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Online Class: Stress, Anxiety, Optimism and Wellbeing

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Abstract: *COVID-19 induced online class is a new experience for students in many countries like Bangladesh. This rapid shift from the conventional classroom learning environment has effects on many facets of life like psychological stress and wellbeing. In this emerging context, this study investigates the relationship between perceived academic stress of online classes, future anxiety, and psychological wellbeing with a mediation effect of optimism-one of the dimensions of psychological capital (PsyCap). In a cross-sectional design, this study collected data from 348 business students at the time of attending online classes due to social isolation in effect due to COVID-19. Using the structural equation modeling technique in the SmartPLS3.7 version, this study found that psychological wellbeing was negatively associated with online class stress and future anxiety, while positively related with optimism. The indirect effect of optimism showed that it mediated the negative impact of future anxiety-wellbeing relationships but not the online class stress-wellbeing relationship. Thus, optimism as a mechanism of PsyCap can be useful to lessen the general state of psychological wellbeing of the students during the pandemic. However, it will not be an active avenue to deal with negative causality between online class stress and wellbeing. Academic institutions need to explore effective mechanisms for curbing online class stress of the students that in turn will promote their wellbeing.*

Keywords: *COVID-19, Online class stress, Anxiety, Optimism, Psychological wellbeing, SmartPLS*

1. Introduction

The COVID-19 pandemic, first identified in Wuhan City of China, swept over the world very quickly (Lu *et al.,* 2020; Zhang et al., 2020) and the World Health Organization (WHO) declared it as a pandemic in March 2020 (WHO, 2020). Many countries all over the world had no choice other than taking emergency measures such as lockdown, wearing masks, shutting down academic activities, home quarantine (Yue *et al.,* 2020). Like other organizations, universities closed their campus-based academic activities. Academic institutions in Bangladesh including the universities shutdown the campus as well as academic activities from March 2021 (Rahman *et al.,* 2021). After several months of closure,

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universities resumed academic activities through adopting online class mode (Al-Amin *et al.,* 2021). The shift from in-person to online class was sudden and inevitable for the students that posed various challenges (Crawford *et al., 2020)*. After a few months, the universities in Bangladesh opened campus-based academic activities, specially taking examinations to recover lost sessions. However, due to new variants e.g., Delta, Omicron, the universities again shut campus based academic activities and moved to online classes.

An emerging and growing aspect during COVID-19 is the large-scale national level efforts to adopt and utilize distance learning methods and technologies (Ali, 2020). More than 3.2 million students are perusing tertiary level of education in Bangladesh (Mannan, 2017). Online learning is a new phenomenon for the students in Bangladesh, although many academic institutions throughout the world are using different learning management systems (e.g., Desire2learn, Moodle) as an alternative to in-person class (Mailizar et al., 2021). The academic institutions shifted to online class from the traditional face to face learning as a solution to crisis moment (Rapanta *et al.,* 2020). However, instead of using well developed learning management systems, academic institutions used social media platform, Zoom, Google Meet, Webex etc. to communicate students and conduct online classes. Students considered online class as an alternative to in-person class to overcome the negative impact of crisis moments. However, the online leaning method and process created new challenges for the students (Sandars & Patel, 2020) that may cause stress for them as there was a lack of cautious and systemic development of online teaching as well as learning methods (Hodges *et al.,* 2020). Moreover, students themselves had to arrange required infrastructure and skills to participate in online classes. Besides expressing concern about lack of preparedness to participate online class, students in Bangladesh expressed their concern about the scope of classroom participation and lack of classroom activities (Al-Amin *et al.,* 2021). In addition, unstable internet connection and electricity, lack of understanding about the content, lack of device, financial difficulty, class load, high exposure to screen created stress among the students.

Stress is positively correlated to anxiety and depression; and negatively to psychological wellbeing (Gustems-Carnicer *et al.,* 2019). The pandemic created an uncertain situation regarding continuity of academic activities that caused psychological stress among the students *(Roy et al*., 2020; Sahu, 2020). Khan *et. al.* (2020) added that, students who are studying at the university level felt higher mental stress than the college students. Cullen *et al.* (2020) concluded that the pandemic measures not only accelerated mental distress but also caused new symptoms among individuals. Odriozola-González *et al.* (2020) on their study over the Spanish people concluded that pandemic-induced quarantine may cause symptoms of anxiety, depression and stress among as much as 30% of the population. Garfin *et al.* (2020) added that the pandemic caused stress and depression among individuals and significantly impacted psychological wellbeing. In contrast, psychological wellbeing helps

individuals to cope with traditional stress and to be more productive (Surya *et al.*, 2017). So, students require to ensure their psychological wellbeing to cope up with the current pandemic.

Stress is a very common factor in human life and the pandemic has intensified stress among individuals including students. However, response to stress caused by pandemic-induced traumatic events may differ from one individual to other (Killgore *et al.*, 2020). Due to the uncertainty regarding the ending of the pandemic, people get more worried about their future situation (Usher *et al.*, 2020) and the successive waves have worsened the situation. Holman & Silver (2005) concluded that individuals with negative thinking about the future uncertainty may get more affected by stress as it impacts their psychological wellbeing. Students with different socioeconomic background may possess different views about the future that might generate future anxiety and impact psychological wellbeing. People as well as the students are curious, worried, and anxious about the new normal world after the pandemic. Crayne (2020) pointed that millions of people all over the world lost their jobs because of the pandemic. The students are worried about their future situation such as difficulty to access to job after graduation. Thus, future anxiety might impact their psychological wellbeing.

Prior studies (Hoque *et al.*, 2021; Islam *et al.*, 2020; Lazarevic & Bentz, 2020) uncovered that online class generated significant perceived level of stress among the students while many other studies i.e., Sundarasen *et al.* (2020), Giallonardo *et. al.* (2020), Lee *et al.* (2020) reported higher level of anxiety caused by COVID-19. Due to the magnitude of the current pandemic, psychological impact, consequences on psychological wellbeing and possible coping strategies demand immense research (Liu *et al*., 2020; Satici *et al.,* 2020). Psychological wellbeing is crucial for physical and mental health (Huppert, 2009) of an individual and impacts individual's productivity (Surya *et al.*, 2017) and that might be applicable for the students as well. However, less attention has been given till date to explore the connections of online class stress, future anxiety and psychological wellbeing of the students. This study intends to shed light on this under-explored linkage in the current context. This study focuses to identify whether academic stress of online class and future anxiety have impact on the psychological wellbeing of the students during the current pandemic i.e. COVID-19. It also aims to find the role of optimism as a mediator on the relationships between online class stress, future anxiety and psychological wellbeing.

2. Literature Review and Development of Hypotheses

2.1 Academic Stress of Online Class and Psychological Wellbeing

Psychological wellbeing is related to an individual's emotional health, level of hipness, feeling of achievement and satisfaction (Burns, 2016). It is one of the basic aspects of an individual's mental health (Tang *et al.*, 2019) and helps in effective functioning (Tennant *et*

al., 2007). Diener and Chan (2011) concluded that wellbeing positively contributes to better health conditions and longevity. Maunder *et al.,* (2003) explained that unexpected situations such (e.g. SARS outbreak) cause emotional difficulty and stress that negatively impacts psychological wellbeing. In addition, Jonathan *et al.,* (2020) explained that the COVID-19 pandemic also impacted psychological wellbeing similar to previous pandemic situations.

Students participated in online classes to achieve academic goals. However, the success of the class and achievement of purpose depends on several factors. Students' perception regarding online class showed mixed results. Pandey *et al.* (2021) concluded that student expressed a positive perception regarding attending online class. Online class creates the opportunity of distance learning, availability of resource materials and reduces risk of infection. In contrast, many students faced different types of difficulty those causes depression and stress. Adnan & Anwar (2020) reported that technical problems like unstable internet connection create difficulty for the students to participate in online class and this kind of digital inequality may create uncertainty and stress among the students. They also reported students' concern regarding lack of face-to-face interaction with the teacher, less socialization with the classmates and inadequate response time during online class. In additional, students' financial difficulty to arrange required devices or to buy internet hinders students to rip the benefits of online class (Willging & Johnson, 2009) and those are possible stressors among the students. Learning environment is a crucial factor in both face to face and online mode of class and students struggled to cope with the learning environment in online class model. Lazarevic & Bentz (2020) analyzed whether the learning environment created perceived level of stress among the students in the online class model and found a significant perceived level of stress among the students who participated in online class.

Like other individuals, students faced difficulty during the COVID-19 pandemic as the academic activities suffered along with other extracurricular activities. The Pandemic caused stress among the students (AlAteeq *et al.,* 2020; Aslan & Pekince, 2021) specially the female and university students. Fawaz and Samaha (2021) observed higher level of depression and stress among the Lebanese students who participated online classes. Abdulghani *et al.,* (2020) found that online class created stress among the medical students, and it significantly impacted the psychological wellbeing. Besser *et al.,* (2020) concluded that the shift to online teaching caused stress among the college students. It is matter of concern that students' learning quality is negatively affected by higher stress level (Lumley & Provenzano, 2003) whereas Freire *et al.,* (2016) found that higher psychological wellbeing worked as an important factor for students to cope against stress. To continue their academic activities successfully, students require to ensure psychological wellbeing through keeping stress including online class stress at a manageable level.

Hoque *et al.,* (2021) found that 82.5% of the undergraduate students in Bangladesh, who participated in online classes experienced mild to extreme level of anxiety. Among other

socio-economic factors, they observed that gender of the students, academic year, uninterrupted internet connection, education level of father, residence, or place of participating online class, and size of the family cause anxiety among the Bangladeshi students who participate in the online classes. Islam *et al.,* (2020) observed higher anxiety and stress among the students with higher age or academic year and who were engaged in economic activity e.g. private tuition during the pre-pandemic period.

Psychological wellbeing increases happiness, feeling of achievement and accomplish-ment and happiness whereas stress is an opposite state of mind with lack of happiness and more anxiety. Individuals facing high level of mental stress are prone to a greater threat of psychological distress. If online class activity creates mental stress for the students, it will harm their psychological wellbeing. Substantial number of literatures identified an association between online class and perceived stress indicating a concern for the psychological wellbeing of the students. As students are participating online class with many challenges, they are prone to more risk of loss of mental soundness. From the literature the study proposes the following hypothesis:

H_1: Academic stress of online classes during COVID-19 negatively impacts psychological wellbeing of students.

2.2 Future Anxiety and Psychological Wellbeing

Anxiety is one kind of emotion that produces worries and tensions among human being. The pandemic has stuck the normal form of life of most of the world population. Besides, it has created uncertainty about the future. People have adopted new normal life to resume the regular activities and to recover from losses. The academic sector, one of the severely affected sectors during COVID-19 adopted new normal through introducing online education. However, the effectiveness of online classes depends on many other internal and external factors. If not well accepted by the students to be fruitful, the online class may not be able to reduce future uncertainty, tension, and anxiety among the students.

The pandemic-induced uncertainty created future anxiety among the students. Sundarasen *et al*., (2020) concluded that Malaysian students felt a higher level of future anxiety related to academic performance and career opportunities. As the pandemic induced online class created digital inequality among the students who are facing financial hardship, device shortage, communication challenges with faculties, students are concerned about the proficiency of remote learning (Katz *et al*., 2021) that created anxiety about future academic and career performance. This kind of future anxiety during the pandemic when people are facing unusual pandemic measures (e.g. social distancing, quarantine) can lead to greater stress that negatively impacts psychological wellbeing (Lima *et al.*, 2020; Montemurro, 2020). In addition, negative news in the media creates current and future anxiety

(McNaughton-Cassill, 2007) among the individuals and impacts psychological wellbeing. Students who are already anxious about future uncertainty might be impacted by negative media news.

Research on the psychological impact of major outbreaks demonstrated a long persistence of psychological impact (Bonanno *et al*., 2008) of such outbreaks among individuals. Individuals perceive negative thinking about the impacts on their personal, professional, and social life, negatively impacts psychological wellbeing through increasing future anxiety. The COVID-19 has also increased present and future uncertainty and future anxiety among individuals (Giallonardo *et al.,* 2020) as the pandemic has created uncontrollable negative impact and there is no certainty of the end of this crisis. Reducing future anxiety may ensure better mental health of the students. Lee *et al.,* (2021) found that the prediction of pandemic-induced upcoming recession is amplifying future stress among the upcoming workforces and this result is applicable for the students as the graduating students will join the workforce. The students may face future anxiety in fear of job loss of their family members. In addition, Mahmud *et al.,* (2021) confirmed that fear of COVID-19 leads to future career anxiety that contributes to a long term negative impact on human psychology. This kind of stress due to future anxiety might affect mental wellbeing of the students. Students might prefer to continue academic activities to reduce the adverse impact of future uncertainty. However, as benefit from online class depends on other internal and external factors, students who are at a disadvantageous position might face higher stress due to their concern of future performance and competitiveness. Based on the literature, this paper proposes following hypothesis:

H_2: Future anxiety negatively impacts the psychological wellbeing of the students during COVID-19

2.3 Mediating Role of Optimism

Optimism refers to an individual's expectation of a positive outcome in the future (Carver *et al.*, 2010). Optimistic people believe that they are more capable of facing challenging situations in life. When they face tough situation in life, individuals exhibit different emotions such as anger, anxiety, etc. and optimism helps to balance negative feelings (Carver *et al.*, 2010). When someone is in a stressful situation, optimism helps as resilience to cope with stress. Baldwin *et al.,* (2003) concluded that students with higher optimism score and exhibited significantly lower perceived stress. Thus, optimism can help individuals including students to cope with stress. Meanwhile, Chang (1998) concluded a mediating role of optimism between stress and psychological wellbeing.

Optimism generates hope about a positive future result in a challenging situation and reduced negative thinking. It helps to foster positivity that might contribute to better psychological state through reducing psychological stress. In the case of an educational setting, Souri &

Hasanirad (2011) found that optimism is an important characteristic among medical students that influences psychological wellbeing. Diener *et al.,* (2003) found a positive relationship between optimism and psychological wellbeing. Besides, Scheier & Carver (1992) found a positive relationship between dispositional optimism and psychological wellbeing. People with optimism could save their psychological and mental health from stressful situations like the COVID-19 pandemic. Mead *et al.,* (2021) concluded optimism as a protective factor of psychological wellbeing during COVID-19 Pandemic. Besides, future anxiety may negatively impact optimist as it exhibits challenging situations. Biber *et al*., (2020) found a negative relationship between anxiety and optimism among the students during the COVID-19 indicating that optimism helps students coping against anxiety. From the literatures above, the current study proposes the following hypotheses:

H_3: Optimism of the students has a positive relationship with their psychological wellbeing

H_4: Optimism negatively mediates the relationship between online class stress and psychological wellbeing.

H_5: Optimism negatively mediates the relationship between future anxiety and psychological wellbeing

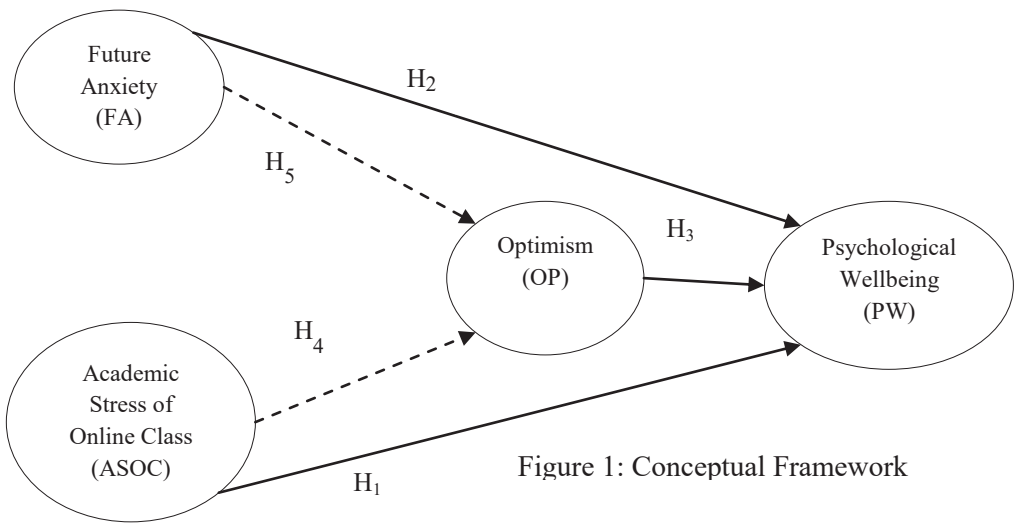

Figure 1: Conceptual Framework

The conceptual framework is depicted in figure 1

3. Method

3.1. Participants and Procedure

In this study, a survey was conducted using convenient sampling method through google forms with the undergraduate and post graduate business students at the University of Dhaka who have experienced online academic activities at least for a semester due to COVID-19. The survey was conducted in the third week of January 2022 when students were away from the physical classes due to the third wave of COVID-19. In all, 348 students from the undergraduate second year to master's level responded to the survey questionnaire. First year undergraduate students were excluded from the survey as they were yet to complete any semester in the university. The survey link was shared with the students with a description at the beginning and were invited to participate at their will. Besides, the respondents were assured about the confidentiality of their responses, and they had the scope to withdraw themselves at any point of the survey.

Demographic information of the participants is presented in Table 1. Altogether, 69% of participants were at the bachelor program and 32% were at the master's program. Among the undergraduate respondents, 56 (16%) were from the second year, 135 (39%) were from third year, and 48 (14%) were from the final or fourth year who were on the verge of graduation. Among the respondents 54% were male and the rest 46% were female. Average age of the students was 22.57 years.

Table 1: Demographic Profile of the participants

Indicators	Category	Number of respondents	% of respondents
Gender	Female	161	46
	Male	187	54
Academic Year	2nd year	56	16
	3rd year	135	39
	4th year	48	14
	Masters	109	31

3.2 Measures

Measurement scales of this study were mostly adapted from the existing literature. Perceived academic stress of online classes was measured using six items scale previously used by Abdulgani *et al.,* (2020) that explains academic factors of a student having an impact on perceived stress resulting from online classes. One sample item of the scale was "online learning content is difficult to understand". Future anxiety was measured using a six-items scale adapted by Paredes *et al.,* (2021) from the original scale developed by Zaleski (1996). A sample question was "I am disturbed by the possibility of a serious illness". A two-item scale was devised based on literature review to capture the optimism of the students during the

pandemic. Psychological wellbeing was measured with the eight items scale developed by Diener *et al.,* (2009) from the original positive affect and negative affect scale-PANAS developed by Watson *et al.,* (1988). As the construct was used to measure the impact of COVID-19 on the psychological wellbeing, an additional phrase "During COVID-19" was added in six out of the eight items (e.g., "I lead a purposeful and meaningful life during COVID-19"). All the items were measured using a five-point Likert scale ranging from 1 "strongly disagree" to 5 "strongly agree".

4. Data Analysis and Results

As the statistical tool, this research adopted partial least square modeling using the SmartPLS3.7 version (Ringle *et al.,* 2015) as it does not require normality assumption and survey method is usually not normally distributed (Chin *et al*., 2003). In the analysis process, we tested full collinearity following the suggestions of Kock & Lynn (2012), and Kock (2015) to check the Common Method Bias issue since we collected data using a single source. Results in Table 2 show that scores of VIF < 3.3 and hence data does not suffer from the serious issue of single source bias. In the analysis process, we followed Anderson and Gerbing (1988) to test the research model in two-steps. In the first step, we tested the measurement model by examining the validity and reliability of the instruments used following the guidelines of Hair *et al.,* (2019) and Ramayah *et al.,* (2018) then we ran the structural model to test the hypothesis developed.

Table 2: Full Collinearity Testing

ASOC	FA	OP	PW
1.075	1.083	1.203	1.297

Note: ASOC = Academic stress of online class, FA = Future anxiety, OP = Optimism, PW = Psychological wellbeing

4.1 Measurement Model

In the measurement model, we examined factor loadings for the individual items while three indicators namely, Cronbach alpha (α), composite reliability (CR) and average variance extracted (AVE) were used for the constructs. Outer loadings of the items exceed the threshold of 0.708 (Table 3) as suggested by Hair *et al.* (2015) and fulfill item reliability. Cronbach alpha values range from 0.70 to 0.85; while CR scores range from 0.86 to 0.89. Both Cronbach alpha and composite reliability (CR) scores are higher than the required values of 0.70, and therefore it is confirmed that the constructs in the measurement model have high convergent validity. The estimated results met the criteria of average variance extracted (AVE) as all the AVE values are above the cut off value of 0.50. Following

Henseler *et al.,* (2015), we assessed discriminant validity using the HT-MT criterion (Table 4). All the HT-MT scores are far smaller than the threshold value of 0.85 (Henseler *et al.,* 2015); hence the model confirms discriminant validity of the constructs. Thus, the above stated indicators suggest that the measurement items are valid and reliable.

Table 3: Measurement Model

Variables	Item	Loadings	α	CR	AVE
Academic stress of online class	ASOC-1	0.792	0.85	0.89	0.62
	ASOC -2	0.774			
	ASOC -3	0.766			
	ASOC -4	0.787			
	ASOC -5	0.809			
Future anxiety	FA-1	0.830	0.76	0.86	0.67
	FA-2	0.752			
	FA-6	0.875			
Optimism	OP-1	0.899	0.70	0.86	0.76
	OP-2	0.846			
Psychological wellbeing	PW-1	0.729	0.84	0.88	0.56
	PW-2	0.732			
	PW-3	0.755			
	PW-4	0.77			
	PW-5	0.763			
	PW-6	0.753			

Note: ASOC 6, FA 3, FA 4, FA5, PW7, and PW8 were deleted due to low loadings.

Table 4: Heterotrait– Monotrait (HT-MT) Ratio

Variable	ASOC	FA	OP	PW
ASOC	-			
FA	0.25	-		
OP	0.08	0.19	-	
PW	0.24	0.27	0.52	-

4.2 Structural Model

In the structural model, we assessed the multivariate skewness and kurtosis following Cain *et al.* (2017). The results showed Mardia's multivariate skewness (β = 66.796, p<0.01) and Mardia's multivariate kurtosis (β = 694.339, p< 0.01), suggesting that the collected data fits to non-normality and hence we moved to bootstrapping procedure (Ramayah *et al.,* 2018). Following Hair *et al.,* (2019), we reported the estimated output in Table 5.

We examined the effect of the predictor variables on PW and found R^2 = 0.218 which underscores that the predictors explain 21.8% of the variable in PW. Results of the bootstrapping method in Table 5 shows that online class has a negative relationship with psychological wellbeing (β = *-0.169, p < 0.01*). Thus, H1 is supported. The second direct path also showed a negative relationship between future anxiety and wellbeing (β = *-0.136, p<0.01)*. The result is significant and hence H2 is supported. The relationship between optimism and psychological wellbeing was found positive and significant (β = *0.372, p < 0.01*) and thereby H3 was also supported.

Figure 2: Model output

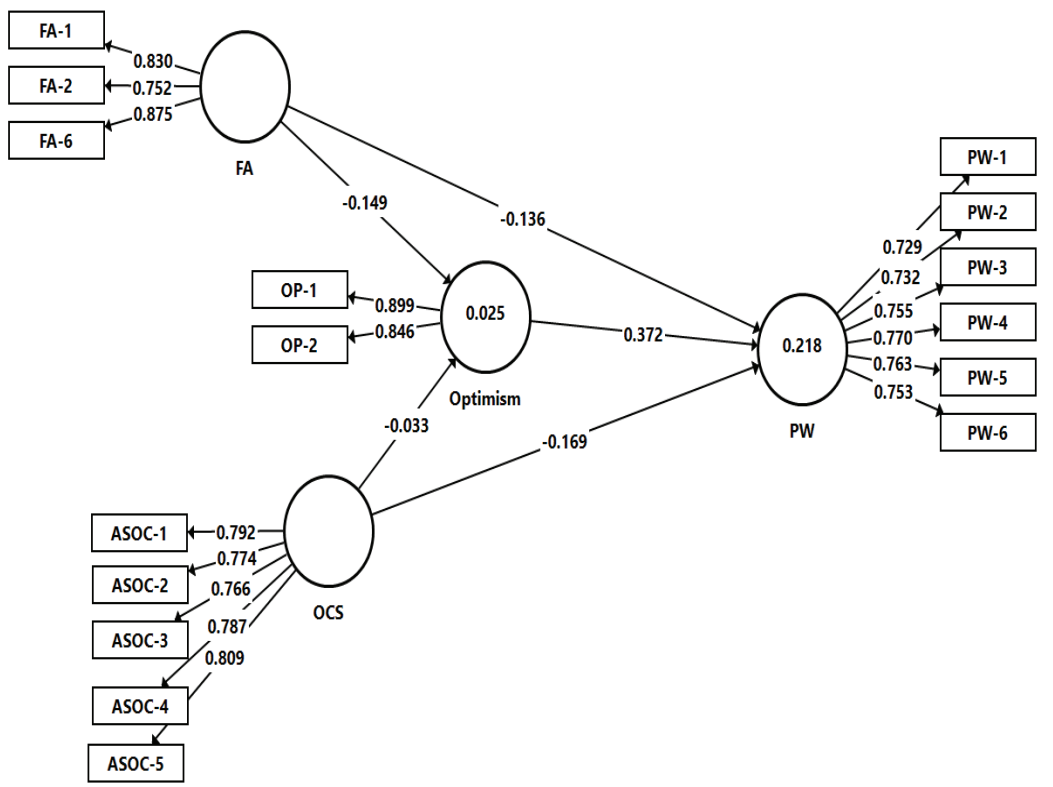

Table 5: Structural Model

Hypotheses	Relationships	β	p-value	BCI LL	BCI UL	f^2	VIF
H1	ASOC ⟶ PW	-0.169	0.001*	-0.248	-0.081	0.035	1.038
H2	FA ⟶ PW	-0.136	0.01*	-0.219	-0.045	0.022	1.060
H3	OP ⟶ PW	0.372	0.00*	0.273	0.457	0.173	1.026

Note: We used 95% confidence interval with 5000 bootstrapping; * indicates significant at 1%

Table 6: Indirect effects

Hypotheses	Relationship	Coefficient	p- values	BCI LL	BCI UL
H4	ASOC ⟶ OP ⟶ PW	-0.012	0.588	-0.049	0.028
H5	FA ⟶ OP ⟶ PW	-0.056	0.047**	-0.098	-0.005

Note: ** indicates significant at 5%

Following the suggestions of Preacher and Hayes (2004; 2008), we tested the mediation effect of optimism on psychological wellbeing by bootstrapping the indirect effect. According to this assessment, if the confidence interval does not straddle a 0 then we can conclude that there is significant mediation. As shown in Table 6, ASOC⟶ OP⟶ PW (β = -0.012, $p > 0.05$), suggesting insignificant indirect effect while FA ⟶OP ⟶PW (β = -0.056, $p< 0.05$) suggesting significant indirect effect. The confidence intervals bias corrected 95% also did not show any intervals straddling a zero thus confirming our findings. Thus, H4 was rejected while H5 was supported.

Table 7: Structural model fit indices

Indicators	OP	PW	Saturated Model	Estimated Model
R^2	0.025	0.218	-	-
SRMR	-	-	0.068	0.068
Chi-Square	-	-	467.158	467.158

5. Discussion

Students are experiencing COVID-19 induced online classes first time in their academic journey. Due to successive waves of the ongoing pandemic, students are now attending online classes on a regular or irregular basis. As a result of the shift from physical classes to online mode of learning, this study attempted to examine the association between tertiary students'

feelings of stress with online class and their future anxiety with psychological wellbeing. It also endeavored to ascertain whether optimism mediates the relationship with a view to outline actions by the academic institutions to promote the psychological wellbeing of the students during the time of online classes. As hypothesized, we found a negative association between online class stress and the psychological wellbeing of the participants. This result indicates that a higher level of online class stress reduces the psychological wellbeing of the students. As a result, students who suffered from higher intensity of stress during the online classes, experienced a decline in their wellbeing which might reduce contributions of education to their personal development. Thus, students who have low resilience to stress or have low competence to online classes are more vulnerable to lower levels of psychological wellbeing.

Hypothesis 2 asserted a negative relationship between future anxiety and psychological wellbeing. The estimated result was also negative and significant implying that those who are anxious about their future, suffer from a lower level of psychological wellbeing. This finding confirms the assertions of Lima *et al.* (2020) and Montemurro (2020). Thus, future anxiety might be caused by delay in graduation or uncertainty in career development that in turn will reduce wellbeing. Changing the nature of the job market and employability skills might also generate anxiety. Academic institutions need to explore the drivers of anxiety and design redressal measures to promote wellbeing.

A positive significant association was found between optimism and wellbeing and therefore H3 was supported. This result is consistent with Denovan & Macaskill (2017). Optimism is one of the psychological capitals (PsyCap) and it promotes positive thinking and resilience at the time of uncertainty like a pandemic. High optimism encourages people to seek opportunities and overcome challenges as they think they can be successful at present and in the future. Our result establishes that students with high levels of optimism have a higher level of wellbeing during the period of online classes.

The two hypotheses exploring the mediation effect of optimism indicate that optimism negatively mediates the negative impact of future anxiety on wellbeing as the result is statistically significant (H5); while no mediation effect of optimism on the relationship between online class stress and wellbeing (H4) was found. That means, optimism works to alleviate future anxiety of the students but does not intervene in the negative relationship between online class stress and wellbeing. Result on H5 is consistent with Rajandram *et al.,* (2011) and Sigh & Jha (2013) confirming that optimistic students are less anxious about the future. However, finding on H4 is inconsistent with Krypel & Henderson-king (2010) indicating that optimism does not work as an underlying mechanism to deal with online class stress. Thus, optimism as a psychological capital harnesses psychological wellbeing but does

not contribute to handling online class stress. Therefore, support relating to online classes needs to be addressed to deal with online class stress.

6. Conclusion

Prior studies (Hoque *et al*., 2021; Islam *et al.,* 2020; Lazarevic & Bentz, 2020) uncovered that online class generated a significant perceived level of stress among the students while many other studies i.e., Sundarasen *et al*., (2020), Giallonardo *et al.,* (2020), Lee *et al.,* (2020) reported a higher level of anxiety caused by OCVID-19. This study asserts that both online class stress and future anxiety during COVID-19 have a detrimental impact on students' psychological wellbeing. As their wellbeing is negatively associated with online learning methods and anxiety for the future, academic institutions, family members and other stakeholders need to be aware of the psychological health of the future generation of the workforce. Prolonged stress and anxiety might generate depression in the long run. Optimism acts as a channel for promoting wellbeing by curbing the negative impact of future anxiety but not the negative impact of online class stress. This suggests that students who are optimistic about success at present and future, suffer from less future anxiety and enjoy a higher level of psychological wellbeing. However, optimism does not play a similar mediating role to mitigate the negative interplay between online class stress during COVID-19 and psychological wellbeing. Thus this study contributes to theory that online class generates a special category of stress where students find it hard to balance and their general level of optimism cannot alleviate it. As a result, sources of academic stress during online class needs to be ascertained and addressed. Since optimism mediates the negative impact of future anxiety on wellbeing, raising the positivity also needs to be focused. This can be done through psychological counseling, interventions or training that fosters positive thinking and resilience. Academic institutions need to activate student counseling on a routine basis and meetings with students so that they can share academic challenges and mental conditions. Extended support from family and society can also contribute to increasing the level of optimism and psychological wellbeing while reducing stress and anxiety.

7. Limitations and scope for future research

Though this study has addressed an emerging facet of online learning during the pandemic, it has some limitations relating to measurement and data. First, the domain of psychological wellbeing is very broad and is the accumulation of many variables that are not included in the present study. There are four commonly used psychological capital (PsyCap): hope, efficacy, resilience, and optimism (Luthans *et al.,* 2007; Luthans and Youssef-Morgan 2017). However, this study has also captured optimism but not the other three dimensions of PsyCap (i.e. self-efficacy, optimism and resilience). Second, personality is a strong determinant of psychological wellbeing. Third, the feelings of stress, future anxiety and psychological

wellbeing might be moderated by gender and level of study of the students that have not been addressed in the present study. Future studies can be designed with moderation or moderation-mediation effects. Fourth, this study has not only used data from a single source but also only from the students of business. A cross-sectional design with samples from multiple disciplines might give a better understanding of the research aim. Finally, this study used the responses of the students only. Further study can be conducted considering the responses from academicians and relevant stakeholders.

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