

How The Perceived Threat of Covid-19 Aggravates Chinese Employees' Emotional Exhaustion and Turnover Intention in Thailand: The Moderating Role of Affective Commitment

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Abstract

The Covid-19 pandemic has caused not only the loss of organizations but also adverse impacts on employees' mental health that have led to unfavorable outcomes. Grounded in conservation of resource theory, this study presents a conceptual model and aims to explore the psychological and behavioral consequences to employees of the perceived threat of Covid-19, as well as exploring the moderating effect of affective commitment on those consequences. A convenience sampling method was used to collect survey data from 248 local hired Chinese employees currently working in Thailand. The results from PLS-SEM analysis significantly confirm that employees' emotional exhaustion resulting from the pandemic can increase their turnover intention. In addition, the results from the moderating effect analysis found that affective commitment can lessen the adverse impact of emotional exhaustion on employees' turnover intentions. Thus, the organizational management should concern themselves with employees' psychological wellness during the pandemic, and make efforts to increase Chinese employees' affective commitment to their organizations.

Keywords: Covid-19; Affective Commitment; Turnover Intention; Emotional Exhaustion

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Introduction

Covid-19 had affected more than 222 countries and territories all over the world with more than 180 million infected cases and nearly four million deaths by the end of June 2021 (Worldometer, 2021). The Covid-19 pandemic has not only caused enormous financial and economic loss and significant damage to public health in many countries (Labrague & de los Santos, 2021), but has also seriously disturbed work routines and mental health, namely the psychological wellness of organizational staff impacted by the epidemic (Hamouche, 2020). In Thailand, many companies reduced their employees' salaries after the Covid-19 outbreak in an effort to mitigate financial damage to the businesses (Manakitsomboon, 2020). In addition, the adverse effects of the disease have continued to affect Thailand since the third wave of the Covid-19 disease, with more than 1,000 infections a day since April 14, 2021, and daily deaths climbing to double digits (Post Reporter, 2021). The sharply increasing number of infections in Thailand has caused organizational employees to suffer not only from wage reduction, but also from psychological stress. In particular, some employees are still required to physically work at an office, thereby introducing the possibility of contracting the virus while they are commuting or at the workplace. These oppressive circumstances jeopardize mental wellness in employees, and introduce uncertainty about their work environments and their lives. The mental damage has been proved by a large number of scholars who have investigated the impacts of the epidemic on mental health, and the consequences for employees during the pandemic. Furthermore, some scholars have also found that employees' turnover intention increased compared to the pre-COVID-19 context (Nashwan et al., 2021; Yang et al., 2021).

Many Chinese employees in Thailand have been affected in this way. In one measurable impact of the pandemic, the number of Chinese working in Thailand with legal work permits (general type¹) in May 2021 declined 19.70% (from 19,334 to 15,527) compared to May 2019 (Foreign Workers Administration, 2021). Of course, organizations always strive to reduce turnover (Fazio et al., 2017), because employee turnover raises the costs of training and hiring. In fact, scholars have found that employee turnover has material effects on organizational functioning, and the approximate cost of hiring and replacement is estimated to be between 90% and 200% of annual salary (Hom et al., 2017). At this stage, there are numerous studies that have investigated turnover intention in the Covid-19 context among local employees such as healthcare workers and frontline workers (Irshad et al., 2020; Wong et al., 2021; Yang et al., 2021); however, the adverse effects of this pandemic on the mental health of foreign employees, and interventions in organizations to solve these problems are still very sparse. Many organizations in Thailand have experienced financial damage during this pandemic, so it is important for organizations to retain both local and foreign employees in order to limit losses from employee turnover.

The OECD/ILO (2017) found that foreign-born workers raised GDP per capita in Thailand, and that the second-largest number of high-skilled labor immigrant workers² were

¹ There are three types of work permits in Thailand: permanent, temporary and temporary permits. A general type of work permit refers to the temporary type. This type of Work Permit is issued to foreigners who are engaged in "work which is of necessity or urgent" and for a short period. The "necessary and urgent work" involves six categories (administrative and educational work, technical work, overseas employment services, legal service or legal cases, miscellaneous work, and other work under the consideration of the Director-General of the Department of Employment or officials entrusted by the Director-General) according to the Department of Employment under the Working of Aliens Act B.E. 2551 (Royal Thai Government Gazette, 2008).

² A labor immigrant in the report of OECD/ILO refers to the immigrants who obtain a work permit in the destination country are labor immigrants.

from China. Moreover, Chinese employees have recently been one of the fastest-growing groups of locally-hired foreign employees; this is because large Asian companies have been moving their production out of China to avoid US trade barriers (Marketeer, 2020). Therefore, this research into the effects of the pandemic on emotional exhaustion and turnover rate among foreign employees in Thailand is based on local hired Chinese employees, who comprise, as mentioned, the second-largest population of highly-skilled foreign employees in the country. The first objective of this study is to examine the turnover intention of Chinese employees, and the impact of the Covid-19 pandemic on their degree of emotional exhaustion, and then to propose a conceptual model that can explain the relationships between the perceived threat of Covid-19, emotional exhaustion, and turnover intention. This study further aims to explore the role of affective commitment, a dimension of organizational commitment, as a variable that might decrease the extent of employees' emotional exhaustion and thereby decrease the degree of turnover intention. Scholars have found that organizational commitment tends to play an important role in influencing employees' attitude and behaviors; that is, committed employees exhibit better job performance, as well as lower rates of absence and turnover (Qi & Zhu, 2007; Weng & Chen, 2009). Theoretically, the proposed model of this study is rooted in the conservation of resources (COR) theory (Hobfoll et al., 2018) to explain the emotional exhaustion, the turnover intention of employees, and the effect of affective commitment in lessening the impacts of emotional exhaustion on an employee's turnover intention that arises from the pandemic conditions. Based on the managerial view, the findings offer significant insights for organizational management regarding how to reduce employees' turnover intention and increase employees' affective commitment to organization, especially during a serious and stressful situation like the Covid-19 pandemic.

Literature Review

The Effect of the Perceived Threat of Covid-19 on Emotional Exhaustion and Turnover Intention

Covid-19 is regarded as a serious respiratory virus threat to public health (Yang et al., 2021), and it causes people to worry that their health and lives might be threatened by possible infection when they go outside. In particular, employees who are required to be physically present at the workplace are at increased risk of infection during the Covid-19 pandemic. This has led some employees to consider leaving their current jobs in order to reduce the threat of infection. This is because personal health is one of 74 centrally valued resources to individuals according to COR theory (Hobfoll, 2011). COR theory states that individuals are always actively working to maintain, protect and build things they consider centrally valued (Hobfoll, 2011). Moreover, COR theory states that individuals have the motivation to protect their own resources; that is, when resources continue to decrease, those individuals will withdraw to protect their own resources (Zhang et al., 2013). At this stage, the prolonged perceived threat of Covid-19 infection will have triggered employees to protect their resource of personal health. Labrague and de los Santos (2021) found that the increased degree of the perceived threat of Covid-19 was correlated to increased organizational and professional turnover intention among nurses in the Philippines. This is consistent with the results of a study on Pakistani nurses which found that the perceived threat of Covid-19 increased their turnover intention (Irshad et al., 2020). In addition to health care workers, the general population has experienced the significant mental health impact of Covid-19. In one recent study, Prommegger and Krcmar (2021) found that negative emotions and perceived influence of the Covid-19 crisis

were significantly and positively related to turnover intention among information technology professionals. Given these broad findings, the following hypothesis is provided:

H1: The perceived threat of the Covid-19 crisis of Chinese employees will increase their turnover intention.

COR theory further states that the potential or actual loss of centrally valued resources is the main reason for the negative consequences of stressful conditions, involving weakened functions, negative health outcomes, and psychological distress. Certainly, the quickly proliferated and widespread outbreaks of Covid-19 have caused damage to individuals' psychological wellbeing and mental health (Bao et al., 2020). An increasing amount of evidence illustrates a significant relationship between the Covid-19 outbreak and its negative impacts on employees' psychological well-being in the form of distress, anxiety, burnout, and depression (Labrague & de los Santos, 2021; Mo et al., 2020; Rahman et al., 2020). In particular, when employees are working in a situation that causes them to worry about their health in order to complete their job tasks, it is quite common for employees to be stressed, thereby resulting in greater emotional exhaustion.

The literature describes emotional exhaustion as the major element of career burnout that often occurs when an individual's emotional resources are sparse because of suffering from a stressful circumstance for a continuous period of time (Moyer et al., 2017). In addition, emotional exhaustion can lead to a number of negative work-related physical and psychological outcomes, such as job turnover, absenteeism, poor sleep, demotivation, and role conflict at work. During Covid-19 outbreaks, Zandifar and Badrfam (2020) investigated Iranian mental health and found that uncertainty, unpredictability and seriousness of the disease can trigger mental problems such as anxiety and depression. Scholars have applied COR theory to explain employee behavior; evidence shows that, in the process of responding to job demands, employees will experience resource imbalances, thereby leading to job burnout, emotional exhaustion, feedback avoidance, and insufficient performance (Cao & Qu, 2014), all leading to job burnout from excessive job demands caused employees' negative behaviors such as absence and turnover. Thus, Hills (2019) found that an individual will experience emotional exhaustion and then attempt to avoid or reduce losses by quitting his or her job. Occupational stress is similar to emotional exhaustion, which is defined as an individual's feeling or awareness of personal dysfunction due to perceived conditions or events in the workplace. Just as with the consequences of emotional exhaustion, a previous study showed that a high degree of perceived occupational stress is related to a high level of turnover intention (Wen et al., 2020). In addition, foreign employees may be experiencing a higher level of emotional exhaustion during Covid-19 pandemic. Caligiuri et al. (2020) mentions that, in a stress-induced state, it will be especially difficult for employees to work effectively in when living in a foreign country and working with people from different cultural backgrounds. Therefore, foreign employees tend to have higher degree of intention to leave their current jobs.

Overall, from the theoretical perspective of the Conservation of Resources theory, it can be explained that the perceived threat of Covid-19 directly exacerbates the degree of employees' emotional exhaustion. Moreover, the theory also states that emotional exhaustion can lead to negative working behavior, and result in the intention to quit the job. Thus, the following hypotheses are offered:

H2a: The perceived threat of Covid-19 will exacerbate Chinese employees' emotional exhaustion.

H2b: Emotional exhaustion will cause a higher level of turnover intention.

H2c: The effect of the perceived threat of Covid-19 on turnover intention will be mediated by emotional exhaustion.

The Effect of Affective Commitment on Emotional Exhaustion and Turnover Intention

The central insight of COR theory is that individuals with more resources are less susceptible to attacks on those resources; moreover, they are more capable of obtaining resources (Hobfoll et al., 2018). Therefore, scholars have applied COR theory, not only to job demands, but also to job resources. In considering job resources, scholars are concerned with the factors that can lessen employees' stress and improve their working attitudes and behaviors (Cao & Qu, 2014). Demerouti and Bakker (2011) indicate that job resources are related to material, psychological, social, or organizational resources at work, such as job control, social support, feedback, rewards, or a safe environment. When organizations provide their employees with valuable resources, individuals will have emotional attachment or commitment to the organization (Cao & Qu, 2014). According to COR theory, resource-related factors can provide support for personal values, thereby alleviating the pressure caused by negative emotions (Hobfoll et al., 2018). Thus, scholars have found that individuals who receive support in the form of resources from their organization will deepen their commitment to and trust in the organization, thereby reducing the likelihood of job burnout and turnover (De Cuyper et al., 2012; Zhang et al., 2013).

Affective commitment comes from the emotional attachment to the social groups within the organization (Weng & Chen, 2009); that is, employees have recognition of organizational goals and feel deeply valued (Allen & Meyer, 1990). Cao and Qu (2014) state that employees with high affective attachment are more willing to share honor and disgrace with the organization and proactively maintain the good image of the company. When tri-dimensional organizational commitment (Allen & Meyer, 1990) is applied widely, its positive effects on employees' working behaviors will be different, according to particular circumstances. Under the circumstance of Covid-19, there are threats to individuals' primary resources, personal health, or even life, so this study is in line with the one-dimensional concept of organizational commitment, that is, affective commitment. Scholars have defined the one-dimensional concept of organizational commitment as a kind of effective dependence of employees on the organization, and a kind of affective attachment of individuals to the goals and values of the organization (Buchanan, 1974; Porter et al., 1974). Committed employees present hard-working, better performing, longer staying, and more active behaviors in organizations, which leads to a better level of organizational effectiveness, competitiveness, and profitability (Abdullah & Ramay, 2012; Dey et al., 2014; Morrow et al., 2012). The positive outcomes and the vast number of desirable consequences from organizational commitment should capture the attention of both practitioners and academic scholars. For instance, a prior study proved that organizational commitment is negatively associated with turnover intentions, actual turnover, and other withdrawal behaviors like absenteeism (Meyer et al., 2002). Further, Rivkin et al. (2015) found that affective commitment can positively moderate adverse effects of job-related stressors on employees' psychological well-being. Affective commitment requires that employees have a deeper understanding of their organizations; in addition, once an affective commitment is established, it will last for a certain period of time (Cui et al., 2012). Affective commitment is an essential determinant that can reduce employees' turnover intentions. Therefore, although the perceived threat of the Covid-19 crisis is postulated to increase employees' emotional exhaustion, thereby increasing their turnover intention, it is plausible that those adverse effects and the impact of the perceived

threat of Covid-19 on employees' turnover intention might be limited by employees' affective commitment to their employing organization. Given these characteristics, the following hypothesis is presented:

- H3a:** The affective commitment will decrease the level of emotional exhaustion of Chinese employees in Thailand.
- H3b:** The affective commitment will decrease the level of turnover intention of Chinese employees in Thailand.
- H3c:** The effect of emotional exhaustion of Chinese employees on their turnover intention will be moderated by the degree of affective commitment; that is, employees with a higher degree of affective commitment will have a lower degree of turnover intention caused by the emotional exhaustion.

Research Methodology

Research Samples

This study collected data from Chinese employees with a legal identity, which means they are holding a work permit allowing them to be legally employed in Thailand. Based on the statistics from the Foreign Workers Administration Office of Thailand, there were 15,527 Chinese employees granted work permits and working at organizations in Thailand at the end of May 2021 (Foreign workers administration, 2021). With the pandemic situation, it was difficult to directly contact the total population of Chinese employees since they have been working in various industries at different places in Thailand. Therefore, a convenience sampling method was used to collect survey data through an online self-administered questionnaire during the Covid-19 pandemic. Inclusion criteria were: 1) Chinese employees who were resident in Thailand at the time of filling out the questionnaires; 2) Chinese employees with work permits who worked under for organization (Chinese nationals who were running their own businesses were excluded); 3) full-time Chinese employees; 4) local hired Chinese employees.

A link to the questionnaire was shared with Chinese employees through the WeChat application. The WeChat application allows a maximum of 500 users join a group chat; thus, groups involving locally-hired Chinese employees were chosen to distribute the online questionnaire. Additionally, members of the surveyed group were encouraged to share the online questionnaire with other Chinese employees who fit the above criteria. For these reasons, the researchers cannot specify the response rate of the respondents because it depends on the extent of the voluntary distribution of group members, which is unknown.

Data collection was commenced in June 2021, which was during the third wave of the Covid-19 pandemic, with an average of 3,000 infections per day in Thailand (Emergency Operation Center, 2021). The population was Chinese, so the questionnaire was written in Chinese language. To assure the feasibility of the Chinese version of the questionnaire, the back-translation method was employed and a pilot study was conducted before the official distribution. The result of the pilot study demonstrated the reliability of affective commitment ($\alpha=0.935$), emotional exhaustion ($\alpha=0.938$) and turnover intention ($\alpha=0.821$) met the general satisfactory value of Cronbach's alpha of 0.7 (Taber, 2018). The item of "I have a lot of power in keeping myself safe from Covid-19" from the construct of the perceived threat of Covid-19 was removed according to the result of unidimensionality, and the Cronbach's α was raised to 0.793 from 0.748.

Table 1: Demographic Characteristics of the Respondents

Demographic Factors	Descriptive Statistics
Gender	Male: 91 (36.7%) Female: 157 (63.3%)
Age	Mean: 30.17 S.D.:6.527
Job Tenure	Less than 1 year: 52 (21%) 1-2 years: 56 (22.6%) 3-4 years: 58 (23.4%) 5-6 years: 32 (12.9%) 7-8 years: 20 (8.1%) 9-10 years: 8 (3.2%) More than 10 years: 22 (8.9%)
Career	Production staff: 5 (2%) Sales personnel: 18 (7.3%) Marketing/PR staff: 14 (5.6%) Customer service staff: 8 (3.2%) Administration staff: 18 (7.3%) Human resource staff: 1 (0.4%) Financial/Audit staff: 4 (1.6%) Civil servant: 8 (3.2%) Technical/Research staff: 3 (1.2%) Managerial staff: 20 (8.1%) Teacher: 86 (34.7%) Consultant: 4 (1.6%) Professional (accountant, lawyer, engineer, journalist): 1 (0.4%) Doctor/Nurse: 1 (0.4%) Others: 57 (23.0%)
Reside with family	Yes: 83 (33.5%) No: 165 (66.5%)

By the end of the data collection period, 268 questionnaires had been received. Twenty questionnaires were removed because they were considered to consist of untrustworthy responses. Consequently, a total of 248 usable questionnaires were suitable for data analysis, which met the requirement of 201 respondents to achieve a confidence level of 93% when the size of the population is over 15,000, according to the Taro Yamane formula (Israel, 1992). Table 1 summarizes the demographic characteristics of the respondents.

Measures

All scales used to measure the constructs in the hypotheses were adapted from prior studies. A 5-point Likert scale was used, ranging from 1 (strongly disagree) to 5 (strongly agree). The perceived threat of Covid-19 was measured using the scale adapted from Irshad et

al. (2020), which has seven items. Emotional exhaustion was measured using the scale adapted from Hills (2019), which has five items. For turnover intention, five items were adapted from the studies of Wong et al. (2021), Labrague and de los Santos (2021), and Irshad et al. (2020). Affective commitment used the scale of Wong et al. (2021), which contains four items.

Gender, job tenure, age, career, and whether or not the respondent resided with family were considered as control variables in this study. Gender was measured as a dummy variable (Male = 0; Female =1); age was measured as actual age in the year 2021; job tenure was measured as a ranked variable, and careers were measured as categorical variables (as detailed in Table 1); the respondents' status of residing with family was measured as a dummy variable as well (Yes=1; No=0).

Statistical Analyses

A statistical method of Partial Least Squares Structural Equation Modeling (PLS-SEM), was employed for assessing the reliability and validity of the construct, as well as hypotheses testing. There are a number of reasons for applying PLS-SEM in this study. Firstly, even though Covariance-based technique (CB-SEM) and PLS-SEM both aim at testing theories and concepts, PLS-SEM is more suited to exploratory research with the intention of prediction and theory development; on the other hand, CB-SEM is more suitable for confirmatory research with purposes of theory testing as well as theory confirmation (Hair et al., 2011). This study is an exploratory study that proposes a new conceptual model to explain the associations among the perceived threat of Covid-19 and employee turnover intention along with the mediating effect of emotional exhaustion and the moderating effect of affective commitment, concepts not proposed by other studies to the best of our knowledge. Secondly, almost all statistical tools mention the importance of sample size, and, for CB-SEM analysis, the sample size should be 10 times greater than the number of the model parameters; on the other hand, PLS-SEM analysis requires 10 times the largest construct with the greatest quantity of indicators (Marcoulides & Saunders, 2006), making it the better choice for this research. Thirdly, it was impossible to contact all Chinese employees because of their geographical dispersion and limited communication options. Given that the number of possible participants was constrained, PLS-SEM analysis was the more appropriate option. Lastly, PLS-SEM is recommended when the study comprises non-normal data as well as categorical variables (Hair et al., 2012). Skewness and Kurtosis showed the constructs involved were not distributed normally in this study. The PLS-SEM analysis was performed using SmartPLS.

Research Findings

Measurement Model

All the required criteria should be satisfied before the structural model assessment (Hair et al., 2019). This study contains only reflective constructs, so the factor loadings, Cronbach's alpha (CA), composite reliability (CR), average variance extracted (AVE) and discriminant validity should be calculated (Thatcher & Perrewé, 2002).

Firstly, factor loadings were applied to check the indicator's reliability, in which the values should be significant at the 0.5 level and higher than 0.7 (Urbach & Ahlemann, 2010). The item "I have difficulty keeping the threat of Covid-19 out of my mind" from the construct

of the perceived threat of Covid-19 was removed since its loading was 0.6. The revised model was tested again and it was found that the factor loadings of the indicators were higher than 0.7, with the significance at the 0.5 level, which was tested using bootstrapping (5,000 times). In addition, cross-loadings were measured, and the findings showed that the loading of each indicator was greater for its stipulated construct than for any of the other constructs (Urbach & Ahlemann, 2010). Therefore, the findings confirmed the indicator's reliability and discriminant validity as shown in Table 2.

Table 2: Factor Loadings and Cross Loadings for the Indicators

Indicators	EE	AC	PT	TI
EE1	0.891 (50.367)	-0.258	0.265	0.553
EE2	0.876 (42.982)	-0.280	0.239	0.482
EE3	0.922 (77.184)	-0.326	0.287	0.504
EE4	0.88 (42.747)	-0.262	0.279	0.559
EE5	0.876 (39.577)	-0.334	0.240	0.627
AC1	-0.297	0.922 (69.829)	0.056	-0.335
AC2	-0.333	0.936 (73.967)	0.062	-0.374
AC3	-0.320	0.898 (33.854)	0.110	-0.292
AC4	-0.244	0.878 (42.149)	0.143	-0.341
PT1	0.161	0.091	0.742 (10.443)	0.081
PT2	0.145	0.158	0.740 (11.014)	0.079
PT3	0.247	0.062	0.815 (25.356)	0.168
PT4	0.212	0.061	0.786 (19.385)	0.138
PT5	0.219	0.102	0.784 (18.507)	0.128
PT6	0.308	0.051	0.812 (24.368)	0.274
TI1	0.590	-0.310	0.241	0.874 (43.477)
TI2	0.587	-0.368	0.181	0.936 (73.985)
TI3	0.606	-0.371	0.174	0.949 (120.062)
TI4	0.520	-0.285	0.207	0.895 (50.254)
TI5	0.488	-0.343	0.150	0.888 (46.399)

Note: value within () is T-value. PT=perceived threat of Covid-19, EE=emotional exhaustion, AC=affective commitment, TI=turnover intention.

Secondly, as Table 3 illustrates, CA and CR were tested to check the quality of construct reliability. The results illustrate that all of the values were above the threshold value of 0.70 (Thatcher & Perrewé, 2002); thus, the reliability of all the constructs was considered acceptable for research. Thirdly, the discriminant validity was accessed by comparing the square root of

the AVE of each construct with its corresponding correlations with other constructs. Table 3 reports the square roots of the AVEs exceed their correlation with other constructs, which fulfills the requirement of discriminant validity. Since the indicator loadings can be overestimated and the structural model relationships can be underestimated by the Fornell-Larcker criterion of PLS (Henseler et al., 2015), a higher boundary criterion known as the Heterotrait-Monotrait (HTMT) ratio of correlation was used for assessing the discriminant validity. All HTMT ration test results ranged from 0.126 to 0.649, lower than the threshold of 0.85 (Henseler et al., 2015), which suggests that all constructs were independent of each other; in other words, the discriminant validity was satisfactory.

Table 3: Reliabilities and Correlation of Constructs

Constructs	CA	CR	AVE	Correlation of Constructs and Heterotrait-Monotrait (HTMT) Ratio			
				PT	EE	AC	TI
PT	0.877	0.921	0.609	0.780			
EE	0.934	0.950	0.790	0.295 (0.303)	0.889		
AC	0.930	0.950	0.827	0.100 (0.126)	-0.330 (0.351)	0.909	
TI	0.947	0.960	0.826	0.210 (0.202)	0.617 (0.649)	-0.370 (0.392)	0.909

Note: square root of AVE is presented in diagonal; value within () is the value of HTMT ratio; PT=perceived threat of Covid-19, EE=emotional exhaustion, AC=affective commitment, TI=turnover intention.

Multicollinearity and Common Method Bias Assessment

Full variance inflation factor (VIF) statistics were used to assess multicollinearity. The ideal VIF values should be close to, but not higher than, 3, which confirms that multicollinearity is not a problem (Hair et al., 2019). The findings present a range of the full VIFs with latent constructs between 1.027 and 1.602, which prove there was no problem of multicollinearity. In addition, common method bias (CMB) was checked by Harman's single-factor test. In the principal component analysis, this study examined all indicators of the model by extracting a fixed number of factors as a single factor. The result was that the one-factor solution demonstrated only 32.35% of the variance, which is lower than the 50% threshold (Charoensukmongko & Phungsoonthorn, 2020). Thus, CMB was not a core issue in the data collection of this study.

Structural Model

PLS algorithm with a path weighting scheme, along with 300 iterations, was used to calculate the statistics of the latent variables. In the model with the construct of affective commitment as the moderator, emotional exhaustion and affective commitment were multiplied to get the interaction term, which conformed by the previous studies (Al-Gahtani et al., 2007; Chin et al., 2003). In addition, models with and without the interaction term were constructed and compared by the hierarchical process, according to a recommendation from a prior study (Al-Gahtani et al., 2007). Figure 1 presents the findings of the structural model with the moderator.

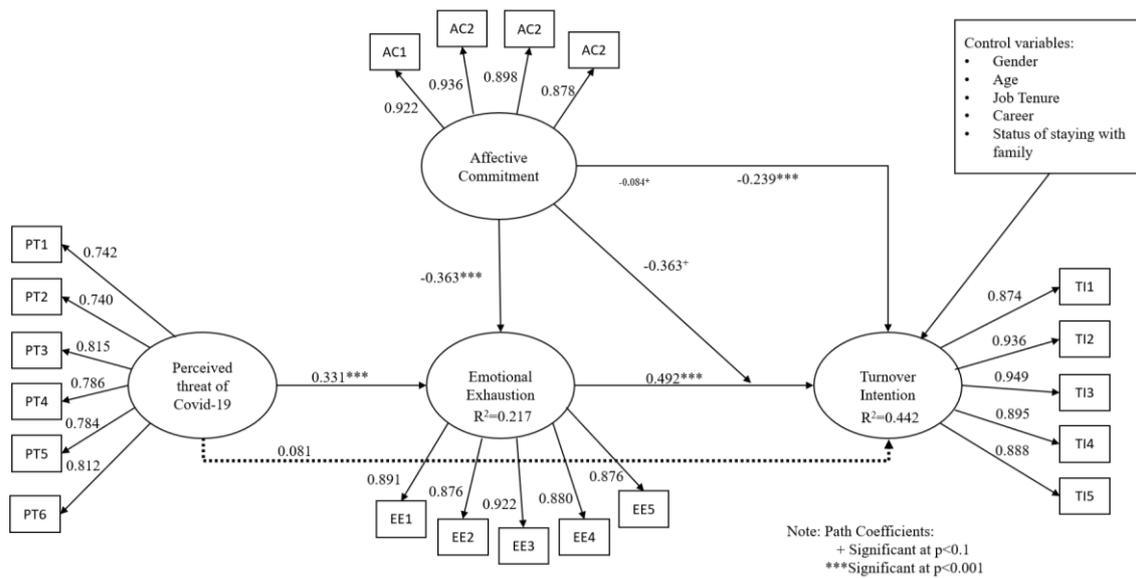


Figure 1: Structural Model Results

The findings from the model assessment indicate that the perceived threat of Covid-19 and turnover intention were positively and significantly associated ($\beta=0.250$, $P<0.001$; Effect size¹=0.010). Next, the findings indicate that the perceived threat of Covid-19 and emotional exhaustion were significantly and positively associated ($\beta=0.331$, $P<0.001$; Effect size=0.139), and emotional exhaustion and turnover intention were significantly and positively associated ($\beta=0.492$, $P<0.001$; Effect size=0.317). Scholars have found that the Sobel test is not appropriate for analyzing indirect effects because it requires that the data be normally distributed. Therefore, the mediating effect of emotional exhaustion between the perceived threat of Covid-19 and turnover intention was confirmed by interpreting the T-statistics and P-value at the 95% percentile of indirect effect using bootstrapping (5,000 times), which was introduced by Nitzi et al. (2016). The results demonstrate that emotional exhaustion positively mediates the linkage between the perceived threat of Covid-19 and turnover intention (indirect effect=0.163, $P<0.001$; Effect size=0.381; 95%LL=0.098, 95%UL=0.240). Considering that the direct association between the perceived threat of Covid-19 and turnover intention was not statistically significant while including emotional exhaustion as the mediating variable ($\beta=0.081$, $P=0.145$), it can be concluded that emotional exhaustion fully mediates the effect of the perceived threat of Covid-19 on turnover intention.

In addition, the findings from the model assessment indicate that affective commitment was negatively and significantly associated with emotional exhaustion ($\beta=-0.363$, $P<0.001$; Effect size=0.167) and turnover intention ($\beta=-0.239$, $P<0.001$; Effect size=0.078). Next, the statistically significant findings show that the beta coefficient of the interaction indicated a negative sign ($\beta=-0.084$, $P<0.1$; Effect size=0.021), which indicates that the positive impact of emotional exhaustion on turnover intention can be contained by affective commitment.

¹ Effect size is a measure of the strength of the relationship between variables. Cohen’s f square was used to measure the effect size in this study as follows: $f^2 = (R^2_{full\ model} - R^2_{partial\ model}) / (1 - R^2_{full\ model})$; f^2 values of 0.02, 0.15, and 0.35 stand for weak, moderate, and strong effects, respectively (Henseler et al., 2009). f^2 effect size is used to illustrate how the removal of a particular predictor variable affects an endogenous variable’s R^2 value; in addition, f^2 effect size can explain the presence of partial or full mediation (Hair et al., 2019).

Lastly, this study proposed a novel conceptual model, so it is important to note the explanatory power, R^2 . The R^2 of the two models, i.e., with and without the moderator of affective commitment, were measured. In the first model, affective commitment was considered only as an exogenous variable that had direct effects on the endogenous variables of emotional exhaustion and turnover intention. In the second model, affective commitment had a moderating role on the relation between emotional exhaustion and turnover intention as illustrated in Figure 1. By comparing the two models, the results show that the model without the moderator explains 21.7% of the variance in employees' emotional exhaustion, which is same as the model with the moderator ($R^2 = 0.217$). However, by including the moderating role of affective commitment, the model explains 44.2% of the variance in turnover intention, which is slightly higher than the model without it ($R^2 = 0.430$). Overall, the R^2 value of the conceptual model proposed in this study indicates a medium explanatory power; that is, this conceptual model can describe approximately half of the observed variation.

Discussion

Theoretical Contributions

This study enriches the literature on turnover intention by proposing a novel model with consideration of the effects of the perceived threat of Covid-19 and its adverse effect on employees' emotional exhaustion under health- or even life-threatening circumstances. Moreover, this study contributes to COR theory in multiple ways. First, by responding to job demands under the crisis, employees' perceived threat of infection will lead to a negative outcome, emotional exhaustion. Because personal health is the primary resource of individuals, the feeling of loss of this resource will lead individuals into negative working behaviors. Second, the findings of the moderating effect of affective commitment are consistent with the perspective of job resource of COR theory in that they prove that committed employees have a lower degree of turnover intention even during a serious pandemic. Even though previous studies widely applied the tri-dimensional concept of organizational commitment, the impacts of continuance commitment and normative commitment are limited in particular circumstances. When individuals face the possible loss of valued resources, affective commitment was found to a stable factor that, when raised by individuals' emotional feelings toward their organizations, can lessen the negative outcomes. Therefore, this study also complements previous studies on the one-dimensional concept of organizational commitment that state that commitment is manifested as a kind of affective dependence of employees on the organization (Buchanan, 1974; Porter et al., 1974). Also, the results are consistent with previous studies that have found that affective commitment can buffer the negative effects of stressors (Liu et al., 2019; Rivkin et al., 2015).

Managerial Implications

This study provides recommendations on how to reduce employees' turnover intentions, especially during a serious crisis like the Covid-19 pandemic. Regarding the adverse effect of the perceived threat of Covid-19, it was found to increase the emotional exhaustion of Chinese employees because they were worried that Covid-19 would only get worse as time passes. It is necessary for management to arrange psychological consultation regularly in order to improve employees' psychological well-being during this sort of crisis. In addition, management can offer some tangible support like purchasing Covid-19 insurance and other safety kits for their Chinese employees to guarantee their health while working in Thailand. It is clear that employees felt emotionally drained by their work during Covid-19 pandemic, so

there was a high level of emotional exhaustion. Thus, it is essential for management to create a more flexible working schedule for employees for the purpose of alleviating their stress caused by working in an uncertain environment. Regarding the role of affective commitment, the care showed by management is important in limiting their employees' mental stress and turnover intentions. In addition, interpersonal relationship is the most salient in Chinese culture (Lin et al., 2017). Employees and employers spend a lot of their lives at work; this means that Chinese employees instinctively tend to build relationships with people they work with. This study found that Chinese employees' sense of feeling like part of the family at their organization was significant to enhancing their affective commitment. To be more specific, employers can demonstrate care through benefits and taking the initiative to look after their employees during a crisis by offering such things as flexible work scheduling and emotional wellness programs. Thus, employees can feel that their employers care about their different demands and needs both inside and outside of the workplace. Besides, a strong sense of belonging was also found vital to enhancing employees' affective commitment. Therefore, employers should encourage team bonding by allowing and encouraging their Thai employees to stay updated with the latest and most accurate information related to Covid-19, and to assist Chinese employees in staying informed since they may have difficulties following the Thai news because of the language barrier.

Limitations and Directions for Future Research

Despite the contributions that the current study offers, the contributions should be discussed in light of some limitations. First of all, the R^2 of turnover intention in this model was only 44.2%; this is acceptable in this context (Al-Sinawi et al., 2015; Hair et al., 2019), but the cause of a low R^2 should be addressed. Specifically, the data used in the statistical analysis of this study was performed by using cross-sectional data, which can result in a lower R^2 than time-series data (Sanchez & Maroney, 2015). Hence, future research may collect longitudinal data to predict the patterns of a variable over time. Second, the data was obtained from a self-administered questionnaire survey, which can be influenced by respondents' subjective bias. Third, this study focused on a lone working sample of Chinese employees in Thailand, so it is possible this study may not be generalizable to other migrant workers from other countries. Therefore, future research will need to extend the sample coverage for improving the generalizability of the offered conceptual model.

References

- Abdullah, A., & Ramay, I. (2012). Antecedents of organizational commitment of banking sector employees in Pakistan. *Serbian Journal of Management*, 7(1), 89-102.
- Al-Gahtani, S. S., Hubona, G. S., & Wang, J. (2007). Information technology (IT) in Saudi Arabia: Culture and the acceptance and use of IT. *Information & Management*, 44(8), 681-691.
- Al-Sinawi, S., Piaw, C. Y., & Idris, A. R. (2015). Factors influencing the employees' service performance in ministry of education in sultanate of Oman. *Procedia - Social and Behavioral Sciences*, 197, 23-30.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organization. *Journal of Occupational Psychology* 63(1), 1-18.

- Bao, Y., Sun, Y., Meng, S., Shi, J., & Lu, L. (2020). 2019-nCoV epidemic: Address mental health care to empower society. *Lancet (London, England)*, 395(10224), e37-e38. [https://doi.org/10.1016/S0140-6736\(20\)30309-3](https://doi.org/10.1016/S0140-6736(20)30309-3)
- Buchanan, B. (1974). Building organizational commitment: The socialization of managers in work organizations. *Administrative Science Quarterly*, 19(2), 533-546.
- Caligiuri, P., De Cieri, H., Minbaeva, D., Verbeke, A., & Zimmermann, A. (2020). International HRM insights for navigating the COVID-19 pandemic: Implications for future research and practice. *Journal of International Business Studies*, 51(5), 697-713.
- Cao, X., & Qu, J. J. (2014). Analysis of origins and main contents of conservation of resource theory and implications. *Human Resources Development of China*, 15, 75-80.
- Charoensukmongko, P., & Phungsoonthorn, T. (2020). The effectiveness of supervisor support in lessening perceived uncertainties and emotional exhaustion of university employees during the COVID-19 crisis: The constraining role of organizational intransigence. *The Journal of General Psychology*, 1-20.
- Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research*, 14(2), 189-217.
- Cui, X., Zhang, Y., & Qu, J. (2012). Labor relations climate and job satisfaction: The moderating role of organizational commitment. *Nankai Business Review*, 15(2), 19-30.
- De Cuyper, N., Mäkikangas, A., Kinnunen, U., Mauno, S., & Witte, H. D. (2012). Cross-lagged associations between perceived external employability, job insecurity, and exhaustion: Testing gain and loss spirals according to the conservation of resources theory. *Journal of Organizational Behavior*, 33(6), 770-788.
- Demerouti, E., & Bakker, A. B. (2011). The job demands-resources model: Challenges for future research. *SA Journal of Industrial Psychology*, 37(2), 1-9.
- Dey, T., Kumar, A., & Kumar, Y. L. N. (2014). A new look at the antecedents and consequences of organizational commitment: A conceptual study. *International Journal of Humanities and Social Science*, 4(1), 281-287.
- Emergency Operation Center. (2021). *The coronavirus disease 2019 situation: Thailand situation update on 30 June 2021*. Department of Disease Control. <https://ddc.moph.go.th/viralpneumonia/eng/file/situation/situation-no538-300664.pdf>
- Fazio, J., Gong, B., Sims, R., & Yurova, Y. (2017). The role of affective commitment in the relationship between social support and turnover intention. *Management Decision*, 55(3), 512-525.
- Foreign Workers Administration. (2021). *Record on the number of aliens with work permit throughout the Kingdom of Thailand, May 2564*. https://www.doe.go.th/prd/assets/upload/files/alien_th/b4d395ff0f55dac76797e41520e0d1b5.pdf (in Thai)
- Hair, J., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM, Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-52.
- Hair, J., Risher, J., Sarstedt, M., & Ringle, C. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24.
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414-433.
- Hamouche, S. (2020). COVID-19 and employees' mental health: Stressors, moderators and agenda for organizational actions. *Emerald Open Research*, 2(15), 1-15.

- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135.
- Henseler, J., Ringle, C. M. & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing (New Challenges to International Marketing ed. Vol. 20). In *Advances in international marketing*. Emerald group Publishing Limited.
- Hills, M. E. (2019). *Emotional exhaustion: Creation of a new measure and exploration of the construct*. Oklahoma State University.
- Hobfoll, S. E. (2011). Conservation of resource caravans and engaged settings. *Journal of Occupational and Organizational Psychology*, 84(1), 116–122.
- Hobfoll, S. E., Halbesleben, J., Neveu, J.-P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior*, 5(1), 103-128.
- Hom, P. W., Lee, T. W., Shaw, J. D., & Hausknecht, J. P. (2017). One hundred years of employee turnover theory and research. *Journal of Applied Psychology*, 102(3), 530-545.
- Irshad, M., Khattak, S. A., Hassan, M. M., Majeed, M., & Bashir, S. (2020). How perceived threat of Covid-19 causes turnover intention among Pakistani nurses: A moderation and mediation analysis. *International Journal of Mental Health Nursing*, 30(1), 1-10.
- Israel, G. D. (1992). *Determining sample size 1*. University of Florida.
- Labrague, L. J., & de los Santos, J. A. A. (2021). Fear of COVID-19, psychological distress, work satisfaction and turnover intention among frontline nurses. *Journal of Nursing Management*, 29(3), 395-403.
- Lin, J., Yan, Y., Chen, S., & Luo, X. (2017). Understanding the impact of social commerce website technical features on repurchase intention: A Chinese guanxi perspective. *Journal of Electronic Commerce Research*, 18(3), 225-244.
- Liu, W., Zhou, Z. E., & Che, X. X. (2019). Effect of workplace incivility on OCB through burnout: The moderating role of affective commitment. *Journal of Business and Psychology*, 34(5), 657-669.
- Manakitsomboon, H. (2020). *Wage reduction after COVID-19 Thailand Q2 2020, by type of businesses*. [Chart]. Statista. <https://www.statista.com/>
- Marcoulides, G. A., & Saunders, C. (2006). Editor's comments: PLS: A silver bullet?. *MIS Quarterly*, 30(2), iii-ix.
- Marketeer. (2020) *Foreigners working in Thailand: Japan is disappearing, teachers, Filipino-Chinese are on the rise*. <https://marketeeronline.co/archives/190879> (in Thai)
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61(1), 20-52.
- Mo, Y., Deng, L., Zhang, L., Lang, Q., Liao, C., Wang, N., Qin, M., & Huang, H. (2020). Work stress among Chinese nurses to support Wuhan in fighting against COVID-19 epidemic. *Journal of Nursing Management*, 28(5), 1002-1009.
- Morrow, P. C., McElroy, J. C., & Scheibe, K. P. (2012). Influencing organizational commitment through office redesign. *Journal of Vocational Behavior*, 81(1), 99-111.
- Moyer, F., Aziz, S., & Wuensch, K. (2017). From workaholism to burnout: Psychological capital as a mediator. *International Journal of Workplace Health Management*, 10(3), 213-227.
- Nashwan, A. J., Abujaber, A. A., Villar, R. C., Nazarene, A., Al-Jabry, M. M., & Fradelos, E. C. (2021). Comparing the impact of COVID-19 on nurses' turnover intentions before and during the pandemic in Qatar. *Journal of Personalized Medicine*, 11(456), 1-10.
- Nitzl, C., Roldán, J., & Cepeda-Carrion, G. (2016). Mediation analysis in partial least squares path modeling: Helping researchers discuss more sophisticated models. *Industrial Management & Data Systems*, 116, 1849-1864.

- OECD/ILO. (2017). *How immigrants contribute to Thailand's economy*. OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264287747-en>
- Post Reporters. (2021). *Thailand third time unlucky: Bank research units have downgraded the 2021 GDP outlook as new wave of infections batters the economy*. Bangkok Post, Business. <https://www.bangkokpost.com/business/2113083/thailand-third-time-unlucky>
- Porter, L. W., Streers, R. M., & Mowday, R. T. (1974). Organization commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59(5), 603-609.
- Prommegger, B., & Krcmar, H. (2021, June). Through good times and bad: The influence of workplace social support on IT professionals' turnover intention during the COVID-19 Crisis. In *Proceedings of the 2021 on Computers and People Research Conference*, 13-21.
- Qi, Z., & Zhu, J. (2007). The theory of organizational commitment and it's research development. *Journal of Zhejiang University (Humanities and Social Sciences)*, 37(6), 90-98.
- Rahman, M. A., Hoque, N., Alif, S. M., Salehin, M., Islam, S. M. S., Banik, B., Sharif, A., Nazim, N. B., Sultana, F., & Cross, W. (2020). Factors associated with psychological distress, fear and coping strategies during the COVID-19 pandemic in Australia. *Globalization and Health*, 16(1), 1-15.
- Rivkin, W., Diestel, S., & Schmidt, K. H. (2015). Affective commitment as a moderator of the adverse relationships between day-specific self-control demands and psychological well-being. *Journal of Vocational Behavior*, 88, 185-194.
- Royal Thai Government Gazette. (2008). Alien working Act, B.E. 2551 [2008], *Government Gazette*, 62 (11), 567-586.
- Sanchez, B., & Maroney, N. (2015). *Low R square in the cross section of expected returns*. New Jersey: Kean University.
- Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48(6), 1273-1296.
- Thatcher, J. B., & Perrewé, P. L. (2002). An empirical examination of individual traits as antecedents to computer anxiety and computer self-efficacy. *MIS Quarterly*, 26(4), 381-396.
- Urbach, N., & Ahlemann, F. (2010). Structural equation modeling in information systems research using partial least squares. *Journal of Information Technology Theory and Application*, 11(2), 5-40.
- Worldometer. (2021). *Coronavirus cases*. <https://www.worldometers.info/coronavirus/>
- Wen, B., Zhou, X., Hu, Y., & Zhang, X. (2020). Role stress and turnover intention of front-line hotel employees: The roles of burnout and service climate. *Frontiers in Psychology*, 11(36), 1-13.
- Weng, Q., & Chen G. (2009). The origin and new evolution of organizational commitment. *Science of Science and Management of S.&T.*, 30(011), 27-34.
- Wong, A. K. F., Kim, S., Kim, J., & Han, H. (2021). How the COVID-19 pandemic affected hotel Employee stress: Employee perceptions of occupational stressors and their consequences. *International Journal of Hospitality Management*, 93, 1-10.
- Yang, Y., Wang, P., Kelifa, M. O., Wang, B., Liu, M., Lu, L., & Wang, W. (2021). How workplace violence correlates turnover intention among Chinese health care workers in COVID-19 context: The mediating role of perceived social support and mental health. *Journal of Nursing Management*, 00, 1-8.
- Zandifar, A., & Badrfam, R. (2020). Iranian mental health during the COVID-19 epidemic. *Asian journal of Psychiatry*, 51, 101990.
- Zhang, L., Lin, Y., & Zhang, L. (2013). Job insecurity and emotional exhaustion, the mediating effects of emotional labor. *Journal of Management Science*, 26(3), 1-8.

Appendix

- EE1: I feel emotionally drained by my work.
- EE2: I feel used up by the end of the day.
- EE3: I feel fatigued when I have to get up in the morning to face another day on the job.
- EE4: Working with people all day is really a strain for me.
- EE5: I feel frustrated by my job.
- AC1: I feel a strong sense of belonging in this organization.
- AC2: I feel like part of the family at this organization.
- AC3: I feel emotionally attached to this organization.
- AC4: I feel happy to spend the rest of my career in this organization.
- PT1: I frequently think about the threat of Covid-19 in the future.
- PT2: The threat of Covid-19 often enters my mind.
- PT3: I worry that Covid-19 will only get worse as time passes.
- PT4: I think that my ability will be limited in protecting myself from Covid-19 outbreak in the future.
- PT5: I worry that the threat of Covid-19 will never end.
- PT6: I often dwell on the threat of Covid-19 in the future.
- TI1: In this organization, I have searched for a new job during the past 12 months.
- TI2: Given the current situation, I am thinking about leaving this organization.
- TI3: Due to the current situation, I often think about quitting.
- TI4: Lately, I have taken an interest in job offers due to Covid-19.
- TI5: Due to Covid-19, next year I will probably look for a new job outside this organization.