



The Influence of Perceived Usability, Perceived Quality and Satisfaction Toward E-Learning Continuance Intention

Andrianto Widjaja¹, Ellynia²

¹Lecturer of PPM School of Management, Jakarta, Indonesia

²Lecturer of Husada Hospital School of Health Sciences, Jakarta, Indonesia

Corresponding Author: Andrianto Widjaja

ABSTRACT: E-learning system has been widely used in the world of education, in line with developments in information and communication technology. The application of this system and its various variants has even become mandatory during the Covid-19 pandemic period. However, it remains to be seen whether or not in the future consumers still intend to take advantage of the system already in place. This study aims to determine and analyze whether there is a direct or indirect influence between perceived usability and perceived quality on continuance intention enthused by satisfaction. In this study, perceived usability is represented by the variables of perceived usefulness and perceived ease of use, while the perceived quality is represented by the variables of information quality and system quality. The research was conducted at a health science college in Jakarta, Indonesia. The sample data were taken from vocational D3 Nursing study program students, where in normal situation the teaching and learning process would be done by direct practice. Data were collected through a survey method using a research instrument in the form of questionnaires. Meanwhile, analysis of the research model used path analysis. The results showed that there was a direct or indirect influence between perceived usefulness and perceived ease of use on the desire to continue using the e-learning learning system in the institution. Another finding is that system quality has indirect effect on continuance intention through intermediate variable of satisfaction, while information quality appears as the only variable that has no effect on satisfaction.

KEYWORDS: e-learning system, perceived usability, perceived usefulness, perceived ease of use, perceived quality, information quality, system quality, satisfaction, continuance intention.

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I. INTRODUCTION

The pandemic crisis that has plagued the world today has a wide impact on all fields, including the world of higher education. This situation forces all educational institutions to change the work pattern of educational services from a conventional approach to online-based services. In fact, during the pre-pandemic period, there were several universities that implemented the blended-learning method, which combined online and face-to-face offline learning. However, entering the pandemic period, universities were forced to carry out a full online teaching and learning process or apply the e-learning method. The e-learning method was known long before the Covid-19 pandemic era, and its use tends to become frequent in line with the development of information and communication technology. However, it remains to be seen whether the use of e-learning in tertiary institutions, especially during this transitional period, has been running optimally or not. The success of using this method will depend on several factors. Whether consumers, in this case students, are quite satisfied with the provided e-learning system, and will such method also affect their intention to continue using the system concerned. Starting from the phenomena above, this research was conducted to answer these questions, especially in relation to the e-learning system implemented at Husada Hospital College of Health Sciences.

There are several theories used to analyze this situation: a). Expectation Confirmation Theory (ECT) which is widely used to explain what factors motivate a person to continue using information technology-based system (Bhattacharjee, 2001a, b). The ECT model was developed to explain the relationship between perceived performance, expectation, confirmation, satisfaction, and repurchase intention. Meanwhile, in order to explain the relationship between attitudes, satisfaction, behavior intention, and system usage, a well-known model, the Technology Acceptance Model (TAM), is used. In fact, this model is derived from Theory of Reasoned Action

(TRA) proposed by Fishbein & Ajzen (1975, in Davis et al (1989)), and is considered an intention model that succeeds in explaining behavior from various perspectives. Fishbein & Ajzen argue that attitude affects behavior through behavioral intention. The scope of TRA is quite broad because it is designed to provide an overview of various human behaviors, including human behavior in dealing with the use of technology. The TAM model itself is an adaptation of TRA (Davis, 1989) which was developed specifically to explain the behavior on the use of technology, in this case information technology. In this model, 2 additional variables are involved, namely perceived Usefulness and Perceived Ease-of-Use, as determining factors for a person's attitude to use a system, which in this case is information system. Good or bad this system is described from the satisfaction felt by users. Seddon (1997) argues that perceived usefulness can be considered a determinant of user satisfaction. The Seddon model is extended by Rai et al (2002) which describes perceived usefulness, perceived ease-of-use, and information quality, as antecedents for variable satisfaction. Several studies have tried to represent perceived performance through perceived quality which is explained through information quality, system quality, and service quality (Hsu et al, 2003). The studies of DeLone et al (1992), McKinney et al (2002), and McGill et al (2003) found a significant effect between system and information quality on user satisfaction.

From the above background, this study will utilize ECT and TAM models, to analyze the factors that influence the emergence of a person's decision to continue using information technology-based systems, which in this case is e-learning system implemented in universities. To describe perceived performance, two constructs are used, namely perceived usability and perceived quality. In this study, perceived usability is represented through perceived usefulness and perceived ease-of-use, while perceived quality is represented through information quality and system quality.

This research was conducted at Stikes Husada Hospital, especially in the D3 Nursing study program that has implemented e-learning method since Covid-19 pandemic took place. This educational institution has been running educational programs since 1989. In normal situations, teaching and learning activities in the D3 Nursing study program are carried out not only in the form of theoretical lectures, but also involve lectures in laboratories and clinics or fields. In pandemic era, face-to-face activities and interactions are kept to a minimum even if necessary they are not done at all. This is in line with government policies that require teaching and learning activities to be carried out at home during the pandemy. Thus the teaching and learning processes are forced to switch to e-learning system. The problem is that this D3 nursing study program is a vocational study program which practices must be more than theoretical at a ratio of 60:40. Vocational education is an education that refers to mastering applied skills, requiring numerous practice hours. Thereby mere reliance on online approach brings about uncertainties for optimal abilities of the students. Meanwhile, the end of the pandemic period cannot be predicted, so that the institution is required to perpetually improvise for the continuance of education.

The success of teaching and learning processes by using the e-learning method will greatly depend on the readiness of lecturers and students in adopting the use of technology through the gadgets they have. One must admit that the current processes have many weaknesses, but management strives to improve the implementation of education in order to have optimum effect. When the pandemic period ends, it is possible that the teaching and learning processes will return to its conventional form. Or even modification to include as many online method compositions as possible. Therefore it is necessary to conduct research with the aim of recognizing students' perceptions of the e-learning method they have conducted so far. Or more specifically, does perceived performance as represented by perceived usability and perceived quality affect student satisfaction, and subsequently has an impact on continuance intention in using the e-learning method in the future.

II. LITERATURE REVIEW

2.1 Electronic Learning (E-Learning)

Based on the definition provided by Brandon Hall Research Reports (Hall, 2005, in Wang et al (2019)), e-learning can be interpreted as 'an instruction that is delivered electronically partially or solely via a web browser, through the internet or multimedia platforms'. In short, e-learning can be defined as an internet-based learning method (Riahi, 2015). One must admit that the rapid progress of information and communication technology will have an impact on the occurrence of radical changes in the teaching and learning processes. Long before the pandemic period, several universities had developed e-learning methods to anticipate suitable learning methods in the digital era. The application of this method requires support from various electronic devices such as the internet, audio or video, interactive t.v., and so on. The emergence of e-learning methods has changed educational strategies. Today educational institutions must strive to accommodate technology related to e-learning, for pedagogical purposes (Hubalovsky et al, 2019, in Ashrafi et al (2020)).

Objectively, the e-learning method is recognized to be beneficial for the world of education. The learning process, which has been highly dependent on teachers, has become more independent, and has enabled students to be more active and responsible for themselves (Ramadiani et al, 2017). Through the use of e-

learning, the education process will become more accessible, cheaper, and more enjoyable. E-learning also provides flexibility for teachers and students, for them to study anytime and anywhere (Wong, 2015). However, the facts show that students who are used to traditional learning methods still have difficulties adapting. For students who have experienced offline learning methods, it will take time to switch to online. There are several factors that cause resistance to the application of e-learning. The first possibility is that the e-learning system does not suit students' needs, or that the system does not help students to overcome the difficulties they face. Another possibility is due to the difficulty of interaction activities and the use of the e-learning system being used (Ramadiani et al, 2013; Ramadiani et al, 2015). The application system can be said to be successful if the user is still able to continue using the system in question (Shiau, 2012). It must be acknowledged that e-learning is a complex ecosystem because it involves the participation of teachers, students, content and related systems, in order to build that optimal interaction.

2.2 Technology Acceptance Model (TAM) and Expectancy Confirmation Theory (ECT)

TAM is an extension of Theory of Reasoned Action (TRA) which is known in the discipline of social psychology. TRA suggests that a person's behavior is determined by their intention to carry out the behavior. Meanwhile, the intention is a function of attitude toward the behavior and his/her subjective norm. Attitudes toward the behavior can be in the form of positive or negative feelings towards certain behaviors. Meanwhile, subjective norm is related to social pressure that applies to someone to do or not do a certain behavior. Davis (1986) introduced the TAM model as an adaptation of TRA, and was developed specifically to explain the behavior on the use of technology, in this case information technology. In this model, two constructs are introduced, namely perceived usefulness and perceived ease-of-use which are considered as the main determinants of whether or not new technology is accepted (technology acceptance). Perceived usefulness can be defined as a situation where someone believes that using a certain system will increase their performance. Meanwhile, perceived ease-of-use can be defined as a condition where someone believes that using a certain system will help their activities both physically and mentally (Davis, 1989). In TAM, it is described that these two constructs will affect attitude toward using the system, and then have an impact on behavior intention before it is time to determine the actual use of the system.

On the other hand, ECT is a theory that is widely used to explain post-adoption behavior (Oliver, 1980). This theory assumes that both pre-behavior and post-behavior will affect confirmation, and in turn, it will have an impact on satisfaction and continuance intention. Higher perceived performance leads to positive confirmation. At a certain level, the confirmation will be followed up by subsequent behaviors, in the form of feeling of satisfaction or dissatisfaction. ECT is widely used in literature related to customer behavior to explain the concept of consumer satisfaction (Anderson and Sullivan, 1993). In the context of marketing, satisfaction will be a determining factor for building and maintaining long-term consumer relationships. Generally, satisfaction will trigger future continuance intention to buy or reuse a product. According to Bhattacharjee (2001b), continuance intention can be defined as the intention of a person to continue using the service at the post-acceptance stage. In its development, several studies that use ECT represent the components of usability, quality, and value (Chiu et al, 2005). Based on the previous literature review, the research that will be conducted tries to use the dimensions of perceived usability and perceived quality to describe perceived performance.

2.3 Conceptual Framework and Hypothesis

2.3.1 Perceived Usability and Satisfaction

According to the International Standards Organization (ISO), the term perceived usability is defined as "the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use" (ISO 9241-11, 1998 (in Roca et al, 2006)). From the definition above, perceived usability can be reflected through two constructs which in the TAM model are known as perceived usefulness and perceived ease-of-use. In a study conducted by Bhattacharjee, it was proven that perceived usefulness is a significant determinant of user satisfaction (Bhattacharjee, 2001a). Research by Hayashi et al (2004) also proves a positive correlation between perceived usefulness and satisfaction with three different online education environments. Junjie's (2017) study proves that there is a significant effect of perceived usefulness on satisfaction in the context of massive open online courses (MOOC). In Junjie's study, the variable perceived usefulness is represented in the dimensions of knowledge outcomes and performance proficiency.

Meanwhile, the study of Rai et al (2002) empirically proves that user satisfaction is influenced by perceived usefulness and perceived ease-of-use. On another occasion, Devaraj et al (2002) tried to combine TAM models, Transaction Cost Analysis (TCA), and Service Quality (Servqual) to study consumer satisfaction on e-commerce channels. One of the findings is that perceived usefulness and perceived ease-of-use are proven to be significant antecedents for consumer satisfaction. Meanwhile, Woszczynski et al (2002) developed a theoretical model of playfulness in the context of computer interactions, and they found that user satisfaction is

a consequence of playful behavior. Similar research was also carried out by Ashrafi et al (2020) related to the use of the Learning Management System (LMS). Ashrafi et al, model is built on the concepts of TAM, Expectation-Confirmation Model, Social Influence, and the concept of Perceived Enjoyment. One of the findings is that there is a significant influence between perceived usefulness and perceived ease-of-use on satisfaction with the use of LMS. From the above studies, the following hypothesis was developed:

H1: Perceived usefulness in using the e-learning system has a significant effect on satisfaction.

H2: Perceived ease of use in using the e-learning system has a significant effect on satisfaction.

2.3.2 Perceived Quality and Satisfaction

In several studies, the dimensions of perceived quality are often used to represent perceived performance. Perceived quality can be defined as “the consumer’s global judgment of the overall excellence of a product” (Anderson et al, 1994 (in Roca et al, 2006)). In the context of information technology, several studies have introduced information quality, system quality, and service quality as a representation of perceived quality to operationalize perceived performance (Hsu et al, 2003). Information quality relates to the quality of output such as: timeliness, scope, relevance, and accuracy of information produced by an information system. System quality is described as system reliability, user interface consistency, ease of use, documentation quality, and quality and maintainability of the program code (Seddon, 1997 (in Roca et al, 2006)). Meanwhile, service quality can be defined as a global judgment or attitude relating to the superiority of a service (Parasuraman et al, 1988).

Several studies have analyzed the relationship between perceived performance and satisfaction. A study by McKinney et al (2002) represents perceived performance through information quality and system quality, and found that both have a significant effect on web-customer satisfaction. Likewise, the study of DeLone and McLean (1992) and McGill et al (2003) found that system quality and information quality have an influence on user satisfaction. In the context of web-based decision support systems, the empirical study of Bharatia et al (2004) proves that information quality and system quality are strong antecedents of decision-making satisfaction. In the studies above, it can be seen that the service quality construct was not involved in the research. Meanwhile, the study of Negash et al (2003) in the context of web-based customer support systems, tried to analyze the effect of information quality, system quality and service quality on satisfaction, and the results showed that only service quality had no significant effect. With some of the reviews of previous studies above, the following hypothesis can be developed:

H3: Information quality has a significant effect on satisfaction.

H4: System quality has a significant effect on satisfaction.

2.3.3 Perceived Usability and Continuance Intention

In this study, perceived usability is reflected through the construct of perceived usefulness and perceived ease-of-use. Recently, the two constructs are often directly related to the continuance intention of various information technology-based applications. One of them is the study of Wang et al (2019) which tries to examine the relationship between usability factors and continuance intention to use a cloud e-learning application. This study involved 5 usability factors, namely computer self-efficacy (CSE), enjoyment, perceived ease-of-use, perceived usefulness, and user perception, as independent variables. As samples used IT students at several private universities in Malaysia. The results of data processing show that only 2 factors, namely CSE and Enjoyment, have a significant effect on continuance intention to use the cloud e-learning application. While the rest, namely perceived ease-of-use, perceived usefulness and user perception do not have a significant effect. Hamid et al’s (2016) study shows different results. Hamid et al examined the relationship between predictor variables (perceived usefulness and perceived ease-of-use) and the criterion variable, namely the continuance intention to use the e-government application. The results showed a positive and significant influence of the predictor variables on criterion. This study does not clearly explain the intended application types, so it cannot be concluded that it applies to all types of e-government applications.

Several studies have examined the relationship between perceived usefulness and continuance intention. Junjie (2017) represents perceived usefulness with knowledge outcomes and performance proficiency, and relates this construct to continuance intention of massive open online courses. The empirical data analysis shows that there is a significant influence between the two. Meanwhile, the research of Ashrafi et al (2020) even shows that perceived usefulness acts as the most dominant predictor, compared to several other predictors, in influencing continuance intention in using the learning management system (LMS). Ashrafi’s study uses a sample of students in Tehran-Iran. Meanwhile, the Bolen study (2020) provides somewhat different results. Bolen investigates what factors can influence continuance intention to use smartwatches. The developed model was analyzed by using SEM. The results of data processing show that all the variables considered have a significant effect, except that perceived usefulness is proven to have no direct effect on continuance intention. From various previous studies, the following hypothesis was developed:

H5: Perceived usefulness in using the e-learning system has a significant effect on continuance intention.

H6: Perceived ease of use in using the e-learning system has a significant effect on continuance intention.

2.3.4 Satisfaction and Continuance Intention

There have been many studies examining the relationship between satisfaction and continuance intention. Even a few decades ago, Oliver (1980) has argued that satisfaction is a critical antecedent of repurchase and reuse of a product or service. Recently, there have been many studies on satisfaction towards information technology-based systems, especially those related to e-learning systems. The study of Roca et al (2006) studied the factors that influence e-learning continuity intention. The research model was developed based on the concept of TAM and Expectancy Disconfirmation Theory (EDT). There are various variables considered which boils down to the variable of satisfaction. One of the findings is the existence of positive and significant effect on satisfaction towards e-learning continuance intention. Meanwhile, the study by Shin et al (2011) tries to understand what factors influence users' intention to continually use smartphones as ubiquitous learning. In this study, a model is developed based on the concepts of ECT and UTAUT (modified unified theory of acceptance and usage technology). One research result shows a positive relationship between satisfaction and continuance intention. Junjie (2017) tries to examine the factors that influence continuance intention in the context of massive open online courses (MOOC). Junjie's study used the Expectation Confirmation Model (ECM) which underlies the theoretical framework, and developed it into a structural equation model (SEM). The empirical results show that 3 ECM (satisfaction with prior learning experience, confirmation, and perceived usefulness) factors have significant effect on continuance intention.

Meanwhile, Ifinedo (2018) conducted a study to identify the factors that influence students' continuity intention, related to the use of blogs for the learning process on the undergraduate-level course. Ifinedo's study combines several concepts to form a research model, namely TAM, ECM, Social Cognitive Theory (SCT), and Innovation Diffusion Theory. One of the findings confirms that satisfaction is the main determinant of continuance intention. On another occasion Ramadiani et al (2019) developed a structural equation model to examine the relationship between e-learning satisfaction, e-learning usefulness, and e-learning effectiveness on continuance intention in Indonesia. The study used a sample of students from various universities in Indonesia. The results show a significant influence, where e-learning satisfaction and usefulness play a role as dominant factors. In line with other research, Ashrafi et al (2020) tried to examine the factors that influence student's continuance intention in using the Learning Management System (LMS). To support his research, a combination of several concepts is used, namely TAM, ECM, Social Influence, and Perceived Enjoyment. The research used a sample of students in the city of Tehran. From the various variables that have been considered, it turned out that perceived usefulness was proven to be the main determinant. However, it was surprising that the empirical results show satisfaction has no significant effect on continuance intention. From several previous studies, the following hypothesis can be developed:

H7: Satisfaction in the use of the e-learning system has a significant effect on continuance intention.

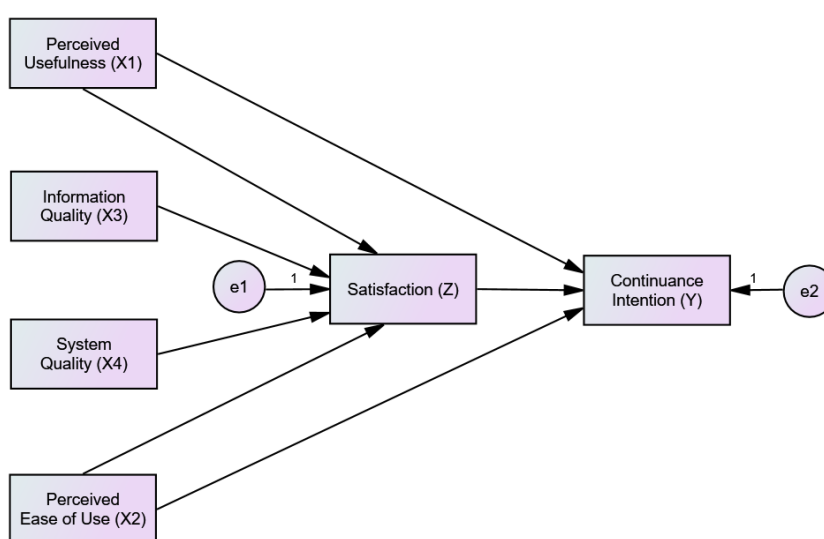


Figure 1. Research Model

III. RESEARCH METHOD

The purpose of this study was to examine whether perceived performance represented by perceived usability and perceived quality has an effect on satisfaction and subsequently has an impact on continuance intention to continue using the e-learning method in the future. To answer the research objectives, several research hypotheses (H1 to H7) were developed as stated in the research model.

The research was conducted at an educational institution, namely Husada Hospital Jakarta, Indonesia. The research sample was D3 Nursing study program students who have implemented the e-learning method, especially since the Covid-19 pandemic took place. What is interesting is that this study program is a vocational study program, where the activities of the learning process are normally dominated by practice compared to theories. Therefore it is not easy to develop an e-learning system that can meet learning targets. The number of respondents taken was 170 respondents through purposive sampling technique. The research used a survey method where the research instrument was designed in the form of questionnaires containing a list of questions or statements related to the indicators of the research variables. All statements are measured by using a type of Likert scale ranging from 1 to 5 which represent the condition of strongly-disagree, disagree, quite agree, agree, and strongly agree. For the variables of perceived usefulness and perceived ease-of-use, they use the adaptation of indicators that refer to the study of Davis (1989). Meanwhile, information quality and system quality variables used indicators adapted from Bailey et al (1983) and Delone & McLean (1992). The satisfaction and continuance intention variables used the indicator adaptation developed by Bhattacharjee (2001b). Prior to data analysis, the research instrument was tested through validity and reliability tests. Meanwhile, to analyze the research model path analysis was used.

IV. RESEARCH FINDINGS AND DISCUSSION

Before the data collection process, a research instrument test in the form of validity and reliability tests were conducted, which showed that the results of both criteria were met. Furthermore, the research model was analyzed by involving sample data. Data processing was performed by using path analysis, with the help of Amos application software. From table 1, it can be seen that almost all of the developed hypotheses can be accepted at a significance level of 1% or 5%, except for the third hypothesis (H3), namely that information quality has no positive and significant effect on satisfaction. Meanwhile H1, H2, and H4 are acceptable. This means that the variables of perceived usefulness, perceived ease of use, and system quality have direct positive and significant effects on satisfaction in using the e-learning system.

These findings are in line with the previous researches. Researches by Bhattacharjee (2001a), Hayashi et al (2004) and Junjie (2017) show the effect of perceived usefulness on satisfaction. Studies Rai et al (2002) and Devaraj et al (2002) also prove that perceived usefulness and perceived ease of use are significant antecedents for consumer satisfaction. Even the study of Ashrafi et al (2020) shows the same results associated with the use of learning-management-systems. Meanwhile, the acceptance of H4 is also in line with the results of previous studies, although H3 shows the opposite results (DeLone & McLean (1992); McKinney et al (2002); McGill et al (2003); Bharatia et al (2004); Negash et al (2003)).

Table 1. Regression Weights & Standardized Regression Weights

Regression Weights:						Standardized Regression Weights	
	Estimate	S.E.	C.R.	P	Label		Estimate
Var_Z <--- Var_X3	-,021	,071	-,298	,765	par_1	Var_Z <--- Var_X3	-,022
Var_Z <--- Var_X4	,287	,074	3,883	***	par_2	Var_Z <--- Var_X4	,278
Var_Z <--- Var_X2	,226	,072	3,138	,002	par_6	Var_Z <--- Var_X2	,238
Var_Z <--- Var_X1	,373	,062	5,984	***	par_7	Var_Z <--- Var_X1	,414
Var_Y <--- Var_Z	,381	,076	5,015	***	par_3	Var_Y <--- Var_Z	,429
Var_Y <--- Var_X1	,144	,071	2,029	,042	par_4	Var_Y <--- Var_X1	,180
Var_Y <--- Var_X2	,151	,071	2,120	,034	par_5	Var_Y <--- Var_X2	,179

In addition, the results of data processing also support the acceptance of H5 and H6. This means that the variables of perceived usefulness and perceived ease of use have significant direct effects on continuance intention. This finding supports the results of the previous research conducted by Hamid et al (2016), but contradicts the findings of Wang et al (2019). The Bolen study (2020) also proves that perceived usefulness has no effect on continuance intention. However, the acceptance of H5 in this study is in line with the results of Ashrafi et al (2020), showing that perceived usefulness is even proven to be the most dominant predictor.

The results of data processing also prove that the seventh hypothesis (H7) is acceptable, meaning that satisfaction with the e-learning system being used has an effect on future continuance intention for the e-learning system in question. This finding has also been proven in many previous studies, some of which are even linked to e-learning learning methods (Roca et al (2006); Shin et al (2011); Junjie (2017); Ifinedo (2018); Ramadiani et al (2019)).

Table 2. Standardized Direct Effects

	Var_X2	Var_X1	Var_X4	Var_X3	Var_Z
Var_Z	,238	,414	,278	-,022	,000
Var_Y	,179	,180	,000	,000	,429

Table 3. Standardized Indirect Effects

	Var_X2	Var_X1	Var_X4	Var_X3	Var_Z
Var_Z	,000	,000	,000	,000	,000
Var_Y	,102	,178	,119	-,009	,000

Table 4. Standardized Total Effects

	Var_X2	Var_X1	Var_X4	Var_X3	Var_Z
Var_Z	,238	,414	,278	-,022	,000
Var_Y	,281	,358	,119	-,009	,429

Path analysis can also provide an overview of the direct or indirect influence for the variables being studied. Table 2 shows the magnitude of direct influence for the variables on perceived usefulness, perceived ease of use, and system quality, on satisfaction and continuance intention. Meanwhile, table 3 shows the magnitude of indirect effect of the above variables. What is interesting is that the variables of perceived usefulness and perceived ease of use have direct and indirect effects on students' desire to continue using the e-learning system, which is represented in the continuance intention variable. On the other hand, although it does not have a direct effect, the system quality variable has an indirect effect on continuance intention. The existence of a significant indirect effect through satisfaction on continuance intention, confirms that the satisfaction variable can act as an intermediary variable. The total effect of each variable on continuance intention, which is the sum of direct and indirect effects is shown in table 4 (perceived usefulness = 0.358; perceived ease of use = 0.281; system quality = 0.119; and satisfaction is 0.429).

V. CONCLUSION

This study aims to examine whether there is an influence either directly or indirectly between perceived usability represented by perceived usefulness and perceived ease of use, as well as perceived quality represented by information quality and system quality, on continuance intention enthused by the satisfaction variable. The study used sample data from students of a health science college. It turns out that all the developed hypotheses are acceptable, except for the system quality variable which was found to have no significant effect on satisfaction from e-learning in the institution concerned. The results of the study show that there is a positive and significant influence, either directly or indirectly, between perceived usefulness and perceived ease of students' intentions to reuse the e-learning system in the future. The indirect effect occurs because the two variables first have an effect on satisfaction, which then have an impact on continuance intention. In addition, system quality also has an indirect significant effect on continuance intention through satisfaction. The study also confirms the role of satisfaction variable in mediating between exogenous variables and endogenous variables. In short, by increasing the performance of perceived usefulness, perceived ease of use, and system quality, it is hoped that there will also be an increase in continuance intention.

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