VIETNAM JOURNAL OF EDUCATION, 2023
Volume 7, Issue 1, 15-25
https://doi.org/10.52296/vje.2023.267

ORIGINAL ARTICLE

How has Learning Motivation of University Students in Vietnam Changed during COVID-19 Pandemic?

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Article history
Received: 02 February, 2023
Accepted: 22 March, 2023
Published: 28 March, 2023

Keywords
Learning motivation, higher education, COVID-19 pandemic

ABSTRACT
With the data from 2,082 students at National Economics University, this article focuses on assessing the decline in learning motivation of undergraduates during the fourth wave of COVID-19 in Vietnam. Using exploratory factor analysis (EFA), descriptive statistics, and One-Way ANOVA tests, it was evident that the decline in learning motivation was noticeable in most students surveyed. Specifically, 36.1% of the survey respondents experienced severe demotivation with all 4 expressions "Distracted", "Exhausted", "Uninterested" and "Lack of responsibility for learning". Furthermore, the level of motivation decline tended to rise significantly among the groups of students with the following characteristics: first-year students, male gender, and low academic performance. The abovementioned results alert educational and training institutions to pay proper attention and comprehensively evaluate the learning motivation of their students. Moreover, supportive measures should be implemented to improve learning motivation for the young in the "post-COVID-19" period.

1. INTRODUCTION

According to WHO, COVID-19 is an infectious disease caused by the SARS-CoV-2 virus. The database of Worldometer shows that the first case of COVID-19 was discovered in Vietnam on January 23rd, 2020. Since then, Vietnam has experienced four COVID-19 outbreaks. In the 1st outbreak (from January 23rd, 2020 to July 24th, 2020), Vietnam confirmed 415 cases infected with COVID-19, mainly people who entered the country from abroad. In the 2nd COVID-19 outbreak (between June 25th, 2020 and January 27th, 2021), there were 1.136 new sufferers. Vietnam also reported the first COVID-19 deaths, most of which had a history of fatal diseases in the Da Nang hospital outbreak. The 3rd phase was from January 28th, 2021 to April 26th, 2021. In just three months, there were 1.301 new cases detected, most of which concentrated in the industrial areas of Hai Duong province. Finally, the 4th period (from April 27th, 2021 until now) was the most dangerous and complicated of all 4 outbreaks. Ho Chi Minh city and neighboring southern provinces were considered this pandemic's epicenter. During this final period, the number of daily new cases and deaths reached record high and was much higher than that in previous periods. Hence, Vietnam's government both focused all resources on epidemic prevention in this area and implemented strict nationwide social distancing rules. In addition, on February 14th, 2022, the numbers of new cases and deaths during this outbreak were 3.674.587 and 39.002, respectively.

The complicated and prolonged COVID-19 pandemic has led to many consequences in all aspects of socio-economic life in Vietnam, such as unemployment, lower income, and deterioration of physical and mental health. In

particular, university students were directly affected by the decision to close schools and restrict travel. Schools transferred face-to-face classes into online classes via Zoom, MS Teams, Google Meet softwares … on a laptop or a smartphone at home without adequate preparation of techniques, skills, and methods. Therefore, students were confused, anxious, which caused a decline in academic performance as confirmed by Van and Thi (2020), and Nguyen et al. (2021) in their timely studies.

Therefore, the two research questions of this paper are: "How was the learning motivation of Vietnamese university students influenced during the COVID-19 pandemic?" and "Did demographic characteristics collaborate with differences in learning motivation of Vietnamese university students?". The result of our study hopefully urges higher education institutions all over the country to apply appropriate measures to restore students' motivation in the "post-COVID-19" period.

2. LITERATURE REVIEW

Motivation refers to the need or reason for doing something. Motivation is an internal and external force that encourages a person to achieve certain goals (Dev, 1997). According to Bomia et al. (1997), intrinsic motivation, also known as self-motivation, refers to influences arising within a person that causes them to take action or learn. Dev (1997) shows that internally-motivated learners do not need any type of reward or incentive to motivate them to complete the task. Regarding extrinsic motivation, Dev (1997) argues that for learners with external motivation, learning is to receive a reward, to fulfill a teacher's request, or to avoid punishment. Williams and Williams (2011) suggest that when learners learn to avoid having to do other things, to satisfy the expectations of others (for example, their parents or teachers), or because they want to compete with others, then they have extrinsic motivation. While offering rewards can increase motivation in some situations, researchers have also found that this is not always the case. In fact, giving excessive rewards can lead to a decrease in intrinsic motivation. Once extrinsic motivation stops or no longer provides sufficient values to learners, the willingness and effort to learn will also discontinue (Bomia et al., 1997).

Deci and Ryan (1985) assert that internally-motivated students are often more enthusiastic, make more efforts, try to overcome more challenges, and have a greater sense of love for their learning. Meanwhile, when externally-motivated students try to pull themselves into the task, they feel forced to learn and always put the lowest effort into the requirements set. Therefore, according to Deci and Ryan (2000, 2008), intrinsic motivation is considered high-quality motivation whereas extrinsic motivation is categorized as low quality. In other words, internal motivation is given more prominence compared to extrinsic motivation.

There are various ways to measure motivation, being detailed for both intrinsic and extrinsic motivation (Utvaer & Haugan, 2016). However, instead of using these complicated measures, all of the researchers approaching this field have developed the scales in the form of survey questionnaires, then conducted appropriate tests to evaluate the reliability of the scale corresponding to each research sample. Vallerand et al. (1992, 1993) developed the Academy Motivation Scale (AMS) with seven subscales (28 questions), including three types of intrinsic motivation (i.e., knowledge, accomplishment, and stimulation), three types of extrinsic motivation (i.e., identified, introjected, and external), and amotivation. AMS has been proved to be reliable and suitable for measuring learning motivation in the studies of Grouzet, Otis and Pelletier (2006), Can (2015), Fairchild et al. (2005), Vallerand et al. (1992). However, with some research samples, AMS was found not suitable (Cokley et al., 2001; Guay et al., 2015; Utvaer & Haugan, 2016). Another research study by Wentzel (1998) based on different theories proposed a series of questions to measure students' learning motivation. In this research study, some typical statements were: "I usually enjoy being at school", "I have discovered some new interests in school this year", and "I feel pleased when something I learn makes me want to find out more". In the study by Cole et al. (2004) to measure general motivation to learn, the authors used the following questions: "I will try to learn as much as I can of this material" and "I will exert considerable effort in learning this material". Similarly, Brooker et al. (2018) only used 2 types of questions to find out the reasons (intrinsic motivation) and purposes (extrinsic motivation) for the students to participate in massive open online courses (MOOCs).

In Vietnam, a number of studies have also used the questionnaire to measure learning motivation with some statements such as "The learning goal is to help students have a good life."; "Students will try to study better for their contribution to the country and society."; "Study motivation comes from personal performance."; "Try to follow the teacher you admire." (Cao & Truong, 2022). But in some other studies such as Nguyen et al. (2021), the scales are

not clearly expressed. Overall, the statements vary, depending on the researcher's approach to the concept and composition of learning motivation. Consequently, there is no standard questionnaire in this specific area.

3. MATERIALS AND METHODS

3.1. Questionnaire

Similar to many other studies, we employed questionnaires to gather information on student motivation. The questionnaire consists of 2 parts. Part 1 concerns demographic data, including academic year, gender, academic performance in the previous term, and living place. Part 2 aims to record the students' feedback on the expressions of motivational decline they experienced during the 4th epidemic in Vietnam (from April 27th, 2021 to the time of the survey). As suggested by the research results by Cao and Truong (2022) and the greater importance of intrinsic motivation, we only considered intrinsic motivation. Also, based on the studies in Vietnam that have confirmed a decrease in students' motivation to study during the COVID-19 pandemic, the researchers chose the approach to measure the decrease in motivation from the point of view of motivation from Bomia et al. (1997). The 4 statements used were:

"*You get more distracted when studying in epidemic conditions than in normal conditions*".

"*You are more tired of studying in epidemic conditions than in normal conditions*".

"*You have no interest in studying in epidemic conditions compared to normal conditions*".

"*You feel less responsible for studying when you have to study in epidemic conditions than in normal conditions*".

These statements are assessed based on a scale from 1 to 5, corresponding to the levels of "*Strongly disagree*" to "*Strongly agree*". Because it is a self-developed scale, we verified the validity and reliability of the scale before application.

3.2. Sample

The selected research sample included the students of the National Economics University, Vietnam. This university offers the most diverse training programs among economic schools in Vietnam with up to 54 majors, which partly ensures a certain level of universality of the research results. Due to the COVID-19 situation, the research team conducted an online survey via Google forms. This survey questionnaire was sent to the personal email accounts of 17,569 students at National Economics University, from December 25th, 2021 to January 6th, 2022. After two weeks, the number of responses collected was 2,084, of which 2,082 were valid, accounting for 11.85% of the questionnaires distributed and about 6% of the total number of students. The above-mentioned figure completely satisfies the statistical standard according to Hair et al. (2009). Table 1 shows the sample structure based on individual characteristics of the respondents.

Table 1. Structure of the study sample

	Variable value	**Quantity**	**Ratio**
Academic year - **DC01**	First-year	488	23.4%
	Second-year	698	33.5%
	Third-year	620	29.8%
	Fourth-year	276	13.3%
Gender - **DC02**	Female	1,563	75.1%
	Male	519	24.9%

Academic performance - **DC03**	From 3.60 to 4.00	303	14.6%
	From 3.20 to 3.59	722	34.7%
	From 2.50 to 3.19	533	25.6%
	From 2.25 to 2.49	22	1.1%
	From 2.00 to 2.24	14	0.7%
	No points yet	488	23.4%
Residing place - **DC04**	Boarding	185	8.9%
	Living with families	1.897	91.1%

As shown in Table 1, regarding the academic year, out of a total of 2,082 respondents, second-year students made up the largest proportion with 698 students, accounting for 33.5%. In fact, these students started university in September 2020 when the COVID-19 pandemic broke out in Vietnam and universities had to switch all activities to online platforms. Up to the time of the survey, these students had studied online for three consecutive semesters, and the time to attend face-to-face lessons at school (alternating between periods when the epidemic was under control) was very short. Therefore, this group of students was more likely to lose learning motivation, and consequently showed more interest in the team's research problem.

Concerning genders, there was a significant difference in proportions between male students (24.9%) and females (75.07%). However, this structure can be considered consistent with the reality of economics-focused universities across the country where the percentage of women always makes up the majority of the total number of students.

Regarding the academic performance of the previous semester, the largest group of 722 students (accounting for 34.7%) achieved an academic performance from 3.20 to 3.59, equivalent to very good academic performance. The number of students with average scores only accounted for 1.1% and 0.7%, respectively. Thus, most of the participating students had good and very good academic performance. This made this study even more meaningful, contributing to ensuring the output quality of the National Economics University and other educational and training institutions.

Regarding residing places of the respondents, only 185 students surveyed were staying in Hanoi (accounting for 8.9%), and the remaining 1,897 students (accounting for 91.1%) lived with families and relatives at the surveyed time. This finding can be explained with the fact that after April 30th, 2021, the National Economics University decided to switch to online teaching. Hence, most of the students left Hanoi for their hometowns to live with their families.

3.3. Hypotheses and Statistic Methods

Based on the research questions and literature review, two hypotheses were identified:

- H1: The learning motivation of the surveyed Vietnamese university students was reduced during the COVID-19 pandemic.

- H2: The demographic characteristics influenced the learning motivation of the surveyed Vietnamese university students.

The obtained data was processed using the SPSS software with analytical methods including Descriptive statistics for frequency and mean statistics; Exploratory factor analysis (EFA) to verify the reliability and suitability of the Learning Motivation scale using Factor loading standards, KMO coefficients (Kaiser-Meyer-Olkin), Bartlett's test of sphericity, Total Variance Explained, Cronbach's Alpha, Corrected Item-Total Correlation; Analysis of mean

differences to test the difference in learning motivation according to demographic characteristics (using Levene test, ANOVA test and Post Hoc test).

4. RESULTS AND DISCUSSION

4.1. Results of Factor analysis and Reliability Statistics

The factor analysis results for learning motivation are presented in Table 2 to Table 4.

Table 2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		**.810**
Bartlett's Test of Sphericity	Approx. Chi-Square	4159.21
	Df	6
	Sig.	**.000**

Table 3. Total Variance Explained

Component	**Initial Eigenvalues**			**Extraction Sums of Squared Loadings**		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**2.884**	**72.109**	**72.109**	2.884	**72.109**	**72.109**
2	.478	11.955	84.064			
3	.378	9.454	93.518			
4	.259	6.482	100			

Extraction Method: Principal Component Analysis.

Table 4. Component Matrix

	Component
LM03	.894
LM02	.847
LM01	.844
LM04	.810

Extraction Method: Principal Component Analysis.

KMO value was .810 (> .5) and Bartlett's test of sphericity was significant with a p-value of .000 (< .05). The results indicated that the data was suitable for factor analysis. Only one component had eigenvalues (a measure of explained variance) greater than 1.0 (2.884). It means we need to choose only 1 factor to measure student learning motivation. A total of 72.109% (> 50%) cumulative Variance was explained by this factor. All the items LM01, LM02, LM03, and LM04 had loadings > .50. Thus, all items were suitable to represent the variable Learning Motivation.

Table 5 and Table 6 present Reliability statistics results of Motivation scales.

Table 5. Reliability Statistics

Cronbach's Alpha	**Cronbach's Alpha Based on Standardized Items**	**N of Items**
.869	.871	4

Table 6. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected item-total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
LM01	10.9121	9.888	.716	.515	.836
LM02	10.9183	9.72	.716	.553	.836
LM03	11.0821	9.233	.793	.635	.804
LM04	11.243	9.519	.669	.473	.856

The Cronbach's alpha for the four-item set of "Learning motivation" factor was .869 (>.60). Corrected Item-Total Correlation of the four items LM01, LM02, LM03 and LM04 ranged from .669 to .793 (< .4) so all were preserved because of the reliability of the scale.

Therefore, after testing, the sub-scales (items) used to represent the decline in learning motivation were confirmed to be appropriate and reliable with the selected research sample.

4.2. Result of the assessment of overall declining motivation of the students

Table 7 presents the descriptive statistics for each statement of students' learning motivation.

Table 7. Descriptive statistics for each item of LM

	Minimum	Maximum	Mean	Std. Deviation	Mode	Mode ratio	Agree and Strongly agree rate
LM01	1.00	5.00	3.81	1.14	5.00	34.29%	64.70%
LM02	1.00	5.00	3.80	1.17	5.00	36.31%	63.59%
LM03	1.00	5.00	3.64	1.18	5.00	29.97%	56.92%
LM04	1.00	5.00	3.48	1.26	5.00	27.04%	52.40%

All the Mean values of the four statements of learning motivation were in the range from 3.41 to 4.2 - within the level of agreement on the 5-point Likert scale. It proved that almost all surveyed students experienced learning motivation decline when they learned online during the fourth outbreak of COVID-19 pandemic in Vietnam. In particular, all items had the mode at 5 (Strongly Agree). The option "Strongly Agree" was chosen by 27.04% to 36.31% by the respondents for every item, which implied that the decline in learning motivation did evidently occur among the students.

The expressions of the decline in motivation confirmed by students were "*Distracted*", "*Tired of studying*", "*Not interested*" and "*Lack of responsibility for learning*" with the agreement rate up to 64.70%, 63.59%, 56.92%, and 52.40%, respectively.

It is a matter of fact that distraction appeared since the students had to study online at home - surrounded by a great deal of noises such as small talks, house repairing, ward speakers, and karaoke from their neighbors. In addition, the unstable Internet connection caused disruptions in learning while the students were tempted by other more interesting activities on the Internet such as browsing the web, watching films, playing games, etc. Consequently, the students could not concentrate as highly as in face-to-face learning. To explain the state of being "exhausted" when studying, in our opinion, the students had to spend too much time on the computer to study and do homework (on average about 10-12 hours/day), leading to eye strain, headaches, backache, etc.

Moreover, the students worried about their health and family in the context of the stressful epidemics, which increased their stress level. When studying online without sufficient concentration and feeling tired, the students inevitably felt uninterested. In addition, the one-way knowledge transmission without teachers' interaction also made online classes extremely boring. Finally, the long and complicated epidemic with unpredictability, which prolonged a series of boring and exhausting days, wore away the students' faith in the future, with unknown plans for the future, thereby undermining their responsibility for learning.

Based on the scores of each of the above sub-scales (LM01, LM02, LM03 and LM04), we calculated the overall learning motivation score (LM) as a simple average. The results of the descriptive statistics for LM are presented in Table 8.

Table 8. Statistics for LM

	Number of Observations	Min	Max	Mean	Median	Mode
LM	2,082	1.000	5.000	3.6796	3.7500	5.00

The Mean of LM (3.67) was in the range of 3.41 to 4.2 - the "Higher" level on the 5-point Likert scale. In particular, the mode is 5 (the level of "Much higher"). This also implied many students confirmed that their learning motivation was substantially diminished. Therefore, hypothesis H1 was proven to be true.

Table 9. Frequency of LM

Valid	Frequency	Percent	Valid Percent	Cumulative Percent	Valid	Frequency	Percent	Valid Percent	Cumulative Percent
1	41	2.0	2.0	2.0	3	195	9.4	9.4	29.0
1.25	18	.9	.9	2.8	3.25	150	7.2	7.2	36.2
1.5	19	.9	.9	3.7	3.5	183	8.8	8.8	45.0
1.75	26	1.2	1.2	5.0	3.75	175	8.4	8.4	53.4
2	70	3.4	3.4	8.4	4	218	10.5	10.5	63.9
2.25	65	3.1	3.1	11.5	4.25	146	7.0	7.0	70.9
2.5	72	3.5	3.5	14.9	4.5	158	7.6	7.6	78.5
2.75	98	4.7	4.7	19.6	4.75	100	4.8	4.8	83.3
					5	348	16.7	16.7	100.0
					Total	**2,082**	**100.0**	**100.0**	

Table 9 shows that only 41 students (accounting for 2%) had a LM score of 1, which means that they chose the answer "Strongly disagree" with all questions. This shows that there were very few students who did not experience any symptom of learning motivation decrease. The number of students with a LM score from 4.25 to 5 (corresponding to the "Higher" and "Much higher" levels on the 5-point Likert scale) was 752 students - accounting for 36.1%. In particular, up to 348 students (accounting for 16.7%) had a LM score of 5, which means that they chose the answer "Strongly agree" to all questions. This indicates that they were certain that they had all four symptoms of low LM.

All these figures are quite remarkable and even alarming about the decline of learning motivation among the majority of the surveyed students of the National Economics University. Consequently, the students' academic achievement in particular and school performance in general would be negatively affected. These results resonate with the findings in the studies by Van & Thi (2020), and Nguyen et al. (2021). Furthermore, compared to previous findings, a clearer and more detailed assessment of the degree of the decline in students' learning motivation was provided by calculating the overall learning motivation score (LM). Besides, as National Economics University is a top university in Vietnam, the decline in learning motivation may also occur in other educational institutions. It is the obvious gap for *extensive research to grasp the situation timely*.

4.3. Assessment of learning motivation decline based on demographic characteristics

To identify the differences in learning motivation between the groups of students based on demographic characteristics, the authors used One-Way ANOVA analysis with 3 tests: Levene's test, ANOVA test and Post Hoc test. Test for homogeneity of variance using Levene's test: the Levene's test result was non-significant with the SPSS exam scores (values in the Sig. column were more than .05), indicating that the variances were not

significantly different. That means homogeneity of variance was met. Then, we conducted the ANOVA Test. In ANOVA Test, if the Sig. value is smaller than .05, the means of the groups are significantly different. The results are shown in Table 10.

Table 10. Test of Homogeneity of Variances and ANOVA results

Demographic variables	Sig. value at Levene Statistic	Sig. value at ANOVA
Academic year	.060	.000
Gender	.940	.006
Academic performance	.080	.000
Living places	.822	.105

Table 10 illustrates that except for living places, other demographic factors all had the Sig. values for Levene Statistic > .05 and Sig. value for ANOVA < .05. Thus, there was a significant difference in the learning motivation decline based on students' academic year, gender, and academic performance.

Tables (from 11 to 13) show the Mean or Mean Difference which represent the difference in learning motivation between groups of students.

Table 11. Results of One_Way ANOVA by Gender

	Number of observations	Mean	Std. Deviation	Std. Error
Female	1,563	3.6448	1.01278	.02562
Male	519	3.7847	.99722	.04377
Total	2,082	3.6796	1.01050	.02215

According to Table 11, the male students recorded a greater degree of reduced motivation than female students. This may result from the male nature that often prefers exciting activities, more social interaction, and face-to-face competition, etc., so turning to tedious online learning methods and quarantine to prevent the epidemic would be more easily discouraged and disoriented than the female students.

Table 12. Multiple Comparisons of Post Hoc Test by Academic year

(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.	(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.
First-year	Second-year	.30500*	.05907	.000	Third-year	First-year	-.37176*	.06058	.000
	Third-year	.37176*	.06058	.000		Second-year	-.06675	.05516	.226
	Fourth-year	.38092*	.07539	.000		Fourth-year	.00916	.07236	.899
Second-year	First-year	-.30500*	.05907	.000	Fourth-year	First-year	-.38092*	.07539	.000
	Third-year	.06675	.05516	.226		Second-year	-.07591	.07111	.286
	Fourth-year	.07591	.07111	.286		Third-year	-.00916	.07236	.899

**.The mean difference is significant at the 0.05 level.*

Table 12 reveals that the first-year students were more depressed than their second-year and third-year students. In our opinion, these first-year students had already experienced a period of study in grade 12 and exam preparation which was very stressful and exhausting in the context of the pandemic outbreaks (in 2020). Until 2021, when they

moved to university, being very excited, looking forward to experiencing the new learning environment, yet they had to continue learning online given that the pandemic was getting even more serious than before due to the appearance and spread of the Delta variant. Besides, the lack of friends and confusion with teaching and learning methods at university (requiring students to do more self-study) made them more easily depressed and demotivated than in previous academic years.

Table 13. Multiple Comparisons of Post Hoc Test by Academic performance

(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.	(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.
From 3.60 to 4.00	From 3.20 to 3.59	-.07258	.06761	.283	From 2.25 to 2.49	From 3.60 to 4.00	.14210	.22062	.520
	From 2.50 to 3.19	-.14723*	.07120	.039		From 3.20 to 3.59	.06952	.21628	.748
	From 2.25 to 2.49	-.14210	.22062	.520		From 2.50 to 3.19	-.00513	.21742	.981
	From 2.00 to 2.24	-.28658	.27320	.294		From 2.00 to 2.24	-.14448	.34182	.673
	No points yet	-.44360*	.07407	.000		No points yet	-.30149	.21838	.168
From 3.20 to 3.59	From 3.60 to 4.00	.07258	.06761	.283	From 2.00 to 2.24	From 3.60 to 4.00	.28658	.27320	.294
	From 2.50 to 3.19	-.07465	.05631	.185		From 3.20 to 3.59	.21400	.26971	.428
	From 2.25 to 2.49	-.06952	.21628	.748		From 2.50 to 3.19	.13935	.27063	.607
	From 2.00 to 2.24	-.21400	.26971	.428		From 2.25 to 2.49	.14448	.34182	.673
	No points yet	-.37101*	.05990	.000		No points yet	-.15701	.27140	.563
From 2.50 to 3.19	From 3.60 to 4.00	.14723*	.07120	.039	No points yet	From 3.60 to 4.00	.44360*	.07407	.000
	From 3.20 to 3.59	.07465	.05631	.185		From 3.20 to 3.59	.37101*	.05990	.000
	From 2.25 to 2.49	.00513	.21742	.981		From 2.50 to 3.19	.29637*	.06392	.000
	From 2.00 to 2.24	-.13935	.27063	.607		From 2.25 to 2.49	.30149	.21838	.168
	No points yet	-.29637*	.06392	.000		From 2.00 to 2.24	.15701	.27140	.563

**. The mean difference is significant at the 0.05 level.*

In terms of academic performance, the results in Table 13 show that the lower the student's academic performance, the greater the decline of learning motivation. Because this was a group of students who had not

achieved positive achievement when they studied face-to-face (usually associated with insufficient self-study skills and study plan management). Switching to online learning, they became bored and easily distracted, easily manipulated into other recreational activities that negatively affect learning.

All results in Tables 11 to 13 prove hypothesis H2 to be true. Detecting the trend of losing motivation in the group of students with characteristics such as first-year, male gender and low academic achievement will help universities propose solutions with appropriate focus and directions to those who need priority support timely.

5. CONCLUSION

Based on the results of Cao and Truong's research (2022), we surveyed 2.082 students at the National Economics University about the decline in learning motivation during the 4th COVID-19 outbreak in Vietnam. The results of the Exploratory Factor Analysis (EFA) show that all four statements we used to measure it (including "*Distracted*", "*Tired of studying*", "*Not interested*" and "*Lack of responsibility for learning*") are consistent and reliable. With descriptive statistics, it is confirmed that the motivation decrease in learning existed commonly among most of the surveyed students. In particular, 36.1% of the students suffered from severe motivational decline. These figures alarm the National Economics University and other educational institutions about promptly considering and comprehensively assessing the students' motivation in learning. Finally, with the One-Way analysis of variance (ANOVA), we find that the level of learning motivation decline tended to increase significantly in the group of students with certain characteristics including: freshman, male student, and low academic performance. Thus, the universities should prioritize support for this group to improve their learning motivation in the "post-COVID-19" period.

Although Vietnam had controlled the COVID-19 epidemic well by July 1st, 2022, the COVID-19 pandemic has not ended. In the future, the COVID-19 pandemic can be at risk of re-outbreaks and become more complex for the penetration of Omicron BA.4 and BA.5, two contagious sub-variants that can escape the immune system. In this context, our research results not only warn educational institutions about the deterioration of students' motivation in learning but also promote further studies looking for causes and practical solutions to this problem.

Conflict of Interest: No potential conflict of interest relevant to this article was reported.

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