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EVALUATION MODEL OF SUCCESS AND ACCEPTANCE OF E-LEARNING

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ABSTRACT

E-Learning is a information technology-based learning, allowing participants to access and acquire learning services using the Internet media. Implementation system of e-learning has been widely used in college. The success or failure of the implementation of e-learning system is highly dependent on the level of success and acceptance user. To identification the factors that influence the success and acceptance of e-learning systems in higher education, this research proposes an integrated evaluation model using a Model DeLone and McLean Information system sucses models, UTAUT Model, and HOT-Fit Model. This research is important to be conducted in order to know the success and acceptance of E-Learning in University in order to be able to get evaluated. Results of this study was to describe the factors that influence the success of information systems and user acceptance of the e-learning system and can describe the correspondence between man, technology and organization to the E-Learning users respondent to know the success and acceptance of E-Learning in University.

Keywords: *E-learning, DeLone and Mclean sucses models, UTAUT Model, and HOT-Fit Model, integrated evaluation model.*

1. INTRODUCTION

The development of information technology increasingly advanced , resulting in the use of electronic media in disseminating information. In the field of education information technology developments resulted in the new paradigm in the learning process not only illustrate face to face in the classroom but also can be done online. This online learning system called e-learning[1]. E-Learning is a media technology-based learning, allowing participants to access and acquire learning services using internet media [2]. E-Learning created a web-based, so that the participants can access and use the service anytime and anywhere [3]. In the learning process of e-learning has a very important role because it can help students learn to be more flexible with the place and time [2][4].

The implementation of e-learning has been widely used in universities[5]. The success of the E-Learning systems must be supported by many aspects as a guarantor of successful implementation. Supporting aspects in question is, technology infrastructure, systems of e-Learning and e-Learning content [6]. After the implementation of the supporting aspects, required valuation models of success and acceptance of e-learning systems [7]. Model evaluation is required for assess the success and benefits derived from the implementation of e-learning systems in universities [8]. The many models evaluation of e-learning systems, provide many options for stakeholders to determine the model used to evaluate the success and acceptance of E-Learning system itself [4]. The success or failure of the implementation of information systems is highly dependent on the level of success and user acceptance [9]. Research on the success and failure of the implementation of information systems has been done for identifying important factors that affect the acceptance [10][11]. To be successful e-learning systems must have a positive impact on users[13]

To evaluate the factors that influence the success and acceptance of e-learning systems in universities, the study proposes a model of evaluation of user acceptance which refers to the methodology used by Mohamadali and Garibaldi [10][11]. The model that will be used to build a model of evaluation of success and Acceptance of the system of e-learning in this study is the DeLone

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and McLean IS success model [14], Unified Theory of Acceptance and Usage of Technology (UTAUT) model[15], and Human Organization Technology Fit (HOT Fit) model[16].This research is important to be conducted in order to know the success and acceptance of E-Learning in University in order to be able to get evaluated.

2. RESEARCH FRAMEWORK

Framework of this research Refers to research conducted by [10] [11] [12] Framework research evaluation model of success and acceptance of e-learning can be seen in figure 2.1.

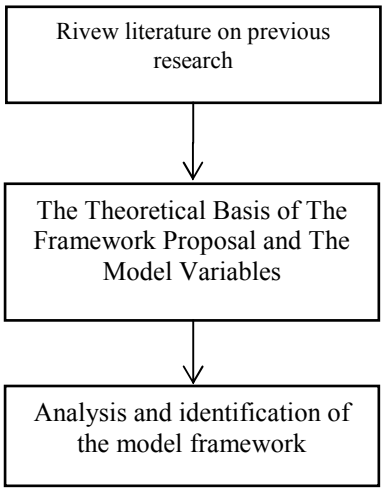

Figure 1: Research Framework

2.1 Rivew Literature on Previous Research

Research evaluation of the success and acceptance of information systems is an interesting and widely studied by previous researchers [10]. the existing literature, we can find many studies identifying the factors that influence behavior of the user intention elearning system. These studies are usually based on the theory of acceptance and success of information systems continues to increase during the last two decades [13].

Research using Delone and Mclean IS success model done by [17] Results of this study showed that student satisfaction, reflecting the quality of the information systems that can improve performance. Evaluation research of the success of information systems is also done by [18] explore and propose the needs and values of citizens in the e-governance system that is based on the factors determining the success of an information system based on the DeLone and McLean IS success model.

The research uses UTAUT model done by [19] The research showed that there were significant and positive relationship between vaiabel expetancy performance, effort expetancy, social influence, behavioral intention and behavior on the variable use of technology acceptance. Research using UTAUT models also done by [20] which explores the factors that determine the adoption service in Kuwait using UTAUT models.

Research with HOT FIT models conducted by [8] The results of this study indicate that the relationship between the variables Human, Organization and Technology has a strong enough relationship and the positive interplay with one another and all three have a strong relationship and the direction system of the Net Benefit from informations system. Research of conducted by [16][21], suggests that in an information system, there are three important and fundamental components that affect success in the adoption of information systems. The three basic components include Business Process Organization Bussiness Process, People and Information Technology Information Technology or in general may be mentioned that the components Human, Organization and Technology are critical components in the successful implementation of the System information.

Research by Mohamad ali and Garibaldi [10] proposed a new framework for the evaluation of user acceptance on software technology in the health care sector. In the research, Muhammad Ali and Garibaldi develop an information system acceptance evaluation model called Integrated Model of User Acceptance of Technology. That research propose a model of integrated evaluation of integration the DeLone and McLean IS success model [14], Unified Theory of Acceptance and Usage of Technology (UTAUT) model[15], and Human Organization Technology Fit (HOT Fit) model[16].

2.2 The Theoretical Basis of The Framework Proposal and The Model Variables

In this study will be discussed theory-theories related to the proposed evaluation model the success and acceptance of information systems that the DeLone and McLean IS success model [14], Unified Theory of Acceptance and Usage of Technology (UTAUT) model[15], and Human Organization Technology Fit (HOT Fit) model[16], and integrated evaluation model that is the

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integration and success the The DeLone and McLean IS success model, UTAUT model, and the Task Technology Fit (TTF) model. [10] [11]. The theoretical basis and variable framework proposal evaluation model of success and acceptance of System Information will be explained as follows:

1 The DeLone and McLean IS success model.
The DeLone and McLean IS success model is the development of previous research models, including Research by Shannon and Weaver (1949) classifying the information into three levels such as levels of engineering, semantic levels, and levels of effectiveness and Mason (1978) introducing theory Information called "Influence" Theory that the emphasis on the "Influence" of the information. success DeLone and McLean Information Systems Model based on the process and the relationship of measuring six dimensions of the system of quality, information quality, use, user satisfaction, individual impact and organizational impact. Since published by DeLone and McLean in 1992 [22], D and M IS Success Model got a lot of responses from the researchers. Among these criticisms delivered Seddon (1997) [23] that raised the issue mingling of causal process models and the model in the model built DeLone and McLean (1992) [22]. In 2003 Seddon Criticism answered by DeLone and McLean with updating the previous model be DeLone Information System Success Model and McLean were updated [14]. at The success of DeLone Model and Information Systems McLean new, Delone and Mclean enter the variable service quality as one determinant of the success of the system information and combine the variable individual impact and organizational impact be net benefits.

2 Unified Theory of Acceptance and Usage of Technology (UTAUT) Model
Unified Theory of Acceptance and Usage of Technology (UTAUT) Unified Theory of Acceptance Model and Usage of Technology (UTAUT) model is a models for evaluating the reception users in the field of Information Systems. Research with UTAUT Models developed by [15]. UTAUT Model examines theories about the reception technology by users of the information system. Eight theory studied in UTAUT model namely the Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivational Model (MM), Theory of Planned Behavior (TPB), the combination Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB), Model of PC Utilization (MPCU), Innovation Diffusion Theory (IDT), and the Social Cognitive Theory (SCT). Eight of this theory developed into a new model called the Unified Theory of Acceptance and Usage of Technology (UTAUT). UTAUT model has four key determination of intent and use that information system performance expectancy, effort expectancy, social influence, and facilitating conditions.

3. Model *Human, Organization, Technology Fit* (HOT Fit)
Human Model, Organization, Technology Fit (HOT Fit) developed by [16]. framework Human, Organization, Fit Technology (HOT Fit) Model is development from the model of the system's success DeLone information and McLean [14]. evaluation model is clarify all components contained in the information system that is Human the assessing system information from the the use of (system use) related to who use, training, experience, knowledge, hope, acceptance and reject system. Organization which assesses a system from the structure organizations and environmentally organizations related to management planning, control systems, management support, and financing. Technology that judging from the system of quality, quality information and service of quality [8]

4. Integrated Model of User Acceptance of Technology.
Integrated Model of User Acceptance of Technology is the evaluation model developed by [10] [11]. This research proposes of evaluation model user acceptance of information technology by three integrating models namely Information System Success DeLone and McLean Model [14], Unified Theory of Acceptance and Usage of Technology (UTAUT) model [15], and the Task-Technology Fit model (TTF) [24]. Mohamadali and Garibaldi According [10] [11] success or failure SI relies heavily on correspondence between the three levels, namely the human ,organization's, and technology. independent factor Merger on these two models and the addition of suitability of human organization models produces of integrated model technologies

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that provide better representation on determinants intentions.

2.3 Analysis and identification of the model framework

Results of the analysis and identification framework evaluation model of success and acceptance of Information Systems can be explained as follows:

1. SI DeLone and McLean's Model success is best used to assess the success of information system based on the quality of information, quality of system and service quality information system that affect user satisfaction and net benefits from the use of Information Systems[14]. Several success models for evaluating specific types of IS like knowledge management system (Kulkarni et al. 2007) or enterprise systems (Gable et al. 2003) have been developed from this theory .
2. Acceptance UTAUT Model [15] in evaluating the model can be used to evaluate user acceptance of Information Systems. UTAUT acceptance model is able to calculate up to 70% of the variance in intentions.
3. Suitability HOT Fit Model [16] is the development model from success SI DeLone and McLean model. On this model, the independent variables into three dimensions, namely human, organization, and technology. HOT Fit models can assess the information systems success and acceptance of the use of SI and assess the fit between human, organization and technology in the implementation of SI.
4. Integrated evaluation model [10] combine independent variable acceptance UTAUT model, DeLone SI and McLean of success model and suitability TTF models. Besides this evaluation model classifies the independent variables into three main factors, thats is human factor, organizational, and technology. This model is believed to describe the success and acceptance of the SI is based on the intention of use, user satisfaction, and the net benefits over the use of Information Systems.

3. RESULTS AND DISCUSSION

3.1 Evaluation Model Success and Acceptance System E-Learning in Higher Education

Evaluation Model of Success and Acceptance of E-learning higher education proposed refers to research done by [10] which proposed a new framework for the evaluation of the success and user acceptance on software technology in the health care sector. The model that will be used in this research is a model of success SI DeLone and McLean [13] UTAUT models [14], and HOT Fit models [15]. All three models will be modified to success analyze and acceptance of e-learning systems which exist at universities. The research and hypotheses model can be seen in figure1.

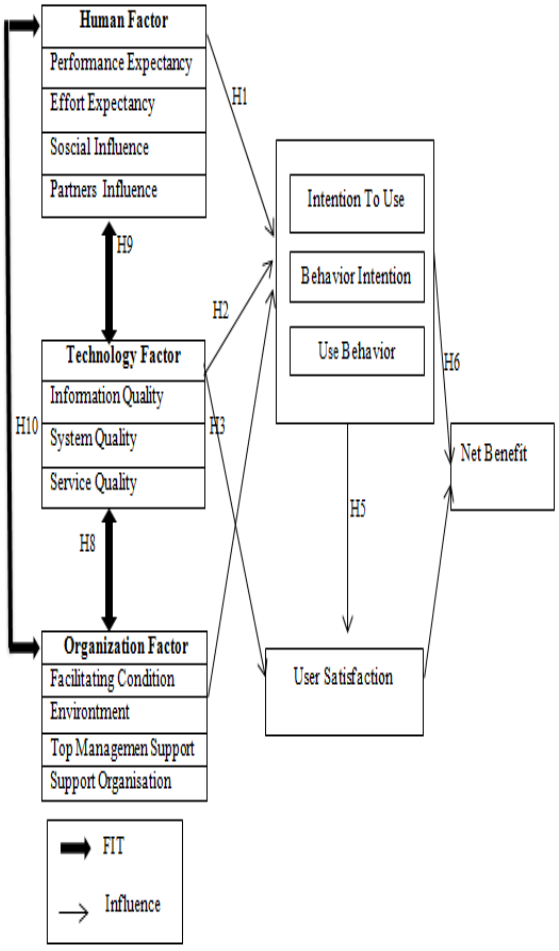

Figure 2: Evaluation Model of Success and Acceptance of E-learning

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Modifications Evaluation Success Model and Acceptance of E-learning is the variable effect of colleagues (partners influence) on the human factors, refers to a study that adds social influence variables (social influence) the influence of peers (peer influence) on the UTAUT model for research the factors that determine the adoption of e-government services in a developing country [20]. The application of information systems positively influenced by social factors users of the system indicated the amount of support from partners, top managers, leadership and organization [26]. Research done by [27] [28] [29] stated that the support of top management have a positive impact on performance information system. *Top* management is responsible for providing general guidelines for information of activities. The level of support provided by the top management for an organization's information system can be a very important factor in determining the success of all activities related to the information system [29]. research done by [30] expressed support for the role of top management in the implementation of local finance Information system. Research [31] shows the Importance of the system has a close relationship with User Satisfaction. Research [16] shows the influence of an environment variable to the organization. Modifications in this evaluation model has considered the framework and the variables that influence the the evaluation of the success and acceptance of e-learning systems in the college.

3.2 Hypothesis

Evaluation Model of Success and Acceptance of E-learning will test ten hypotheses as presented in Table 1. The research of hypothesis along with references shown in Table 1.

Table 1: Along with the Research Hypothesis Reference

No	Hypotesis	References
H1	The human factors influence the intentions the use of e-learning system.	[12],[15], [20], [26]
H2	Technology factors influence the intention of using of e-learning system..	[14],[16], [21]
H3	Technology factors influence the satisfaction of using of e-learning system.	[15]
H4	Organization factors influence the intention of using e-learning system.	[26],[27], [30]
H5	The intention of using of e-learning systems influence the satisfaction users of e-learning system.	[14], [21]
H6	The intention of using of e-learning system influence the net benefit.	[32]
H7	The intention of the use of e-learning influence the net benefits.	[32]
H8	The existence of a relationship of between human factors and technology factors.	[11], [12]
H9	The existence of a relationship of between the technology factors and organization factors.	[11], [12]
H10	The existence of a relationship of between human factors and organization factors.	[11],[12]

In the hypothesis of this model, is proposed based on appropriate scientific studies that have been conducted research methodology to describe relationships between variables that affect the success and user acceptance of the system of e-learning in the college. This evaluation model can show the benefits of the acquired net users of e-learning systems as well as measure compatibility between human factors technology factors and organizations factors. An understanding of the definition of the variables used in the study are shown in Table 2.

Table 2: Definitions Research Variables

Variabel Human Factor	
Performance Expectancy	How high a person believes that using e-learning system will facilitate learning activities, helping to improve the performance and competence.
Effort Expectancy	Ease associated with using elearning system.
Soscial Influence	Social influence with the e-learning for users
Partners Influence	Peer influence to use e-learnig.
Organizational Factor	
Facilitating Conditions	Resources, facilities and infrastructure available to support users in using the e-learning system.
Environtment	The condition influence using the e-learning
Top Management Support	Perceived to university leaders deemed important by users, can affect, and support for using e-learning system.
Organization Support	The extent to which a

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	person believes that the agency has made the system of planning, strategy, and provide full support to the implementation of e-learning.
Technology Factor	
Information Quality	Measuring the quality of information related to e-learning system accuracy, relevance, completeness and accuracy
Service Quality	Support manager e-learning system to provide service and speed in responding complaints occurred.
System Quality	Measuring the quality of e-learning systems related to the display face and the menu features, flexibility, reliability, and security systems.
Behavioral Intention or Intention to Use, Use Behavior Behavioral intentions that influence users to use e-learning.	
User Satisfaction Response and feedback from users after using e-learning.	
Net Benefit Impacts resulting from the use elearning to users and organizations.	

To get the results of the evaluation model to evaluate the success and acceptance of e-learning, will be created indicators used as material questions. Indicator questions on this study can be seen in Table 3.

Table 3: Table indicator material questions

No	Indicator
I	**Human Factor**
1	**Performance Expectancy** E-learning allows users to improve the competence and knowledge can improve performance
2	**Effort Expectancy** E-learning easy to use, and easy for get information
3	**Social Influense** users of social life affect the use of e-learning
4	**Partners Influence** Colleagues suggest using e-learning and e-learning considers important.
II	**Organization Factor**
1	**Facilitating Condition** Organization provide resources, facilities and infrastructure of the network infrastructure, maintenance and technical support support using of e-learning.
2	**Environtment** in environmental conditions affect the use of e-learning
3	**Top Management Support** Implementation of e-learning supported by the leader and advocated using e-learning
4	**Organization Support** E-learning have the full support of the organization
III	**Technology Factor**
1	**Information Quality** Management of information on e-learning has been organized as well as providing complete and accurate information.
2	**Service Quality** E-learning provide the instructions for use so as to facilitate Users use e-learning.
3	**System Quality** E-learning has an attractive interface and features that are good and reliable.
IV	**Behavioral Intention or Intention to Use or Use Behaviour** The desire or intention to use e-learning system.
V	**User Satisfaction** satisfied users use e-learning
VI	**Net Benefit** E-learning system to improve the competence and help users and organizations can work more effectively and efficiently.

4. CONCLUSION

In this study, the proposed model is the model of evaluation of the success and acceptance of e-learning. This model is a model that integrates three models, namely, a model success and McLean information systems DeLone, UTAUT model and organization model of the suitability of human HOT-Fit technology. In the first phase of research, we conducted a literature review to identify factors associated dengane valuation of success and acceptance of information systems. These factors are then classified according to the proposed construction of our model. Through this process, the evaluation indicated that the model of success and acceptance of e-learning can represent factors that influence the success and acceptance of e-learning and describes the correspondence between Human, Organization, and technology. This research is important to be conducted in order to know the success and acceptance of E-Learning in University in order to be able to get evaluated. For further stage, in this model, it can be tested quantitatively by distributing questionnaires to the respondents users of e-learning to the E-Learning

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system users respondent to know the success and acceptance of E-Learning in University.

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