

Customer Satisfaction and Motivation Strategies toward Blended Learning

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ABSTRACT

This study aims to analyze the Readiness towards Blended Learning (RBL) in students at Indonesian Universities. The survey was conducted on fifth and sixth-semester students of all science majors in South Sumatera and the Special Region of Yogyakarta. This semester's students have experienced a pandemic period which required them to do online learning. This study uses learning flexibility, basic skills in using technology, and attitudes towards face-to-face learning. The impact of Readiness on Blended Learning is also hypothesized to impact satisfaction and motivation strategies for learning. Data was collected from 250 students through questionnaires. The sampling technique used was convenience sampling. The data analysis technique uses PLS-SEM. Several hypotheses proposed in this study were supported. Learning flexibility has an impact on Readiness toward Blended Learning. Attitude toward face-to-face classroom has an impact on Readiness toward Blended Learning. Readiness toward Blended Learning has an impact on Satisfaction. Readiness toward Blended Learning influences motivated strategies for learning.

Keywords: Blended learning, flexibility, skill, Attitude, Satisfaction, and Motivation.

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1. INTRODUCTION

The Industrial Revolution 4.0 has gradually changed the use of technology in the education sector. All educational institutions have worked hard to increase pedagogical understanding by empowering students to manage their learning experiences. The surge

in COVID-19 that occurred in 2019-2021 has further accelerated the technology adoption process in Online Education. This research analyzes students who are studying at universities in Indonesia. The reason is that in Indonesia, teaching online is still challenging for all higher education academics. Universities in Indonesia have carried out distance learning for a long time. Distance Learning is a big umbrella for online learning. As people's use of the internet increases, online learning has become the choice for many people to carry out distance learning. Even without a pandemic, online learning can be an important and needed learning method in Indonesia. Online learning at Indonesian universities aims to overcome the problem of an increasingly large population that can no longer be accommodated in school buildings in general. Online learning can also be a solution for students with barriers to coming to school daily. For example, students with disabilities, students who do not have access to school from home, or even students who have to work so they can only learn outside of working hours.

Higher education's adoption of online learning concepts and methodologies has caused significant changes in the teaching and learning domains (Hung et al., 2010). Several researchers researched student attitudes toward blended learning, measured student readiness to apply blended learning teaching, and predicted student satisfaction in online courses (Cigdem & Ozturk, 2016). The study results show that online learning readiness is crucial in motivating students to participate in blended learning activities (Tang, 2013). This research is intended to fill the literature gap by assessing Indonesian students' Readiness to adopt hybrid learning. This study focuses on students' perceived competence and comfort level when working in diverse learning contexts. The Indonesian Ministry of Education, Culture, and Technology Research has facilitated all universities in Indonesia to apply blended learning. Therefore, knowing the antecedents of blended learning readiness and analyzing whether students feel comfortable using new technologies is essential.

2. LITERATURE REVIEW

2.1. Blended learning

Blended learning is an educational approach that uses online and offline delivery methods to get the best learning outcomes and keep program costs as low as possible. In blended learning, it is essential to concentrate on teaching and learning outcomes, not just on mixing and matching learning delivery methods.

Students will benefit from blended learning if there is the best mix of each element of delivering material online with class interaction and direct instruction (Shakeel et al., 2023). This can create an exciting environment and adjust learning according to student needs (Medina, 2018). In higher education, blended learning is used to create more flexible learning, i.e., students can have more control over the time, location, and pace of their learning. Students can conduct online learning at any time from a place with an internet connection, not only in the classroom (Rahman et al., 2020); Yang & Zhang (2022).

2.2. Learning Flexibility and Readiness Toward Blended Learning

Learning flexibility answers today's learning needs and gives students more flexibility and autonomy in the learning process regarding when, where, and how they learn (Hrastinski, 2019; Lockee & Clark-Stallkamp, 2022). Learning to adapt is the first step in assessing learning readiness. From a pedagogical point of view, Li and Wong (2018) have analyzed previous publications and identified the dimensions of flexible learning into

several dimensions, namely the time the learning takes place, the content delivered, entry requirements, delivery, instructional approach, assessment of learning performance, and resources. From a technical perspective, flexible learning is often pursued through online technology (Tucker & Morris, 2012): (Sugandini et al., 2022a).

Hypothesis 1: Learning flexibility influences Readiness toward Blended Learning

2.3. Basic skill in using technology and Readiness toward Blended Learning

Mijatovic et al. (2012) found that e-learning readiness assessment is essential in using technology and can lead to increased learning outcomes. Harris et al. (2009) discussed that interaction is an essential learning component and should be integrated into blended learning. Asynchronous web-based discussion forums can be used for open communication or critical debate (Shakeel et al., 2023). However, if students lack basic skills in using technology, it will hinder the learning process as a whole. The success of blended learning requires students and lecturers to have basic skills and knowledge of computers, tools, and information technology platforms (Wang & Beasley, 2022); (Sugandini et al., 2022b).

Student readiness is essential in adopting and using new technologies and teaching practices (Minghat et al., 2020). Proficiency in technology adoption and technology availability also determines Readiness for online learning. Students' skills adapting to teaching and education paradigms must be evaluated for Readiness for online learning (Houshmandi et al., 2019).

Hypothesis 2: Basic skills in using technology affect Readiness toward Blended Learning.

2.4. Attitude toward face-to-face classroom and Readiness toward Blended Learning

E-learning has caused a significant loss of social contact, resulting in decreased social interaction between lecturers and students. Aboagye et al. (2021) suggest that to apply this web-based learning, students must be ready online (Joosten & Cusatis, 2020) and have a positive online attitude towards online learning (Wongwatkit et al., 2017). E-learning readiness refers to the user's physical and mental Readiness to learn. Many students believe face-to-face learning interactions are better suited to activities requiring students to investigate and solve problems. Lockee & Clark-Stallkamp (2022). This results in the findings that online forums often fail to encourage dynamic discussion, and many students withdraw from the forum (Yilmaz, 2017).

Hypothesis 3: Attitude toward face-to-face classroom affects Readiness toward Blended Learning.

2.5. Readiness Toward Blended Learning and Satisfaction

Student satisfaction, in general, can be interpreted as related to various aspects of the services received during online learning (Yilmaz, 2017). Yilmaz (2017) shows many factors influence student satisfaction during online and face-to-face classes. Lockee & Clark-Stallkamp (2022) show that the Readiness of students and teachers in online learning activities affects Satisfaction. Hrastinski (2019) found in an online learning study that student e-learning readiness is one of the determinants of Satisfaction. E-learning readiness is the Readiness of students to engage in learning activities in class and complete learning activities successfully. Students with high e-learning readiness are believed to be more satisfied with blended learning (Clark-Stallkamp, 2022).

Hypothesis 4: Readiness toward Blended Learning affects Satisfaction.

2.6. Readiness toward Blended Learning and Motivated strategies for learning

Motivation is a concept about direction, behavior, and effort resulting from that behavior (Keller, 1983). Motivation significantly affects learner attitudes and learning behavior in educational settings (Fairchild, Jeanne-Horst, Finney, & Barron, 2005). The online learning process is more individual and independent, motivating efficient learning. Chen et al. (2014) stated that students are highly motivated to watch learning videos. Motivation appears to be an essential factor in completing online learning. Motivation is believed to be a sub-factor of learning readiness. Motivation toward e-learning is believed to determine sustainability in the learning process (Yilmaz, 2017). Yilmaz (2017) states that motivation is one of the constructs that influence self-efficacy, predicted by student e-learning readiness in online learning classes.

Hypothesis 5: Readiness toward Blended Learning influences Motivated strategies for learning.

2.7. Conceptual Framework

This study examines the antecedents and consequences of Readiness toward blended learning. This research is based on research conducted by Yilmaz (2017); (Sugandini et al., 2022a), and Shakeel et al. (2023). Some of the variables used to predict Readiness toward Blended Learning are Learning flexibility (Hrastinski, 2019; Lockee & Clark-Stallkamp, 2022), basic skills in using technology (Houshmandi et al., 2019; Minghat et al., 2020), and Attitude toward face-to-face classroom (Aboagye et al., 2021; Joosten & Cusatis, 2020); (Sugandini et al., 2022b). The impact of Readiness toward blended learning includes Satisfaction and Motivated strategies for learning (Yilmaz, 2017). The conceptual framework of this study can be seen in Figure 1.

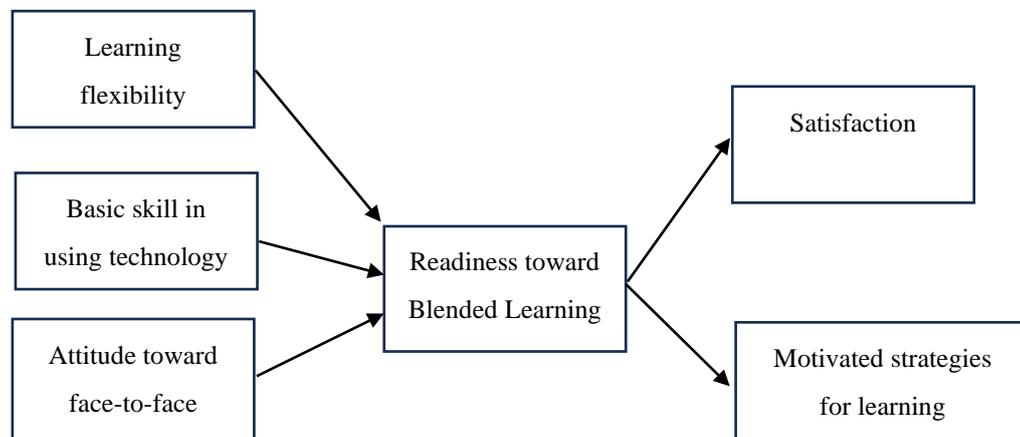


Figure 1. The Conceptual Framework for Readiness Toward Blended Learning

3. METHOD

This study uses an exploratory approach to analyze the theoretical relationships between concepts, followed by developing hypotheses (Hair et al., 2019). Data was obtained through a survey using a questionnaire. The type of data used is primary data. The unit of analysis used is the individual, namely students involved in the blended learning process at universities in Indonesia. The respondents were 250 students at universities in South Sumatra and Yogyakarta, Indonesia, respectively. Primary data was obtained through in-

depth personal interviews and filling out questionnaires. The questionnaire was made based on a five-point Likert scale. Hypothesis testing was carried out using structural equation modeling (SEM) techniques using Partial Least Square.

4. RESULTS

4.1. Characteristics of Respondents

The research uses data from 250 active students currently studying at universities in Indonesia. The research area is in South Sumatra and the Special Region of Yogyakarta. Respondents are fifth-sixth semester students who are considered to have experience in online learning and offline learning. The age of students ranges from 20-22 years.

4.2. Hypothesis Testing Results

Hypothesis testing in this study uses the Partial Least Square (PLS) method. PLS is an alternative method of analysis with Structural Equation Modeling (SEM) based on variance. The advantage of this method is that it does not require assumptions and can be estimated with a relatively small number of samples. The tool used is the Smart PLS Version 3 program, specifically designed to estimate structural equations on a variance basis. The results of the path analysis can be seen in Figure 2 and Table 1.

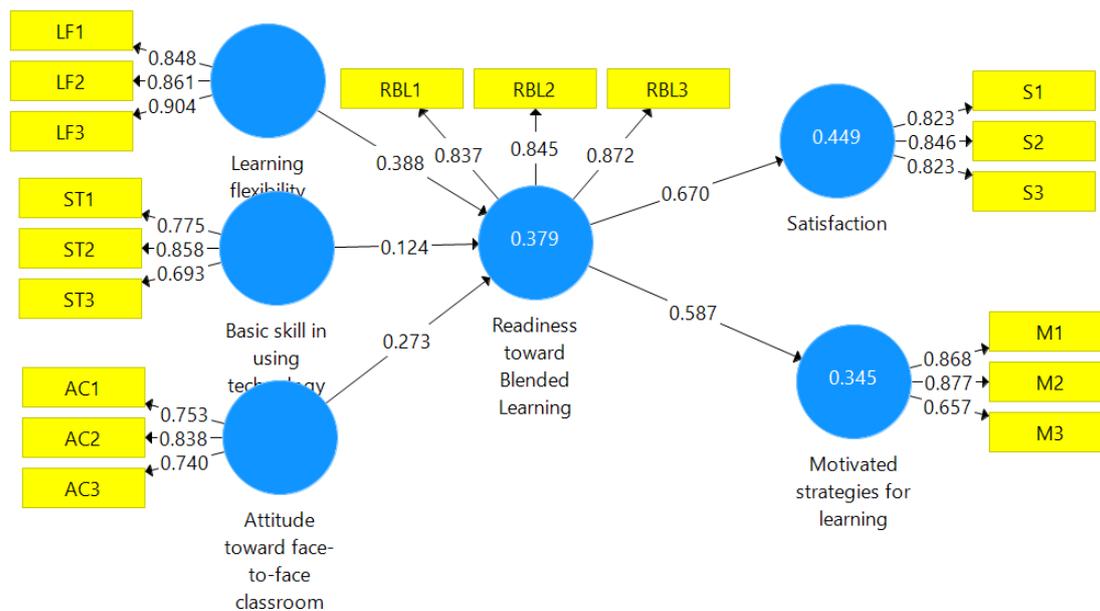


Figure 2. Results of Analysis of the Satisfaction Model Toward Blended Learning

Table 1. Path Coefficients (Mean, STDEV, T-Values, P-Values)

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Attitude toward face-to-face classroom → Readiness toward Blended Learning	0.273	0.085	3.202	0.001
Basic skill in using technology	0.124	0.073	1.688	0.092

→Readiness toward Blended Learning				
Learning flexibility → Readiness toward Blended Learning	0.388	0.063	6.204	0.000
Readiness toward Blended Learning → Motivated strategies for learning	0.587	0.046	12.723	0.000
Readiness toward Blended Learning → Satisfaction	0.670	0.037	18.232	0.000

5. DISCUSSIONS

The results of this study indicate that the Readiness Model toward Blended Learning is a good fit model. Hair et al. (2019) showed that for the model to meet the model fit criteria, the SMSR value must be less than 0.05. However, based on the SMART-PLS explanation, the limitations or criteria for model fit include RMS Theta or Root Mean Square Theta value < 0.102 , SRMR or Standardized Root Mean Square value < 0.10 or < 0.08 , and NFI value > 0.9 . The results of the fit test for this research model can be seen in Table 2.

Table 2. Fit model Readiness toward Blended Learning

Criteria	Saturated Model
SRMR	0.041
rms Theta	0.102
NFI	0.911
	R Square
Motivated strategies for learning	0.345
Readiness Toward Blended Learning	0.379
Satisfaction	0.449

Table 1 shows that the relationship between the variables analyzed partially shows a significant relationship with a T-statistic of > 1.96 and a p-value < 0.05 . There is only one relationship that is not significant because it has a p-value > 0.05 , namely the effect of Basic skills in using technology on Readiness toward Blended Learning. Thus, the second hypothesis in this study is not supported. Students aged 20-22 years, according to Rogers (1983) and Sugandini et al. (2022a), already have skills in using new technology. Students of this age are very adaptive to new ideas. So, predicting e-learning readiness doesn't have a significant impact because they have been given new technology. Sugandini et al. (2022a) and (Yang & Zhang, 2022) show that students in Indonesia already have a relatively good understanding of e-learning technology, so they don't have any difficulties when adopting blended learning.

This finding strengthens the research results, which show no significant effect of Basic skills in using technology on Readiness toward Blended Learning. The results of the data analysis show that the first hypothesis is supported. This shows that flexibility in carrying out blended learning can increase Readiness for blended learning adoption. Students feel a high level of flexibility when carrying out blended learning. Students can easily access class material at the speed of time they want to be able to access class material in their room. The flexibility of blended learning can increase learning readiness, student satisfaction, and motivation. The findings of this research support Hrastinski

(2019), Lockee & Clark-Stallkamp (2022), Li & Wong (2018), and Tucker & Morris (2012).

The third hypothesis states that Attitude toward face-to-face classrooms influences Readiness toward Blended Learning. Students feel that learning in a face-to-face classroom environment makes it easier to explore materials requiring deeper discussions. Students think face-to-face learning can develop interpersonal skills and team building, much like learning through collaboration. The results of this study support Aboagye et al. (2021), Joosten & Cusatis (2020), Wongwatkit et al. (2017), (Sugandini et al., 2022b) which state that Attitude toward face-to-face classrooms can increase Readiness toward blended learning.

The fourth and fifth hypotheses of the research are supported. Students show that Readiness for blended learning can increase their Satisfaction and motivation to complete their studies. Research shows that students feel more comfortable with blended learning than face-to-face learning. Students desire to participate in blended learning courses and increase their learning capacity. Blended learning can increase student satisfaction and motivation to succeed in blended learning (Sugandini et al., 2022a); (Sugandini et al., 2022b).

6. CONCLUSION AND CONTRIBUTION

This study shows that all the proposed hypotheses are supported. Mixed learning readiness in this study is analyzed more comprehensively and has internal reliability and consistency. In addition, the respondents had been involved in blended learning sessions. This study has the following implications: the government, in this case, the Ministry of Education, Culture and Research and Technology, is to increase student readiness for blended learning by considering two aspects of blended learning readiness, namely learning flexibility and Attitude toward face-to-face classrooms.

This study has practical implications for higher education management, showing that students in tertiary institutions already have basic skills in using technology and expect flexibility to be further improved. Universities must formulate policies to facilitate blended learning to create student satisfaction and motivation to complete tertiary institutions. Wang & Beasley (2022) argue that this policy can improve student learning readiness and academic achievement.

The research results show that blended learning provides benefits in new teaching strategies that are effective in the long term. The future of learning around the world offers unique pedagogical benefits. The large-scale diffusion of technology in the higher education sector worldwide has changed how policymakers engage in educational planning and management. Research shows that blended learning as a pedagogical strategy has better advantages than traditional pedagogical approaches. Even though future learning prioritizes using digital applications, digital learning is not yet considered a replacement for the traditional face-to-face education system. In the global environment, blended learning is considered to have a promising pedagogical approach (Mariam et al., 2023). This hybrid learning can change the global education system. It has gained recognition as an emerging teaching approach in formal universities to support face-to-face teaching with more flexibility for students and lecturers. This research also provides valuable insight for higher education administrators worldwide to implement blended learning successfully. The findings of this research have shown empirical evidence about how students' Readiness to use blended learning impacts satisfaction and motivation to

use blended learning. Learning flexibility can influence Readiness to adopt blended learning. The conditional effect shows that blended learning can encourage high flexibility and high-quality learning. Likewise, increasing learning flexibility encourages a high level of preparedness for adopting blended learning in the future among students. These findings provide valuable insight for higher education administrators who wish to successfully implement a sustainable blended learning model.

7. LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

This study has two research limitations. First, students who are respondents are not differentiated by the study program. Researchers only want to increase the generalization of the results of their research. However, this has limitations because social sciences and engineering students have different face-to-face and online learning needs. Therefore, future research should classify student respondents with different scientific backgrounds so that they can precisely justify students' needs for blended learning. Second, this research only uses students who have entered the fifth and sixth semesters because it is assumed that these students have face-to-face and online learning experiences. However, future research must consider students in other semesters to generalize the findings.

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