. Premised on the Technology Acceptance Model (TAM), we adopted a revised model consisting of Information System Success Model and Expectancy Confirmation Theory (ECT) to ascertain the students' perceptions of the usefulness of the programme and their levels of satisfaction with, and e-loyalty to, the programme. This study utilised an online survey to obtain data from 309 participants. The partial least squares structural equation modelling method was employed in the study. The findings show that students' perceptions of the usefulness of online learning were significantly influenced by information quality, system quality, and system interactions which relate to satisfaction. Preliminary research provides insight for stakeholders such as vocational institutions, teachers, and practitioners of education to gain a better understanding of factors that contribute to hospitality students' continued intentional use of online courses.

Keywords: e-learning; practicum courses; hospitality students; pandemic; Covid-19; student satisfaction; e-loyalty.

Introduction

The Covid-19 outbreak, which began in late 2019, has changed world education systems, including in Indonesia. Social restriction policies have led to students studying from home

using online learning platforms, replacing traditional face-to-face learning. Changing the learning method from conventional education to online learning is not easy; it requires proper and qualified information technology infrastructure support (Giatman, Siswat and Basri, 2020). Anecdotal evidence further suggests that some lecturers have faced technical and practical difficulties which have served to limit the pedagogical preparedness needed to provide meaningful online learning experiences (Rapanta et al., 2020). These challenges may reduce students' motivation and learning effectiveness and also affect their overall satisfaction (Rajabalee and Santally, 2020).

Hospitality programmes usually include practical skills, business knowledge, and soft skills – a combination of skills necessary for graduates intending to work in the hospitality industries (Christou and Chatzigeorgiou, 2019). However, the lack of practical application of theory will leave the students without an active learning environment, which is crucial for shaping them into the skilled workforce needed by industries (Robinson, Breakey and Ruhanen, 2015). This learning experience is significant to the students since their levels of satisfaction could affect their desire to continue with the programme (Rajabalee and Santally, 2020). Advances in technology have made possible the development of online learning platforms as learning tools in hospitality education, especially in a pandemic situation. This study sought to examine students' perception, satisfaction, and e-loyalty of online learning usage in practicum courses.

Literature review

This study was based on the Technology Acceptance Model (TAM). Because of the context of the study, the framework includes external variables and constructs adapted from Expectancy Confirmation Theory (ECT) and Information System (IS) success models which have been applied in previous research conducted by Sung Mi Song (2010).

TAM (Davis, 1989) is often used to explain and predict human behaviour in relation to different computer technologies. TAM has been widely adopted as the main theoretical framework to examine factors which influence the user acceptance of targeted technology, computer systems, or online platforms in a broad range of contexts. The four constructs of

TAM are perceived ease of use, perceived usefulness, attitude towards use, and behavioural intention (Song and Kong, 2017). Davis identified two central themes of TAM, namely perceived usefulness and perceived ease of use. Perceived usefulness is known as 'the degree to which the person believes that using the particular system would enhance her/his job performance', while perceived ease of use refers to 'the degree to which the person believes that using the particular system would be free of effort' (Davis, 1989, pp.319–340). The attitude itself affects the behavioural intention to use a particular technology, which predicts the actual system use (Jimenez et al., 2020). Satisfaction is a prime indicator of behavioural intention. Students' satisfaction leads to the students' decision to use e-learning and reflects students' e-loyalty (Song, 2010).

On the other hand, Expectation Confirmation Theory (ECT) is widely used to explain post-adoption behaviour (Bhattacherjee, 2001). According to the theory, confirmation happens when the perceived performance meets expectations. If there is a difference between them, disconfirmation exists, which affects levels of satisfaction (Oliver, 1980). ECT is often used to predict and explain consumers' satisfaction, including the acceptance of information systems context (Bhattacherjee, 2001; Khalifa and Liu, 2002; Huh and Uysal, 2004).

Furthermore, DeLone and McLean (2003) proposed a model used as a framework for measuring the performance of an information system. Researchers have used the DeLone and McLean Information System (D&M IS) performance model as a theoretical basis for evaluating e-learning systems and facilities' efficiency from both a consumer and organisational perspective (Chiu et al., 2005; Roca, Chiu and Martínez, 2006; Wang, Wang and Shee, 2007). Most of these studies used the three dimensions of IS quality (information quality, service quality, and system quality) as independent variables and satisfaction as a dependent variable to assess students' satisfaction with e-learning services. For this study, the researcher used four dimensions that suggested perceived usefulness: instructor interaction, service interaction, information quality, and system quality (Song, 2010).

Instructor interaction

According to Ghazal et al. (2018), instructors' interactions are essential to students' usage and acceptance of e-learning systems (Al-Busaidi and Al-Shihi, 2010). Instructors should continuously improve themselves to keep updated with the recent pedagogical and technological tools in e-learning and should efficiently prepare e-learning teaching materials (Mtebe and Raisamo, 2014). Moreover, previous literature indicates that positive relationships existed between instructor interaction and perceived usefulness (Lee, Yoon and Lee, 2009).

Service interaction

E-learning service interaction was positively related to student satisfaction, and in turn, satisfaction affects e-learning student loyalty (Pham et al., 2019). E-learners interactivity is a critical success factor in virtual learning environments because teaching and learning processes are mediated by digital technologies (Rodríguez-Ardura and Meseguer-Artola, 2016). Further study showed that students who learned through e-learning perceive interaction as an effective means of learning; they prefer to interact online (Su et al., 2005).

Information quality

Information quality refers to the quality of information given on a website. Its measurement includes accuracy, completeness, currency, efficiency, relevance, scope, and timeliness of information (Cheng, 2012). Further, Miyazoe and Anderson (2010) showed that students in an online class saw information as their priority, while students learning in a face-to-face class focused on student-instructor interaction. Previous research also found a positive relationship between information quality and the perceived usefulness of e-learning systems (Salloum et al., 2019).

System quality

The way that system characteristics affect users' perspectives on using an e-learning system is determined by system quality (Alia, 2016). Research indicates that system quality plays a crucial role in students adopting and using an e-learning system (Salloum et al., 2019). It has

also been shown that system quality positively affects the perceived usefulness of e-learning (Fathema, Shannon and Ross, 2015; Jaber, 2016; Mahmodi, 2017).

Using the four dimensions of perceived usefulness outlined above, this study proposes the following hypotheses:

H1: Instructor interaction positively affects student perceived usefulness.
H2: Service interaction positively affects student perceived usefulness.
H3: Information quality positively affects student perceived usefulness.
H4: System quality positively affects student perceived usefulness.

Satisfaction

Satisfaction refers to the user's acceptance of a system and the level of comfort in its use (Amsal et al., 2020). It refers to perceived usefulness which is informed by users' decisions to accept and adopt an e-learning platform. Moreover, the e-learning system can only be accepted by the students when they perceive that using it will improve their learning performance (Rizun and Strzelecki, 2020). A study conducted by Amsal et al. (2020) proves a positive correlation between perceived usefulness and satisfaction. Junjie (2017) also demonstrates a significant effect of perceived usefulness on satisfaction in the context of a massive open online course (MOOC). Therefore, this study proposes the following hypotheses:

H5: Perceived usefulness positively affects student satisfaction.

E-loyalty

Previous studies have found that satisfaction with e-learning systems leads to students' continued intentional use of the system (Cheng, 2020; Garg and Sharma, 2020). The current study hypothesises that a key determinant of student e-loyalty is online courses' continuance intention which is reflected by students' satisfaction (Song, 2010). Therefore, this study proposes the following hypothesis:

H6: Student satisfaction positively affects student e-loyalty.

Research methods

The methodology used to conduct quantitative research utilised a survey method to collect data by distributing online questionnaires through email in the second and third quarter of 2020. The survey was sent to the 309 hospitality students in Indonesia, with 100% response rate, who participated in online learning practicum courses during the current pandemic. The questionnaire consists of 55 questions: 9 questions about demographic factors and 46 variable questions using a Likert scale with 5 points of plate: 1 (strongly disagree) to scale 5 (strongly agree). This study analysed 309 questionnaires using Structural Equation Modelling (SEM).

Figure 1. Research Model.
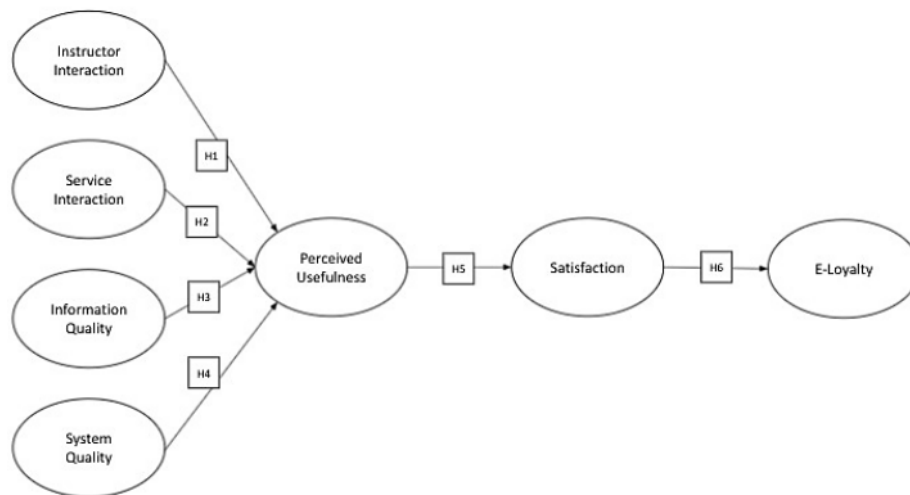
The questionnaire was developed using the seven constructs of the research model: instructor interaction, service interaction, information quality, system quality, perceived usefulness, satisfaction, and e-loyalty.

The questionnaire of perceived usefulness was adapted from Roca et al. (2006). The satisfaction questions were adapted from Keaveney and Young (1997) and the questions of loyalty were adopted from Eggert and Ulaga (2002) and Hennig-Thurau et al. (2001). In order to measure the variable questions, indicators were tested with outer loading values. The standardised outer loadings were used to determine individual item reliability (Roldán and Sánchez-Franco, 2012). The manifest variable should meet a loading of 0.707 or more to be accepted as a constituent of a construct (Carmines and Zeller, 1979; Roldán and Sánchez-Franco, 2012). Table 1 (Appendix 1) shows that the measurement of each indicator has an excellent consonant to meet the minimum requirements of outer loadings. The strong indicators lead to a better fit in covariance SEM analysis (Roldán and Sánchez-Franco, 2012).

Results and analysis

The sample comprises 25% male, 5% unidentified, and 70% female respondents. Most respondents are from Java Island, with 73%, and the rest of the respondents spread across every island in Indonesia. The respondents are college students from different education years and semesters. Most of them (22%) are in the fourth semester (second year of study). As for experiences, 83% currently have one-five online courses. 100% of the respondents are full-time students. Details of respondents' profiles are provided in Table 2 (see Appendix 2).

According to Urbach and Ahlemann (2010) and Hair et al. (2016), PLS-SEM can be used to examine complex structural equation models that consist of several constructs. The measurement data from the indicator or manifest variables are used to input the statistical analysis, proving the relationship among latent variables (Williams, Vandenberg and Edwards, 2009). This research has a reflective model that fits the analysis approach, carried out with reference to reliability and validity attributes (Roldán and Sánchez-Franco, 2012).

According to Chin (2010) and Hair et al. (2016), PLS is the appropriate option for any researchers who need to use latent variable scores in the predictive relationship of subsequent analysis. This research used the variance-based approach Partial Least Square with Smart PLS 3.0 to conduct the two-step analytical procedure (Anderson and Gerbing, 1988). The first step of measurement model analysis assesses reliability, convergent validity, and discriminant validity. After that, this study assesses the structural model to test its research hypotheses (Rizkalla and Setiadi, 2020).

The three conditions proposed by Fornell and Larcker (1981) were used to determine the convergent validity of the measurement items in this study: (a) the average variance extracted (AVE), (b) item reliability of each measurement, and (c) the composite reliability of each construct. In this process, convergent validity was evaluated by assessing the outer loadings of each indicator and average variance extracted (AVE) (Fornell and Larcker, 1981). AVE values should be greater than 0.50. This means that 50% or more of the indicator variance should be accounted for (Roldán and Sánchez-Franco, 2012). As a result, in Table 3 (Appendix 3), all the variables above 0.50 indicate an adequate convergent validity measurement.

The value of Composite Reliability (CR) was assessed to determine Internal Consistency Reliability (Kamis, et al., 2020). CR scores need > 0.7 to ensure adequate internal consistency (Gefen, Straub and Boudreau, 2000; Hair et al., 2016). As depicted in Table 3 (Appendix 3), all values are above the threshold. Moreover, Cronbach's Alpha α> 0.7 is also a measure of the reliability of items measuring a construct (Nunnally and Bernstein, 1994). The Cronbach Alpha values ranged from 0.902–0.950, proving the scores were acceptable.

The Discriminant Validity in Table 4 (Appendix 4) compares the AVE square root value with construct correlation value that indicates the highest value in any column or row compared to the highest correlation value of any other construct (Hair et al., 2016). Based on the value analysis, results met the criterion. The values responded to the proposed research question related to the construction research framework's validity (Kamis et al., 2020).

Subsequently, to execute the correlations among the constructs' values and the indicator standardised data, cross loading analysis was used (Gefen and Straub, 2005). It can also reduce the multi-collinearity between the latent variables by indicating the Average Variance Extracted (AVE) value of each indicator that should be higher than the others (Fornell and Larcker, 1981; Chin, 1998; Vinzi, Trinchera and Amato, 2010). The results are shown in Table 5 (Appendix 5). The cross-loading values prove the validity of the construct measurement model.

Figure 2. Structural model (Bootstrap).
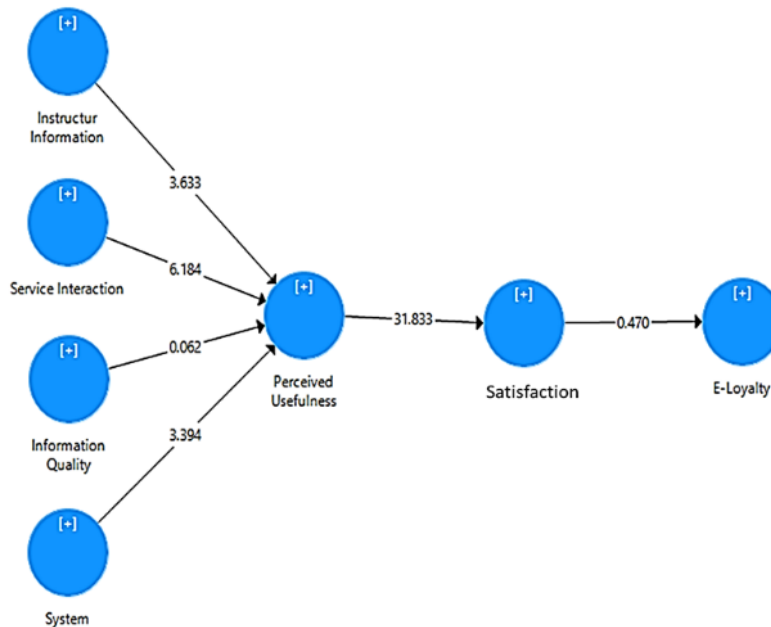
This examination surveys the basic model to test the research hypotheses. The bootstrapping method was utilised with 5000 resamples to examine each of the path coefficients value. (Hair et al., 2016). Based on Table 6 (Appendix 6) and Figure 2, out of the six proposed hypotheses, four were proved to be significant. The first significant variable is functional value (Beta = 0.211; T-value = 3.633; p-value < 0.05) which indicates with relation to hypothesis 1 (H1) that instructor interaction had a positive effect on students' perceived usefulness. The second hypothesis value (Beta = 0.446; T-value = 6.184; p-value < 0.01) further leads to the

acceptance of H2 (service interaction positively affects student perceived usefulness). The fourth hypothesis value (Beta = 0.260; T-value = 3.394; p-value < 0.05) is also proven to be significant for system quality influencing the perceived usefulness and the fifth hypothesis value (Beta = 0.818; T-value = 31.833; p-value < 0.05) leads to the acceptance of H5 (perceived usefulness positively affects student satisfaction). However, the third hypothesis value (Beta = 0.013; T-value = 0.062; p-value > 0.05) proves that H3, information quality has no significant effect on student perceived usefulness and the sixth hypothesis value (Beta = -0.037; T-value = 0.470; p-value > 0.05) also implies that student satisfaction does not significantly affect e-loyalty.

This study also calculated the R squared (R^2) of the research model to answer the research question. The R^2 of perceived usefulness is 0.710, which indicates that the variation can be accounted for 71%. Meanwhile, the R^2 of the satisfaction variable is 0.668 or 66.8%. This indicates that the merged essence of Expectation Disconfirmation Theory, Technology Acceptance Model, and Service Interaction successfully explains the model for online learning satisfaction and e-loyalty.

Discussion

The path coefficients identified that some of the variables are significantly affected. Table 6 (Appendix 6) shows that perceived usefulness has the strongest effect (0.818) on satisfaction (H5), followed by the effect of service interaction (0.446) on student perceived usefulness (H2). This result aligns with the studies conducted by Amsal et al. (2020) and García Aracil (2009) that show the positive correlation between perceived usefulness and satisfaction. These constructs explain R^2 value 0.710 (71%), which were accounted for by the independent variables of instructor interaction, service interaction, and system quality. System quality (0.260) positively affected the perceived usefulness (H4) and to a lesser extent, instructor interaction (0.211) significantly influenced students' perceptions of usefulness (H1). This finding aligns with the findings of previous studies (Lee, Yoon and Lee, 2009; Mahmodi, 2017).

In contrast, information quality is not a positive influence (0.013) on perceived usefulness (H3) and satisfaction does not significantly influence student e-loyalty (H6). These results are comparable to those of a previous study conducted in Poland, examining the impact of distance learning on students during the pandemic (Rizun and Strzelecki, 2020). Further, service interaction has the strongest effect on perceived usefulness, among the other variables. The indicator of variable measurements (Appendix 1, Table 1) implies the importance of course service delivery and instruction (0.858), engagements (0.826), communication (0.802), and personalisation (0.772) during the learning process.

Moreover, the students' perception of usefulness is a strong indicator (Appendix 1, Table 1) that online learning can improve the student performances (0.861). Secondly, the practicum online course experiences helped the students to develop skills (0.856) and increase learning effectiveness (0.845). These indicators lead to the students' perceptions of the usefulness of conducting practicum distance learning. The students' expectations of online practicum courses show strong satisfaction indicators (0.885). Moreover, it is shown that the students are generally satisfied with the online practicum courses they have taken (0.867). The findings show that the effective learning method emphasised by the Instructor, namely Quality, Service Interaction and System Quality, influenced the students' perceived usefulness which significantly affected satisfaction.

Conclusions and suggestions for further study

The developed framework has excellent implications for various parties. Although the study focuses on, and is of particular value for, hospitality management programmes that include online practicum course, the study results emphasise the importance of education adapting quickly to new circumstances, by introducing new curricula in response to the students' needs, in this case addressing the issue of limited access to practicum equipment during a pandemic. In particular, at the level of education management, attention should be paid to the ways of learning. An adequate online platform is required to be able to create an interactive learning environment and responsive communication between instructors and students. Alongside this, digital platforms should be designed holistically and include the additional

features such as learning analytics (Ferguson, 2012). Subsequently, these features used to identify the students' usage of the platform will provide detailed data that could be used to evaluate learning behaviours and could effectively support the learning programme (Song and Kong, 2017).

The research process used in this study is important to future researchers as a source of guidance for developing new instruments for related research. This study also potentially has practical implications for national strategies and decision making. For example, Indonesia's Ministry of Education and Vocational Education Department could formulate an effective strategy for vocational schools or institutions for better online practicum class implementation. Such new initiatives would have the potential to lead education providers to harness digitalisation to develop learning support and identify emerging types of practice (Orr, Weller and Farrow 2018). According to the findings, the most significant factor to influence the students' perceived usefulness is service interaction. Therefore, it is recommended that the educator pays more attention to two-way communications with students and creates an active learning environment in online classes to help students engage during distance learning. Finally, future research and comparative analysis would be valuable in better understanding the broader impact of the Covid-19 pandemic on higher education.

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Appendix

Appendix 1. Table 1. Measurement and Outer Loadings.

Variable	Code	Indicator	Outer Loading
Instructor Interactions	II1	During the COVID-19 situation, the online instructor was easy to get in touch with.	0.795
	II2	My practicum courses online instructor had a high level of expertise in the implementation of the online course.	0.794
	II3	During the COVID-19 situation, my practicum courses online instructor gave fast feedback via a variety of methods.	0.842
	II4	My practicum courses online instructor supported and counselled me with regard to my learning processes.	0.850
	II5	My practicum courses online instructor frequently offered opinions to students.	0.844
	II6	My practicum courses online instructor frequently asked the students questions.	0.789
Service Interaction	SI1	The practicum online hospitality course has a good reputation	0.839
	SI2	The practicum online hospitality course makes me feel connected in interactions.	0.826
	SI3	The practicum online hospitality course secure personal information.	0.783
	SI4	The practicum online hospitality course creates a sense of personalisation.	0.772

	SI5	The practicum online hospitality course creates a sense of community.	0.820
	SI6	The practicum online hospitality course makes it easy to communicate my needs with the university.	0.802
	SI7	The practicum online hospitality course service and instruction will be delivered as promised.	0.858
Information Quality	IQ1	The online practicum courses hospitality course provides accurate information.	0.818
	IQ2	The online practicum hospitality courses provide good information and supporting the course goal.	0.870
	IQ3	Online practicum hospitality courses provide timely information.	0.847
	IQ4	The online practicum hospitality courses provide relevant information (enough for me to master the course content)	0.847
	IQ5	The online practicum hospitality courses provide easy to understand information.	0.838
	IQ6	The online practicum hospitality courses provide the right level of detailed information.	0.857
	IQ7	The online practicum hospitality courses provide an appropriate format of information.	0.865
System Quality	SY1	My interaction with the site is clear and understandable for practicum courses.	0.764
	SY2	I find the site easy to navigate for practicum courses.	0.776
	SY3	I find the site easy to use for practicum courses.	0.816
	SY4	The site has an attractive appearance for practicum courses.	0.793
	SY5	The site has a fast browsing speed for practicum courses.	0.811
	SY6	The design is appropriate for the type of online practicum courses site.	0.802
	SY7	The site conveys a sense of competency for practicum courses.	0.835
	SY8	The site creates a positive experience for myself.	0.744
Perceived Usefulness	PU1	I think the experience of the practicum online course in my major has helped me to develop a clearer idea of my future career plans.	0.831
	PU2	I think the experience of the practicum online course in my major has helped me to develop my skills in expressing myself verbally and in writing.	0.811
	PU3	The experience of the practicum online course in my major has helped me develop the skills needed to get a better job.	0.856
	PU4	The experience of the practicum online course in my major has helped me improve the skills I need for my career.	0.847

	PU5	The experience of the practicum online course in my major has helped me strengthen my basic hospitality practicum skills.	0.836
	PU6	The experience of the practicum online course in my major has helped me increase my overall knowledge of hospitality operations.	0.843
	PU7	Using practicum online learning services can improve my learning performance.	0.861
	PU8	Using practicum courses, online learning services can increase my learning effectiveness.	0.845
	PU9	I find the practicum courses online learning service to be useful to me.	0.884
Consumer Satisfaction	TFL1	My experience with online practicum courses during COVID-19 situation was better than I expected.	0.856
	TFL2	The learning experience in online practicum courses was better than I expected.	0.870
	TFL3	Overall, most of my expectations with the online practicum courses during the COVID-19 situation were confirmed.	0.885
	TFL4	The online practicum program on our campus compares favorably to other institutions around the country.	0.839
	TFL5	I am generally satisfied with the quality of the online practicum course(s) in our department.	0.867
E-Loyalty	SL1	I am likely to retake an online practicum course from the current hospitality program.	0.908
	SL2	I am likely to take another online practicum course that is provided by this hospitality program.	0.929
	SL3	I will recommend other people to take practicum online courses from this hospitality program.	0.909
	SL4	I will say positive things to other people about the services provided at this hospitality program.	0.741

Appendix 2. Table 2. Demographics of the Subjects (N=309).

Variable	Category	Frequencies	Percentage (%)
Gender	Female	218	70%
	Male	76	25%
	Unidentified	15	5%
Island	Java Island	226	73%
	Kalimantan Island	17	6%
	Kepulauan Sunda Kecil (NTB, NTT, Bali)	25	8%
	Sulawesi Island	9	3%
	Sumatra Island	32	10%
Classification	Semester 1	26	9%
	Semester 2	50	16%
	Semester 3	31	10%
	Semester 4	68	22%
	Semester 5	50	16%
	Semester 6	45	15%
	Semester 7	7	2%
	Semester 8	10	3%
	> Semester 8	22	7%
Courses	1-5 class	257	83%
	5-10 class	32	10%
	More than 10 class	20	7%
Enrollment status	Full-time Student	309	100%

Appendix 3. Table 3. Convergent Validity and Reliability.

	No.of Indicators	Cronbach's Alpha	CR	AVE
Instructur Information	6	0.902	0.925	0.672
Service Interaction	7	0.915	0.932	0.664

Information Quality	7	0.935	0.948	0.721
System Quality	8	0.915	0.931	0.629
Perceived Usefulness	9	0.950	0.958	0.716
Satisfaction	5	0.915	0.936	0.746
E-Loyalty	4	0.903	0.928	0.765

Appendix 4, Table 4. Discriminant Validity.
Fornell-Larcker Criterion

Variables	Satisfaction	E-Loyalty	Information Quality	Instructor Information	Perceived Usefulness	Service Interaction	System
CS	0.864						
E-Loyalty	-0.036	0.875					
Information Quality	0.768	-0.032	0.849				
Instructor Information	0.755	-0.038	0.741	0.820			
Perceived Usefulness	0.817	0.018	0.726	0.714	0.846		
Service Interaction	0.794	0.003	0.809	0.738	0.805	0.815	
System Quality	0.715	-0.010	0.766	0.631	0.738	0.750	0.793

Appendix 5. Table 5. Cross Loading.

	Instructor Information	Service Interaction	Information Quality	System Quality	Perceived Usefulness	CS	E-Loyalty
II1	0.795	0.591	0.553	0.504	0.597	0.620	-0.024
II2	0.794	0.618	0.637	0.544	0.559	0.621	-0.018
II3	0.842	0.624	0.630	0.531	0.606	0.654	-0.078
II4	0.850	0.629	0.653	0.521	0.652	0.640	0.005
II5	0.844	0.607	0.619	0.535	0.587	0.628	-0.045
II6	0.789	0.556	0.544	0.468	0.491	0.538	-0.026
SI1	0.678	0.839	0.762	0.670	0.684	0.704	-0.013
SI2	0.537	0.826	0.632	0.607	0.632	0.647	0.043
SI3	0.612	0.783	0.572	0.563	0.597	0.575	-0.006
SI4	0.550	0.772	0.616	0.593	0.621	0.558	0.021
SI5	0.577	0.820	0.638	0.579	0.683	0.675	-0.049
SI6	0.568	0.802	0.618	0.604	0.639	0.639	0.001

SI7	0.677	**0.858**	0.755	0.654	0.723	0.715	0.022
IQ1	0.602	0.651	**0.818**	0.638	0.574	0.649	-0.083
IQ2	0.703	0.679	**0.870**	0.674	0.624	0.648	0.006
IQ3	0.617	0.666	**0.847**	0.624	0.600	0.647	-0.038
IQ4	0.608	0.704	**0.847**	0.654	0.632	0.671	0.003
IQ5	0.585	0.686	**0.838**	0.612	0.630	0.685	-0.011
IQ6	0.629	0.689	**0.857**	0.663	0.611	0.621	-0.044
IQ7	0.656	0.726	**0.865**	0.684	0.640	0.643	-0.027
SY1	0.436	0.512	0.556	**0.764**	0.574	0.543	0.012
SY2	0.477	0.551	0.574	**0.776**	0.527	0.541	0.004
SY3	0.490	0.590	0.610	**0.816**	0.579	0.547	0.040
SY4	0.501	0.569	0.596	**0.793**	0.574	0.538	-0.008
SY5	0.461	0.558	0.564	**0.811**	0.579	0.540	-0.007
SY6	0.482	0.608	0.604	**0.802**	0.592	0.569	-0.078
SY7	0.536	0.704	0.670	**0.835**	0.640	0.635	-0.020
SY8	0.612	0.646	0.671	**0.744**	0.604	0.611	-0.005
PU1	0.590	0.697	0.606	0.619	**0.831**	0.676	0.003
PU2	0.602	0.650	0.567	0.595	**0.811**	0.649	-0.041
PU3	0.606	0.678	0.625	0.638	**0.856**	0.705	0.001
PU4	0.587	0.691	0.614	0.622	**0.847**	0.695	0.028
PU5	0.614	0.701	0.671	0.592	**0.836**	0.687	0.034
PU6	0.611	0.662	0.612	0.601	**0.843**	0.668	0.035
PU7	0.619	0.694	0.617	0.662	**0.861**	0.708	0.006
PU8	0.576	0.662	0.586	0.618	**0.845**	0.695	0.017
PU9	0.634	0.696	0.632	0.669	**0.884**	0.737	0.047
TFL1	0.622	0.648	0.600	0.567	0.698	**0.856**	-0.015
TFL2	0.579	0.684	0.632	0.639	0.703	**0.870**	-0.054
TFL3	0.663	0.705	0.686	0.634	0.710	**0.885**	-0.059
TFL4	0.679	0.688	0.684	0.612	0.690	**0.839**	-0.015
TFL5	0.715	0.704	0.713	0.635	0.727	**0.867**	-0.011
SL1	-0.029	-0.005	-0.051	-0.007	0.003	-0.034	**0.908**
SL2	-0.049	-0.002	-0.023	-0.012	0.013	-0.034	**0.929**
SL3	-0.032	0.011	-0.023	-0.010	0.029	-0.035	**0.909**
SL4	-0.001	0.009	0.007	-0.007	0.018	-0.009	**0.741**

Appendix 6. Table 6. Path Coefficients.

	Beta	Standard Deviation	T Values	P Values	Result
Instructor Information -> Perceived Usefulness	0.211	0.059	3.633	0.000	Accepted
Service Interaction -> Perceived Usefulness	0.446	0.071	6.184	0.000	Accepted
Information Quality -> Perceived Usefulness	0.013	0.076	0.062	0.951	Rejected

System Quality -> Perceived Usefulness	0.260	0.079	3.394	0.001	Accepted
Perceived Usefulness -> Satisfaction	0.818	0.026	31.833	0.000	Accepted
Satisfaction -> E-Loyalty	-0.037	0.076	0.470	0.638	Rejected

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