AFFECTING OF ONLINE LEARNING RELATES TO THE LEARNING OUTCOMES OF STUDENTS AT THE PRIVATE UNIVERSITIES IN VIETNAM DURING THE COVID-19 PANDEMIC

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Abstract

This study was conducted to identify the factors of online learning that affect the academic performance of students of private universities in Vietnam during the Covid-19 pandemic. The data was collected from 432 business administration students of four universities: HUTECH University, Van Lang, Van Hien and Economics and Finance of Ho Chi Minh City, analyzed by Cronbach's alpha coefficient reliability measurement, EFA analysis. The theoretical model is tested through the Linear Regression Model. The results show that factors such as Technologies, Family support, School support, and Lecturers' teaching Styles that all influence Students' learning Attitude. Through the analysis of the PATH model, it was shown that Students' learning Attitude factor (intermediate variable) had a huge impact with R=0,930 on Students' learning Outcomes. From the results, the authors would like to give some managerial implications for leaders of private universities, parents and students that online learning should be increasingly applied to achieve high results in the context of the pandemic in Vietnam.

Keywords: Online learning, Learning Outcomes, Covid-19, Private University, Vietnam

1. Introduction

Since the Covid-19 pandemic, it has created a major turning point and change in economic and social life in most countries around the world, including Vietnam. According to Duong (2021), Since the pandemic outbreak, nearly 1,6 billion students worldwide have been affected. 188 countries have been forced to close schools across the country, affecting 91,3% of all students worldwide. In Vietnam, especially Ho Chi Minh City, universities have largely turned to online teaching instead of traditional classes. However, this method has encountered many difficulties, affecting students' learning outcomes such as technologies, student's learning attitude, family and school supports, faculty interaction with students. Meanwhile, the pandemic is at a strong stage of outbreak and may be unlikely to end in the future. Online learning and teaching may have to continue to ensure epidemic prevention.

The paper will study the characteristics of online learning as key factors in changing students' perceptions and behaviors, also known as students' learning attitude. This affects students' learning outcomes. The research objective is to identify factors and build a research model that impacts students' learning outcomes. In the model, there are new points:

- Build factors such as Technologies, Family support, School support, Lecturers' teaching Styles. The study focuses on the dependent variable as Students' learning Outcomes. Next, the authors built the intermediate variable factor is Students' learning Attitude. This variable is formed based on the emphasis on the factors affecting Students' learning Outcomes, thereby creating a complete research model.
- The higher Students' learning Attitude, the higher Students' learning Outcomes. To use the PATH model to experimentally test the model through the intermediate variable of Students' learning Attitude.

2. Literature Review

2.1. Lecturers' teaching styles impact students' learning attitude

Online learning environment, students do not receive visual interaction as vivid as the in-person learning environment (physical classes). Therefore, students always expect the active support of faculty (Harris, Larrier and Castano-Bishop, 2011). Gaytan (2015) suggested that among the various findings, two are considered critical: online students would like to receive more instruction from their professors and more comprehensive feedbacks that would allow them to engage in corrective behaviors to improve performance and he concluded that interactions between faculty and students were among the factors that would affect student participation. Whether students are willing to take classes online is due to faculty-related factors such as faculty interaction. Pittenger & Doering (2010) research results also indicate that whether students desire to participate in the classroom is due to the way the

class is organized and presented by the faculty as well as the fun and relevance of the classroom organization and presentation form lessons of the faculty to create the interest of students attending the class.

Hypothesis 1: Lecturers' teaching Styles have a positive impact on Students' learning Attitude

2.2. Technologies impact students' learning attitude

Some common technical problems such as errors in downloading documents, during installation, when logging into the system, problems related to audio and images, interruption of transmission lines are difficulties in the process of learning online (Song et al., 2004). Monica & Aurelian-Petruș (2021) also showed that financial support is important to help students feel secure in online learning. Research by Kanwal et al. (2017) demonstrates that electronic learning tools must meet users' requirements to gain their trust and improve their acceptance of online learning. Research by Nguyen et al. (2020) shows that unstable internet connectivity, lack of equipment and technical problems are barriers to online teaching and learning Gautam & Gautam (2020) research on "Transition to online higher education during Covid-19 " shows technological support, the availability of infrastructure, faculty and student awareness have a significant relationship to the effectiveness of online education methods. Students are also very satisfied with the use of online communication tools such as Zoom and Microsoft while studying online. Google apps such as Google Drive, Google Classroom, Gmail, Google Documents are one of the most effective means of high-achieving online education Basilaia et al (2020). Research by Aguilera-Hermida (2020) indicates that students' learning attitude towards the technology applications used in learning also affect online learning. Aguilera & Patricia (2020) research on "The urgent use and acceptance of online learning by College students due to Covid-19" identifies that the use of technology plays an important role in the process of learning knowledge and Students' learning Outcomes.

Hypothesis 2: Technologies have a positive impact on Students' learning Attitude.

2.3. Family and school supports impact on students' learning attitude.

Research by Chrisman, Chua and Steier (2002) indicates that the family is a necessary and important resource for students to learn through supporting the cost of learning (tuition, learning equipment, and other expenses). Monica n & Aurelian-Petruș (2021) also points out that supporting students while studying through providing good learning space conditions (light, quietness, comfort, privacy...) will significantly reduce the limitations of online learning during the ongoing the pandemic. In addition, the support from the family and the school in terms of material and spiritual aspects has an impact on students' online learning. The school's research has adjusted the impact of learner readiness on learner motivation and participation in online learning. The lack of learning equipment due to insufficient procurement costs or the time to study and work coincided with Monica & Aurelian-Petruș (2021) as an important tangible factor to help students be assured of participating in online learning. The State of Vietnam has directed educational and training institutions to actively adjust, streamline content, change methods and update educational and training content; coordinate with relevant agencies and organizations in developing plans for online teaching and teaching on television; provide learners with more new skills to meet labour market requirements; develop electronic learning warehouses, videos to support the care and education of children, students and students to effectively use in organizing online teaching and teaching on television; effectively exploit and share supporting tools, repository of materials, online learning materials (Hoa, 2019).

Not only that, research by Roman and Plopeanu (2021) shows that the increased stress from travel restrictions has negatively impacted students' academic performance. Therefore, it is necessary to have support from the school to minimize this disadvantage, relieve the psychology for students to help students achieve better academic results. Therefore, the support of families and schools is extremely important to help students' online learning achieve good results during the pandemic. **Hypothesis 3:** Family support has a positive impact on Students' learning Attitude.

Hypothesis 4: School support has a positive impact on Students' learning Attitude.

2.4. Students' online learning attitude impacts students' online learning outcomes.

In fact, a person's attitude toward a behavior related to an individual's positive or negative assessment of Joseph & Mkulu behavior (2020) has found that students learn more in less time when applying information technology to teaching. Research of Rahiem (2020) aimed to explore and interpret the lived experience of Indonesian university students in emergency remote learning during the pandemic, students also responded to the large number of online assignments given by faculty. Research of Gautam & Gautam (2020) indicated that students have little opportunity to discuss in class and interact directly with faculty. As a result, students feel that online classes are inefficient and easily depressing for students. However, students also have a very positive awareness of online learning methods such as: lectures and e-learning materials are very accessible (Osman, 2020). Not only that, students are also very satisfied with the use of online communication tools such as Zoom and Microsoft while studying online. Google apps such as Google Drive, Google Classroom, Gmail, Google Documents are one of the most effective means of high-achieving online education Basilaia et al. (2020). Research by Aguilera-Hermida (2020) indicates that students' learning attitude towards the technology applications used in learning also affect online learning.

Hypothesis 5: Students' learning Attitude has a positive impact on Students' learning Outcomes.

Aurelian-Petruș (2021); The research model is based on the PATH model in which the better the students' online learning attitude, the better is. The PATH model is a multiple linear regression model with independent variables that are qualitative or quantitative variables; intermediate and independent variables are quantitative variables. Regression analysis with the PATH model is to analyze the effect of independent variable on the dependent variable through the intermediate variable. Using PATH model to test the experiment of model through the intermediate variable Students' learning Attitude.

3. Research Methodology

3.1. Operationalization

Qualitative and quantitative methods are used in the process from qualitative research to qualitative research with the aim of constructing, testing models and hypotheses of the model of factors affecting the online learning outcomes of students in Business Administration of private universities in Vietnam during the Covid-19 pandemic.

3.2. Qualitative Research

Firstly, qualitative research method was conducted through the focus group discussion. Draft scales are used in the school discussion with 5 leaders, 10 lecturers and 15 undergraduate students of Business and Administration faculty. Collecting the ideas of group discussions is crucial to do a test interview in order to adjust the scale. Based on researched documents from experts and survey studies on the outcome of online learning of business administration's students. The basic factors affecting the online learning results of students in Business Administration of private universities in Ho Chi Minh City during the pandemic are finally finalized. This study adjusts and adds observation variables used to measure concepts in the research model. The result of qualitative research is that the scales have been corrected accordingly and the official survey sheet is used for quantitative research. The questionnaire was designed 5-level Likert scale to assess the online learning results of students in Business Administration of private universities in Ho Chi Minh City during the pandemic. The official questionnaire consisted of 31 observation variables corresponding to six scales of the research model: (1) Technologies, (2) Family support, (3) School support, (4) Teachers' teaching Styles, (5) Students' learning Attitude and, (6) Students' learning Outcomes majoring in Business Administration at private universities in Vietnam during the Covid-19 pandemic.

The concept of Technologies denoted by TECH and measured by six observed variables; the concept of Family support is denoted by FASU and measured by six observed variables; the concept of School support is denoted by SCHOSU and measured by six observed variables; the concept of Lecturers' teaching Styles is denoted by TESTY and measured by five observed variables; the concept of Students' learning Attitude is denoted by STUAT and measured by six observed variables; and the concept of Students' learning Outcomes majoring in Business Administration at private universities in Ho Chi Minh City in the time of the pendamic is denoted by STOUT and measured by one observed variable (Table 1):

Table 1: Measurements

TECH (Technologies)	
TECH1	Technical problems of computers, tablets or smartphones are used when learning online will interrupt the following lessons at online classes.
TECH2	Students need to master some of the functions of smartphones, or computers and tablets to learn online effectively.
TECH3	With Vietnam's current network infrastructure, online learning still gives students the same value as traditional learning.
TECH4	The quality of internet connections is unstable, which will disrupt online learning, especially in rural areas.
TECH5	Classes and learning activities must ensure that online implementation is made through mobile, desktop, laptop applications.
TECH6	Limited learning resources while the school is unable to convert all learning resources into online data.
FAMILY SUPPORT	
FASU1	Family members are willing to change their daily routines to create the best online learning conditions for students.
FASU2	Family members will encourage and provide health care to students with psychological problems or the effects of Covid-19 when studying online
FASU3	Family members will offer suggestions to help learners have more information and ideas in online learning.
FASU4	The family will be willing to pay tuition and other fees to facilitate students' online study.
FASU5	Family members are willing to shop and share online learning equipment for students.
FASU6	The family is ready to arrange, arrange a quiet, airy space and suitable for students to be receptive when studying online.
STUDENTS' LEARNING ATTITUDE	
STUAT1	Students are eager to study because of the application of information technology while studying online.
STUAT2	Students do not object to large quantities of online assignments given by lecturers
STUAT3	Students enthusiastically embrace lectures and e-learning materials as they are accessible anytime, anywhere.
STUAT4	Students are easily discouraged by not interacting and discussing directly with faculty
STUAT5	Students actively use tools to support online learning such as Google Drive, Google Meet, Google Classroom, Gmail, Google Documents.
STUAT6	Students will enthusiastically participate in online classes with the support of lecturers at any time using other information methods such as Zalo, Facebook, email
LECTURERS' TEACHING STYLES	
TESTY1	Lecturers create a friendly, comfortable feeling when participating in online teaching.
TESTY2	Faculty actively promotes interaction between students when teaching online.
TESTY3	Lecturers are dedicated to guiding and answering students' questions when teaching online.

TESTY4	Faculty diverse forms of assessment to classify students when teaching online.
TESTY5	Lecturers express clearly, structure logical lessons, motivate students to study online.
TESTY6	Lecturers express clearly, structure logical lessons, motivate students to study online.
SCHOOL SUPPORT	
SCHOSU1	When studying online, the universities have electronic documentation support (Syllabus and online learning instructions) student in time
SCHOSU2	The university actively coordinate with local authorities to find solutions to support students in difficulty, ensuring that they can study safely and achieve good results.
SCHOSU3	The school has a policy of supporting and helping students affected by the Covid pandemic.
SCHOSU4	When studying online, departments and faculties are always ready to assist when students experience technical problems related to learning and exams.
SCHOSU5	During online semesters, the school has students in difficulty to extend tuition fees.
SCHOSU6	The school always cares about the physical and mental health of students during Covid-19.
STUDENTS' LEARNING OUTCOMES	
STOUT	Your academic performance in the last school year.

Note: Your academic performance in the last academic year" is encoded with: 1. Bad; 2. Weak; 3. Average; 4. Good 5. Excellent

3.3. Quantitative Research

3.3.1. Sampling techniques

The survey was conducted with 600 samples on Google drive, after 432 samples of the Students of Business Administration faculty of HUTECH University, Van Lang University, Van Hien University and Ho Chi Minh City University of Economy and Finance were selected.

3.3.2. Research Process:

The research process began with the elaboration of research objectives and the proposition of theoretical framework. The draff scale was then finalized by a focus group interview (n=30). The formal scale was finally arrived at and the quantitative research method was employed to quantify the factors affecting the online learning outcomes of students in Business Administration at private universities in Vietnam during Covid-19. Primary data was processed by software SPSS 20.0 to measure the impact of factors affecting the online learning outcomes of students in Business Administration of private universities in Vietnam during the pandemic as follows: Cronbach's Alpha, Exploratory factor analysis, Multiple linear regression and PATH analysis.

4. Results

4.1 Scale Reliability by Cronbach's Alpha

Table 1. Cronbach's Alpha of factor scale

Factors	Observed variables	Cronbach's Alpha
Technologies	TECH1, TECH2, TECH4, TECH5, TECH6	α = 0,810
Family support	FASU1, FASU1, FASU2, FASU3, FASU4, FASU5, FASU6	α = 0,856
Lecturers' teaching Styles	TESTY1, TESTY1, TESTY2, TESTY3, TESTY4, TESTY5, TESTY6	α = 0,928
School support	SCHOSU1, SCHOSU2, SCHOSU3, SCHOSU4, SCHOSU5, SCHOSU6	α = 0,860
Students' learning attitude	STUAT1, STUAT1, STUAT2, STUAT3, STUAT4, STUAT5, STUAT6	α = 0,847

Source: Authors' data analysis

There is the observed variable that does not reach the reliability, so it is excluded (TECH3). Table 1 shows that the measurement results of 5 factors are satisfactory with Cronbach Alpha coefficient > 0,7 and observed variables of the factors have variable-total correlation coefficient > 0,3. Therefore, the observed variables of this scale are kept unchanged for the next EFA factor analysis (Table 1).

4.2. Exploratory Factor Analysis (EFA)

With Principal Component Analysis method and Varimax rotation, the first EFA factor analysis results showed that no observed variables were excluded because the factor loading coefficients were all > 0,5 and this analysis showed all 4 factors are retained as originally intended. The Barlett test shows that there is a correlation between the variables in the population (sig = 0,00 < 0,05). At

the same time, the coefficient KMO = 0,910 > 0,5, proves that factor analysis to group variables together is appropriate and the data is suitable for factor analysis.

All factors have Eigenvalues > 1, there are 4 factors extracted from 23 observed variables. The extracted variance is 63,179% > 50% is satisfactory. This shows us that the 4 factors extracted show the ability to explain 63,179% of the change of the dependent variable in the population.

Table 2. EFA factor analysis results

Rotated Component Matrix[a]

	Component			
	1	2	3	4
TESTY2	**0,824**			
TESTY1	**0,821**			
TESTY6	**0,810**	0,206		
TESTY3	**0,788**		0,202	
TESTY5	**0,782**		0,288	
TESTY4	**0,763**		0,216	
FASU5		**0,770**		
FASU1		**0,770**		
FASU6		**0,729**		
FASU3		**0,718**		
FASU2		**0,697**		
FASU4		**0,650**	0,270	
SCHOSU3			**0,850**	
SCHOSU2		0,234	**0,801**	
SCHOSU6	0,268		**0,734**	
SCHOSU4	0,254		**0,662**	
SCHOSU5			**0,631**	
SCHOSU1	0,257		**0,629**	
TECH4				**0,790**
TECH6				**0,738**
TECH1	0,201			**0,731**
TECH5		0,309		**0,717**
TECH2	0,225			**0,607**

Source: Authors' data analysis

The factors are grouped as follows:

- Technologies: there are 5 observed variables: TECH1, TECH2, TECH4, TECH5, TECH6.
- Family support: there are 6 observed variables: FASU1, FASU2, FASU3, FASU4, FASU5, FASU6.
- Lecturers' teaching Styles: there are 6 observed variables: TESTY1, TESTY2, TESTY3, TESTY4, TESTY5, TESTY6.
- School support: there are 6 observed variables: SCHOSU1, SCHOSU2, SCHOSU3, SCHOSU4, SCHOSU5, SCHOSU6.
- Students' learning attitude: there are 6 observed variables: STUAT1, STUAT2, STUAT3, STUAT4, STUAT5, STUAT6.

4.3. Regression analysis

Table 3. Appropriateness assessment of the multi-variable Linear Regression Model

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error Of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	0,767[a]	0,588	0,585	0,494	0,588	152,581	4	427	0,000	1,848

a. Predictors: (Constant), TECH, FASU, SCHOSU, TESTY   *Source: Authors' data analysis*

b. Dependent Variable: STUAT

The R^2 coefficient value is 0,588, which means that the built linear regression model fits the data 58,8%. In other words, 58,8% of Students' learning Attitude are explained by the regression model. The rest is due to errors and other factors. Durbin Watson test = 1,898 in the range [1 < D < 3], so there is no correlation of residuals (Table 3).

Table 4. Statistical parameters of Regression Model

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		β	Std. Error	β			Tolerance	VIF
1	(Constant)	0,054	0,164		0,328	0,743		
	TESTY	0,352	0,038	0,361	9,274	0,000	0,636	1,572
	FASU	0,112	0,040	0,101	2,825	0,005	0,752	1,330
	SCHOSU	0,113	0,034	0,126	3,360	0,001	0,685	1,459
	TECH	0,350	0,034	0,384	10,267	0,000	0,690	1,448

a. Dependent Variable: STUAT   *Source: Authors' data analysis*

Note: VIF= Variance Inflation Factor

When considering tstat and tα/2 of the variables to measure the reliability, the independent variables TESTY, FASU, SCHOSU, TECH are satisfactory because tstat > 1,967 and Sig values. shows high reliability, all < 0,05. In addition, the VIF coefficients of the Beta coefficients are all less than 2 and the Tolerance coefficients are all > 0,5, showing that there is no multicollinearity phenomenon.

Multivariable linear regression equation

Students' learning Attitude = 0,361 * Lecturers' teaching Styles + 0,101 * Family support + 0,126 * School support + 0,384 * Technologies

The results in Table 4 show that all four factors: Lecturers' teaching Styles, Family support, School support and Technologies have positive influences on Students' learning Attitude. That is the better the Lecturers' teaching Styles, Family support, School support and Technologies, the better the Students' learning Attitude. The results also show that the Technologies factor has the largest influence (β = 0,384), the Lecturers' teaching Styles factor have the second largest influence (β = 0,361) and the factor has the least influence is Family support (β = 0,101).
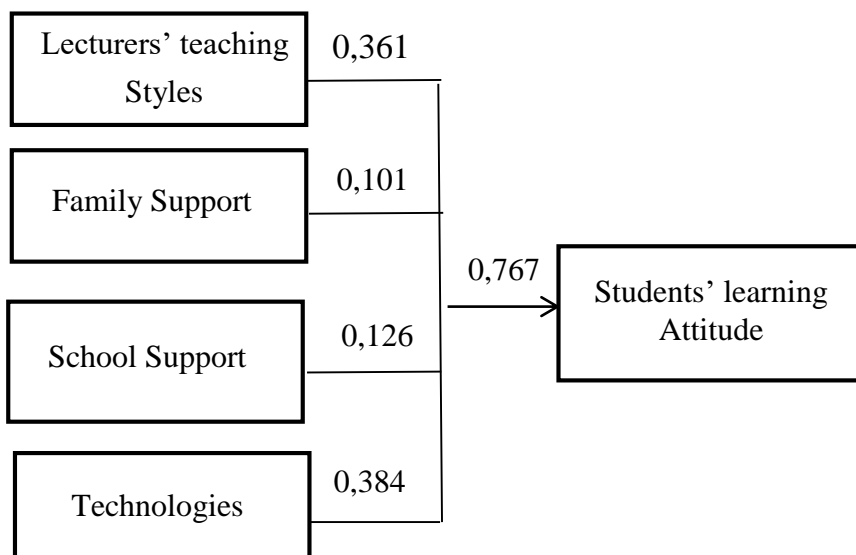
Figure 1: Formal adjusted model of students'online learning attitude

4.4. PATH Analysis

Table 5: Appropriateness assessment of Path Model

Model	R	R2	Adjusted R2	Standard error	Thống kê thay đổi				
					R^2 after changed	F after changed	Degree of Freedom 1	Degree of Freedom 2	Sig. F after changed
1	0,930[a]	0,865	0,865	0,304	0,865	2766,681	1	430	0,000
Independent variable: STUAT; Dependent variable: STOUT									

Source: Authors' data analysis

The results of the regression analysis according to the PATH model show that the Students' learning Attitude variable has a positive influence with a high degree on the Students' learning Outcomes variable (R = 0,930), the value of the R^2 is 0,865. That is the PATH model explained 86,5% of the variation in student learning outcomes with learning attitude of Business Administration students at private universities in Ho Chi Minh city in the time of the pandemic.

PATH regression equation: Students' learning Outcomes = 0,930 * Students' learning Attitude
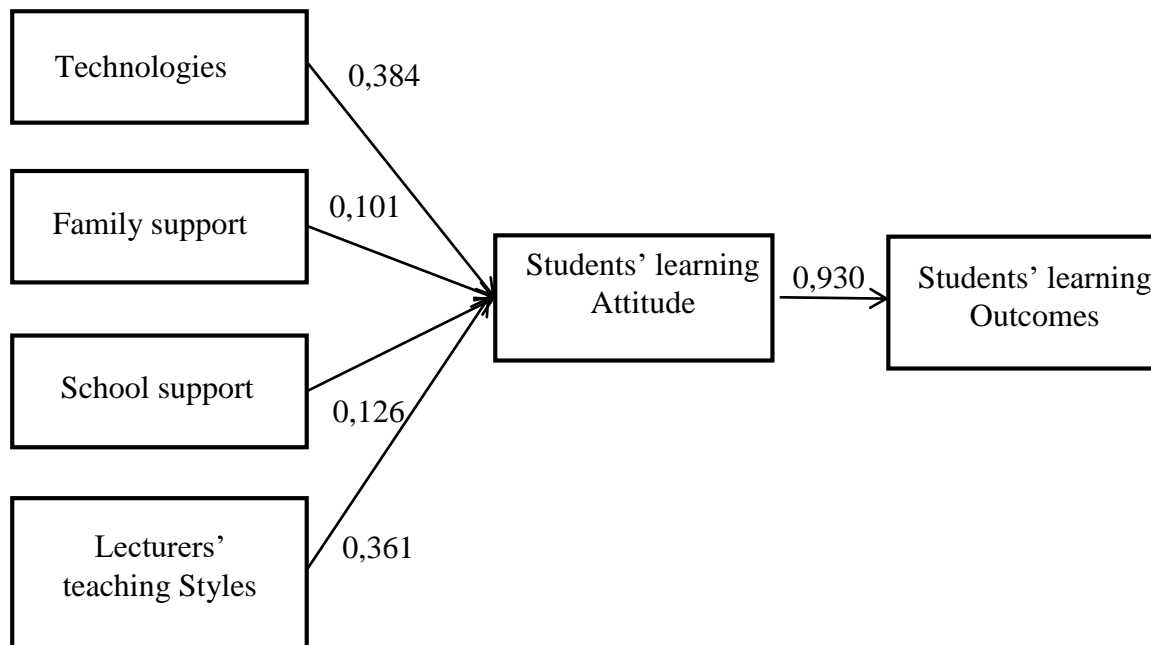
Figure 2: PATH Model of Students' learning Outcomes

5. Discussion

In the model proposed by the research team, four factors: Lecturers' teaching Styles, Family support, School support and Technologies all have a positive influence on Students' learning Attitude. The results show that the Technologies factor has 5 remaining observed variables (TECH1, TECH2, TECH4, TECH5, TECH6) with the TECH3 variable were eliminated after two analyses to increase Cronbach's alpha coefficient (Table 2). In this study, the Technologies factor is still the top concern of students in online learning. This factor has the strongest influence (Normalized β = 0,384 and Sig value < 0,05) on Students' learning Attitude and hypothesis H2 is accepted. This proves that the Technologies factor is still the top concern of families, universities and society to support students' online learning.

The factor of Lecturers' teaching Styles includes 6 observed variables (TESTY1, TESTY2, TESTY3, TESTY4, TESTY5, TESTY6) and does not change through Cronbach's Alpha and EFA analysis (Tables 2, 3). The results show that it has a second effect on students' learning attitude (normalized β = 0,361 and Sig value < 0,05) and hypothesis H1 is accepted. This shows that students always expect active support and often express their appreciation to lecturers through interaction and guidance while learning online.

The School support factor includes 6 observed variables (SCHOSU1, SCHOSU2, SCHOSU3, SCHOSU4, SCHOSU5, SCHOSU6) and does not change through Cronbach's Alpha and EFA analysis (Tables 2, 3). The results show that this factor has less influence

on the second effect on Students' learning Attitude (normalized β = 0,126 and Sig value < 0,05) and hypothesis H4 is accepted. Currently, universities need to communicate more in the mass media about student support activities during the Covid-19 pandemic such as tuition fee extension policy, technical troubleshooting during online study and encouragement for students.

The Family support Factor includes 6 variables (FASU1, FASU2, FASU3, FASU4, FASU5, FASU6) and is unchanged through Cronbach's Alpha and EFA analysis (Tables 2, 3). This factor has the least impact (normalized β = 0,101 and Sig value < 0,05) on Students' learning Attitude, Hypothesis H3 is accepted). It shows that timely material and spiritual support from family will bring psychological comfort, thereby affecting Students' learning Attitude and learning Outcomes.

Students' learning Attitude is an intermediary factor in the PATH model to study Students' learning Outcomes of Business Administration at private universities in Vietnam during the Covid-19 pandemic. The results show that Students' learning Attitude includes 6 observed variables (STUAT1, STUAT2, STUAT3, STUAT4, STUAT5, STUAT6) and does not change according to Cronbach's Alpha analysis (Table 2). This shows that students have psychological comfort and peace of mind to study during the pandemic because they have timely material and spiritual support from their families and universities while learning online.

After the two-stage regression analysis:

Stage 1: The factors of the Lecturers' teaching Styles, Family support, School support, and Technologies (Independent variables) have proportional influences on Students' learning Attitude (Dependent variable). The most influential factor is Technologies, followed by Lecturers' teaching Styles, School support, and Family support. With R = 0,762 and R^2 = 0,588, this is an appropriate model to use to evaluate the relationship between dependent and independent variables.

Stage 2: The Students' learning Attitude factor (independent variable) has a strong influence on Students' learning Outcomes (dependent variable) with R = 0,930 and R^2 = 0,788 (Table 5). The model explained 78,8% of the positive influence of Students' learning Attitude on Students' learning Outcomes. The R^2M fitting factor of the PATH model is 0,912 (91,2%). These results show the level of interest of the school, family and society in students' online learning. The results show that students and society still have high confidence in the results of online learning during the pandemic. This proves that it is appropriate to use PATH to check Students' learning Outcomes through Students' learning Attitude.

6. Managerial Implication and Conclusion

Students are more likely to be more engaged and their atttitudes towards school and learning increased which leads to better academic performances in online study when they get the appropriate technology support, guidance from lecturers, timely support from family, school and society.

The results of the study show that lecturers' teaching styles have a great impact on students' learning attitude and lead to students' learning outcomes also changing in a positive way. Therefore, when teaching online, lecturers need to organize and allocate activities in the classroom appropriately; present a clear and systematic lesson layout for students to be more receptive to. In addition, in order to evaluate and rank students based on their knowledge, competency, and academic attitude, lecturers need to develop many forms of assessment such as: students evaluate each other through group activities; lecturers evaluate according to the content that students presented; assess learning attitude by level of interaction in online classes; assess by the level of participation in answering questions for the group's exercises. These forms of assessment also promote student-teacher interactions. These are also the agents that help students to be eager to learn and be proactive in online learning.

The results of the study have also confirmed that the support of the school is an indispensable factor in the online learning process of students during the pandemic. This factor helps students pay more attention to online learning, with the goal of achieving high academic results. Therefore, private schools in Ho Chi Minh City need to increase support for students by: providing timely video lectures to students, upgrading school server. Before each new semester, every department or faculty need to update and send documents related to the semester sections to students through channels such as: Website of the university or faculty, institute; on the portal of students (can send links to students to look up quickly) or other social media such as Zalo, Facebook ... Furthermore, mental and emotional supports are essential. Schools (Faculty, Institute, functional departments) Need to offer solutions to students' difficulties or problems, so that students can be assured in online learning. Some suggestions are: tuition fee extension policy, handling technical problems in the online learning process, encouraging words for students.

In order for students to achieve high results, before participating in online learning, students firstly need to be trained, or have instructions on how to download and store online materials, how to participate and creat online study sessions / group meeetings to actively exchange information with their teams. Secondly, students need to have information about telecommunications operators, the equipment needed to make online learning easy (for learning, exchange and teamwork). Thirdly, in order for students to finish the course with good results, they need to have the necessary information such as the materials allowed to use when taking the exam, how to take the exam online (receiving the test papers, submitting the exam).

One of the factors that has an impact on students' learning attitude and outcomes is the support from the family. This support can be the access to technology devices for online study, a private room for a quite learning environment, or the words of encouragement which enhance students' motivation. Timely support from the family will bring a relaxed mentality, thereby affecting the students' learning attitude and outcomes. In general, family plays an important role in students' study by supporting them financially, mentally, and emotionally. Not only does the family support significantly reduce the disavantages of online learning during the Covid-19 pandemic but also it boost students' motivation.

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