

# Mediation of User Satisfaction on Organizational Learning Culture and On-Line Learning Engagement to Net Benefit Outcomes in Indonesia during the Covid Pandemic

Kusumawati<sup>1\*</sup>, Heni

<sup>1</sup> YKPN, School of Business

\*Corresponding author. Email: [heni.kusumawati89@gmail.com](mailto:heni.kusumawati89@gmail.com)

## ABSTRACT

*This study aims to examine the effect of mediating User Satisfaction in the relationship between Organizational Learning Culture and On Line Learning Engagement on Net Benefit Outcomes in Indonesia during the Covid Pandemic. The research sample was 243 students in Indonesia during the Covid pandemic. The research methodology uses the Path Analysis Program with Smart PLS. The test results show that the independent variable consisting of Student Involvement and Organizational Learning Culture has a positive effect on User Satisfaction. Likewise, Student Involvement and Organizational Learning Culture have a positive effect on Net Benefit Outcomes. In addition, this study found that the user satisfaction variable was able to mediate the relationship of the independent variable to student performance results during on-line learning*

**Keywords:** *User Satisfaction, Organizational Learning Culture, Learning Involvement, Net Benefit Outcomes*

## 1.INTRODUCTION

A positive case of COVID-19 in Indonesia was first detected on March 2, 2020, when two people were confirmed to have contracted it from a Japanese citizen. As of March 23, 2021, Indonesia has reported 1,471,225 positive cases ranked first most in Southeast Asia. The Covid-19 pandemic has provided an overview of the future survival of education through the help of technology.

One of the challenges of online learning is related to the feeling of disconnection of classmates and students. By offering a wide range of topics relevant to current issues in the field and enabling students to connect the practice, in this case their professional experience, to the theoretical, course content, learners become more invested in course discussions and assignments, as well as their colleagues.

Gray (2016), in his research used the results of assessment of the implementation of online learning by calculating the net benefit obtained from the difference in positive impact received by students on the negative impact of the implementation of online classes. The positive aspects measured are a) Increased learning; b) Empowerment of Learners; c) The timing and academic

success. While negative aspects are measured based on criteria: a) Lack of contact; Self-isolation due to the interaction of the Covid virus; c) Quality problems and d) Technology dependency.

The successful implementation of online learning is influenced by the learning culture carried out by the organization in which the process is carried out. Organizations skilled in creating, acquiring, and transferring knowledge in modifying the behavior of their members are reflected in the acceptance of new knowledge and broader insights. Organizational learning culture is a complex and tiered phenomenon in many ways to influence organizational performance. Differences in students' perception of organizational culture will have an impact on differences in attitudes and then affect the achievement of their learning performance.

Student engagement on campus is a multidimensional construct covering three components, namely behavioral, cognitive and emotional components. These three components interact dynamically within the individual. Behavioral, emotional and cognitive components provide characteristics about how students act, feel and think (Wang & Peck, 2013). In the emotional component

(emotional engagement), identify a sense of belonging to the school. This positive sense of ownership creates a psychological fit to the campus, so they believe it. In the behavioral engagement component, students who attend regularly, concentrate on learning, comply with school rules, generally get better grades and perform better.

Student satisfaction in undergoing online learning (e-learning) has been found to be fundamental to measuring success, effectiveness, use, and acceptance in information systems (Al-Fraihat, et al., 2020). Satisfaction is the attitude that individual users have. User satisfaction as a measure of the mismatch between a user's expectations about a particular information system compared to perceived system performance. The concept of user satisfaction assessment is an indicator of the success of information systems. If information systems meet the needs of users, their satisfaction will increase. Similarly, if the level of satisfaction is lower about the information system will hinder the use of the system.

Online-based learning is becoming a challenge in an era of highly advanced technological development. Similarly, in times of crisis such as outbreaks in various countries, encouraging every student and educational institution to prioritize health, by running long distances. Quantitative courses have specific symbols and numerical to explain theory. In addition, it takes a high concentration to understand it. Some of the problems that arise in student involvement in online learning communication can occur both from inadequate messaging systems, student characteristics as independent learners and student support. There is a difference in the ability to receive messages sourced from the message delivery system to quantitative courses. This will encourage the benefits/outcomes (positive or negative) of students in online learning.

## 2. LITERATURE REVIEW

The theory in this literature is built as an affirmation of a stronger understanding of what is needed in student learning on campus. Every learning theory has something to contribute. This section will discuss one by one the main theories of learning in relation to learning in the educational process. Some of the theoretical foundations used in this study are:

a. E-learning success based on **DeLone and McLean**

information systems success model. DeLone and McLean (1992) introduced a model for measuring the success of information systems. The model contains six variables: system quality, information quality, usage, user satisfaction, individual impact and organizational impact. System quality is an important determinant of e-learning quality, broken

down into three constructions: a) Technical System Quality, b) Educational System Quality and c) Support System Quality. Technical system quality is related to issues such as system reliability, availability, ease of use of system features.

- b. **Humanistic Learning Theory.** Abraham Maslow and Carl Rogers are among the key figures of humanism. The main goal of humanism can be described as the development of autonomous human self-actualization. In the history of humanistic psychology is a view or system of thought that focuses on humans rather than supernatural insights. This system emphasizes that humans are inherently good, and basic needs are essential for human behavior.
- c. **Cognitive Learning Theory.** Students must be able to develop the cognitive potential of learners through a meaningful learning process. This theory believes that students' learning activities, especially at the level of basic education will be useful if involved in many hands-on activities.
- d. **Behavioristic Learning Theory.** According to behavioristic theory, learning is a change in behavior as a result of the interaction between stimulus and response. A person is considered to have learned something if he is able to show changes in his behavior. Thus, learning is a form of change experienced by students in terms of new behaving abilities as a result of the interaction between stimulus and response.
- e. **User satisfaction model.** Sun et al. (2008) and models developed by Ozkan and Koseler (2009) provide potential contributions and good explanatory power to e-learning perceived satisfaction. Student quality and structure quality are added as two separate constructions. Student quality construction is used to capture various aspects of quality associated with learners, such as learners' attitudes, anxiety, previous experiences, and self-efficacy.

## 3. HYPOTHESIS DEVELOPMENT

The culture of learning organization in college describes a relationship environment that gives influence or influence to the entire academic community of the college both students, lecturers and employees. Organizational learning culture represents the beliefs and behaviors carried out by all academicians in college and believed to jointly form the organization and determine the boundaries contained in it.

Junita (2017), get the result that organizations that have a good organizational learning culture will be able to give birth to a positive attitude in employees, including job satisfaction and organizational

commitment. An organization's learning culture does not contribute directly to consumer satisfaction, but significant influence will be seen through employee job satisfaction and organizational commitment as intervening variables.

**H1:** Organizational Learning Culture has a positive influence on the perception of e-learner outcomes in quantitative courses in Indonesia during the Covid 19 pandemic.

The impact of web-based learning technology on student engagement and learning outcomes in face-to-face and online learning environments. The results showed a general positive relationship between the use of learning technology and student engagement as well as learning outcomes. We also discuss the possibility of impacting minorities and part-time students as they are more likely to enroll in online courses (Chen, Lambert and Guidry, 2010).

Chen, Lambert and Guidry (2010), in their research showed a positive relationship between the use of web-based learning technology and student engagement towards desired learning outcomes. Student engagement includes levels of academic challenges, active and collaborative learning, student-faculty action, and a supportive campus environment. These results are an encouraging sign that online-based learning technologies, both over the Internet and the Web continue to have a positive impact on student learning and engagement.

**H2:** Online student engagement has a positive effect on the perception of student outcomes in quantitative subjects in Indonesia during the Covid 19 pandemic.

Nelson Laird & Kuh (2005), in his research showed that there is a positive relationship in the use of increasingly sophisticated technology introduced to students entering college. User satisfaction is the determinant of the benefits construct. The effect of user satisfaction on the benefits achieved from the system empirically was found to be significant in the success model of DeLone and McLean's information systems (2003).

The influence of organizational learning culture involves user satisfaction. Previous research has proven that organizational cultural research is part of an organization's intellectual assets, despite its significant influence on performance achievement. Organizational learning culture serves as an glue between individuals and organizations in achieving common goals and may improve the learning activities and competencies of member organizations (Freiling & Fichtner, 2010). Organizational culture is at the core of an organization's human resource management strategy because of its effect on employee attitudes and outcomes such as

retention, satisfaction, commitment, performance and its aspects.

**H3:** Organizational Learning Culture positively affects user satisfaction in quantitative courses in Indonesia during the Covid 19 pandemic.

Student engagement emphasizes the level of learning in a single activity, focusing on what is happening right now to gain experience. Student engagement is defined as the level of student engagement and active participation in learning activities.

Henrieta, Halversona & Graham (2015), measures involvement in learning technology intermediaries. Student engagement can be a useful indicator of knowing how well students are doing on desired academic and social outcomes.

**H4:** Online student engagement positively affects user satisfaction in quantitative courses in Indonesia during the Covid 19 pandemic.

**H5:** User satisfaction mediates the cultural relationship of organizational learning and the involvement of online learners on net benefits felt in quantitative subjects in Indonesia during the Covid 19 pandemic.

Based on the development of the above hypothesis, the framework of the research model can be presented:

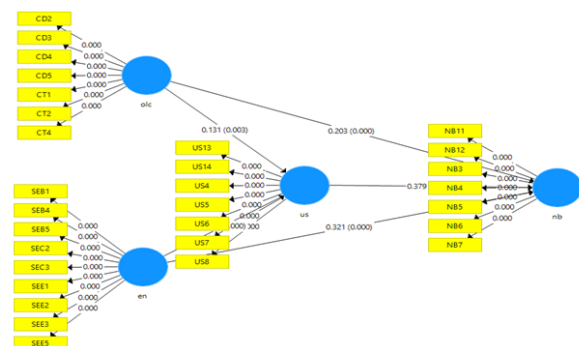


Figure 1. Research Model Framework

### 3. RESULT AND DISCUSSION

The object of this research is Indonesian students, locations in the city of Yogyakarta which includes 4 universities, namely; STIE YKPN, Universitas Islam Indonesia, Yogyakarta University of Technology, and Gadjah Mada University. The spread of questionnaires is done only through Google form so that questionnaires can be distributed without having to go directly to respondents considering the Covid-19 pandemic that is happening around the world including Indonesia.

The process of distributing questionnaires began from May 2, 2021 to August 15, 2021. The number of questionnaires distributed as many as 260 but the number of respondents who can be tested and processed

is only 243. The researcher conducted a reliability test to ascertain whether the indicators used could be answered by respondents (either the same or different) consistently over time when used repeatedly. The following below shows that all instruments from each variable used are reliable, seen from Cronbach's Alpha greater than 0.7. The Cronbach's Alpha value of each variable marked in the red box above is greater than 0.7. This shows that all the instruments used in this study are reliable.

**Table 1**  
Validity and Reliability Testing

Variables	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Engagement (en)	0.897	0.916	0.55
Net Benefit (nb)	0.896	0.919	0.619
Organizational Learning Culture (olc)	0.875	0.903	0.571
User satisfaction (us)	0.883	0.909	0.589

R Square demonstrates the ability of Organizational Learning Culture, Student Engagement and User satisfaction in this research model to explain Net Benefit Learning which is 0.553. The value of R Square ( $R^2$ ) = 0.553 is greater than 0.50, and all independent variables have the ability to explain the variation of dependent variables. To find out the suitability of the fit model, researchers tested linear correlations between independent variables. The study does not contain collinearity statistics because the variance inflation factor (VIF) values in the table below are smaller than 5. All VIF numbers in less than 5 indicate that there is no multicollinearity between independent variables.

The variables used in the study were two independent variables: Organizational Learning Culture (olc), Student Engagement (en). The dependent variable is Net Benefit (nb) and the mediation variable is User Satisfaction (us). The Path coefficient in the table 2 contains the path coefficient values (the numbers are located in the original sample column). All path coefficients in the study are positively marked because based on the Path Coefficient table, researchers can test for each path with the results listed in the table below. A positive sign and a p value of less than 0.05 indicate that an independent variable has a positive effect on the dependent variable.

**Table 2. Path Coefficient**

	Path Coefficient				
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV)	P Value
en → nb	0.321	0.323	0.054	5.938	0.000
en → us	0.635	0.636	0.036	17.772	0.000
olc → nb	0.203	0.204	0.033	6.137	0.000
olc → us	0.131	0.131	0.044	3.002	0.003
us → nb	0.379	0.377	0.056	6.819	0.000

Significant P-value (Sig.) At  $\alpha = 5\%$

For hypothesis number 1, Organizational Learning Culture has a positive influence on the perception of e-learner outcomes in quantitative courses in Indonesia during the Covid 19 pandemic, the p-value of 0.00 is less than 0.05 which means it significant effect. Online learning at pandemic, with an organizational culture shaped by colleges can enhance creativity and exploration ability to complete tasks on quantitative courses. A good organizational culture can help motivate students with the use of websites and Learning Management System on campus as a medium of communication between lecturers and students has a positive effect on student performance (Chen, Lambert and Guidry, 2010).

For hypothesis number 2, Online student engagement has a positive effect on the perception of student outcomes in quantitative subjects in Indonesia during the Covid 19 pandemic, the p-value of 0.00 is less than 0.05 which means it significant effect. Students who utilize Web and Internet technology in their learning tend to score higher. Student engagement includes active and collaborative learning in a supportive campus environment. They tend to use learning approaches that are reflective and integrative learning in accordance with personal and social development. The results of this study are in line with Chen, Lambert and Guidry (2010), in their research showed a positive relationship between the use of web-based learning technology and student engagement towards desired learning outcomes.

For hypothesis number 3, Organizational Learning Culture positively affects user satisfaction in quantitative courses in Indonesia during the Covid 19 pandemic, the p-value of 0.00 is less than 0.05 which means it significant effect. The influence of organizational learning culture involves user satisfaction. Organizational learning culture serves as the glue between individuals and organizations in

achieving common goals. Further enhancing the learning activities and competencies of members of the organization. The effect of user satisfaction on empirically achievable benefits was found to be significant in the DeLone and McLean information system success model (2003).

For hypothesis number 4, Online student engagement positively affects user satisfaction in quantitative courses in Indonesia during the Covid 19 pandemic, the p-value of 0.003 is less than 0.05 which means it significant effect. Student engagement can help identify the level of success in performance achievement. Student engagement will increase the capacity of the institution to assist students in improving learning concentrations.

Variable mediation (intervening) that theoretically affects the relationship between independent and dependent variables becomes an indirect relationship. It can also be interpreted that intervening variables are variables that can weaken and strengthen the relationship between variables.

For hypothesis number 5, User satisfaction mediates the cultural relationship of organizational learning and the involvement of online learners on net benefits felt in quantitative subjects in Indonesia during the Covid 19 pandemic.

The results of the user's satisfaction variable mediation test on online learning can be seen in table 3. a) User satisfaction (us) mediates the relationship between student engagement (en) following online learning and student performance results (nb); b) User satisfaction (us) mediates the relationship between organizational learning culture (olc) and student performance outcomes (nb).

**Table 3.** Results of Mediation Variable Testing

Specific Indirect ( Mediation Testing)					
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
en->us->nb	0.24	0.24	0.038	6.386	0.000
olc->us->nb	0.05	0.049	0.018	2.738	0.006

#### 4. CONCLUSION, IMPLICATION AND SUGGESTION

Pandemic Covid 19 has an impact on various aspects of life, including the education industry. Educational institutions at all levels must continue to carry out teaching and learning assistance functions without face-to-face due to strict supervision provisions. Distance learning with the online system becomes an alterntif to

maintain the continuity of the learning interaction process between students and students / students.

Difficulties and obstacles that exist become determinants of the smooth process of data transfer and student performance. The delivery of explanations on quantitative courses requires the full involvement of students during the learning process. It is also supported by organizational culture in the use of information technology. Based on the results of this study, it can be concluded that: independent variables consisting of Student Engagement and Organizational Learning Culture have a positive effect on User Satisfaction. Similarly, Student Engagement and Organizational Learning Culture have a positive effect on Performance Outcomes (Net Benefit Outcomes). The study found that variable user satisfaction was able to mediate variable independent relationships to student performance outcomes during online learning.

This research provides theoretical implications by referring to the theory of E-learning success based on DeLone and McLean (1992), that the quality of e-learning support systems with the existence of educational website features is a component of interactivity and communication, assessment materials, and diversity of learning styles required by students during this Covid pandemic. With distance learning patterns, encourage students to have independent behavior, both personal and group to further understand each quantitative learning material. Stimulants are still given by lecturers through online and offline media. This is in accordance with Behavioristic Learning Theory, that learning is a change in behavior as a result of the interaction between stimulus and response. A person is considered to have learned something if he is able to show changes in his behavior. Thus, stimulants that encourage students to always be involved in the learning process, better understand and interpret what is accepted, thus causing increased satisfaction levels and further effects of improving student performance.

The policy implications (practices) of the results of this study, it is recommended that every college should have basic rules in writing in an effort to habituation in building organizational culture. Organizational culture is a tool used to build the habits of each member in order to occur regularity and a conducive educational climate.

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