



Gender differences in future time perspectives and risk of being not in employment, education, or training: the mediating role of achievement goal motivations

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Abstract

This study aimed to investigate the relationships between future time perspectives (FTP) and risk of being not in employment, education, or training (NEET) with the mediating role of achievement goal motivations among undergraduate students in Vietnam. It revealed that FTP was negatively related to NEET risk, indicating students who focused on their future seemed more likely to decrease the risk of being NEET. Among achievement goals, mastery-approach orientation and performance-avoidance orientation played mediating roles in the FTP and NEET risk relationship. Precisely, mastery-approach orientation played a complete mediating effect in the female sample while performance-avoidance orientation acted as a partial mediator in the male sample (explained by the social role theory). The findings enrich the understanding of NEET risk and its relevant factors, as well as contribute to the educational field regarding undergraduates' future planning and intervention to enhance motivation across genders. The implications and limitations of these findings were discussed.

Keywords Future time perspectives · NEET risk · Achievement goal motivations · Gender differences · Undergraduate students

Introduction

This study was mainly concerned with young people aged 20–24 years who were at risk of being not in employment, education, or training (NEET). Some people succeed in education and easily obtain decent work positions, but others are (or will be) at risk of becoming NEET. Many high-income countries, notably the United Kingdom, the United States, and Europe, have introduced policies to reduce youth unemployment (Mawn et al., 2017). On the other hand, research on NEET risk and its

relevant factors in other countries, such as developing countries, is insufficient.

Thinking about the future may influence human actions in the present (Andre et al., 2019). Students who put great effort into their learning and plan and regulate their daily actions often have strong motivation and future time perspectives (FTP) (Andre et al., 2019; Gjesme & Nygård, 1996; Greene & DeBacker, 2004; Morselli, 2013). For undergraduates, motivation, foresight, and planning for future career are critical. Highlighting the importance of FTP in terms of NEET risk, this study aims to examine how FTP and achievement goal motivations relate to this risk.

The current study focused on the context of Vietnam, where the unemployment rates of working-age people in 2020 and 2021 were 2.48% and 3.22%, respectively, which, according to the Vietnam General Statistics Office (GSO, 2020, 2021), was relatively high. The major concern was to understand the underlining mechanism of the Vietnamese NEET tendency and seek its possible prevention, specifically how to lower unemployment rates among undergraduate students, focusing on school and classroom processes.

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FTP and its effects on NEET risk

FTP refers to the tendency of individuals to set of future goals and achieve them in order to meet relatively long-lasting accountabilities (Keough et al., 1999; Zimbardo & Boyd, 1999). FTP usually involves a broad focus on people's expectations, hopes, and concerns about the future that can affect their potential (Leondari, 2007). Students who focus on the future are well-organized, ambitious, and productive (Zimbardo & Boyd, 1999). They have clearly defined goals for the future and pursue them. In particular, future-oriented students tend to effectively manage and plan their study time and concentrate on the work at hand (Bilde et al., 2011; Lens et al., 2012). Students who have a future time orientation are more likely to express greater levels of academic orientation and to engage in positive educational practices (Horstmanshof & Zimitat, 2007). Furthermore, an individual's future orientation is favorably related to the use of diverse adaptive self-regulatory strategies (e.g., a positive attitude toward learning and greater perseverance in the face of adversity) (Bilde et al., 2011).

Besides FTP, our research involved another concept: NEET risk. NEET initially emerged in the UK in the late 1980s as a term to describe young individuals who were unemployed or not involved in any type of education or training, regardless of their education level (Eurofound, 2016). Since 2010, when the European Commission's Employment Committee (EMCO) decided on a uniform indicator, the NEET concept has been widely used to underpin youth-oriented policies in 28 European Union member states (Eurofound, 2016).

According to the Organisation for Economic Co-operation and Development (OECD), youth NEET refers to the percentage of young people aged 15–29 who are not employed or enrolled in education or training (OECD, 2016). Furlong (2006) used the term NEET to refer to young individuals who are either permanently or temporarily unemployed or taking a break from work. Overall, the definition refers to people who are currently unemployed, not enrolled in training, or classed as students. Employed young people are vital for the social cohesion of a country, but despite being the most educated generation in history, they may have difficulty finding jobs (OECD, 2016).

Adolescencehood is a critical stage in one's life, with implications for schooling and career preparation. FTP is one of the most important developmental activities for youths as it contributes considerably to the establishment of their future professions and life projects (Andre et al., 2019; Savickas, 2005). Students who think about their future are more likely to put more effort into their studies and career preparation, acquire higher grades, and make better career selections (Taber, 2012). FTP, which has a

positive relationship with learning and career preparation, is considered as a significant motivator for work-related behavior (Andre et al., 2019). For these reasons, we postulated that having explicit future plans can help people prepare for their future, including their career paths, and reduce the probability of becoming NEET.

Periods of economic inactivity, such as seeking work and being unemployed at a young age, may have long-term detrimental impacts on future employment opportunities and wages (OECD, 2015). Many developed countries, including the UK, the US, and European countries, have focused attention on reducing youth unemployment (Mawn et al., 2017). In Vietnam, the working-age unemployment rate in 2020 was 2.48%—0.31% higher than in 2019, and the youth unemployment rate (for young people aged 15–24) in 2020 was 7.10%, which was the highest level in the past 10 years (GSO, 2020). Due to the severe impact of the COVID-19 pandemic, the working-age unemployment rate in 2021 increased to 3.22%, and the youth unemployment rate reached 8.48% (GSO, 2021). Interventions are required to prevent these situations and motivate vulnerable young people to make appropriate preparations for their futures (Kooij et al., 2018). As members of the working-age population, undergraduate students in Vietnam with NEET-related issues need a better understanding of how to prepare themselves for the labor market. Therefore, this study investigated the factors and types of motivation necessary to increase or decrease NEET risk.

The role of achievement goal motivations in the relationship between FTP and NEET risk

Human motivation and behavior underpin achievement in daily life (Andre et al., 2018), and individuals who have future-oriented goals can take action based on them (Husman & Shell, 2008; Zaleski, 1994). Motivation is complicated and comprises various components, each of which has been addressed by a different theory, including Achievement Goal Theory (AGT).

According to AGT (Elliot, 1999), there are two primary goals—mastery and performance—that encourage students to engage in tasks. In terms of competencies, mastery and performance goals differ (Elliot & Murayama, 2008). Performance goals focus on demonstrating competence relative to others, while mastery goals are likely to focus on improving competence and task mastery (Rawsthorne & Elliot, 1999). Students who study for the sake of learning are mastery-oriented, whereas those who study to demonstrate their ability compared to others are performance-oriented. Their orientation depends on their different perceived abilities and achievement behaviors (Elliot, 1999). Individuals who are held to mastery-based standards are likely to learn, but those who are held to performance-based standards are likely to perform (Dweck, 1986). In other words, mastery goals emphasize the intrinsic dignity of learning, the importance of effort, and the link between effort

and achievement, whereas performance goals aim to display ability, especially by surpassing others (Strunk, 2014), leading to a greater likelihood of success (Ames, 1992).

Elliot (1999) suggested a 2×2 model for achievement goals, with the primary purpose of balancing the system by separating mastery and performance goals into approach and avoidance groups. Mastery-approach goals are the most adaptive achievement goals since individuals select their own ability levels as criteria for success, whereas performance-avoidance goals are maladaptive because individuals select peers' abilities as success criteria and learn to avoid appearing unsuccessful (Elliot & McGregor, 2001). People who strive for a mastery-approach orientation strengthen their abilities, thoroughly study their learning materials, expand their knowledge, and are ambitious when confronted with obstacles (Elliot, 1999; Kayış & Ceyhan, 2015). People who adopt performance-avoidance orientation tend to avoid failure compared to others, are disorganized, fear difficult tasks, and may leave projects uncompleted (Elliot & McGregor, 2001; Elliot, 1999). Concerns about achieving a lower level of performance than previously, setting high personal achievement standards, fear of failure, concerns about forgetting learned material, and concerns about learning incorrectly are all characteristics of people with mastery-avoidance orientation (Elliot & McGregor, 2001; Kayış & Ceyhan, 2015). The purpose of a performance-approach orientation is to demonstrate ability by surpassing a benchmark or outperforming others (Strunk, 2014). In short, mastery-approach orientation, mastery-avoidance orientation, performance-approach orientation, and performance-avoidance orientation are four aspects of achievement motivations whose roles will be examined in this study.

FTP is found to be connected to motivational psychological elements and educational achievement (Nuttin & Lens, 1985; Zimbardo & Boyd, 1999). Previous studies have revealed the importance of FTP in understanding the connection between students' motivation and learning, claiming that students who set long-term goals and focus on increasing the instrumentality of their present behavior have better motivation (Simons et al., 2004; Wigfield & Eccles, 2002).

Educational achievements can be used to predict the likelihood of becoming NEET (Sadler et al., 2014). Achievement goals that refer to a standard of excellence and are evaluated in terms of success and failure (Maehr, 2008) can involve different dimensions of an individual's personality and psychological characteristics (Kayış & Ceyhan, 2015). In the linear chain from school to the workplace, education serves as a strong barrier against joblessness for young undergraduate students (Eurofound, 2012). Among undergraduates, the risk of becoming NEET is linked with low educational achievement and a lack of qualifications (Bynner & Parsons, 2002; Eurofound, 2012). The reasons can be quite complicated on an individual basis, but a lack of

educational achievement is one of the most common reasons for young people becoming NEET (Sadler et al., 2014).

Thus, our study proposed that identifying motivated individuals who set clear future goals at an early stage in their university studies can help reduce NEET risk.

FTP, achievement goal motivations, NEET risk, and gender differences

Gender differences in achievement goal motivations and future planning

Achievement motivations are significantly influenced by the social mechanisms of learning in educational processes (Wang & Eccles, 2013). Findings regarding success have also shown that men and women have different achievement goals (Hyde & Kling, 2003). For example, in terms of career aspects, men expected a high income level, while women found interpersonal skills more important (Gadassi & Gati, 2009). Women score highly on mastery goals and engage in particular activities to develop personal competence, whereas men tend to be performance-oriented, which involves demonstrating personal competence and outperforming others (Hyde & Kling, 2003; Kayış & Ceyhan, 2015). Despite the fact that students have the same educational opportunities, there are still gender variations in students' performance and motivation, leading to different expectations in terms of talents, personality traits, and self-concepts (Kollmayer et al., 2018). Schoolgirls attribute their learning success mostly to effort, whereas schoolboys attribute it primarily to ability or talent (Kollmayer et al., 2018; Preckel et al., 2008).

One of the important goals for undergraduate students in the learning process is to seek suitable jobs in the future. However, previous research has demonstrated some gender differences in career choices. Gender roles, for example, may play a vital role in determining career development, leading to the development and reinforcement of occupationally related gender stereotypes (Betz & Fitzgerald, 1987; Fitzgerald & Harmon, 2001; Wang & Eccles, 2013). One of the factors strongly related to gender inequalities in career development is the impact of socialization on gender role related attitudes, expectations, and behaviors (Solomon et al., 1986). In recent decades, women's educational and professional opportunities have expanded, resulting in new chances of success (Hyde & Kling, 2003). Farmer (1985) highlighted a well-established gender disparity in career development and achievement motivation model, showing that females have higher long-term career motivation than males. In order to achieve goals related to gender expansive work, a variety of identities are required (Chapman, 2022). Therefore, gender differences in future planning, including career goals, could lead to different probabilities of being NEET after graduation.

Based on gender differences above-mentioned, we hypothesized that male and female undergraduates may differ in the associations among FTP, achievement goal motivations, and NEET risk.

Overview of the current study: ground by the theory of planned behavior (TPB)

It is possible that the relationship between FTP and the NEET risk of undergraduate students affects their long-term outcomes. Struggles in real-life university situations that students encounter as they try to achieve their ultimate goals create a need to support them until all their future goals are met. Considering this, achievement goals may not only predict NEET risk but also have impacts on the relationship between FTP and NEET risk.

The theory of planned behavior (TPB) is the study framework within which our assumptions are grounded. The TPB posits that an individual's decision to engage in a certain activity may be predicted by their intention to engage in that conduct (Ajzen, 1985, 1991). In other words, the TPB is a framework that interprets an association between intention and behavior, where perceived behavioral control is a determinant (Ajzen, 1991; Armitage & Christian, 2003). Apart from perceived behavioral control, attitude toward behavior and subjective norms are also predictors of intention (Ajzen, 1991). FTP is defined as an individual's inclination to plan and achieve future goals in order to satisfy their long-term concerns (Keough et al., 1999; Zimbardo & Boyd, 1999) and is a key element that motivates students to do well in their studies (Horstmannshof & Zimitat, 2007). Therefore, the current study considered that FTP might represent the components of attitude toward behavior and perceived behavioral control in TPB. Besides, achievement goals motivate students to engage in tasks (Elliot, 1999); these motivations were regarded as intention in the current study based on TPB. Moreover, because the NEET risks represented the possibility of an individual becoming NEET in the future (Uchida & Norasakkunkit, 2015), this behavioral tendency was considered as an outcome as TPB behavior, predicted by FTP and achievement goal motivations (see Fig. 1 for the conceptual model). On the other hand, gender roles were perceived to be subjective norms or social pressure for individuals to engage in or avoid engaging in certain behaviors (Ajzen, 1991). However, instead of gender roles being a predominant predictor, gender differences in the study were adopted to capture the impacts of subjective social norms in the TPB framework.

Regarding gender roles, socialization operates to trigger expectations for each sex and to encourage corresponding actions (Eagly & Wood, 2016). Drawing on social role

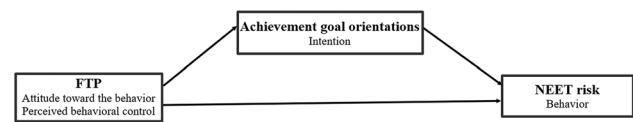


Fig. 1 The conceptual model illustrates the roles of FTP, achievement goal orientations, and NEET risk based on TPB

theory, the current study investigated gender differences in individual achievement goal motivations to determine whether FTP predicted the level of NEET risk via performance-approach, performance-avoidance, mastery-approach, and mastery-avoidance orientations. In other words, the study aimed to examine the relationship between FTP and NEET risk and the mediating role of achievement goals in the two models of males and females. The hypotheses were as follows:

Hypothesis 1: FTP negatively predicts NEET risk.

Hypothesis 2: Achievement goal motivations may act as mediators in the relationship between FTP and NEET risk.

Hypothesis 3: Achievement goal motivations acting as potential mediators in the relationship between FTP and NEET risk vary by gender.

Method

Participants and procedures

The sample consisted of 402 undergraduate students (37.1% females), who were asked to complete an anonymous questionnaire. The questionnaire was distributed among four different colleges. Participants voluntarily participated in the survey study. The average period of time for completing the survey was approximately 15 minutes. The American Psychological Association's research ethics standards were implemented for this study.

Measures

The used questionnaire includes three scales: the Short Zimbardo Time Perspective Inventory-15 scale (Zhang et al., 2013), the NEET/Hikikomori Risk scale (Uchida & Norasakkunkit, 2015), and the Achievement Goal Questionnaire-Revised scale (Elliot & Murayama, 2008). The questionnaire used in this study was revised and translated into Vietnamese. Three language lecturers were independently asked for checking the translation version. The items were constituted using five-point Likert-type scales from strongly disagree to strongly agree. The demographic characteristics

of the participants' information (e.g., age, gender, and year of studying) were included.

Future Time Perspectives (FTP) Three items regarding FTP from the shortened version of the Short Zimbardo Time Perspective Inventory-15 (Zhang et al., 2013), including “When I want to achieve something, I set goals and consider specific means for reaching those goals.” The Cronbach's alpha coefficient was .76.

NEET risk The NEET/Hikikomori Risk scale (Uchida & Norasakkunkit, 2015) has three factors, including: freeter lifestyle preference (e.g., “Obtaining stability and a high salary is not that important to me.”), a lack of self-competence (e.g., “I don't have confidence in myself.”), and having unclear ambitions for the future (e.g., “I feel like I don't have a clear future prospect.”). The scale includes 27 items, with 9 reversed ones. The Cronbach's alpha coefficient was .79.

Achievement goals Achievement goals were assessed by the Achievement Goal Questionnaire-Revised (Elliot & Murayama, 2008). There are 12 items in total, three items for each goal, including mastery-approach orientation (e.g., “My aim is to completely master the material presented in this class.”), mastery-avoidance orientation (e.g., “I am striving to avoid an incomplete understanding of the course material.”), performance-approach orientation (e.g., “My aim is to perform well relative to other students.”), and performance-avoidance orientation (e.g., “My goal is to avoid performing poorly compared to others.”). The Cronbach's

alpha coefficients of the four subscales were .71, .62, .72, and .73, respectively.

Data analysis

Descriptive statistics and the Pearson's correlations were performed. The continuous variables were normally distributed. No problems with multicollinearity or outliers were detected in either male or female samples.

The Process macro in SPSS (Hayes, 2012) Model 4 was applied to examine the mediational effect of achievement goal motivations on the relationship between FTP and NEET risk among participants.

Results

The demographic profile and descriptive statistics of variables are illustrated in Table 1. Among the 253 participants, 62.9% of them were males and 37.1% were females, and 64.4% were juniors and 35.6% were seniors. The table also displayed the means (*M*s) and the standard deviations (*SD*s) of the measured variables, which represented the central tendency and dispersion of the variables measured in 5-point Likert scales from strongly disagree to strongly agree. Particularly, the means of FTP and achievement goal orientations for both genders were reported higher than 3 (the middle score in the 5-point Likert scale), indicating that the participants rated their FTP and motivations relatively positive. In contrast, their NEET risk mean was reported

Table 1 Descriptive statistics of variables

Variable	Level	<i>M</i>	<i>SD</i>	Range	<i>N</i>	Percentage (%)
The male sample (<i>N</i> =253)						
College level	Junior				159	62.8
	Senior				94	37.2
FTP		3.96	.70	2.00–5.00	253	
NEET risk		2.72	.44	1.59–3.70	253	
Mastery-approach orientation		3.85	.69	1.67–5.00	253	
Mastery-avoidance orientation		3.86	.72	1.33–5.00	253	
Performance-approach orientation		3.74	.80	1.67–5.00	253	
Performance-avoidance orientation		3.67	.80	1.33–5.00	253	
The female sample (<i>N</i> =149)						
College level	Junior				96	64.4
	Senior				53	35.6
FTP		3.87	.74	1.00–5.00	149	
NEET risk		2.63	.46	1.52–3.70	149	
Mastery-approach orientation		3.87	.68	2.33–5.00	149	
Mastery-avoidance orientation		3.93	.63	2.00–5.00	149	
Performance-approach orientation		3.69	.76	1.33–5.00	149	
Performance-avoidance orientation		3.55	.84	1.00–5.00	149	

M = mean. *SD* = standard deviations. *N* = participant

relatively negative (lower than 3), showing that the general participants reported less tendency of being a NEET.

The relationship among FTP, NEET risk and achievement goal motivations

The correlations of variables (Table 2) revealed that NEET risk was negatively associated with FTP and mastery-approach orientation but positively correlated with performance-avoidance orientation. FTP, on the other hand, was positively correlated with all the achievement goal variables.

The original effect of FTP on NEET risk was significant $\beta = -.19, p < .001$. FTP negatively predicted NEET risk, indicating NEET risk decreased as FTP increased (Hypothesis 1 was supported). In addition, FTP positively predicted mastery-approach orientation ($b = .58, p < .001$), mastery-avoidance orientation ($b = .34, p < .001$), performance-approach orientation ($b = .45, p < .001$), and performance-avoidance orientation ($b = .29, p < .001$).

When the four achievement goal variables were controlled, FTP still significantly predicted NEET risk ($b = -.12, p < .001$); and mastery-approach orientation negatively predicted NEET risk ($b = -.12, p = .006$), performance-avoidance orientation positively predicted NEET risk ($b = .11, p = .004$), whereas mastery-avoidance orientation and performance-approach orientation did not significantly associate with NEET risk.

The 95% bootstrap confidence interval based on 5000 samples showed that the effect of FTP on NEET risk was mediated by mastery-approach orientation (95% CI = [-0.133, -0.021]), as well as performance-avoidance orientation (95% CI = [0.010, 0.060]). However, the mediational effects were not significant for mastery-avoidance orientation (95% CI = [-0.016, 0.041]) and performance-approach orientation (95% CI = [-0.020, 0.048]). Thus, it revealed that mastery-approach orientation and performance-avoidance orientation partially mediated the relationship between FTP and NEET risk among undergraduate students (Hypothesis 2 was partially supported).

In order to investigate the gender differences, the above mediational model was examined for males and females separately.

The differences in the relationship among FTP, NEET risk and achievement goal motivations

The Pearson's correlations among variables for both genders are shown in Table 3.

For the male sample, the effect of FTP on NEET risk was significant $\beta = -.15, p = .015$. FTP negatively predicted NEET risk, demonstrating that the likelihood of being a NEET reduced as FTP grew. Figure 2 also demonstrated that FTP positively predicted mastery-approach orientation ($b = .56, p < .001$), mastery-avoidance orientation ($b = .39, p < .001$), performance-approach orientation ($b = .52, p < .001$), and performance-avoidance orientation ($b = .30, p < .001$).

When the four achievement goal variables were introduced, FTP remained significantly predicted NEET risk ($b = -.10, p < .039$), however, except performance-avoidance orientation positively predicted NEET risk ($b = .11, p = .028$), achievement goals were found not associated with NEET risk for mastery-approach orientation ($b = -.09, p = .110$), mastery-avoidance orientation ($b = .08, p = .130$), and performance-approach orientation ($b = -.01, p = .804$).

As can be seen in Table 4, the 95% bootstrap confidence interval based on 5000 samples did not contain zero, indicating that the effect of FTP on NEET risk was mediated by performance-avoidance orientation. Otherwise, the mediational effects were not significant for mastery-approach, mastery-avoidance, and performance-approach orientations. It revealed that performance-avoidance orientation partially mediated the FTP and NEET risk relationship across male group. However, this impact is relatively weak, indirect effect was 0.03.

For the female sample, the original effect of FTP on NEET risk was significant ($\beta = -.27, p = .001$). Similar to the result in the men sample, FTP negatively predicted NEET risk, implying that the risk of becoming NEET lessened as FTP rose. Moreover, FTP was found significantly predict mastery-approach orientation ($b = .63, p < .001$)

Table 2 Correlations between NEET risk, FTP, mastery-approach, mastery-avoidance, performance-approach, and performance-avoidance orientations

	1	2	3	4	5	6
1. NEET risk	-					
2. FTP	-.19**	-				
3. Mastery-approach orientation	-.14**	.60**	-			
4. Mastery-avoidance orientation	.00	.36**	.55**	-		
5. Performance-approach orientation	.01	.41**	.58**	.40**	-	
6. Performance-avoidance orientation	.11*	.26**	.51**	.50**	.62**	-

* $p < .05$; ** $p < .001$

Table 3 Correlations between NEET risk, FTP, mastery-approach, mastery-avoidance, performance-approach, and performance-avoidance orientations for males and females

	1	2	3	4	5	6
The male sample						
1. NEET risk	-					
2. FTP	-.15*	-				
3. Mastery-approach orientation	-.07	.56**	-			
4. Mastery-avoidance orientation	.08	.39**	.57**	-		
5. Performance-approach orientation	-.01	.45**	.59**	.48**	-	
6. Performance-avoidance orientation	.13*	.26**	.54**	.58**	.59**	-
The female sample						
1. NEET risk	-					
2. FTP	-.27**	-				
3. Mastery-approach orientation	-.25**	.67**	-			
4. Mastery-avoidance orientation	-.13	.32**	.52**	-		
5. Performance-approach orientation	.03	.35**	.55**	.23**	-	
6. Performance-avoidance orientation	.06	.24**	.46**	.38**	.66**	-

* $p < .05$; ** $p < .001$

Fig. 2 Direct and indirect effects of FTP on NEET risk via achievement goal motivations. Note. * $p < .05$; ** $p < .001$

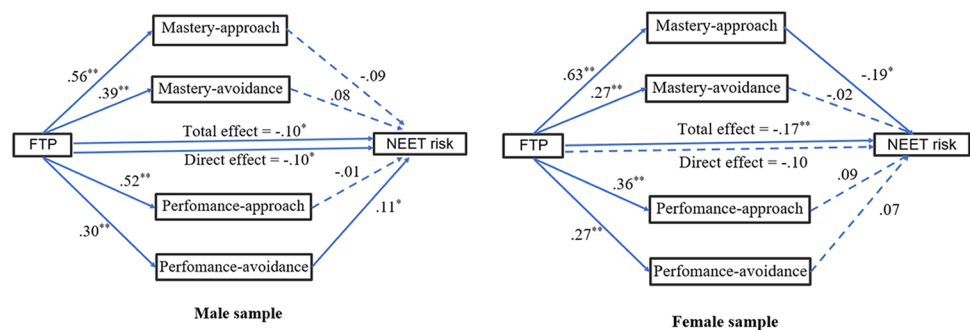


Table 4 95% confidence intervals of mediators

Variables	95% CI			
	Males		Females	
	Lower	Upper	Lower	Upper
Total	-0.060	0.071	-0.169	0.033
Mastery-approach orientation	-0.124	0.016	-0.231	-0.007
Mastery-avoidance orientation	-0.005	0.071	-0.054	0.038
Performance-approach orientation	-0.048	0.035	-0.018	0.101
Performance-avoidance orientation	0.006	0.065	-0.010	0.076

CI=confidence intervals

mastery-avoidance orientation ($b = .27, p < .001$), performance-approach orientation ($b = .36, p < .001$), and performance-avoidance orientation ($b = .27, p = .004$).

The direct effect of FTP on NEET risk, when the mediating roles of achievement goals variables were introduced, became nonsignificant ($b = -.10, p = .132$), while the total effect of PSNU on NEET risk with the mediational effects of the four achievement goal variables kept

significant ($b = -.17, p < .001$). Mastery-approach orientation significantly predicted NEET risk ($b = -0.19, p = .036$) whereas other achievement goals kept nonsignificant.

Based on 5000 bootstrapping samples (Table 4), the impact of FTP on NEET risk was significantly mediated by mastery-approach orientation. However, the mediational effects were not significant for mastery-avoidance, performance-approach, and performance-avoidance orientations. Thus, it revealed that mastery-approach orientation completely mediated the relationship between FTP and NEET risk among female students, indirect effect was -0.12 .

In sum, achievement goal motivations did not mediate the relationship between FTP and NEET risk for the male sample except performance-avoidance orientation which played a partial mediator role. For the female sample, the negative relationship between FTP and NEET risk was fully mediated by mastery-approach orientation. Findings also confirmed that the achievement goals of male and female undergraduate students did not play the same role in the relationship with FTP and NEET risk (Hypothesis 3 was supported).

Discussion

This study aimed to investigate the relationships between FTP, NEET risk, and achievement goal motivations, as well as the differences between males and females. By using a cross-sectional design, our study contributes to a clearer understanding of how factors such as FTP, achievement goal motivation, and gender are associated with NEET risk.

It was found that FTP had a significant negative relationship with NEET risk. The results suggested that students who reported greater concerns about their futures were also likely to have a reduced risk of becoming NEET. This finding was consistent with existing studies (Andre et al., 2019; Zimbardo & Boyd, 1999). We assumed that individuals who are well-prepared for future may lower NEET risk. This finding encourages undergraduate students to plan for the future (i.e., high FTP) to avoid this risk.

In light of the TPB, the two factors (FTP and achievement goals) were predictors of NEET risk. And yet, an examination of the mediational effects demonstrated that achievement goals might mediate the relationship between FTP and NEET risk. Generally, gender roles and the differences between males and females in adopting achievement goal motivation were confirmed. According to Ajzen (1991), the stronger the intention to engage in an activity, the more likely its performance should be. Achievement goal motivations played different mediating roles across genders demonstrated different learning strategies based on their concerns. For girls, who made efforts to enhance competence and knowledge, mastery-approach orientation played a complete mediator role, while for boys, who avoided failure, performance-avoidance orientation acted as a partial mediator. Consistent with previous studies (Eagly & Wood, 2012; Kayış & Ceyhan, 2015; Zimbardo & Boyd, 1999), the current results suggested that females having relatively strong mastery-approach orientation were at relatively lower risk of becoming NEET, whereas males having greater level of performance-avoidance orientation were at higher NEET risk. In other words, achievement goals have varied roles in the FTP and NEET risk relationship according to gender.

The results for the male sample showed that male students were likely to adopt performance-avoidance orientation to achieve their goals. Performance-avoidance orientation had a significant positive correlation with NEET risk suggesting that the greater the perceived importance of performance in learning, centered on avoiding normative incapacity, the less students focused on securing their future employment opportunities. Interestingly, the more males prioritized learning performance, the higher their

risk of becoming NEET. This raised the possibility that in the male sample, when they felt concerned about a future event and were more driven to avoid failure than to experience success, future orientation was detrimental to motivation (Gjesme & Nygård, 1996). If they are under pressure to reach their goals, future-oriented students may be more easily influenced and less enthused about their academics (Bilde et al., 2011). The findings confirmed that men are more influenced by social burdens in terms of behavior, FTP, and NEET risk.

Furthermore, performance-avoidance orientation had a weak mediational effect on the relationship between FTP and NEET risk in the male sample, implying that FTP linked directly to NEET risk but also having little short-term concern in learning performance. Males avoided performance in their learning processes for several reasons, including gender role corresponding with societal pressure and expectations (Eagly & Wood, 2012). Here arose a contradiction in the perception of male students: They were future orientation, but they were afraid of failure in learning performance which, as evidence from this study, was found positively link to increase their NEET risk. This finding can be interpreted as males being concerned with avoiding ineptitude; they are more affected by social pressure and recognize their performance in terms of their gender-specific role (Eagly & Wood, 2016; Kayış & Ceyhan, 2015; Kollmayer et al., 2018). Males experienced mediocre performance more acutely as a feeling of failure than did females. Another reason could be feedback from people toward both genders. Unlike girls who are acknowledged for their efforts, boys are admired for their abilities (Kollmayer et al., 2018). Accordingly, with findings that students who pursue a performance-avoidance goal fear to be evaluate as talentless and unproductive (Elliot & Harackiewicz, 1996), and NEET status might indicate a mismatch between required skills and expected jobs (Zudina, 2021), males may have a higher level of motivation to avoid failure (e.g., performance-avoidance orientation) and an increase in NEET risk when feeling less confident in their ability.

In the female sample, on the other hand, the complete mediational effect implied that FTP no longer directly predicted NEET risk after the mastery-approach orientation was controlled. Students with higher FTP would have a higher mastery-approach orientation and, therefore, would reduce NEET risk. This finding was consistent with earlier studies showing that female students frequently follow the mastery-approach orientation to achieve their goals (Kayış & Ceyhan, 2015; Urdan, 2004). The present results suggest that women are more focused on mastery goals (Husman & Lens, 1999) that are likely to benefit their future career. It was revealed in the previous research that women had stronger motivations and higher life expectations than did men, depending on the relevance of their specific achievement goals and

the competitive social orientation aspects of job-related tasks (Bilde et al., 2011; Eagly & Wood, 2012; Greene & DeBacker, 2004). Similar findings were revealed in the Hesse-Biber (1985) study that women appeared to enjoy lessons more than men. Therefore, females may pay much attention to understanding learning materials or intrapersonal competences that meet job requirements after graduation. In the current study, females with a high level of FTP were found to adopt a positive attitude (mastery-approach orientation) towards their learning and reported reduce the likelihood of being NEET. In other words, mastery-approach orientation, in conjunction with FTP, reduces the probability of becoming NEET.

Implications and limitations

The current study focused on the relationship between FTP and NEET risk, with achievement goal motivations as mediators among Vietnamese undergraduate students, as well as the differences between males and females. Exploring the mediational effects of achievement goal motivations might illuminate the underlining mechanisms of how Vietnamese undergraduate students' FTP decrease their NEET risk.

Achievement goal motivations associated with NEET risk reinforce the importance of integrating undergraduate students' future goals and motivations into career planning. Reducing the youth unemployment rate is an important issue for a country. The study findings may provide policymakers some insights on introducing policies or programs to increase FTP of students, promote mastery-approach orientation for females, or lighter social pressure for males in learning performance.

The study also revealed the importance of culture and social expectations. Males in Southeast Asian culture are supposed to be the primary breadwinners for their families. However, the role of women is changing, and career opportunities for both men and women have become equal. One important policy implication for higher education emerging from this study is that universities should actively support the developing career and learning-style aspirations of their undergraduates. Both genders' future orientation was linked to lower NEET risk, and some evidence was found to indicate that mastery goals and performance goals mediated the relationship between FTP and NEET risk for females and males, respectively. These findings deliver a notice in instructional designs for teachers to enrich their knowledge about gender differences.

Moreover, our findings enrich the understanding of NEET. In a nation with a high unemployment rate, such as Vietnam, the study highlights the vital roles of elements that can reduce the risk of becoming NEET and support the development of specialized solutions for each gender. Besides some key factors examined in previous studies, such

as educational achievement and socioeconomic status (Sadler et al., 2014), there are others, including FTP and academic motivations, that may increase or decrease the NEET risk of undergraduates. These factors need to be taken into account to develop appropriate interventions in classroom settings to reduce the risk.

There are theoretical implications of the study findings. The study supported that the NEET risk, as behavior performance in TPB, was predicted by FTP, as learners' perceived behavioral control and attitudes toward the target behavior in TPB, as well as by achievement goal orientations, as an intention in TPB. Moreover, gender differences were found in the mediational model, implying that gender roles as possible subjective norms in the current study. In other words, it was found that based on the TPB framework, attitudinal and cognitive factor (FTP) negatively predicted individuals' intention (achievement goal orientations), and intention predicted individuals' behavioral tendency (NEET risk); whereas subjective norms (gender differences) were also found to have impacts on the model.

Furthermore, the results concerning gender differences also have implications for the literature on achievement goals and social role theory. In addition to gender inequalities in behavior reflecting gender role beliefs (Eagly & Wood, 2012), our study findings implies the essential acknowledgment of gender roles is important for establishing a positive and socially supportive learning environment.

The study findings contributed to understanding NEET risk among university students, especially among female undergraduates. It was found that female undergraduates who had a high future time orientation, together with a high level of mastery-approach orientation, had a relatively lower risk of being NEET. Educators or policymakers can develop and apply mechanisms to manage the content of future-plan orientation into student guiding and counselling. For example, female students can be encouraged to set clear future goals, and then, devise means can be applied to enhance the female individuals' abilities, skills, knowledge, and ambitions via advocating mastery-approach goals. In addition, educators or teachers can develop and infuse teaching content that can appropriately stimulate learning mastery-approach motivation. For males, because the mediational effect was relatively trivial, future research needs to examine in more details that what other possible factors, apart from achievement goal motivations, may have impacts on the relationship between FTP and NEET risk, and how they function.

However, because the data were cross-sectional, the directionality of the associations between variables were undeterminable. Future longitudinal studies are needed for comprehensively evaluate the elements related to these issues. Besides, the questionnaire used in this study can just measure tendencies, not behaviors which require an

experimental-related design. In addition, although the current study confirmed the existence of gender differences in the individual aspects of achievement goals, the generalization of the findings needs to be cautious because of the characteristics of the research sample. Future research may apply the models to diverse participants (e.g., participants with different nationalities) to develop a comprehensive picture of career goals and risk of NEET. Apart from limitations, the implications of our findings about FTP, NEET risk, and the mediator roles of achievement goal motivations provide attention to educators, stakeholders, and policymakers when considering related issues.

Data availability The authors confirm that the data supporting the findings of this study are available from the corresponding author on reasonable request.

Declarations

Conflict of interest We have no conflict of interest to disclose.

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