Learning Engagement Effect on Satisfaction, and Future Preferences of Online Tax Brevet

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DOI: 10.15294/dp.v17i1.33479

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Abstract

This study investigates the factors that influence student satisfaction with online tax brevet and their preferences in the future, using theory of perceived user satisfaction. There have been several studies examining tax education, but research on technology-based tax education is still difficult to find. Using an online survey distributed in August – September 2021, data were collected from 106 participants who have or are currently taking online tax brevet. The data is then processed by the PLS-SEM method. This study found that technology and course had a significant effect on student satisfaction, on the other hand, teacher, communication, Covid-19 impact, and sudden change did not have a significant effect. On student involvement, it was found that only motivation had a significant effect, while self-efficacy and anxiety had no significant effect. In this study, student involvement was also indicated to have a significant effect on student satisfaction and learning outcomes. Student satisfaction itself also has an influence on student decisions in the future to continue using online tax brevet technology. To maintain the future preferences of students, tax brevet organizers can increase student motivation with a more interactive learning system.

How to Cite

Agustina, K. D., & Saragih, A. H..(2022).Learning Engagement Effect on Satisfaction, and Future Preferences of Online Tax Brevet.*Dinamika Pendidikan*, 17 (1), 86-106.

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INTRODUCTION

The Covid-19 pandemic has had several impacts in various fields. One of them is education (Lei & So, 2021). School closures have been implemented starting from elementary schools to universities, both formal and informal education. Infection control by physical distancing is a preventive measure to prevent the spread of the virus. This phenomenon requires educational institutions or agencies to change the learning system into distance learning (online learning) from what was previously traditional learning (face-to-face) (Zapata-Cuervo et al., 2021). With the emergence of Covid-19 accompanied by increasing technology, distance learning with an e-learning system is crucial for students (Wardoyo, 2016; Zardari et al., 2021).

E-learning is education for people who are outside traditional, technology-based spaces. One of the advantages of this system is that learning can be carried out through a live broadcast or by recording, students can review what they have previously learned. Currently, tax brevet is one type of informal education that utilizes e-learning technology. Many tax brevet organizers or agencies have offered online courses. The organizers provide online classes both synchronously and asynchronously. Synchronous classes are conducted with face-to-face meetings via video conference platforms simultaneously. On the other hand, asynchronous is done with learning recordings that can be accessed at any time.

The education system that has changed due to the Covid-19 Pandemic has changed the way students attend classes and complete assignments. This new situation has given students a new and unique experience in pursuing their education. However, looking at the current situation, it becomes a question whether e-learning can maintain the same quality as traditional learning Zapata-Cuervo et al. (2021) because there are concerns about the academic performance of students on the implementation of e-learning (Gonzales et al., 2020).

Based on several previous studies, the online learning system caused by the Covid-19 pandemic created psychological and pedagogical changes for students (Heriyanto et al., 2021). This is a new challenge for educational institutions to manage changes in the learning system, especially for educational institutions that previously always used a face-to-face system. Returning to the goal of every educational institution is to provide the best for students to fulfill satisfaction in their learning experience. Therefore, it is necessary to understand the experiences and perceptions of learners to help plan and develop e-learning in the future (Pozón-López et al., 2021).

Previously, several studies had succeeded in finding a significant positive relationship between learning engagement and student satisfaction with online learning (Kandiko Howson & Matos, 2021; Kim & Kim, 2021; Luo et al., 2021). The researcher found that the more students were involved in the learning process, the higher the student satisfaction. Research data shows that there is a strong relationship between learning engagement and student satisfaction. In addition, Lei & So, 2021 show in their research, that student satisfaction is important for students' future preferences to continue using online learning technology. This is evident from his findings which state that student satisfaction has a positive and significant influence on students' future preferences.

There have been several studies examining tax education, but research on technology-based tax education is still difficult to find. In Indonesia, there are two types of tax education, namely formal education and informal education. Informal education, tax education can be in the form of a major in a college or high school that focuses on studying science and knowledge about taxation. This does not rule out the possibility for people who want to study taxation but cannot enter through informal education, because there is a formal education that can be followed, one of which is a tax brevet. Taxation is also one of the areas that can be focused on in accounting. This focus is commonly known as Tax Accounting,

in which the calculation of tax objects that can be a burden for tax reporting purposes is studied. It can be said scientifically, taxation cannot be separated from accounting.

The purpose of this study was to identify the factors that influence student satisfaction in participating in tax brevet with an online system. User experience is one of the keys that influence the intention to use technology, especially e-learning (Zardari et al., 2021). In previous studies, Lei & So, (2021) and Zapata-Cuervo et al., (2021) only analyzed each student's engagement with the variables self-efficacy, motivation, also anxiety, and student satisfaction with the variables technology, course, teacher, communication, Covid-19 impact, and sudden change. In this study, the researcher combined the two variables as the dependent variable and used each independent variable on the variables of participant learning satisfaction and participant learning engagement, so that the factors that influence the two dependent variables can be described in detail.

Back to the purpose of each institution or institution providing tax brevet as tax education, that they will give their best to help participants achieve their goals. Therefore, it is necessary to conduct this research to find out participants' perceptions of their satisfaction with the learning process in online tax brevet. By doing this research, researchers and the organizers of the online tax brevet can find out what needs to be developed or innovated to improve the quality of the course. This is expected to help online tax brevet participants to achieve their goal of taking tax brevet courses.

The contribution of this research to informal taxation education is as follows. First, this study provides an overview of student satisfaction with online tax brevet that is most suitable for distance learning conditions, because online learning has been going on for more than one year which can be considered as students have adapted to the online environment. Second, this study examines student satisfaction and student engagement with theories that have been developed and adapted to

the latest conditions, in accordance with previous research written by Lei & So, (2021) and Zapata-Cuervo et al., (2021). Finally, this research can be a suggestion or solution for tax brevet organizers who provide online training to be able to innovate or develop the quality of online courses.

The next step of this research is to review the literature and research and then develop the hypothesis obtained. Researchers will explain online tax brevet, student satisfaction, student involvement, and the factors that influence it. Then will be explained the research methodology that uses tools to analyze data in the form of WarpPLS 7.0. After that, the researcher also described the results of data analysis regarding the validity and hypothesis testing, then continued with discussion and discussion. In the end, there are conclusions, implications, and limitations of the study.

In general, a tax brevet is a tax training activity or course with or without the application of tax software. Following a tax brevet is one of the steps that can be taken by people who generally want to have a career as a Tax Consultant, by attending tax brevet training participants are expected to be able to understand more in-depth tax theory and practice (Sugeng & Prasetyo, 2021). Generally, tax brevet is divided into three levels, namely Level A, Level B, and Level C.

Prior to the Covid-19 pandemic, tax brevet was usually done face-to-face. However, tax brevet organizers such as the Indonesian Institute of Accountants, FIA UI Tax Center, Tax Training House, and others have provided tax brevets online. The implementation of online tax brevet in Indonesia has been going on for more than a year. Generally, online tax brevet is carried out through video conferencing media such as Zoom, Microsoft Teams, Google Meets, etc.

Previously, most educational institutions carried out the traditional learning process in the classroom or face-to-face. The emergence of the Covid-19 outbreak which requires physical distancing has led to increased implementation of distance learning (Istijan-

to, 2021). The use of sophisticated technology in distance learning has resulted in a method called e-learning. As a result of the integration between technology and education, e-learning has emerged as a powerful medium for learning, especially in using internet technology (Al-Fraihat et al., 2020).

There is one implementation of e-learning with web-based technology, namely online learning, therefore it can be considered that online distance learning is part of e-learning (Istijanto, 2021). Several studies suggest that the online learning experience is influenced by one's perception of various aspects such as the use of technology, the quality of the teacher, the perceived benefits of the online course, and interaction and communication (Lei & So, 2021).

Previous research has found that technology has a significant influence on student satisfaction with online learning (Lei & So, 2021). Currently, learning resources with various formats are available on the internet in large numbers (Al-Fraihat et al., 2020). In online distance learning, students get information about the material being studied through online platforms certain used by each educational institution, so the use of technology plays an important role in cognitive engagement and academic performance of students who study from home. (Heriyanto et al., 2021). In a study on distance learning, perceived ease of use and perceived usefulness are the most common factors in analyzing the intention to use technology (Pozón-López et al., 2021).

H1: Student perceptions of technology online learning positively affect student satisfaction with online learning.

Change from traditional learning to distance learning is indeed a challenge, so strategies need to be set for sustainable learning (Prasetyo et al., 2021). Both the subjects taken by students and the online methods used by students both affect the effectiveness of online learning (Lei & So, 2021; Zhu et al., 2021). Students' confidence in the extent to which they can learn the material well in an environment online can affect their satisfaction (Lei

& So, 2021).

Carefully designed subjects can be delivered effectively and well received by students through mode online (Zhu et al., 2021). If they feel comfortable studying a particular subject online, they are likely to be more satisfied (Lei & So, 2021). In his study, Istijanto (2021) stated that adequate facilities, qualified teachers, and administrative staff are meaningless if learning activities are not managed effectively.

H2: The perceived benefits of students from online learning positively affect student satisfaction with online learning.

The teacher's role is an important key to the sustainability of online learning so that the quality of the teacher can affect student satisfaction in participating in online learning (Al-Fraihat et al., 2020; Lei & So, 2021). When teachers have better teaching performance, students tend to have higher satisfaction (Lei & So, 2021). Teachers emphasize that guiding and supporting students in the learning process, whether in large groups, teams, or individuals, can encourage student engagement. The teacher's role in reminding students of their presence and availability, especially in asynchronous learning can also encourage students' emotional and cognitive engagement (Heilporn et al., 2021).

H3: Teachers' attitudes and performance positively affect student satisfaction with online learning.

Interactivity refers to the extent to which a system allows users to act as senders and receivers of communications, either synchronously or asynchronously, and to seek or obtain information in such a way that the content, timing, and sequence of communications are controlled by them (Pozón-López et al., 2021). The interaction between students and teachers influences students to return to online learning (Huang et al., 2017). Interaction between students also has a positive influence on student engagement (Kim & Kim, 2021). In terms of student satisfaction, they believe that they will be satisfied if their interpersonal communication needs are met (Dennen et al., 2007).

H4: The quality of online communication positively affects student satisfaction with online learning.

Apart from elements related to the environment of online learning, we are also interested in understanding the influence of the external environment on the learner's experience in online learning. The unpredictable and uncontrollable Covid-19 pandemic caused several consequences, one of which was the change from traditional learning systems to distance learning (Zapata-Cuervo et al., 2021). Currently, students are forced to take part in learning activities online due to lockdown during the pandemic (Zapata-Cuervo et al., 2021).

Students' mental health is greatly affected when facing public health emergencies, Covid-19 can be a cause of stress or anxiety such as stress on economic conditions, anxiety in daily life, and academic delays for students during a pandemic (Cao et al., 2020). Supported by research conducted by Ma et al., (2021) that the Covid-19 pandemic can cause psychological problems for students. Students are also sensitive to sudden changes from traditional learning to distance learning, resulting in a lack of preparation from students to adapt to new environments and challenges (Lei & So, 2021).

H5: Stress caused by Covid-19 negatively affects student satisfaction in online learning.

H6: Sudden changes negatively affect student satisfaction in online learning.

Students' competence and ability to participate in online learning is one of the most important things when there is no choice given to students other than distance learning during a pandemic (Zapata-Cuervo et al., 2021). Abbas (2017) defines self-efficacy as a learner's ability to perform tasks with an e-learning platform. In their study, Zapata-Cuervo et al., (2021) adopted the concept of self-efficacy in their research to examine students' psychological perceptions and behavior in online learning. Self-efficacy can also be helped by the presence of digital literacy, this is related to understanding in using information on technology (Prior et al., 2016).

This statement is also supported by Koob et al., (2021) that a positive relationship between personal resources and student involvement needs to be maintained in a pandemic condition. From several previous studies, it can be said that in a situation of urgency such as the Covid-19 pandemic which requires distance learning to be implemented, students need to have the ability to have personal resources with existing information technology.

H7: Self-efficacy Students'positively affects their engagement in online learning.

The term motivation comes from the notion of motion, referring to the impulses and instincts that direct a person to take action (Pozón-López et al., 2021). Motivation is one of the important things in predicting student engagement in completing the courses being followed. The differences in the courses followed also affect the motivational differences possessed by students (Williams et al., 2018). For online courses, it is important to have participants who are motivated and equipped with methods and strategies that are useful for participants to be able to learn independently (Quesada-Pallarès et al., 2019).

During the Covid-19 pandemic, students' motivation towards learning appears to be critical to keeping them engaged in online courses and maintaining good learning outcomes (Zapata-Cuervo et al., 2021). Barak et al., (2016) stated in their research that online course participants who complete their courses tend to have increased motivation, on the contrary, participants who do not complete their courses tend to have decreased motivation, this is also related to participants' interest in the courses they are taking. Online learning requires self-motivated students to engage in their learning process and maintain their strong commitment to learning. Thus, students' motivation to take online courses during the Covid-19 pandemic seems to be a key factor to keep them engaged in online learning (Zapata-Cuervo et al., 2021).

H8: Student motivation positively affects their engagement in online learning.

The outbreak of the Covid-19 outbreak in all corners of the world does not only affect a person's physical health. It also affects the mental health of students who are urged to take part in the distance learning process. Son et al., (2020) in their research stated that most students experienced an increase in anxiety and stress due to Covid-19. Anxiety can also gradually be caused by conditions in the social environment where people are required to quarantine (Cao et al., 2020). Student anxiety in online learning can also be caused by the use of technology. Zapata-Cuervo et al., (2021) in their research also added that students' anxiety about emotional disabilities in online learning can reduce their involvement in online courses.

H9:   Students' anxiety about online learning negatively affects their engagement in online learning.

Online learning engagement is defined as active participation in e-learning activities using an e-learning platform (Abbas, 2017). Previous researchers explained that learning engagement is divided into three dimensions, namely behavioral, emotional, and cognitive (Heilporn et al., n.d.). Behavioral engagement focuses on student participation and involvement in academic activities that will affect academic outcomes. In contrast, emotional engagement is related to both positive and negative reactions to the instructor, school, and classmates.

Cognitive engagement is the willingness to invest and pay attention to put in the effort required to master difficult skills and understand complex ideas. In this study, we use three keys used in the study of Zapata-Cuervo et al., (2021) to analyze learning engagement, namely self-efficacy, motivation, and anxiety. A study conducted by Dennen et al., (2007) showed that student involvement has a positive influence on student satisfaction.

Research conducted by Zapata-Cuervo et al., (2021) suggests that online learning outcomes of students do not appear to be as effective as during their face-to-face learning even though they are highly involved in their online learning. lower in online learning than face-to-face learning. Although student engagement is a positive determinant of learning outcomes, their relationship may be affected by the student's learning environment (e.g., online learning vs face-to-face learning) during the Covid-19 pandemic.

H10:   Students online learning engagement negatively affects online learning outcomes student, compared to face-to-face learning outcomes, during the COVID-19 pandemic.

H11:   Students' online learning engagement has a positive effect on student satisfaction in online learning.

Lei & So, (2021) in their writings state that the relationship between satisfaction and behavioral intention has been repeatedly confirmed in many studies in various disciplines. Based on previous research, students' satisfaction with their online learning experience can greatly influence their future preferences and decisions. The researcher also found that stu-
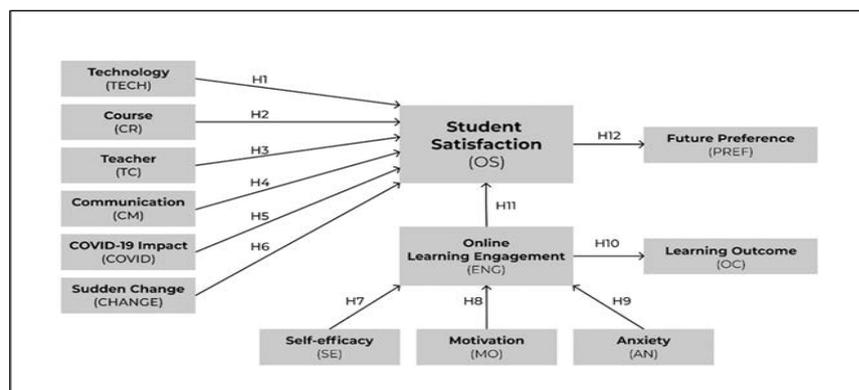

Figure 1. Conceptual Framework
Source: Primary Processed Data (2021)

dent satisfaction with online learning influenced the future preferences of learners. In addition, future preferences can also be influenced by the characteristics of study groups in online courses.

H12: Students' satisfaction with the experience of online learning positively affects their future preference for taking online courses.

METHODS

This study applies quantitative methods to analyze the conceptual model using self-reported data. This study uses an online survey method that targets tax brevet participants currently studying with the online tax brevet system due to the Covid-19 pandemic using the purposive sampling method. Overall, the questionnaire is divided into four main sections. The first part describes the research objectives including the respondent's consent page. The second part is a question about demographic information as well as online tax brevet information. The third part covers the construct of the measurement object. The last part is a qualitative question about the advantages and disadvantages of the online brevet system.

This study uses primary data obtained from online surveys using the Google Form platform. Questionnaires were distributed with a Google Form link then respondents filled out independently in August-September 2021. The target respondents in this study were participants who were or have previously participated in online tax brevet. Dissemination of questionnaires online is quite challenging. Therefore, the researchers contacted several agencies or institutions that held online brevet to help distribute the questionnaires. The number of respondents collected is 106 participants.

Most of measurement objects adopted from Lei & So, (2021) and Zapata-Cuervo et al., (2021) which translated into Indonesian, then modified to fit the research object. Online learning engagement is measured through four factors adapted from research by Zapata-Cuervo et al., (2021), namely self-efficacy, mo-

Table 1. Respondents' Demographic

Gender	
Male	35
Female	71
Total	106
Age	
17-21	81
22-26	24
27-31	1
Total	106
Last Education	
High School	65
Diploma	37
Bachelor	3
Master	1
Total	106
Job Status	
Full-time Job	10
Part-time Job	3
Work while studying	4
College Student	87
Fresh Graduate	1
Job Seeker	1
Total	106
Medium	
Zoom	83
Cisco Webex	2
Google Meets	8
Microsoft Teams	21
Youtube Live Streaming	1
WhatsApp Group	1
Website	1

Program Organizer	
Faculty/University	10
Tax Center	22
Indonesian Institute of Accountants	30
Indonesian Institute of Certified Public Accountants	4
Indonesian Tax Consultant Association	2
Government Agency	1
Consultant Agency	24
Cooperation with several institutions/agencies	4
Others	9
Total	106
Meeting Frequency (in a week)	
1x	25
2x	45
3x	17
4x	4
5x	15
Total	106
Meeting Duration	
90-120 minutes	30
120-150 minutes	17
150-180 minutes	28
180-240 minutes	21
240-480 minutes	10
Total	106

Source: Primary Processed Data (2021)

tivation, and anxiety. Self-efficacy is measured by six constructs, motivation is measured by five constructs, and anxiety is measured by four constructs. On online learning satisfaction, we adopted the measuring variable from Lei & So, (2021).

Online learning satisfaction is measured through six variables, namely technology, teacher, course, communication, Covid-19 effect, and sudden change. Technology is measured by three constructs, teacher is measured by four constructs, course is measured by four constructs, communication is measured by two constructs. Covid-19 impact and sudden change are included as external factors that affect student satisfaction, each variable is measured by three questions. Prior to data collection, the instrument was tested to ensure the validity of the instrument. Each construct was measured using a 5-point Likert scale.

Data were analyzed by Partial Least Square Structural Equation Modeling (PLS-SEM). PLS-SEM is SEM with a causal-predictive approach that emphasizes predictions in statistical estimation models whose structure is designed to explain causality relationships (Hair et al., 2012). In this study, the data was processed using WarpPLS version 7.0, with the Bootstrapping resampling method. After constructing the SEM-PLS Model, we measure the measurement and structural models. There will be some adjustment of indicators if they do not meet the criteria. If there is a reduction in indicators, the model will be adjusted then processed for hypothetical testing.

RESULT AND DISCUSSION

Measurement Model: Reflective Measurement Model Assessment

In this research, the construct used is the reflective construct. The first thing to do is check the loading indicators. The value of loadings above 0.70 indicates that the construct explains more than 50% of the indicator variance, it shows that the indicator shows a satisfactory level of reliability (Sarstedt et al., 2020). Loading values above 0.40 can still be tolerated (Hair et al., 2012). Table 2 shows the loading value for each indicator. During data processing, there is one indicator that must be eliminated because the value is < 0.40, namely the CHANGE3 indicator, but all indicators other than CHANGE3 have met the criteria for loading values > 0.40. Indicators that have a high loading value show a high contribution in explaining the construct.

Table 2. Indicator Loadings

Question	Indicator Name	Indicator Loading
I like to use my computer/laptop to take online tax brevet	TECH1	0.740
Internet access makes it easier for me to study with the teacher	TECH2	0.818
I have no significant problems using technology to follow online tax brevet	TECH3	0.834
I believe that taking online tax brevet is better than face to face brevet	CR1	0.834
I believe that taking online tax brevet is easier than face-to-face brevet	CR2	0.724
The online platform helps me to learn more about the online tax brevet curriculum that I follow	CR3	0.882
The online learning environment helps me learn the online tax brevet material that is followed	CR4	0.856
The teachers understand the online learning environment and make learning easy	TC1	0.761
Teachers facilitate online discussions between students	TC2	0.737
I often receive online feedback from teachers	TC3	0.818
Teachers work hard to teach through online platforms	TC4	0.745
The online learning atmosphere makes it easier for me to communicate with the teachers	CM1	0.930
The online learning environment makes it easier for students to communicate with each other	CM2	0.930
I've been feeling stressed lately because of the coronavirus outbreak	COVID1	0.836
Lately, I feel very threatened because of the coronavirus outbreak	COVID2	0.821
The coronavirus outbreak had a bad impact on my learning	COVID3	0.814
I am concerned about fairness in grading	CHANGE1	0.872
I am concerned about the lack of resources to support online tax brevet	CHANGE2	0.872
Overall, I am satisfied with the learning experience in online tax brevet	OS1	0.892
Overall, I am satisfied with the online tax brevet arrangement during the corona situation	OS2	0.899
Overall, the attitude and performance of teachers who teach online tax brevet are acceptable	OS3	0.674
Overall, I prefer online classes to face-to-face classes	PREF1	0.901
Overall, I prefer face-to-face classes to online classes (R)	PREF2	0.901
I can perform well with online tax brevet classes	SE1	0.768
Despite the technical difficulties, I believe I can learn the material presented in the online tax brevet	SE2	0.833

Question	Indicator Name	Indicator Loading
I believe I can do a great job in online tax brevet class activities	SE3	0.807
I believe I can understand the most difficult material presented in an online tax brevet class	SE4	0.865
Despite the distractions, I believe I can study the material presented in the online tax brevet	SE5	0.877
I like doing online tax brevet	MO1	0.926
Online tax brevet is fun	MO2	0.923
An online tax brevet will help me better prepare for the career I have chosen	MO3	0.787
I'm afraid of making mistakes that I can't correct in following an online tax brevet	AN1	0.801
I'm tense and nervous when I join the online tax brevet	AN2	0.778
I'm worried about my achievement in online tax brevet	AN3	0.792
I'm afraid I don't know when the right time is to comment	AN4	0.801
I try hard to follow the online tax brevet well	ENG1	0.813
I pay close attention to the delivery of online tax brevet materials	ENG2	0.841
When we were doing an online assignment by the online tax brevet, I was involved in participating/doing it	ENG3	0.823
I feel that I learned as much from an online tax brevet as I did from a face-to-face class	OC1	0.830
I feel that I learn more in an online tax brevet than in a face-to-face class	OC2	0.930
The quality of the learning experience at online tax brevet is better than face-to-face classes	OC3	0.909

Source: Primary Processed Data (2021)
Notes: TECH = Technology, CR = Course, TC = Teacher, CM = Communication, COVID = CO-VID-19 Impact, CHANGE = Sudden Change, OS = Overall Satisfaction, PREF = Future Preference, SE = Self-efficacy, MO = Motivation, AN = Anxiety, ENG = Engagement, OC = Learning Outcome

The next step is a construct assessment with internal consistency to measure the reliability of the variables used. For composite reliability criteria, a higher value indicates a higher level of reliability. The researchers consider that the values between 0.60 and 0.70 are considered acceptable, while the results with values between 0.70 and 0.95 indicate a satisfactory or even good level of reliability (Sarstedt et al., 2020). The researcher added that values >0.95 were considered problematic because they would be considered nearly identical.

Based on the research data, it can be concluded that the variable has a high level of reliability, but remains in the range between 0.60 and 0.95, as shown in Table 3. Next is to assess the reflective measurement models by relating the convergent validity, which is the extent to which the constructs converge in the indicators by explaining the item variance. The convergent validity test was carried out by looking at the AVE (Average Variances Extracted) value of at least 0.5 for the reflective

latent variable. Table 4 shows that all reflective latent variables have AVE values >0.5.

The last step is to test the discriminant validity. This analysis reveals the extent to which a construct is empirically different from other constructs both in terms of how much it correlates with other constructs and how the indicators represent only this single construct (Sarstedt et al., 2020). Table 5 summarizes discriminant validity, the higher the reflective value of the indicator, the better the correlation between the indicator and its latent construct. This study uses the Fornell-Larcker criteria to test discriminant validity.

Structural Model Assessment

If the quality assessment measurement model shown has been satisfactory, then the next step is the structural model assessment (Sarstedt et al., 2020). Collinearity testing needs to be done to ensure there is no bias in the regression results. VIF values above 5.0 indicate collinearity between predictor constructs. After examining potential problems of collinearity among constructs, focus on learning about the predictive ability of the model, as demonstrated by the following criteria: coefficient of determination (R2), cross-validated redundancy (Q2), and path coefficients. R2 or coefficient of determination is a value that reflects the level of ability of an independent variable in describing the dependent variable.

Hypothetical Testing

Hypothesis testing is done by looking at the path coefficient and the p-value of the path coefficient. The path coefficient shows the relationship between the hypothesized constructs. In terms of relevance, the path coefficient value is usually between -1 and +1, where a path coefficient with a value close to +1 is considered to have a strong positive relationship, whereas a path coefficient value close to -1 is considered to have a strong negative relationship (Sarstedt et al., 2020). In general, the path coefficient shows the statistical significance of the hypothetical relationship. If the path coefficient is close to 0 or even 0 then the relationship between constructs is not very significant.

Based on Table 9, the path coefficient value of TECH→OS is 0.245 with a p-value of 0.002, meaning that TECH has a positive and significant effect on OS. The path coefficient value CR→OS is 0.319 with a p-value <0.01, meaning that CR has a positive and significant effect on OS. The path coefficient value of TC→OS is 0.215 with a p-value of 0.030, but TC is considered to have no significant effect because in the confidence interval in Table 11 there is a number 0.

The path coefficient value of CM→OS is 0.069 with a p-value of 0.186, meaning that CM does not have a significant effect on the OS. The COVID→OS path coefficient value is 0.048 with a p-value of 0.210, meaning that

Table 3. Composite Reliability

TECH	CR	TC	CM	COVID	CHANGE	OS	PREF	SE	MO	AN	ENG	OC
0.840	0.896	0.850	0.928	0.864		0.863	0.866	0.896	0.918	0.912	0.871	0.865	0.920

Source: Primary Processed Data (2021)

Table 4. Convergent Validity

TECH	CR	TC	CM	COVID	CHANGE	OS	PREF	SE	MO	AN	ENG	OC
0.638	0.683	0.586	0.865	0.679		0.760	0.686	0.811	0.691	0.776	0.629	0.681	0.794

Source: Primary Processed Data (2021)

Table 5. Discriminant Validity

	TECH	CR	TC	CM	CO-VID	CHA-NGE	OS	PREF	SE	MO	AN	ENG	OC
TECH	0.799	0.594	0.260	0.535	-0.070	0.044	0.572	0.352	0.465	0.572	0.050	0.298	0.468
CR	0.594	0.826	0.283	0.560	-0.085	0.090	0.596	0.607	0.592	0.650	0.161	0.261	0.703
TC	0.260	0.283	0.766	0.411	-0.117	-0.135	0.492	0.144	0.445	0.445	0.005	0.448	0.416
CM	0.535	0.560	0.411	0.930	0.019	0.086	0.506	0.349	0.458	0.492	0.046	0.272	0.543
COVID	-0.070	-0.085	-0.117	0.019	0.824	0.366	-0.082	-0.237	-0.143	-0.145	0.469	-0.068	0.071
CHA-NGE	0.044	0.090	-0.135	0.086	0.366	0.872	-0.081	-0.144	0.002	-0.084	0.401	0.116	0.088
OS	0.572	0.596	0.492	0.506	-0.082	-0.081	0.828	0.512	0.725	0.768	0.111	0.435	0.684
PREF	0.352	0.607	0.144	0.349	-0.237	-0.144	0.512	0.901	0.489	0.487	-0.053	0.111	0.468
SE	0.465	0.592	0.445	0.458	-0.143	0.002	0.725	0.489	0.831	0.732	-0.044	0.515	0.630
MO	0.572	0.650	0.445	0.492	-0.145	-0.084	0.768	0.487	0.732	0.881	0.105	0.530	0.686
AN	0.050	0.161	0.005	0.046	0.469	0.401	0.111	-0.053	-0.044	0.105	0.793	0.005	0.246
ENG	0.298	0.261	0.448	0.272	-0.068	0.116	0.435	0.111	0.515	0.530	0.005	0.825	0.466
OC	0.468	0.703	0.416	0.543	0.071	0.088	0.684	0.468	0.630	0.686	0.246	0.466	0.891

Source: Primary Processed Data (2021)

Table 6. VIF

TECH	CR	TC	CM	COVID	CHANGE	OS	PREF	SE	MO	AN	ENG	OC
1.990	3.343	1.682	1.891	1.527	1.539	3.591	1.979	3.060	3.843	1.700	1.878	3.211

Source: Primary Processed Data (2021)

Table 7. R^2 Value

TECH	CR	TC	CM	COVID	CHANGE	OS	PREF	SE	MO	AN	ENG	OC
						0.557	0.263				0.316	0.217

Source: Primary Processed Data (2021)

Table 8. Q2 Value

TECH	CR	TC	CM	COVID	CHANGE	OS	PREF	SE	MO	AN	ENG	OC
						0.565	0.265				0.316	0.216

Source: Primary Processed Data (2021)

COVID has no significant effect on OS. The path coefficient value of CHANGE→OS is -0.136 with a p-value of 0.078, meaning that CHANGE has no significant effect on OS. The path coefficient value of ENG→OS is 0.182 with a p-value of 0.01, which means that ENG has a positive and significant effect on OS.

The path coefficient value of SE→ENG is 0.268 with a p-value of 0.027, but SE is considered to have no significant effect on ENG. Because in Table 11 it is stated that the confidence interval for ENG has the number 0. The path coefficient value MO→ENG is 0.336 with a p-value of 0.011, meaning that MO has a positive and significant influence on ENG. The path coefficient value of AN→ENG is -0.018 with a p-value of 0.400, meaning that AN has no significant effect on ENG. The path coefficient value of ENG→OC is 0.466 with a p-value <0.01, meaning that ENG is indicated to have a positive and significant effect on OC. The path coefficient value OS→PREF is 0.512

with a p-value <0.01, meaning that OS has a positive and significant effect on PREF.

Effect size is the absolute value of the individual contribution of each predictor latent variable. Effect size is divided into three categories, namely large (0.35), medium (0.15), and weak (0.02). Effect size with a value below 0.02 indicates that the influence of the latent variable is quite weak in practice even though the p-value is significant. Table 10 shows that the COVID, CHANGE, and AN variable have an effect size of <0.02, which means that these variables are not strong enough to contribute as predictors of the criterion variables. However, this is in line with the p-value of the COVID, CHANGE, and AN variable.

Hypothesis testing can also be done by looking at the T-ratios and confidence intervals. The hypothesis is accepted if the T-ratio > Critical T-ratios, and there is no 0 value in the confidence interval. With a confidence level of 0.95, H3, H4, H5, H6, H7, and H9 were rejected.

Table 9. Path Coefficient & P-value

	TECH	CR	TC	CM	COVID	CHAN-GE	OS	PREF	SE	MO	AN	ENG	OC
OS	0.245*	0.319*	0.215	0.069**	0.048**	-0.136**						0.182	
PREF							0.512*						
ENG									0.268	0.336	-0.018**		
OC												0.466*	

Source: Primary Processed Data (2021)

Table 10. Effect Size

	TECH	CR	TC	CM	COVID	CHANGE	OS	PREF	SE	MO	AN	ENG	OC
OS	0.140	0.190	0.106	0.035	0.004	0.011						0.079	
PREF							0.263						
ENG									0.138	0.178	0.000		
OC												0.217	

Source: Primary Processed Data (2021)

Table 11. T-ratios and Confidence Interval

	Construct	Critical T-ratio	T-ratio	Confidence Interval	Description
H1	TECH→OS	1.645	2.888	0.079 - 0.411	Supported
H2	CR→OS	1.645	3.276	0.128 - 0.510	Supported
H3	TC→OS	1.645	1.901	(-0.007) - 0.437	Unsupported
H4	CM→OS	1.645	0.896	(-0.083) - 0.222	Unsupported
H5	COVID→OS	1.645	0.809	(-0.069) - 0.165	Unsupported
H6	CHANGE→OS	1.645	-1.427	(-0.322) - 0.051	Unsupported
H7	SE→ENG	1.645	1.952	(-0.001) - 0.537	Unsupported
H8	MO→ENG	1.645	2.332	0.054 - 0.618	Supported
H9	AN→ENG	1.645	-0.254	(-0.161) - 0.124	Unsupported
H10	ENG→OC	1.645	5.835	0.309 - 0.622	Supported
H11	ENG→OS	1.645	2.357	0.031 - 0.333	Supported
H12	OS→PREF	1.645	7.326	0.375 - 0.650	Supported

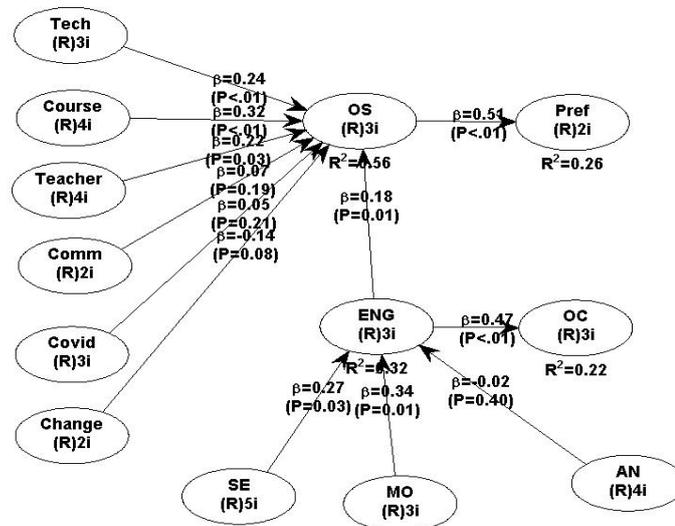Source: Primary Processed Data (2021)

Figure 2. Empirical Model
Source: Primary Processed Data (2021)

The purpose of this study is to identify factors that influence student satisfaction in participating in tax brevet with an e-learning system and will influence their decision to continue using e-learning technology in the future. Based on the research results, the factors that significantly affect the level of student satisfaction in following the online tax brevet are technology, course, and learning engagement. Meanwhile, teacher, communication, Covid-19 impact, and sudden change do not have a significant effect on student satisfaction with online tax brevet.

Learning engagement in its effect on the level of student satisfaction is also influenced by several factors. Of the three factors that

can influence learning engagement that we adopted from Zapata-Cuervo et al., (2021) only motivation is considered to have a significant influence on learning engagement. Self-efficacy and anxiety are considered to have no significant effect on learning engagement. The results of this study indicate that technology has a significant influence on the level of student satisfaction with online tax brevet. This effect can be proven by the path coefficient value of the technology, which is 0.245.

The significance of this effect is also supported by a p-value of 0.002. The path coefficient shows that the influence that technology has is positive. In line with Lei & So (2021) that the effectiveness of technology perceived by students will affect their level of satisfaction. So that the positive influence in the results of this study means that the higher the level of student effectiveness in using technology to attend classes, the higher the level of satisfaction felt by students. In this study, in the case of online tax brevet, the participants did not have a significant problem with the device they used when attending class.

The current young generation is indeed technology-friendly, but basically, the technology used in e-learning is different from the technology used in everyday life such as social media. In their research, Zardari et al., (2021) and Pozón-López et al., (2021) state that the acceptance of the use of e-learning technology is also influenced by the ease of use and the benefits they feel. In terms of students' decisions to continue using e-learning technology in the future, Zaed & Tinterri, (2020) add that technology is a powerful tool that is likely to emerge to enhance the educational experience but should not be the only substitute.

The course data shows that the path coefficient is 0.319. So that the course is significantly influential on the level of student satisfaction with online tax brevet, this is in line with previous research (Lei & So, 2021). In this study, the quality of the course system and the course environment influences the level of student satisfaction. The better the quality of the course system compiled by the on-line tax brevet provider institutions/ agencies, the higher the level of participant satisfaction in taking classes.

The quality of the courses and the content in them are important and have a great influence on student satisfaction (Huang et al., 2017; Pozón-López et al., 2021). In addition, Zhu et al. (2021) stated that carefully designed subject or course content can be delivered effectively and well received by students through online mode. Designing the subject or content in the course is a challenge for online tax brevet organizers/agencies because it will affect the satisfaction of the participants.

Based on the results of the study, the teacher does not influence learning engagement. Although the value of the path coefficient is 0.215, this is evidenced by the range confidence interval which has 0 in it. Because the teacher might have a value of 0 which means it has no influence. This is contrary to previous research. In their research, Lei & So, (2021) found that teacher performance has a significant influence on student satisfaction in online learning. Teachers have a role to guide and support their students in the learning process, especially in asynchronous systems (Heilporn et al., 2021). The presence of a teacher can increase students' confidence, understanding, and learning outcomes (Al-Fraihat et al., 2020; Kim & Kim, 2021).

In the results of data communication, it can be indicated that communication does not have a significant effect on student satisfaction with online tax brevet. This effect is indicated by a path coefficient of 0.069. This figure is relatively low, so it is considered that the influence of communication is quite weak. This is in line with previous research by (Lei & So, 2021). However, contrary to the research of Barak et al., (2016), Huang et al., (2017), and Kim & Kim, (2021). The researchers stated that the interaction between teacher-student and student-student is an important thing that can enhance the learning experience and assist in learning success.

Since the study was based in Asia, the findings in this study are supported by the opi-

nion that Asian students may be less willing or less comfortable interacting with teachers (Lei & So, 2021), and courses such as online tax brevets tend to contain people who were previously unfamiliar (Lei & So, 2021). Barak et al., (2016). Lack of confidence in interacting with teachers can be one of the causes of the low influence of communication on student satisfaction with online learning.

In this study, we use two external factors adopted from (Lei & So, 2021). Between Covid-19 impact and sudden change, neither of them has a significant effect on student satisfaction with online tax brevet. It can be seen from the path coefficient for choosing Covid-19 impact which is worth 0.048. The figure is too low to be able to prove it has influence. Meanwhile, sudden change has a path coefficient of -0.136 which is also considered relatively low. Lei & So, (2021) in their findings state that the only thing that has a significant influence between the two external factors is a sudden change. So, the findings of the Covid-19 impact in this study are in line with previous findings.

Lei & So, (2021) emphasized that with online learning or distance learning, students are not worried about being physically affected by the Covid-19 outbreak. Although students are not worried about the physical impact, (Cao et al., 2020) revealed that other concerns affect students' mental health, such as concerns about economic conditions and academic delays. Sudden change in this study did not affect student satisfaction, possibly caused by the participants getting used to the online learning system. Because distance learning has been going on for 1.5 years since the emergence of Covid-19 cases in Indonesia.

Besides the relation of learning engagement with student satisfaction, this study also seeks to find out the factors that influence learning engagement. We adopted three learning engagement factors from (Zapata-Cuervo et al., 2021). Of the three factors we adopted, only motivation was considered to have a significant influence on learning engagement. Based on the results of research, self-efficacy

is indicated to have no significant effect even though the path coefficient is 0.628. Because there is a number 0 in the range path coefficient of self-efficacy. This finding is not in line with research by (Zapata-Cuervo et al., 2021) which states that self-efficacy is one of the positive controllers of a student's learning engagement. Like self-efficacy, anxiety is not stated to have a significant effect on learning engagement.

This finding is supported by the path coefficient of anxiety which is -0.018. This figure almost touched the number 0, so it was indicated that the effect on learning engagement was too weak. However, this also contradicts the findings of Zapata-Cuervo et al., (2021) which indicates that anxiety has a negative and significant influence on learning engagement. Reflecting on the questionnaire about anxiety, the lack of influence of anxiety on learning engagement can be caused by a lack of confidence. Participants tend to be afraid to comment and make mistakes so that which hinders their involvement in online learning.

The results of the study show that motivation has a significant influence on learning engagement. The path coefficient owned by motivation is 0.336 with a p-value not reaching 0.05. This effect is in line with previous research by Zapata-Cuervo et al., (2021). In the case of online tax brevet, most participants take tax brevet to deepen their knowledge about taxation. So, with the motivation to deepen knowledge for future career provisions, participants need to be actively involved in the learning process.

Williams et al., (2018) emphasize that student motivation is one of the important things in predicting student engagement in the classroom. Lei & So, (2021) argue that if they feel comfortable learning a certain subject online, they tend to be more satisfied. From this opinion it can be concluded, participants with clear motivation and choosing courses that suit them will have a sense of being actively involved in higher classes.

After identifying the factors that influen-

ce learning engagement, learning engagement itself is indicated to have a positive and significant influence on student satisfaction with online tax brevet. This finding can be seen in the path coefficient number which has a value of 0.182. This finding is consistent with previous research which confirmed that learning engagement has a strong influence on student satisfaction (Kandiko Howson & Matos, 2021; Kim & Kim, 2021).

Along with its influence on learning outcomes. Learning engagement is indicated to have a significant effect on learning outcomes. This finding is in line with previous research by Zapata-Cuervo et al., (2021). Lee et al., (2020) emphasized that students' academic success can be measured from their learning outcomes. Indirectly it can be said that the more students are involved in learning activities, the more it will affect their academic success.

As previously explained, student satisfaction is significantly influenced by technology, the quality of the course system, and learning engagement. This study also examines the overall satisfaction of students' decisions to use e-learning systems in the future. Based on the results of the study indicate that student satisfaction has a significant effect on students' future preferences. This finding is consistent with previous findings (Lei & So, 2021). With the experience of using e-learning technology effectively, students will have the intention to continue using it in the future. Because in general many benefits can be felt in today's sophisticated technology, especially in the field of education. Likewise with the quality of the course system is effective and efficient. A good course system design and can help students to achieve the goals of their learning motivation.

Following the H12 results, it can be said that participants tend to choose to take courses with an online learning system. As previously explained, the tax brevet is an informal tax education. On the other hand, such as the research conducted by Saragih et al., (2021) which examines online learning systems based on formal education, it is found that students tend to choose to do face-to-face learning. This can be the basis of innovation for tax brevet organizers in the future. The organizer can do the tax brevet in person, but without removing or removing the tax brevet online.

CONCLUSION

This study found that only the effectiveness of using technology, perceived quality of the course system, and involvement in the learning process significantly affected student satisfaction. This study also found that student satisfaction in participating in online learning can influence future preferences for the use of e-learning systems. In addition, on learning engagement, only student motivation has a significant effect. This study also supports that there is a significant effect of student engagement on their learning outcomes. On the other hand, the presence of a teacher or instructor, communication and interaction, and both external factors did not significantly affect student satisfaction. Likewise, self-efficacy and anxiety do not have a significant effect on student engagement.

The effectiveness of the use of technology felt by students can be in the form of platforms used by online tax brevet organizers. Such as video conferencing media that is used to undergo the learning process, the use of class recordings that can be shared even though the class is over. Based on qualitative questions, it helped them in understanding the material more deeply. This will be in line with the quality of the course system designed by the organizers. With the ease of technology used in an online brevet, the design of the syllabus for a period of the brevet, and the service of the brevet participants can affect the quality of the course. This can be a concern for online tax brevet organizers because it is clearly stated in the findings that the quality of the course system can affect their satisfaction in taking online tax brevet.

With this research, it becomes clear that

motivation has a significant influence on engagement in the learning process. Because usually someone who knows the purpose and motivation to take a course will choose the course to be followed carefully. So that in the learning process they are ready to be involved because they feel an influence on their future. This study also found a significant effect of student engagement on learning outcomes. This can be a supporter that someone who already has the motivation must have something to aim for, so they will be involved so that the goal is achieved.

However, the existence of a teacher or instructor, communication, and interaction that have a less significant influence cannot be ignored. The teacher or instructor has an important role in the learning process. Therefore, online tax brevet organizers can create a more interactive learning system to increase communication and interaction variables. In addition, this will also help students and teachers explore their respective roles. Thus, communication in the learning process does not only occur in one direction but two directions.

Today's technology is quite sophisticated. However, technology in the field of education is not as easy as the technology used in everyday life such as social media. So, someone can reconsider using e-learning technology in the future. Therefore, for students to maintain their intention to continue using e-learning technology, online course organizers (in this case a kind of online tax brevet) need to pay attention to student satisfaction.

In the questionnaire distributed to respondents, the researcher inserts several qualitative questions about the experience of participating in online tax brevet. The researcher asked two questions such as what was good and what needed to be improved. Based on the good things they felt when they took part in the online tax brevet, the researchers found several points such as complete material, professional teachers in their fields, quality of the course system, and the platform provided. On the other hand, according to respondents, some things need to be improved, such as

two-way interaction during class, a practice system, and technical problems such as signal interference.

A tax brevet is a tax course that summarizes all taxation material within a predetermined period. Usually, the tax brevet lasts for three months. In college, taxation is studied for four years, while in tax brevet it only takes a few months to complete all the material. So that the design of the material compiled by the institution or agency administering the online tax brevet is important. The material in the tax brevet tends to be practical and calculating. The combination of materials, teachers who are professional in their fields, course systems, and platforms used, especially in online learning, must be able to support the learning process in online tax brevet.

This study has several limitations. First, this study only focuses on the responses of participants who have and are currently taking online tax brevet. It is hoped that further research will include responses from a wider range of students and teachers. Second, the number of respondents in this study tends to be small. Future studies may be able to include more respondents. Finally, the measurement of student performance is based on perceptions. Further research can accommodate suitable surveys where performance measurement uses perception data and actual study results. Moreover, since some of the hypotheses proposed in this study were rejected, it is reasonable to assume that student satisfaction may be affected by factors beyond the scope of this study. Future research may consider applying a different theoretical stance or research design to capture other important factors influencing student satisfaction.

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