PRIVATE UNIVERSITIES IN INDONESIA: PERSPECTIVE ON STUDENTS' SATISFACTION AND MARKETING STRATEGY IN POST-PANDEMIC ERA

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ABSTRACT

This research aimed to analyse the student's satisfaction toward e-learning implementation in private universities and how it can be used as a marketing tool in the post-pandemic era. Furthermore, the antecedents of e-learning were also studied. We selected an ICT-based private university in Bandung as a model. The data were collected using an e-questionnaire, distributed to students subjected to PLS-SEM for analysis. The results showed that e-learning implementation positively contributed to students' satisfaction. Additionally, from the perspective of students as consumers, e-learning implementation significantly increases their satisfaction, which contributes to a good marketing strategy. This study has novel input to enrich the literature on e-learning as one of the requirements for providing online learning options as a marketing tool for initiating the digitalized university.

Keywords: Private universities, digitalized university, students' satisfaction, information and communication technology, marketing

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INTRODUCTION

The Covid-19 pandemic has significantly altered many facets of human life (Rapanta et al., 2021, Dewanti et al., 2022). This virus first surfaced in Wuhan, China, and has been spreading to Indonesia since early March 2020. The current situation of the Omicron variant of Covid-19 remains an obstacle to face-to-face meetings in various activities (Dewanti et al., 2022). Although the pandemic is expected to be reclassified as endemic in the near future (Wang & Lin, 2007), the usage of Information and Communication Technology (ICT) is expected to remain the primary choice in carrying out daily tasks due to its efficacy and efficiency (Cunningham, A et al. 2017). Every sector, especially critical ones like education, has relied on ICT support for sustainability. Long-distance learning using ICT-based media is often known as e-learning. It is seen as a solution to the issues associated with face-to-face learning (Lee, 2021). Furthermore, practically all academic services at various universities throughout the world are transitioning to online-based services (Gronseth, 2018) & (Leonidou, 2006). Even today, one of the public's assessments of a university is based on its ability to provide ICT-assisted learning and the ability of the university's numerous infrastructures to support all online activities. This phenomenon is responsible for the transformation of ICT infrastructure from a mere requirement to a demand and necessity, and even a marketing tool. Furthermore, many universities are leveraging their ICT strengths to create new markets, boost productivity, and position themselves as digital university pioneers (Rapanta, 2021).

Compared to public universities, there are several fundamental factors that makes private universities more motivated to adopt marketing strategies and make student satisfaction their main focus. First, public universities are funded by the government, while the main income of a private university comes from donations and tuition fees from its students (Zeithaml, 2000). Second, most students who enroll in private universities are more likely caused by them not passing the public university entrance test and screening, this makes private universities have a big risk of failing to survive (Mahenge & Sanga, 2016). This is worsened by the increasing number of pathways and options for admission to public universities other than the scholarship path. Third, the survival of a private university depends on the number of students and student retention to continue studying at the private university (Ferreira & Hill, 2008) & (Anabila et al., 2020). Fourth, there is a great contradiction and rigidity between the values and goals of public universities compared to private universities (Breneman et al., 2012) & (Chin et al., 2018). Fifth, public and private universities have different market niches, although there is some overlap (Breneman et al., 2012). Sixth, the increasingly fierce competition makes private universities have to compete globally with other universities on an international scale (Altin, 2019). Therefore, this research enriches the discussion on marketing strategy in private universities.

Marketers have used customer satisfaction as the dominant benchmark in measuring company success; Therefore, satisfaction is essential for all companies in maximizing future profits by increasing customer behavioral intentions and retention rates (Dash et al., 2021). In the educational context, universities have demonstrated their commitment to student satisfaction through mission statements, goals, marketing strategies, and promotional themes. Student satisfaction is a short-term attitude that results from evaluating students' educational experiences (Kanwar & Sanjeeva, 2022). As such, it is important to understand several reasons behind student satisfaction, one of which is by investigating e-learning implementation at a university. The implementation of e-learning during the pandemic and post-pandemic period is no longer an option but has now become a necessity (Ansari et al., 2022). This conveyed a marketing message to students that universities can overcome learning barriers, be responsive to change, and maintain service quality even under challenging conditions (Khairul et al., 2021). The public can see that not all universities are ready for online-based work and teaching formats. In fact, this process is complicated for some universities due to the level of IT

infrastructure development and the lack of human resources. They may understand that ICT triggers psychological stress, fear of working in new ways and methods, and anxiety caused by the need to communicate with students and colleagues online (Al-Salman et al., 2022).

In an e-learning environment, online students are perceived as more goal-oriented. They are active customers who can expect and appreciate added value through the educational process, not just being a product of the education system (D'errico et al., 2018). This shift in academic focus requires a corresponding change in how e-learning should be assessed from consumer satisfaction and marketing strategy perspectives. Tests of new models need to be carried out to answer the future agenda of previous research in a digital context. Although many previous studies have discussed e-learning implementation, the discussion is still fragmented. A comprehensive discussion regarding e-learning implementation as a way to increase student satisfaction, its antecedents, and how it is viewed from the perspective of the university's marketing strategy is needed. This is because internet-based relationships are quite different from traditional relationships and, as a result, require special attention and study (Alnsour, 2018). Strategies and modeling of student satisfaction at universities that provide e-learning include cognitive, affective, and conative domains to obtain terminology and a more precise meaning so that it can result in more effective and efficient e-learning planning and implementation as one of the university's marketing strategies (Supriadi, & Sa'ud, 2017). Successful e-learning implementation is often used by universities for branding as the initiator of a digitalized university, smart campus, and cyber campus (Meskhi et al, 2019). This research integrates ICT, e-service quality, e-information quality in the cognitive and e-learning domains and students' satisfaction in the affective domain. The research used quantitative analysis with SEM-PLS and was conducted on a private university in Bandung as a model. Bandung was taken as a model considering that the city is one of the big cities and acted as a role model for the City of Education in Indonesia. In addition, the model is a computer-based university that has applied ICT in its teaching and learning services and processes.

LITERATURE REVIEW

This section presents the literature that critically examines the variables and indicators used in research, namely:

Information and Communication Technology (ICT) in E-Learning Implementation

The current global situation has increased the need for ICT in education due to the prolonged pandemic. Apart from the pandemic (Sultan & Wong, 2019) stated that in the current digital and significant data era, ICT is crucial to winning fierce competition. Another essence of using ICT in e-learning implementation and overcoming situations where face-to-face meetings are not possible is to trigger cognitive conflicts. The conflicts then stimulate students' curiosity to explore new material further. This is made possible with the help of lecturers skilled in using educational software, delivering up-to-date information from the Internet, developing engaging lectures, and presenting material interactively as part of e-learning. ICT enhances interactions between students, instructors, and information systems in previously impossible ways (Mehta, S., & Dubey, K. B. 2021). If the e-learning software is well designed, students do not need additional explanations and additional help from the lecturer.

Furthermore, with the help of ICT, the ability to create simulations is improved, and thus can better visualize abstract concepts that are difficult to explain. Consistent ICT improvement will also improve student achievement (Soegoto & Luckyardi, 2019). Therefore, this study develops a hypothesis as follows:

H1. Information and Communication Technology (ICT) has a positive relationship with e-learning implementation

Quality of e-Service and e-Learning

Currently, universities have begun employing student care strategies and treating students in the same way that companies treat their customers. (Anderson,

V., et al 2020). Students are increasingly viewed as university customers, and institutions must supply students with high-quality e-learning services (Escomes & Morbo, 2021). Previous studies in the field of e-service provide an appropriate starting point for future research in the field of e-learning quality. Shaik, Lowe, and Pinegar (2006) highlighted two characteristics of long-distance learning (online) programs in the United States: instructional service quality and management and administration services. Management and administration services are mostly concerned with help desks, counseling, university management services, and administrative employees, whereas instructional services are primarily concerned with classroom interactions with teachers and information on the platform of university learning websites. DeLone and McLean's (2003) information system success model was utilized by Wang and Lin (2007a) to identify aspects that led to Taiwan's e-learning system's success. They discovered that three elements influence the success of e-learning systems: 1) Service quality; 2) Information quality; and 3) System quality. The most important aspect of e-learning is its quality, which is followed by the quality of e-learning instructors, the quality of course materials, and the quality of e-learning administration and support services (Pucciarelli & Kaplan, 2016). Several studies have been conducted to investigate the link between website quality and student academic attainment. According to qualitative research on web-based education, website quality is connected to student learning requirements, and the availability of better education, and the web-based education system is related to student learning satisfaction (Alkhattabi et al., 2011). Therefore, this study develops the following hypothesis:

H2. The Quality of e-service has a positive relationship with e-learning implementation

E-learning's Quality of e-information

Empirical research has shown that the quality of e-information offered by universities correlates with the e-learning implementation. According to the findings of (Shehzadi, S., et al 2020), the quality of e-information is directly connected to student satisfaction and the implementation of e-learning. The quality of information generated by the system is commonly referred simply as information quality. An information system's intended features include precision, dependability, appropriateness, validity, accuracy, and clarity. Features such as content requirements, information accuracy, and the capacity to communicate knowledge in a timely way have become more crucial in e-learning systems (Terry, 2016).

Furthermore, the quality of information is intimately tied to the content in the e-learning system. Before beginning lectures, the quality of e-information, for example, is critical to offer relevant information about the aim of giving content to students. Student satisfaction is also tied to the system's feedback to those students. E-learning environments that are tailored to the needs of the learner and the system have been shown to improve learning outcomes and user satisfaction (Efiloglu Kurt, 2019).

Thus, the following hypothesis can be formulated:

H3. The Quality of E-information and Student Satisfaction

E-Learning Implementation and Student Satisfaction

Student satisfaction is a standard indicator for evaluating e-learning implementation success. Student satisfaction is essential to e-learning since it assures students to stay loyal to their universities. As a result, it enables institutions to maximize their profits by creating and maintaining positive attitudes and behaviors among their students. The two categories of satisfaction are cognitive and affective satisfaction (Zebal & Goodwin, 2012). When students receive information and knowledge that is of the same quality as expected and positively impacts their mental health, they are satisfied (Dominici, G., & Palumbo, F. 2013). In the case of e-learning implementation, this adequate satisfaction might be lowered, affecting the university's image. For example, in the pandemic lockdown legislation, many institutions are

not prepared to employ online learning, which might harm student happiness and the institution's image. In other words, student satisfaction as a result of successful e-learning implementation may be utilized to improve the university's reputation and image in the community, eventually becoming a tool in the university's marketing strategy. As a result, the hypothesis might be stated as follows:

H.4 E-learning Implementation has a Positive Relationship with Students Satisfaction.

H.5 E-learning Implementation Mediates the Relationship between Students' satisfaction and ICT.

H.6 E-learning Implementation the Link between Students' Satisfaction and E-service Quality.

H7. E-learning Implementation Mediates the Link between Students' Satisfaction and E-information Quality.

METHODOLOGY

Sample and Data Collection

The target population of this research is students of a large private university in the city of Bandung, West Java, Indonesia, who have applied ICT in their learning and service systems. An online survey was conducted with 29 statement items and data collected from 220 student respondents. Respondents were limited to sophomore students in two computer-related study programs, Informatics Engineering and Information System, most frequently used ICT facilities in various practicum courses. Final-year students are considered to meet the criteria as respondents because they have gained one year of experience in using ICT. Finally, the data were analyzed using SEM-PLS. We share online links via Facebook and WhatsApp Groups to reach most of the students.

Questionnaire and Measurement

Two hundred twenty students from a prominent private institution in Bandung were given questionnaires. There are 29 questions in the questionnaire. ICT is judged by four dimensions (Bhat & Bashir, 2018): Perception, Ease of use, Compatibility, and Advantage. The e-service quality scale was developed by (Zhou et al., 2014) and consisted of four dimensions: 1) Privacy; 2) Efficiency; 3) System Availability; and 4) Fulfillment. Furthermore, the items produced by (Alkhattabi et al ., 2011) are used to assess the quality of e-information. Meanwhile, according to (Veldhoen & Simas, 2021), a four-item measure is adapted for e-learning. The items established by Header et al. are used to assess student satisfaction (2013). Figure 1 depicts the theoretical framework used in this investigation.

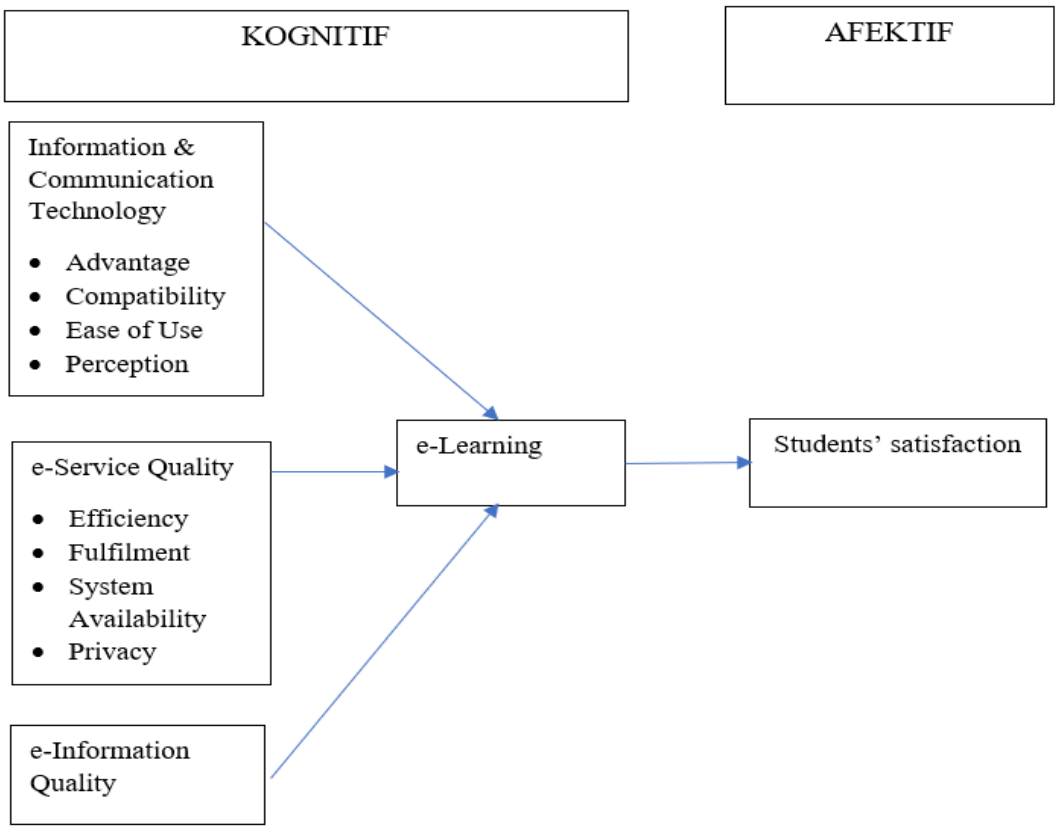

Figure 1: Theoretical Framework

Research Hypothesis

Based on the literature review, we proposed 7 hypotheses with 4 direct hypotheses and 3 indirect hypotheses as follows:

H1. Information and Communication Technology (ICT) has a positive relationship with e-learning implementation

H2. E-Service Quality has a positive relationship with e-learning implementation

H3. E-Information Quality has a positive relationship with e-learning implementation

H4. E-learning implementation mediates the relationship between ICT and Students' satisfaction

H5. E-learning implementation influences the link between the quality of e-services and student satisfaction.

H6. E-learning implementation influences the link between the quality of e-information and student satisfaction.

H7. E-learning implementation has a beneficial impact on student satisfaction.

RESULT

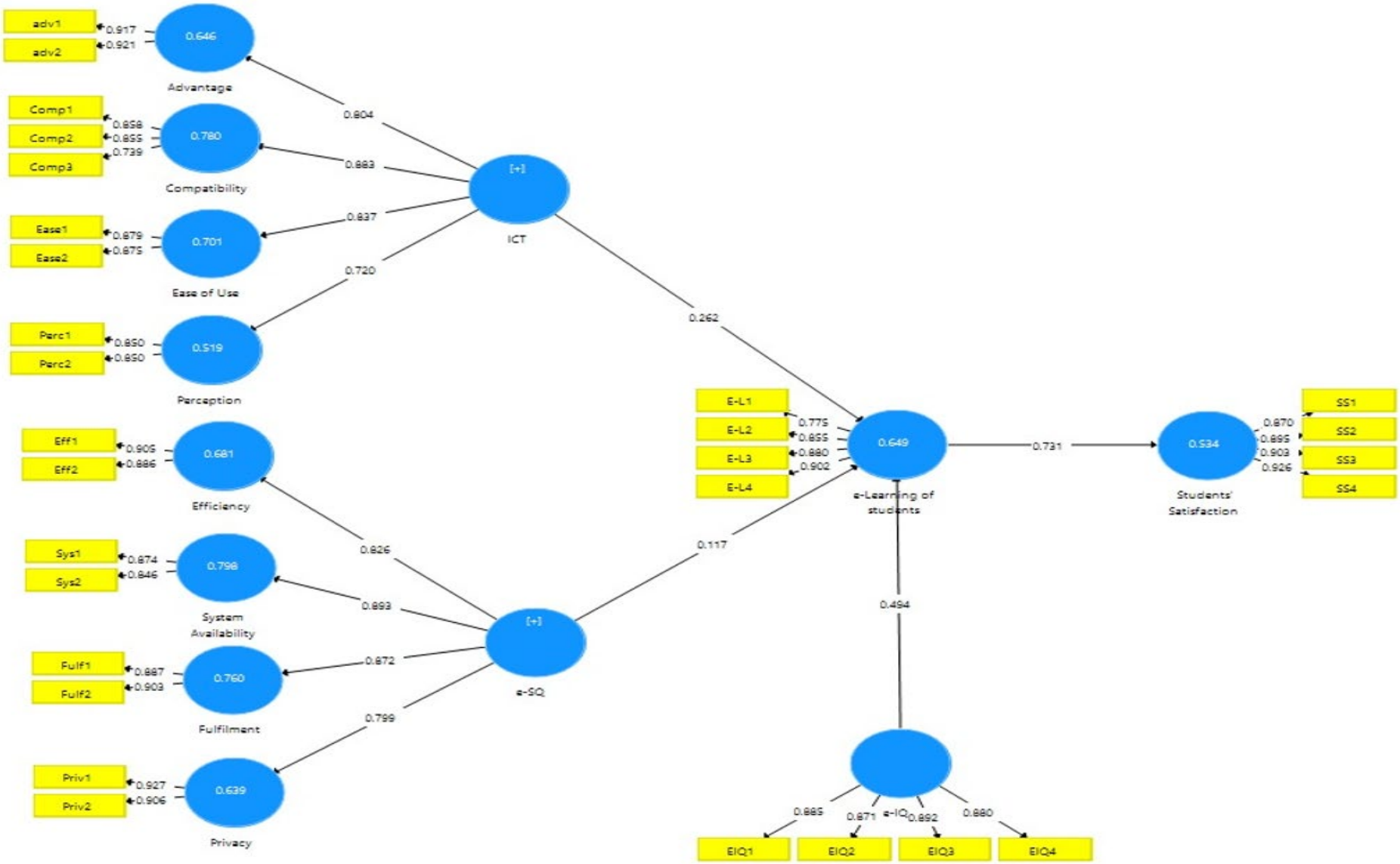

Figure 2: Measurement Model Assessment

Findings

Because it is popular and has improved estimate methodologies, SEM-PLS analysis was utilized for data analysis using the Smart PLS 3. Furthermore, the PLS method was employed to evaluate the data and the structural model, followed by a bootstrap procedure.

Measurement Model Rating

Table 1: Convergent Validity

First-order constructs	Second-order constructs	Items	Loadings	CR	AVE
Advantage		adv1	0,916997	0,915969	0,844966
		adv2	0,921438		
Compatibility		Comp1	0,85781	0,858872	0,670821
		Comp2	0,854642		
		Comp3	0,739063		
Ease of Use		Ease1	0,878508	0,869099	0,768503
		Ease2	0,874774		
Perception		Perc1	0,849828	0,838669	0,722161
		Perc2	0,849774		
	ICT	Advantage	0,803509	0,898806	0,498398
		Compatibility	0,882984		
		Ease of Use	0,837049		
		Perception	0,720151		
Efficiency		EFF1	0,905479	0,890151	0,802067
		EFF2	0,885574		
System Availability		Sys1	0,874025	0,850412	0,739804
		Sys2	0,845984		
Fulfilment		Fulf1	0,887	0,889319	0,80071
		Fulf2	0,90258		
Privacy		Priv1	0,92744	0,913369	0,84057
		Priv2	0,906088		
	e-SQ	Efficiency	0,825527	0,913577	0,569949
		System Availability	0,893451		
		Fulfilment	0,871687		
		Privacy	0,799396		
e-IQ		e-IQ1	0,885112	0,933495	0,77824
		e-IQ2	0,871357		
		e-IQ3	0,892258		
		e-IQ4	0,879859		
E-L		e-L1	0,775001	0,915037	0,729803
		e-L2	0,854604		
		e-L3	0,879855		
		e-L4	0,902271		
SS		SS1	0,870045	0,943671	0,807332
		SS2	0,894774		
		SS3	0,90267		
		SS4	0,925697		

Source: Data Processing Results (2022)

Average Variance Extract (AVE), Competitive reliability, and Loadings were used to evaluate the measurement model and determine convergent validity. Except for a few entries in Table 1, the factor surpasses the recommended value of 0.60. Likewise, all Composite Reliability (CR) ratings are more than the suggested norm of 0.70. All of the AVE values for all constructions under consideration surpassed the acceptable value of 0.50. (Hair, et al., 2016). The items with the lowest loading factor (0.50) were eliminated (see Figure 2).

Discriminant Validity

Average Variance Extract (AVE), Competitive reliability, and Loadings were used to evaluate the measurement model and determine convergent validity. Except for a few entries in Table 1, the factor surpasses the recommended value of 0.60. Likewise, all Composite Reliability (CR) ratings are more than the suggested norm of 0.70. All the AVE values for all constructions under consideration surpassed the acceptable value of 0.50. (Hair et al., 2016). The items with the lowest loading factor (0.50) were eliminated (see Figure 2).

Table 2: Research Construct Discriminant Validity

	Advantage	Compatibilit	Ease of Use	Efficiency	Fulfilment	ICT	Perception	Privacy	Students' S	System Av	e-IQ	e-Learning	e-SQ
Advantage	0,919												
Compatibility	0,640	0,819											
Ease of Use	0,533	0,641	0,877										
Efficiency	0,430	0,561	0,643	0,896									
Fulfilment	0,504	0,559	0,579	0,615	0,895								
ICT	0,804	0,883	0,837	0,639	0,668	0,706							
Perception	0,414	0,490	0,570	0,439	0,548	0,720	0,850						
Privacy	0,425	0,458	0,522	0,509	0,591	0,559	0,424	0,917					
Students' Satisfaction	0,566	0,583	0,572	0,540	0,642	0,678	0,483	0,647	0,899				
System Availability	0,453	0,603	0,612	0,688	0,733	0,688	0,583	0,611	0,664	0,860			
e-IQ	0,569	0,578	0,621	0,607	0,710	0,703	0,530	0,724	0,808	0,702	0,882		
e-Learning of students	0,565	0,569	0,617	0,531	0,662	0,698	0,532	0,591	0,731	0,636	0,773	0,854	
e-SQ	0,535	0,643	0,694	0,826	0,872	0,754	0,589	0,799	0,736	0,893	0,810	0,715	0,755

Source: Data Processing Results (2022)

Structural Equation Modeling (SEM).

The structural model was appraised after the measurement model had been examined. The path coefficient, t-value, and standard error were used to establish the model's significance. For both the direct and indirect impacts on Smart PLS 3, the bootstrap technique was employed to assess the hypotheses. Tables 1 and 2 as well as Figure 2 shows how the assumptions were experimentally tested. On the other hand, the hypotheses were validated using the crucial ratio ($t > 1.645$; p 0.05). All hypotheses were found to be correct, except for modest correlations on e-service quality.

DISCUSSION

This research aims to see how e-learning implementation, electronic service quality, and e-information quality affect students' e-learning experiences at a computer-based private university in Bandung, Indonesia. Seven hypotheses based on prior research on the deployment of e-learning and its link to student satisfaction were offered to fulfill the study's goals. The direct hypothesis underpins four of the seven hypotheses, whereas the indirect hypothesis underpins three. The data was obtained from conducting a questionnaire-based survey of 220 students. Respondents were limited to sophomore students in computer-related study programs, namely Informatics Engineering and Information Systems, which most frequently used ICT facilities in various practicum courses. Final-year students are considered to meet the criteria as respondents because they have gained one year of experience in using ICT. However, apart from this, level 2 students are still possible to transfer to other universities. In future research, it will be fascinating if the model is continued by adding student retention or student loyalty and positive intention behavior such as e-WOM. Finally, the data were examined using statistical methods to accomplish the current study's aims. The findings partially meet the aims and give significant insights for colleges about e-learning.

The study's results and the application of this model provide input for private universities to implement the e-learning model by taking into account its antecedents and using it as a marketing tool.

The results of this study provide evidence that e-learning is vital in overcoming difficult situations during the current pandemic and post-pandemic. It is also influenced by three main components of e-learning, namely e-information quality, e-service quality, and ICT. The study's findings indicate that ICT benefits increasing e-learning, as improved ICT infrastructure can increase students' e-learning. The previous study also backs up this finding. ICT has a significant role in promoting e-learning, according to Nikolić, Petković, Denić, Milovanević, and Gavrilović (2019).

Further research has shown that ICT considerably influences students' e-learning (Supriadi & Sa'ud, 2017; Terry, 2016). Furthermore, the study's findings show that the quality of e-information contributes positively to the promotion of e-learning. Therefore, accuracy, relevancy, availability, and completeness of information on the university website, Learning Management System (LMS), and the university's social media is crucial for the implementation of e-learning.

Meanwhile, the quality of e-service needs to be continuously improved for good e-learning implementation. The size of the error determines the accuracy in determining the standard setting. The error level of 5% in e-service quality is not deemed as significant while 10% error level is deemed as significant. The concern about the test results with a large error rate is that the cut score determination is not correct. On the other hand, the smaller the error, the more precise the cut score will be. However, this can be overcome because this study uses the Bootstrap Method to estimate errors in measurements. The Bootstrap method is widely applied in statistics to estimate errors in small populations or populations of unknown numbers (Li, K., Wang, R., Lei, H., Zhang, T., Liu, Y., & Zheng, X., 2018). According to the data, e-learning has a direct impact on student satisfaction. Furthermore, in order to encourage e-learning implementation, e-services must have a high level of tangibility, dependability, responsiveness, and assurance. The findings also indicate that e-learning improves student satisfaction. Finally, using ICT at the university enhances the effectiveness and efficiency of e-learning activities, increases student happiness, and may be used as a marketing strategy to compete in this competitive digital era environment.

Given the popularity of e-learning, which is evidenced by the fact that over 40 million students have used online learning modalities worldwide, e-learning has the potential to establish new markets (Crea & Sparnon, 2017). According to the Global E-Learning Market Analysis & Trends — Industry Forecast to 2025 report, the highest growth rate of the e-learning market is observed in Asian and Eastern European countries: China (52 percent), Malaysia (41 percent), Romania (38 percent), Poland (28 percent), and the Czech Republic (27 percent). It's worth noting that public policy influences the progress of e-learning. As a result, while Romania, Poland, and the Czech Republic do not currently have an autonomous strategy for e-learning development, they do have state-level assistance.

Given the large market potential for universities that can organize e-learning well, university management needs to pay attention to the use of social media, the quality of e-services and e-information, and ICT infrastructure (Meskhi, B., Ponomareva, S., & Ugnich, E., 2019). Moreover, the implementation of e-learning which is massively carried out during the pandemic, offers many benefits and new experiences in learning for students, allowing it to be used as a means to realize student satisfaction. Satisfied students will increase their retention and provide positive, intentional behavior that is useful for the marketing strategy of the e-learning provider university. Therefore, many experts claim that after the end of the pandemic (post-pandemic), this new habit of e-learning will still be carried out because of its efficiency and effectiveness, even though e-learning still has disadvantages compared to face-to-face meetings in class. The e-learning learning method is a new method that focuses on student satisfaction in each teaching method. Student satisfaction is an assessment that e-learning in terms of ICT facilities, quality of e-service, and quality of e-information meets student expectations to continue learning even in a pandemic. This is supported by Oduma et al. (2019), who argue that high-quality e-learning education can help institutions increase student happiness.

Table 3: Path Analysis

	Beta	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Conclusion
ICT -> Advantage	0,804	0,801	0,037	21,880	0,000	Supported
ICT -> Compatibility	0,883	0,881	0,021	41,271	0,000	Supported
ICT -> Ease of Use	0,837	0,835	0,029	28,946	0,000	Supported
ICT -> Perception	0,720	0,717	0,044	16,258	0,000	Supported
ICT -> Students' Satisfaction	0,192	0,194	0,053	3,638	0,000	Supported
ICT -> e-Learning	0,262	0,265	0,068	3,886	0,000	Supported
e-IQ->Students' Satisfaction	0,361	0,362	0,059	6,138	0,000	Supported
e-IQ -> e-Learning	0,494	0,494	0,069	7,146	0,000	Supported
e-Learning->Students' Satisfaction	0,731	0,731	0,046	15,994	0,000	Supported
e-SQ -> Efficiency	0,826	0,821	0,032	25,784	0,000	Supported
e-SQ -> Fulfilment	0,872	0,870	0,021	41,111	0,000	Supported
e-SQ -> Privacy	0,799	0,797	0,038	21,260	0,000	Supported
e-SQ ->Students' Satisfaction	0,086	0,083	0,058	1,486	0,138	Not Supported
e-SQ -> System Availability	0,893	0,892	0,017	52,293	0,000	Supported
e-SQ -> e-Learning	0,117	0,114	0,079	1,485	0,138	Not Supported

Source: Data Processing Results (2022)

This study has substantial theoretical implications since it provides a complete framework, including key insights, to enable the ICT-based trend paradigm change in universities and position them as forerunners of cyber campuses, smart campuses, and digital universities. In theory, this is one of the first studies to give a full foundation for launching a student e-learning system after COVID-19. There are several studies in the literature that address student e-learning; however, this is a study that addresses the COVID-19 post-effects. As a result, by creating a paradigm for reacting to COVID-19, our study contributes to the literature. This study demonstrates that, amid tough circumstances caused by the pandemic, the quality of e-services and e-information, as well as ICT are the primary "weapons" in e-learning. Along with this contribution, this study contributes to effectively launching e-learning and starting future research on branding at digitalized colleges.

This finding has significant practical implications in addition to theoretical implications. This research is fundamental for private universities to start developing e-learning systems in the post-pandemic era since it leads to a shift in the educational system from a teaching instrument to a marketing tool. On the other hand, universities face a range of problems when developing online learning systems. This study underlines the importance of e-services and e-information in fixing the problem in this environment. As a result, this study has unique implications for universities in developing e-learning systems to keep university operations running in the current environment.

RESEARCH LIMITS AND FUTURE RESEARCH AGENDA

Along with theoretical implications, this finding has significant practical implications. This study is especially crucial for private universities to construct e-learning systems in the post-pandemic age, which leads to a paradigm change in the education system into a marketing tool. Nonetheless, universities encounter a variety of challenges while building online learning systems. In this context, this research emphasizes the relevance of e-services and e-information in resolving the problem. As a result, this research offers unique implications for universities in developing e-learning systems to

sustain university operations in the current scenario. The plan for developing this research can be continued in the conative domain, for example, E-WOM as consumer behavior. The second limitation is that this research used a computer-based private university as a model. In future research, samples need to be taken from several universities in Indonesia that have used ICT. The third limitation is that the respondents in this study are level 2 students; that is still possible to transfer to another university. It will be very interesting in future research if the model is continued by analyzing student retention or loyalty. Fourth, future research can examine building a new construct in the realm of digitalized universities, smart campuses, and comprehensive cyber campuses, as well as explain these terms so that they are well-integrated and not fragmented.

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