

# Factors that influence the acceptance of students in e-learning

Mesra Betty Yel<sup>1,1</sup>, Sfenrianto Sfenrianto<sup>2,2</sup>, Rivo Setya Garindra<sup>2,3</sup>

<sup>1</sup>Faculty of Computer Science, STIKOM CKI Jakarta, Indonesia

<sup>2</sup>Information Systems Management Department, BINUS Graduate Program –

<sup>3</sup>Master of Information Systems Management, Bina Nusantara University, Jakarta, Indonesia 11480

\*betty.mby@stikomcki.ac.id

**Abstract.** In the digital era has brought changes to the world of education to the online learning using e-Learning. In Indonesia there are also some universities using e-Learning for online learning, one of them is XYZ University. The study will discuss student acceptance factors in E-Learning. There are 5 factors used to know the level of student acceptance, namely Facilitating Condition (FC), Content Quality (CQ), E-Learning Motivation (ELM), Social Influence (SI), and Behavioural Intention (BI). The results of the analysis suggest four factors that affect student acceptance in e-Learning, namely: Content Quality, Social e-Learning, Ease Learning Tools, and Learning Expectation.

## 1. Introduction

In the digital era, education activities have begun to slowly change into online learning. In the implementation, online learning using e-Learning that can be accessed anytime and anywhere when connected to the internet [1]. The e-Learning as a tool that supports lecturers in order to provide teaching materials according to the needs of students in online learning [2].

Some universities in Indonesia who apply e-Learning as a tool to carry out lecturing process online, one of them is XYZ University. However, the level of student satisfaction on the use of e-Learning is still below 80%. Then, until now recorded complaints/questions about the use of e-Learning above 40% of total incoming call or chat.

This finding, in line with previous studies which found that not all students receive e-Learning because it is influenced by various factors. In the study [3], there are various factors that influence the decisions of students receiving or not receiving LMS, ie Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and Facilitating Conditions (FC). According to Paola (2011), the factors that influence the students receiving online learning are E-learning motivation (ELM), Social influence (SI), Facilitating conditions (FC), Behavioral intention (BI), and Use behavior (UB) [4]. In addition, Content Quality (CQ) is also one of the factors that affect students in receiving LMS [5]. Thus, the purpose of this study is to analyze the factors that affect student acceptance in the e-Learning.

## 2. Research Method

The methodology used in this study is based on the analysis of factors that affect student acceptance in e-Learning that has been done by previous researchers. From this research, there are 5 prior factors and indicators, such as Facilitating Condition Factor (FC), Content Quality Factor (CQ), E-Learning Motivation (ELM), Social Influence (SI), and Behavioral Intention (BI). Table 1. shows these factors used in the study.

The method that can be used factor analysis is Kaiser Meyer Oikin (KMO). According to Sharma in [16], KMO testing is done to determine whether the results of all data that has been collected is enough to factored. If the value of this KMO test is greater than 0.5 and the significance value is below 0.05, then the variable may be accepted as a research instrument. The higher the value of the KMO test the more valid the tested statement in the study. The KMO value above 0.90 means the value is very good, while the value of KMO below 0.50 is rejected to serve as a research instrument. Table 2 shows the KMO presentation value.

**Table 1.** Factors and Indicators

<b>Factors</b>	<b>Indicators</b>	<b>References</b>
Facilitating Condition Factor (FC)	FC 1 = the facility to use online learning FC 2 = the ability to access online learning in all places and time FC 3 = System owned Compatible with the system used FC 4 = help if student have difficulty accessing the system	[3] [4] [6]
Content Quality Factor (CQ)	CQ 1 = Multimedia-based discussion content CQ 2 = Content according to course discussion CQ 3 = Students can understand the content provided CQ 4 = The given content contains new information	[5] [7] [8]
E-Learning Motivation (ELM)	ELM 1 = Improve understanding of course ELM 2 = Completed the task faster ELM 3 = Increase the value of the course ELM 4 = Can easily use online learning system ELM 5 = Enjoy learning online learning process	[4] [6] [9]
Social Influence (SI)	SI 1 = Influence of lecturer or academician SI 2 = Influence of classmates SI 3 = Invite people around SI 4 = The influence of social media	[6] [10] [11]
Behavioral Intention (BI)	BI 1 = Intend to continue using e-learning system BI 2 = Intend to use e-learning system to experience learning BI 3 = Intend to recommend online learning system to others	[4] [12] [13]

**Table 2.** KMO Value

<b>KMO Value</b>	<b>Statement</b>
$\geq 0.90$	Marvelous
$\geq 0.80$	Meritorious
$\geq 0.70$	Middling
$\geq 0.60$	Mediocre
$\geq 0.50$	Miserable
$< 0.50$	Unacceptable

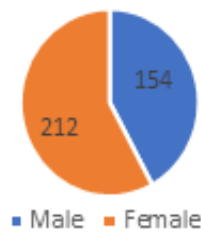
Likert scale is a measuring tool that can be used to measure attitudes toward an object, likert scale is also called summated rating scale, this scale is quite widely used because it provides an opportunity for respondents to express their feelings in the form of approval of a statement [17] . The calculation is an assessment of the numbers 1 to 5 which contains statements ranging from strongly disagree to strongly agree (See Table 3).

**Table 3.** Likert Scale

Statement	Alias	Score
Strongly Agree	SS	5
Agree	S	4
Undecided	R	3
Disagree	TS	2
Strongly Disagree	STS	1

### 3. Result

The results of the questionnaire distribution of this study are described in the following sections: the respondents only come from active students of e-Learning. Figure 1 shows the respondents' results by gender. Respondents of this study (154 men and 212 women). After the questionnaire results were processed in the SPSS application, we found the following matrix component results (see Table 4).

**Figure 1.** Gender Respondents**Table 4.** Component matrix

	Component			
	1	2	3	4
FC1				,860
FC2			,719	
FC3	,829			
FC4				
CQ1		,792		
CQ2			,646	
CQ3	,794			
CQ4			,887	
ELM1	,762			
ELM2		,760		
ELM3	,852			
ELM4			,818	
ELM5				,901

SI1				,817
SI2		,763		
SI3		,783		
SI4		,796		
BI1			,851	
BI2				,881
BI3	,805			

Based on regression result, Factors that Influence the acceptance of students in e-Learning are content quality factor, social e-Learning, ease learning tools, and learning expectation (see Table 5).

**Table 5.** Regression Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	8,074	,038		210,087	,000
REGR factor score 1 for analysis 1	-,018	,038	-,025	-,478	,633
REGR factor score 2 for analysis 1	-,042	,038	-,057	-1,092	,276
REGR factor score 3 for analysis 1	,042	,038	,057	1,095	,274
REGR factor score 4 for analysis 1	-,035	,038	-,048	-,917	,360

Based on These factors that, the recommendations of researchers for the e-Learning. For content quality factor need providing multimedia-based content (video, audio, etc.), materials / content lessons on up to date trends, and study case. For social e-Learning need learning materials about the surrounding environment, associate e-learning with organizations, and connect to social media. For ease learning tools need User Interface (UI) is easy to understand. Then for Learning Expectation need material commander in Indonesian and English, and submission of materials with best practices model.

#### 4. Conclusion

Based on the study result, this study can have several conclusions. First, from the factor analysis method, there were 4 (four) factors influencing the student acceptance in e-Learning, namely: Content Learning Management, Social e-Learning, Ease Learning Tools, and Learning Expectation. Second, the value of student acceptance of e-learning is influenced by the value of these four new factors. If the four factors can provide a positive value for student acceptance than will increase learning. The value of the four new factors give a negative value for student acceptance will decrease learning. To better support e-Learning the student acceptance in e-Learning, then the study recommend for the e-Learning based on these factors.

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