

The role of employee well-being, job satisfaction, and post-Covid-19 syndromes on employee performance at Linh Trung Export Processing Zone in Ho Chi Minh City

Minh Thi Binh Nguyen^{1*}

¹Nong Lam University, Ho Chi Minh City, Vietnam

*Corresponding author: binhminh_sunshine@hcmuaf.edu.vn

ARTICLE INFO

DOI:10.46223/HCMCOUJS.
econ.en.14.3.2821.2024

Received: June 28th, 2023

Revised: October 10th, 2023

Accepted: October 23rd, 2023

JEL classification code:

M12; M54; J53; I12; I31

Keywords:

employee performance;
employee well-being; job
satisfaction; post-Covid-19
syndrome

ABSTRACT

Our paper was conducted to certify the role of employee well-being, job satisfaction, and post-Covid-19 syndrome in the job performance of employees working at Linh Trung Export Processing Zone in Ho Chi Minh City. Based on previous theoretical and empirical studies, we constructed the research conceptual framework and hypotheses. We applied a convenience sample method and conducted a direct survey with 439 respondents who suffer from post-Covid-19 symptoms. SPSS 25 software and AMOS 24 software were used to test hypotheses. The results illustrated that employee well-being and job satisfaction had a positive and strong relationship with employee performance, while post-Covid-19 syndrome strongly and negatively impacted employee performance. Moreover, the factors affecting employee performance in descending order were employee well-being, job satisfaction, and post-Covid-19 syndrome. Finally, we showed some theoretical and practical contributions to enhancing the level of performance of employees working at Linh Trung Export Processing Zone in Ho Chi Minh City as well as at other companies in Vietnam suffering from post-Covid-19 syndrome.

1. Introduction

Nowadays, companies are proactive in their role to maintain a competitive advantage in rapidly changing global scenarios (Zakaria, Abdulatiff, & Ali, 2014). Therefore, companies need to have effective strategies to gain a competitive advantage in the increasing state of global competition (Baines & Langfield-Smith, 2003). Human resources affect competitive advantage in the work market (Lam'ah & Rofaida, 2022). Human resources are not only a key factor in achieving companies' objectives (Arslan & Roudaki, 2019) but also determine a company's success (Macke & Genari, 2019). To have a positive effect on the organization, human resources must have good performance (Guest, 2017). Almost all companies desire to improve their performance (Zakaria et al., 2014), and having good-performing employees is vital for the survival and development of companies (Aboazoum, Nimran, & Al Musadieq, 2015). This has a special meaning for the present situation because, although there was a global recovery after the Covid-19 pandemic, it is still dim because of the lingering impact of the Covid-19 pandemic (United Nations, 2023). The General Statistics Office of Vietnam showed that until the end of 2022, there were 143.2 thousand enterprises withdrawing from the market, or about 400 companies per day (Tu Chi, 2022).

Job performance, or employee performance, has been studied for a long time as a dependent variable, and there are many determinants affecting job performance (Aboazoum et al., 2015). Lam'ah and Rofaida (2022) studied journals of Scopus with citations above 33 from 2017 to 2021 and indicated that these factors have positive and negative relationships with employee performance. They also showed that factors often used to improve job performance were leadership, motivation, job satisfaction, workplace environment, employee well-being, commitment, and so on, and factors often used to decrease job performance were emotional exhaustion, job disruption, job insecurity, justice differentiation, and anxiety. In Vietnam, job performance also is studied with many factors affecting positively such as job satisfaction (Mai, Nguyen, Pham, Nguyen, & Nguyen, 2016; Ngo, 2021; Nguyen, Le, & Nguyen, 2022; Truong, Duong, & Nguyen, 2022); career development, team spirit, relationship at work, compensation, and benefit (Mai et al., 2016); work motivation (Nguyen & Dang, 2021; Nguyen, Nguyen, & Tran, 2021); working ability, welfare, cooperation, and education (Nguyen & Dang, 2021); core self-evaluation (Vo, 2018); working environment (Le & Dang, 2019; Mai et al., 2016; Nguyen & Dang, 2021); risk perception (Truong et al., 2022); job-based psychological ownership (Pham, 2022); psychological capital (Ngo, 2021); leader-member exchange (Tran, Nguyen, Dang, & Ton, 2018); facilities, promotion policies, and leadership (Le & Dang, 2019). Vo (2018) showed the effects of work-family conflict and family-work conflict on job performance were negative, and Truong et al. (2022) illustrated that negative psychology with Covid-19 negatively impacted job performance. There is no research on the effect of employee well-being on job performance in Vietnam, although employee well-being is related to the strategies of organizations and individuals, and one of the fields focused on studying organizations (Pradhan & Hati, 2022). Previous studies indicated that employee well-being positively and significantly impacted job performance (Gillet, Fouquereau, Forest, Brunault, & Colombat, 2012; Harshitha & Arul Senthil, 2021; Zakaria et al., 2014). Moreover, there is a relationship between job satisfaction and employee well-being (Supardi, Salehah, & Komalasari, 2023). Therefore, we decided to study the direct and indirect effects of employee well-being on the performance of employees in our paper to fill the gap.

A recent survey about post-Covid-19 showed that the majority of patients who suffered from Covid-19 still had post-Covid-19 symptoms from two to five months (accounting for 68%); 17.4% of patients had post-Covid-19 symptoms for more than 05 months; and about 5% still have symptoms after 10 months (Thai Binh, 2022b). If people have post-Covid-19 symptoms, they have a feeling of physical and mental overload or exhaustion; therefore, the Ministry of Health in Vietnam provided guidance on rehabilitation and self-care for related diseases after Covid-19 (Thai Binh, 2022b). Fouad, Zawilla, and Maged (2023) showed that post-Covid-19 syndrome negatively affected job performance. Cu and Le (2023) also studied the change in the income of employees working in the aviation and tourism/hospitality sectors in Vietnam in the post-Covid-19 situation, and Nguyen et al. (2022) studied the job satisfaction and job performance of workers working in industrial zones of Hanoi and Ho Chi Minh City in Vietnam during the Covid-19 pandemic; they didn't study the effect of post-Covid-19 symptoms on job performance. Therefore, we decided to study the effect of post-Covid-19 symptoms on the performance of employees to fill the gap.

This paper aims to determine the roles of job satisfaction, employee well-being, and post-Covid-19 syndrome on the job performance of employees working at Linh Trung Export Processing Zone in Ho Chi Minh City. Our findings are expected to help companies at Linh Trung Export Processing Zone to improve employee performance after the Covid-19 pandemic.

2. Theoretical basis

2.1. The broaden-and-build theory

The broaden-and-build theory was first developed in 1998 by Fredrickson (1998), illustrating that an individual's temporary actions and thoughts were expanded by positive emotions including happiness, interest, satisfaction, and love. Fredrickson (1998) stated that the resources gained from positive emotion accumulated over time and enhanced the well-being of an individual; as a result, a positive cycle was formed: the enhancement of well-being led to more positive emotions, leading to a rise in well-being. Therefore, happiness is not only success's result and highly effective performance behavior, but also a prerequisite for success. By contrast, negative emotions create problems for individuals and society, pointing to yet another reason for scholars' focus on them.

Fredrickson's theory suggests that positive emotions such as psychological well-being, social well-being, and workplace well-being may have a primary effect on both employee performance and job satisfaction.

2.2. Theories about employee performance and job satisfaction

The theory of performance concerns many fields but is most closely related to the work of Schechner (1985); and Turner (1988). This theory illustrates that we perform well in society, and conversation, clothes, food, and so on are signal systems for each person in society. Nowadays, employee performance concerns company-related activities (Wolor, Dania, Suherdi, Nurkhin, & Ardiansyah, 2022) and has become an important and strategic compulsory for organizations (Hameed & Waheed, 2011). Begenirbas and Caliskan (2014) defined employee performance as the level at which employees can achieve the objectives and missions being assigned. Santos, Reis Neto, and Verwaal (2018) conceptualized employee performance as an employee's ability to do activities donated to the development of the technical core of the company. Therefore, the success or failure of a company depends on employee performance (Hameed & Waheed, 2011), and the company should be aware of the employee's performance abilities to manage and adjust the employee to become suitable business strategy (Diamantidis & Chatzoglou, 2019). The sociotechnical systems theory of Trist and Bamforth (1951) illustrates that specific workplace factors may increase individual performance. Moreover, the performance theory of Elger (2007) describes performance's six components, including knowledge, skills, identity, personal factors, and fixed factors, and suggests three axioms for effective performance consisting of the mindset of the performer, environmental integration, and engagement. Particularly, personal factors include variables linked to the personal situation of an individual. For example, employee performance is affected when he or she is ill.

Toropova, Myrberg, and Johansson (2021) define job satisfaction as a mental state being determined by the level a person feels his needs for job relations are being met. Choudhary and Saini (2021) also illustrate that job satisfaction concerns job-related factors and is a state of subjective happiness at work. The theory of job satisfaction strongly overlaps with human motivation theories such as the Hierarchy of Needs Theory of Maslow, the Incompatibility Theory of Porter, the Motivator-Hygiene Theory of Herzberg, and the Justice Theory of Zelenik and Adams (Supardi et al., 2023; Wolor et al., 2022). Maslow's theory was one of the first theories for examining important contributors to satisfying the job and suggests that the needs of humans have five levels including physiological needs, safety, belongingness/love, esteem, and self-actualization (Wolor et al., 2022). The theory of Herzberg illustrates that basic needs fulfillment doesn't lead to job satisfaction, and the need for self-actualization has an important role in job

satisfaction (Wolor et al., 2022). The theory of Porter defines job satisfaction as the difference between the amount of money that should be there and one that can be received now, and if the result is zero, the employee is satisfied with the job (Supardi et al., 2023). The theory of Zelenik and Adams illustrates that a person is usually satisfied with an impartial situation and dissatisfied with an injustice situation (Supardi et al., 2023).

2.3. The effect of post-Covid-19 syndrome on employee performance

According to the report by the WHO, patients suffering from Covid-19 seem to have recovered fully, while some of them continued to be affected for a long time with syndrome on several of their body systems, with approximately 10% to 20% of patients. Post-Covid-19 was coded as ICD-10 and ICD-11 in the Classification and Terminologies unit in September 2020. Post-Covid-19 was defined by the WHO as “a post-Covid-19 condition that occurs in individuals with a history of probable or confirmed SARS-CoV-2 infection, usually three months from the onset of Covid-19, with symptoms that last for at least two months and cannot be explained by an alternative diagnosis. Common symptoms include fatigue, shortness of breath, and cognitive dysfunction, but they also generally have an impact on everyday functioning” (World Health Organization, 2021, p. 1).

According to the number 2055/BYT-KCB of the Ministry of Health in Vietnam, post-Covid-19 symptoms are about two hundred and three different symptoms occurring after a patient has recovered from Covid-19 or either persists from the beginning or recur over time. The most common symptoms include tiredness, dyspnea, musculoskeletal pain, reduced or lost sense of taste or smell, cognitive decline, sleep disorder, coughing, chest pain, and so on (Ministry of Health, 2022). Fatigue or tiredness is the most reported debilitating symptom experienced by those recovering from Covid-19. It is often described as an overwhelming sense of physical and mental tiredness. Dyspnea is a syndrome when people feel breathless after being ill from Covid-19. Cognitive decline is a syndrome in which people have a range of difficulties with their thinking skills after Covid-19, including problems with memory, attention, information processing, planning, and organization. Therefore, in this paper, we studied post-Covid-19 syndromes with common symptoms, including tiredness and cognitive decline (reduced mind and concentration). The tiredness of patients with post-Covid-19 is a feeling of physical and mental overload or exhaustion; therefore, they don't have any motivation to do anything (Thai Binh, 2022a).

Fouad et al. (2023) indicated that post-Covid-19 syndrome negatively affected job performance. Thus, the hypothesis information is as follows:

H1: Post-Covid-19 syndrome has a negative relationship with employee performance

2.4. The effect of employee well-being on job satisfaction and employee performance

Employee well-being is famous for being one of the focal areas of organizational research, but it is not understood comprehensively or clearly (Pradhan & Hati, 2022). The New Oxford Advanced Learner's Dictionary (7th ed., revised 2005) defined “well-being” as a comfortable, happy, and healthy state. Warr (1999) defined employee well-being as context-free well-being and job-specific well-being, which referred to employees' feelings of well-being in relationships with their job, like satisfaction with their salary or partners. Nielsen et al. (2017) explained that employee well-being was happiness, general physical health, the intention of remaining with the organization, psychological health, work satisfaction, organizational commitment, and job engagement. Zakaria et al. (2014) illustrated that employee well-being is regarded as sick leave, the balance of work-life, workplace, and health. Dajnoki, Kórnives, Szabados, and Bácsné Bába (2020) showed that stress, work-life balance, commitment, and health development affected

employee well-being. Harshitha and Arul Senthil (2021) found that employee well-being concerns employees' performance and behavior towards their working environment and conditions, and employee well-being includes both mental and physical states where they have a comfortable sense of working. Therefore, an organization's well-being scheme could create the loyalty of employees as well as efficient, healthy, and satisfied human resources. According to Grant, Christianson, and Price (2007), employee well-being was defined as physical, social, and psychological well-being. It combines the balance of physical health, individual judgment of the employee, and the employee's relation with other people and communities, and the psychosocial and physical environment can impact the employee's well-being at work (Zakaria et al., 2014). Similarly, Pradhan and Hati (2022) indicated that employee well-being consisted of social well-being, psychological well-being, workplace well-being, and subjective well-being. In this paper, we adopted a part of the conception of employee well-being developed by Pradhan and Hati (2022). Therefore, employee well-being is concerned with psychological well-being, social well-being, and workplace well-being. Psychological well-being is employees' perception of their lives and experiences, such as the purpose of life, adaptability to the environment, etc. (Pradhan & Hati, 2022). Social well-being is the positive state's relationship of employees with their team or partners, and workplace well-being concerns all aspects of employees' jobs, like facilities of work, assistance for employees, the policy of salary, and so on (Pradhan & Hati, 2022).

The measure of employee well-being being provided by the organization leads to satisfying employee jobs and improves productivity, and good employees are often considered well-productive employees (Harshitha & Arul Senthil, 2021). According to employees, well-being is meaningful for themselves and their performance; thus, the more satisfied with workplace well-being, the more productive their job performance is (Gillet et al., 2012). Harshitha and Arul Senthil (2021) stated that employee well-being measures could enhance job performance and help to achieve the organization's goals. They proposed that organizations should bring all well-being employees together to make employees have peace of mind, work better, and enhance their job performance. Wright, Cropanzano, and Bonnet (2007) indicated that psychological well-being has a positive and significant correlation with job performance. Moreover, Zakaria et al. (2014) stated that there was a positive and significant relationship between well-being and performance, and well-being positively affected performance.

Supardi et al. (2023) showed that employee well-being increased employee satisfaction with their job. The work environment is important not only to maintain employees' satisfaction and impact but also can impact employee job performance and job satisfaction (Saputra, 2022). Firmansyah and Riasnugrahani (2022) also illustrated that welfare at the workplace or workplace well-being positively affected employee performance.

Therefore, the hypothesis information is as follows:

H2: Employee well-being has a positive relationship with employee performance

H3: Employee well-being has a positive relationship with job satisfaction

2.5. The effect of job satisfaction on employee performance

Job satisfaction is considered an employee's orientation toward his job (Hoboubi, Choobineh, Ghanavati, Keshavarzi, & Hosseini, 2017) or an employee's emotional response to his work situation (Fute, Oubibi, Sun, Zhou, & Xiao, 2022), or an employee's feelings and attitudes toward their job (Fute et al., 2022). Chadi and Hetschko (2017) illustrated that job satisfaction is a worker welfare measure and consists of the well-being that an employee has from various work

aspects. Previous studies showed a relationship between job satisfaction and employee performance (Chadi & Hetschko, 2017; Fute et al., 2022).

If employees feel more satisfied, their job performance will be enhanced; by contrast, lower satisfaction leads to decreased employee performance (Beloor, Nanjundeswaraswamy, & Swanmy, 2017; Le, 2020; Ramli, 2019). Thus, job satisfaction has a positive and significant relationship with employee performance (Auliani & Wulanyani, 2018; Hendri, 2019). Moreover, Wolor et al. (2022) illustrated that job satisfaction had an important role and impacted job performance positively and significantly. Therefore, the hypothesis information is as follows:

H4: Job satisfaction has a positive relationship with employee performance

2.6. The research model

Based on the four hypotheses above, we proposed the research model in Figure 1.

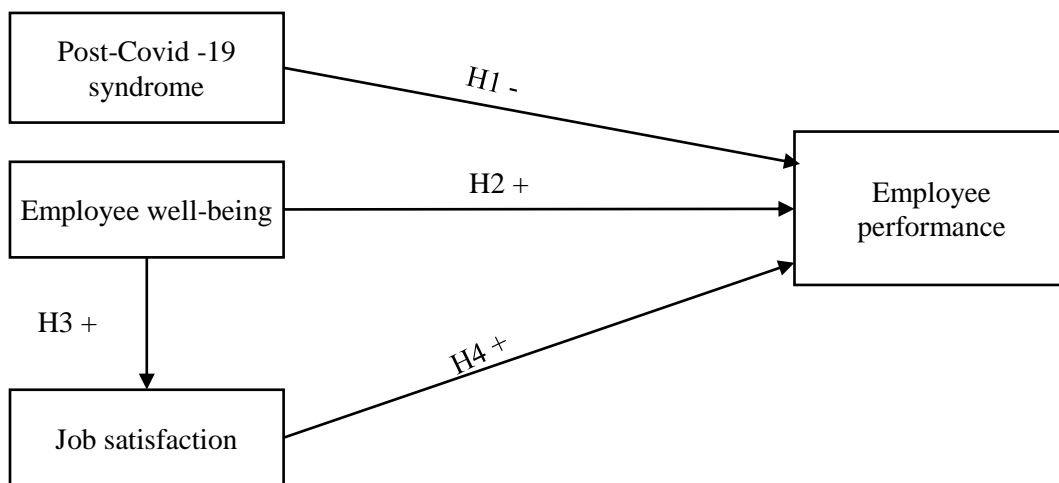


Figure 1. The proposed research model

3. Methodology

3.1. Sample and data collection

Our paper was conducted by using the quantitative method through a direct survey from July 2022 to October 2022 at Linh Trung Export Processing Zone in Ho Chi Minh City with a convenience sample method, which is a nonprobability sampling method. The population on this survey are employees who have suffered post-Covid-19 symptoms and worked at companies in the Linh Trung Export Processing Zone. To ensure the survey subjects, the first requirement for respondents was that they have post-Covid-19 symptoms. The questionnaire includes two sections, with the first section concerning respondents' demographic information and the second section concerning questions for measuring the determinants affecting employee performance.

The good minimum sample size for applying Structural Equation Modeling (SEM) with under factors is 100 (Hair, Anderson, Babin, & Black, 2010), and for the quantitative study is 400 (Comrey & Lee, 2013). Thus, we decided to apply the survey size of 500. The official sample size was 439, with a response rate of 87.8% of the distributed survey.

3.2. Scale measures

By developing from previous studies, we used multivariate scales to explain job satisfaction, employee well-being, post-Covid-19 syndromes, and job performance in Table 1. We use a 5-point Likert: 1 being completely disagreed, up to 5 completely agreed, with 03 being neutral.

Table 1

Sources of measurement items

Variables	Items	Measurement	Sources
Post-Covid-19 Syndrome (PCS)	PCS1	I have a decrease in attention and concentration after having Covid-19	Fouad et al. (2023), World Health Organization (2021)
	PCS2	I have a decrease in memory after having Covid-19	
	PCS3	I feel fatigued and have weaker health after having Covid-19	
	PCS4	I have a sleep disorder after having Covid-19	
Employee Well-being (EW)	EW1	I believe that I have a purpose and direction in life	Pradhan and Hati (2022)
	EW2	I easily adapt to day-to-day changes in my life and manage my responsibilities well	
	EW3	My partners are good and trustworthy	
	EW4	My managers care a lot about their employees	
	EW5	My workplace is very conducive and offers a good source for advancing my skills	
	EW6	The company’s salary and benefits are very good	
Job Satisfaction (JS)	JS1	At work, I feel full of energy	Wolor et al. (2022)
	JS2	I have the opportunity to advance in my work	
	JS3	I am enthusiastic about my work	
	JS4	My work inspires me	
	JS5	I have the opportunity to be responsible for determining and planning my work	
Employee Performance (EP)	EP1	I am satisfied with my performance because most of it is very good	Wolor et al. (2022)
	EP2	I receive significant recognition for a job well done	
	EP3	I meet the formal performance requirements of the job	
	EP4	My hard work makes me do my job well	
	EP5	I take initiative in doing my job	

Source: The study results

3.3. Data analysis

All collected data were coded and analyzed using SPSS 25.0 and AMOS 24.0 software in this study. The main analytical methods used in this study are analysis in the form of reliability assessment of the scale by Cronbach’s Alpha, Exploratory Factor Analyses (EFA), Confirmatory

Factor Analyses (CFA), and Structural Equation Modeling (SEM). In the analysis of Cronbach's Alpha, to ensure high reliability of the scale, the coefficient of Cronbach's Alpha is ≥ 0.6 and the correlation coefficient of the total variable is ≥ 0.3 (Tabachnick & Fidell, 2013). Hair et al. (2010) indicated that to ensure the reliability and practicality of the scale, the promax rotation method was applied and the EFA analysis must have as follows: a factor loading factor > 0.5 , Bartlett test's sig. < 0.05 , extracted variance $\geq 50\%$, KMO > 0.5 , and eigenvalue > 1 . For CFA and SEM analyses, the research model is suitable and good when $p < 0.05$; Chi-square/df (CMIN/df) ≤ 2 ; CFI ≥ 0.9 ; GFI ≥ 0.9 ; TLI ≥ 0.9 ; RMSEA ≤ 0.08 (Hair et al., 2010).

4. Result and discussion

4.1. Descriptive statistics

Table 2

Sample description

Item		Frequency	Percentage
Gender	Male	245	55.81
	Female	194	44.19
Age	18 - 24	97	22.10
	25 - 34	131	29.84
	35 - 44	152	34.62
	45 - 60	59	13.44
Education level	High School	171	38.95
	College	123	28.02
	University	140	31.89
	Over university	5	1.14
Marital status	Married	251	57.18
	Single	153	34.85
	Divorced	35	7.97

Source: The study results

The percentage of male respondents (55.81%) was higher than the percentage of female ones (44.19%). The age groups of participants include four groups: 18 - 24 (22.1%), 25 - 34 (29.84%), 35 - 44 (34.62%), and 45 - 60 (13.44%). Because the respondents work at Linh Trung Export Processing Zone, the majority of them come from high school (38.95%), and the minority of them have a post-graduate degree (1.14%). The majority of respondents are married (57.18%), and a few of them are divorced (7.97%).

4.2. Cronbach's Alpha test for reliability of the scale and the Exploratory Factors Analysis (EFA)

The results of Cronbach's Alpha test (see Table 4) showed that the scales met reliability requirements with the value of Cronbach's Alpha from 0.771 to 0.893 (PCS: 0.771; EW: 0.888;

JS: 0.893; and EP: 0.857) and corrected item-total correlation greater than 0.5 (at least 0.504). After eliminating PCS4, 19 observed variables were consistently measured as specific, statistically, and analytically significant.

Table 3 illustrates that the results of EFA with the promax rotation satisfied the suggested thresholds by Hair et al. (2010). All 19 items loaded on ten factors with Eigenvalues > 1, the cumulative percent of 59.404%, and KMO values = 0.896 > 0.5. Bartlett's test is significant at $p = 0.000 < 0.05$ for the variables measuring four factors, including employee well-being, job satisfaction, employee performance, and post-Covid-19 syndrome. The observed variables of factors were strongly correlated.

Table 3

The matrix of the extracted factors

	Factor			
	1	2	3	4
EW1	0.793			
EW2	0.781			
EW6	0.771			
EW4	0.744			
EW3	0.726			
EW5	0.720			
JS4		0.972		
JS5		0.908		
JS2		0.699		
JS1		0.667		
JS3		0.656		
EP3			0.890	
EP1			0.844	
EP5			0.835	
EP4			0.547	
EP2			0.521	
PCS3				0.837
PCS1				0.695
PCS2				0.679

Source: The study results

4.3. Confirmatory Factor Analysis (CFA)

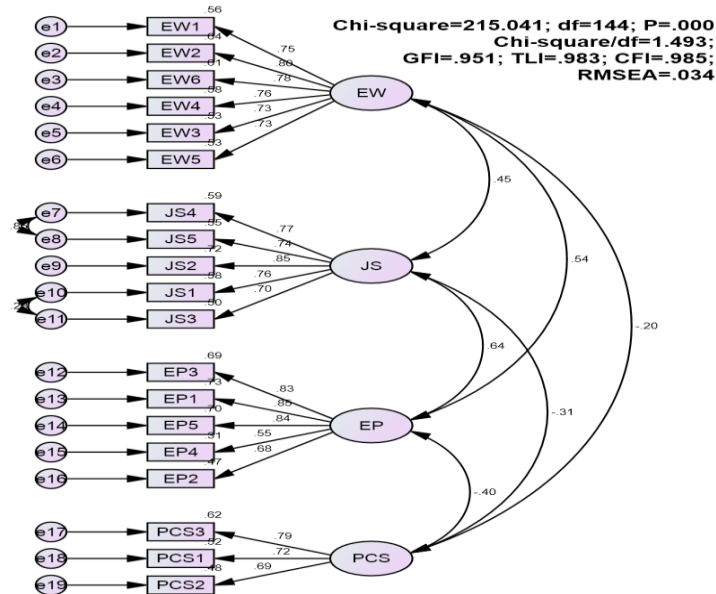


Figure 2. The results of the Confirmatory Factor Analysis (CFA)

Source: The study results

From the result of CFA in Figure 2, the model fit was good with the data collected as the results satisfied the suggested thresholds as follows: $p = 0.000 < 0.05$; $\text{chi-square/df} = 1.493 < 2$; $\text{GFI} = 0.951 > 0.9$; $\text{TLI} = 0.983 > 0.9$; $\text{CFI} = 0.985 > 0.9$; $\text{RMSEA} = 0.034 < 0.08$ (Hair et al., 2010). All the standardized regression weights were over 0.5 ($p = 0.000$), so all observed variables were convergent validity.

Table 4

Convergent and discriminant validity and reliability tests

	Cronbach's Alpha	CR	AVE	MSV	EP	EW	JS	PCS
EP	0.857	0.870	0.578	0.415	0.760			
EW	0.888	0.891	0.576	0.288	0.537	0.759		
JS	0.893	0.877	0.588	0.415	0.644	0.447	0.767	
PCS	0.771	0.779	0.541	0.162	-0.403	-0.204	-0.311	0.735

Source: The study results

Table 4 illustrates the results of convergent and discriminant validity and reliability tests. The smallest Composite Reliability (CR) was $0.779 > 0.7$, so all CR scores were good (Hair et al., 2010). All the scales were highly convergent as the Average Variance Extracted (AVE) values were over $54.1\% > 50\%$ (Hair et al., 2010). Moreover, discriminant validity was satisfied as all square roots of the AVE for each factor were greater than the inter-construct correlations and all Maximum Shared Variance (MSV) were smaller than AVE (Hair et al., 2010).

4.4. The Structural Equation Modeling (SEM) and hypothesis test

We conducted SEM analyses to test the hypotheses. The results of the SEM indicated that the research model was a good fit for the employee performance with $\text{Chi-square} = 232.515$; $\text{df} = 145$; $p = 0.000 < 0.01$; $\text{chi-square/df} = 1.604 < 2$; $\text{GFI} = 0.947 > 0.9$; $\text{TLI} = 0.979 > 0.9$; $\text{CFI} =$

0.982 > 0.9; and RMSEA = 0.037 < 0.08 (Hair et al., 2010). This means that the research model was completely consistent with the collected data and had statistical significance at a 99% confidence level ($p < 0.01$).

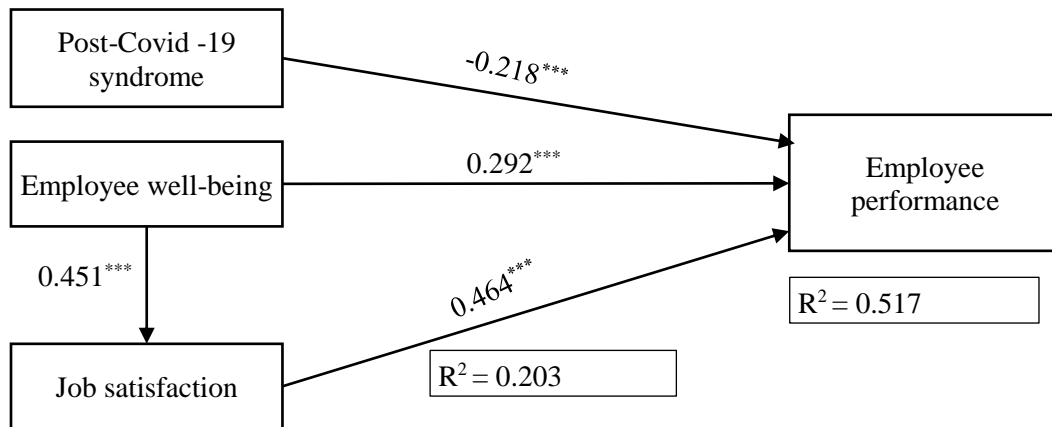


Figure 3. Standardized regression weights and the squared multiple correlations from the SEM’s results

Note: *** $p < 0.001$

Source: The study results

R^2 in Figure 3 illustrates that employee well-being, job satisfaction, and post-Covid-19 syndrome accounted for 51.7% of the variance in employee performance. Similarly, employee well-being accounted for 20.3% of the variance in job satisfaction. This means that there are still many factors affecting job satisfaction.

Based on the results of the SEM analysis, the result of hypothesis testing is shown in Table 5. As shown, all hypotheses were supported.

Table 5

Results of the hypothesis test

		P	Standardized Regression Weights	Results
H1 +	PCS ---> EP	0.000	-0.218	Supported
H2 +	EW ---> EP	0.000	0.292	Supported
H3 +	EW ---> JS	0.000	0.451	Supported
H4 +	JS ---> EP	0.000	0.464	Supported

Source: The study results

Table 6

The effects variables on employee performance

Variable	Causal effects		
	Direct	Indirect	Total
PCS	-0.218		-0.218
EW	0.292	0.209	0.501
JS	0.464		0.464

Source: Analysis results from AMOS 24

Table 6 showed that the effect of employee well-being on employee performance was the highest, with a total effect of 0.501. This means that employee well-being had direct indirect correlations with employee performance through the mediator variable job satisfaction. The second rank was job satisfaction with 0.464 and the last one was post-Covid-19 syndrome with -0.218.

4.5. Discussion

4.5.1. Theoretical contribution

Our research examined the role of post-Covid-19 syndrome, employee well-being, and job satisfaction on the performance of employees suffering post-Covid-19 symptoms and working at Linh Trung Export Processing Zone in Ho Chi Minh City. The results of our study support the first and fourth proposed hypotheses, illustrating that post-Covid-19 syndrome negatively and significantly impacted employee performance (H1), and job satisfaction strongly and positively impacted employee performance (H4). Moreover, employee well-being significantly and positively affected employee performance and job satisfaction (H2 and H3). Thus, the results of this study contribute to the accounting literature on the importance of post-Covid-19 syndrome, employee well-being, and job satisfaction on employee performance, particularly after the Covid-19 pandemic brought many people with post-Covid-19 symptoms.

Previous studies indicated that Covid-19 has changed our lifestyle and health (Cheng & Kao, 2022). Patients suffering from Covid-19 seemed to recover fully, while 10% to 20% of them continued to be affected for a long time with syndromes (World Health Organization, 2021). Particularly in Vietnam, this number was 68% and 5% from 02 to 05 months and after 10 months, respectively (Thai Binh, 2022b). This study found that the relationship between employees having post-Covid-19 symptoms and their performance on the job was negative. This finding is consistent with Fouad et al. (2023). They also indicated that post-Covid-19 syndrome negatively affected job performance among healthcare workers. However, we found that the effect of post-Covid-19 syndrome on employee performance was significant, conflicting with the result of Fouad et al. (2023); that there was no significant effect on employee performance. Therefore, we confirmed that post-Covid-19 syndrome decreased employee performance. It means that if employees do not recover their health completely after having Covid-19, their performance will be reduced.

This study also verified that employee well-being had a strong and positive correlation with employee performance, which is similar to previous studies (Gillet et al., 2012; Harshitha & Arul Senthil, 2021; Saputra, 2022; Wright et al., 2007; Zakaria et al., 2014). Moreover, we also illustrated that employee well-being increased job satisfaction, similar to the results of Supardi et al. (2023) and Saputra (2022). Therefore, we conclude that employee well-being is an important factor in improving the satisfaction of employees as well as employee performance. If the organization can create or support psychological well-being, social well-being, and workplace well-being, employees will increase their performance.

Lastly, our research contribution was to confirm that the effect of job satisfaction on employee performance was significant and positive. It means that if employees feel more satisfied with their job, they have better performance. These findings also echo a series of previous studies, such as Chadi and Hetschko (2017), Fute et al. (2022), Le (2020), Beloor et al. (2017), Ramli (2019), Wolor et al. (2022).

4.5.2. Practical contribution

In the practical contribution, the results of this paper can be used to enhance the level of performance of employees working at Linh Trung Export Processing Zone in Ho Chi Minh City as well as at other companies in Vietnam that have employees suffering from post-Covid-19 syndrome.

Because of the negative relationship between post-Covid-19 syndrome and employee performance, companies need to help their employees recover. Companies need to take care of the physical and mental health of their post-Covid-19 employees. The company needs to create favorable conditions for employees to participate in post-Covid-19 symptom treatment without reducing their salary or providing benefits to employees assured of treatment for recovering their health. In addition, the company needs to reduce stress and pressure at work during the treatment process.

Regarding the positive relationship between employee well-being and employee performance and measures of employee well-being including psychological well-being, social well-being, and workplace well-being, companies need to improve employee well-being to increase the level of employee performance. To enhance psychological well-being, companies should focus on training employees in active self-monitoring skills or skills about controlling personal emotions to enhance positivity and limit negative emotions or provide flextime for employees suffering from post-Covid-19 syndrome. To enhance social well-being, companies should improve the relationship of employees with their teams or partners. To increase workplace well-being, companies should improve employees' jobs in areas like facilities of job, assistance for employees, and policy of salary. Moreover, we confirmed that employee well-being significantly and positively impacted job satisfaction. As a result, the more improving employee well-being, the more employees are satisfied with their job. Therefore, companies should pay attention to the implications above to enhance job satisfaction.

Regarding the significant and positive correlation between job satisfaction and employee performance, companies should improve employees' satisfaction with their jobs to increase the level of employee performance. Companies should improve the work environment to make employees feel full of energy and allow employees to determine and plan their work. Besides that, companies should have a positive human resource development policy, including the opportunity for employees to advance in their work.

5. Conclusions

This paper was conducted to verify the role of job satisfaction, employee well-being, and post-Covid-19 syndrome on the job performance of employees suffering post-Covid-19 symptoms and working at Linh Trung Export Processing Zone in Ho Chi Minh City. Data was collected via a direct survey with 349 respondents and analyzed through SPSS 25 and AMOS 24 software. Our proposed model was confirmed to be suitable for employee performance, completely consistent with the collected data, and statistically significant at a 99% confidence level ($p < 0.01$), and all hypotheses were supported. Employee well-being and job satisfaction were the most important and the second role for employee performance, respectively. Both employee well-being and job satisfaction had a positive and strong relationship with employee performance. The least important role for employee performance was post-Covid-19, and their correlation was negative and significant. We also had some theoretical and practical implications for field research on employee performance.

A potential limitation of our study is that is only focused on employees suffering post-Covid-19 symptoms. Despite being still suitable in the present situation, in the future, people will completely recover from Covid-19. Moreover, there are still some factors affecting job performance, such as leadership, work environment, commitment, and so on.

References

- Aboazoum, H. M., Nimran, U., & Al Musadieq, M. (2015). Analysis of factors affecting employees' job performance in Libya. *IOSR Journal of Business and Management*, 17(7), 42-49. doi:10.9790/487X-17714249
- Arslan, M., & Roudaki, J. (2019). Examining the role of employee engagement in the relationship between organizational cynicism and employee performance. *International Journal of Sociology and Social Policy*, 39(1/2), 118-137. doi:10.1108/IJSSP-06-2018-0087
- Auliani, R., & Wulanyani, N. M. S. (2018). Factors of job satisfaction in travel tourism company employees in Denpasar. *Udayana Journal of Psychology*, 4(02), 426-434. doi:10.24843/JPU.2017.v04.i02.p17
- Baines, A., & Langfield-Smith, K. (2003). Antecedents to management accounting change: A structural equation approach. *Accounting, Organizations and Society*, 28(7), 675-698. doi:10.1016/S0361-3682(02)00102-2
- Begenirbas, M., & Caliskan, A. (2014). The mediating role of interpersonal deviance on effects of emotional labor on job performance and intention to quit. *Business and Economics Research Journal*, 5(2), 109-127.
- Beloor, V., Nanjundeswaraswamy, T. S., & Swanmy, D. R. (2017). Employee commitment and quality of work life - A literature review. *International Journal of Indian Psychology*, 4(2), 175-188. doi:10.25215/0402.040
- Chadi, A., & Hetschko, C. (2017). The magic of the new: How job changes affect job satisfaction. *Journal of Economics and Management Strategy*, 27(1), 1-17. doi:10.1111/jems.12217
- Cheng, S. C., & Kao, Y. H. (2022). The impact of the Covid-19 pandemic on job satisfaction: A mediated moderation model using job stress and organizational resilience in the hotel industry of Taiwan. *Heliyon*, 8(3), 1-8. doi:10.1016/j.heliyon.2022.e09134
- Choudhary, V., & Saini, G. (2021). Effect of job satisfaction on moonlighting intentions: The mediating effect of organizational commitment. *European Research on Management and Business Economics*, 27(1), 1-11. doi:10.1016/j.iedeen.2020.100137
- Comrey, A. L., & Lee, H. B. (2013). *A first course in factor analysis* (2nd ed.). New York, NY: Psychology Press.
- Cu, T. T., & Le, Y. T. (2023). Post-Covid-19 and the change in income of employees. In T. A. Nguyen, T. T. Pham, S. Joon, L. Y. Ling, C. M. Dong (Eds.), *Contemporary economic issues in Asian countries: Proceeding of CEIAC 2022* (Vol. 1). Singapore: Springer Press.
- Dajnoki, K., Kómvés, P. M., Szabados, G. N., & Bácsné Bába, É. (2020). Factors influencing well-being at work. *Hadtudomány: A Magyar Hadtudományi Társaság Folyóirata*, 30(E-szám), 183-197. doi:10.17047/Hadtud.2020.30.E.183
- Diamantidis, A. D., & Chatzoglou, P. (2019). Factors affecting employee performance: An empirical approach. *International Journal of Productivity and Performance Management*, 68(1), 171-193. doi:10.1108/IJPPM-01-2018-0012
- Elger, D. (2007). Theory of performance. In S. W. Beyerlein, C. Holmes & D. K. Apple (Eds.), *Faculty guidebook: A comprehensive tool for improving faculty performance* (4th ed.). Lisle, IL: Pacific Crest.

- Firmansyah, K. R., & Riasnugrahani, M. (2022). Calling and welfare at work for forestry employees. *Psychology: Journal of Psychological Thought and Research*, 27(1), 61-72. doi:10.20885/10.20885/psikologika.vol27.iss1.art5
- Fouad, M. M., Zawilla, N. H., & Maged, L. A. (2023). Work performance among healthcare workers with post-Covid-19 syndrome and its relation to antibody response. *Infection*, 51(4), 839-849. doi:10.1007/s15010-022-01942-4
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of general psychology*, 2(3), 300-319. doi:10.1037/1089-2680.2.3.300
- Fute, A., Oubibi, M., Sun, B., Zhou, Y., & Xiao, W. (2022). Work values predict job satisfaction among Chinese teachers during Covid-19: The mediation role of work engagement. *Sustainability*, 14(3), 1-18. doi:10.3390/su14031353
- Gillet, N., Fouquereau, E., Forest, J., Brunault, P., & Colombat, P. (2012). The impact of organizational factors on psychological needs and their relations with well-being. *Journal of Business and Psychology*, 27(4), 437-450. doi:10.1007/s10869-011-9253-2
- Grant, A. M., Christianson, M. K., & Price, R. H. (2007). Happiness, health, or relationships? Managerial practices and employee well-being tradeoffs. *Academy of Management Perspectives*, 21(3), 51-63. doi:10.5465/amp.2007.26421238
- Guest, D. E. (2017). Human resource management and employee well-being: Towards a new analytic framework. *Human Resource Management Journal*, 27(1), 22-38. doi:10.1111/1748-8583.12139
- Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). *Multivariate data analysis* (7th ed.). New York, NY: Prentice-Hall.
- Hameed, A., & Waheed, A. (2011). Employee development and its effect on employee performance a conceptual framework. *International Journal of Business and Social Science*, 2(13), 224-229.
- Harshitha, L., & Arul Senthil, B. (2021). Impact of employee well-being on organizational performance in the workplace. *Wesleyan Journal of Research*, 14(30), 27-38.
- Hendri, M. I. (2019). The mediation effect of job satisfaction and organizational commitment on the organizational learning effect of employee performance. *International Journal of Productivity and Performance Management*, 68(7), 1208-1234. doi:10.1108/IJPPM-05-2018-0174
- Hoboubi, N., Choobineh, A., Ghanavati, F. K., Keshavarzi, S., & Hosseini, A. A. (2017). The impact of job stress and job satisfaction on workforce productivity in an Iranian petrochemical industry. *Safety and Health at Work*, 8(1), 67-71. doi:10.1016/j.shaw.2016.07.002
- Lam'ah, F., & Rofaida, R. (2022). Identification of factors affecting employee performance: A systematic literature review. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 5(3), 21332-21342. doi:10.33258/birci.v5i3.6151
- Le, L. T. M. (2020). The influence of organizational commitment on employees' job performance: The mediating role of job satisfaction. *Management Science Letters*, 10(14), 3307-3312. doi:10.5267/j.msl.2020.6.00

- Le, T. M., & Dang, P. D. (2019). Effect of quality of work life on employees' job performance in private clinics in Ho Chi Minh City, Vietnam. *International Journal of New Technology and Research*, 5(7), 52-59. doi:10.31871/IJNTR.5.7.7
- Macke, J., & Genari, D. (2019). Systematic literature review on sustainable human resource management. *Journal of Cleaner Production*, 208(4), 806-815. doi:10.1016/j.jclepro.2018.10.091
- Mai, K. N., Nguyen, K. T. N., Pham, H. T., Nguyen, T. V. H., & Nguyen, P. T. M. (2016). Factors affecting employee performance through the mediation of job satisfaction. An empirical study of the hospitality industry in Ho Chi Minh City, Vietnam. *Ho Chi Minh City Open University Journal of Science-Economics and Business Administration*, 6(1), 49-62. doi:10.46223/HCMCOUJS.econ.en.6.1.110.2016
- Ministry of Health. (2022). *On medical examination and treatment for people who have recovered from Covid-19 (No. 2055/BYT-KCB)*. Retrieved May 20, 2023, from https://file.medinet.gov.vn/%2fdata%2fsoytehcm%5ctrungtamtyhocmon%5cattachments%2f2022_5%2f2055byt-kcb_kham_chua_benh_cho_nguoi_dan_sau_mac_covid-19_45202216.pdf
- New Oxford Advanced Learner's Dictionary. (2005). *Well-being* (7th ed., p. 1734). Oxford, UK: Oxford University Press.
- Ngo, T. T. (2021). Impact of psychological capital on job performance and job satisfaction: A case study in Vietnam. *The Journal of Asian Finance, Economics and Business*, 8(5), 495-503.
- Nguyen, D. X., & Dang, D. T. T. (2021). Factors affecting employee's performance: An empirical study in Vietnam. *The Journal of Asian Finance, Economics, and Business*, 8(7), 295-302. doi:10.13106/jafeb.2021.vol8.no7.0295
- Nguyen, H. T., Nguyen, D. N., & Tran, B. V. (2021). Impacts of organizational factors on work motivation and job performance: Evidence from SMEs in Vietnam. *The Journal of Asian Finance, Economics and Business (JAFEB)*, 8(10), 285-295. doi:10.13106/jafeb.2021.vol8.no5.0495
- Nguyen, T. H., Le, L. T. M., & Nguyen, Q. D. (2022). Employees' job satisfaction, job performance and their relationship during the Covid-19 pandemic in Vietnam. *Organizational Psychology (Организационная психология)*, 12(2), 38-55. doi: 10.17323/2312-5942-2022-12-2-38-55
- Nielsen, K., Nielsen, M. B., Ogbonnaya, C., Käsälä, M., Saari, E., & Isaksson, K. (2017). Workplace resources to improve both employee well-being and performance: A systematic review and meta-analysis. *Work & Stress*, 31(2), 101-120. doi:10.1080/02678373.2017.1304463
- Pham, T. T. (2022). How do work characteristics affect job performance? An investigation in Vietnam. *Cogent Business & Management*, 9(1), 1-16. doi:10.1080/23311975.2022.2116801
- Pradhan, R. K., & Hati, L. (2022). The measurement of employee well-being: Development and validation of a scale. *Global Business Review*, 23(2), 385-407. doi:10.1177/0972150919859101
- Ramli, A. H. (2019). Compensation, job satisfaction and employee performance in health services. *Business and Entrepreneurial Review*, 18(2), 177-186. doi:10.25105/ber.v18i2.5335

- Santos, A. S., Reis Neto, M. T., & Verwaal, E. (2018). Does cultural capital matter for individual job performance? A large-scale survey of the impact of cultural, social, and psychological capital on individual performance in Brazil. *International Journal of Productivity and Performance Management*, 67(8), 1352-1370. doi:10.1108/IJPPM-05-2017-0110
- Saputra, A. A. (2022). Effect of compensation, work environment, and workload on employee job satisfaction. *Technomedia Journal*, 7(1), 68-77. doi:10.33050/tmj.v7i1.1755
- Schechner, R. (1985). *Between theater and anthropology*. Philadelphia, Pennsylvania: University of Pennsylvania Press.
- Supardi, A. M., Salehah, M., & Komalasari, S. (2023, March). The role of workplace well-being on employee work satisfaction. In A. Fattah, M. A. Basori, M. A. Fu'ady & N. Sholichah (Eds.). *Conference of Psychology and Flourishing Humanity (PFH 2022)* (pp. 318-327). Dordrecht, Netherlands: Atlantis Press.
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.). Retrieved May 20, 2023, from <https://www.pearsonhighered.com/assets/preface/0/1/3/4/0134790545.pdf>
- Thai Binh (2022a, May 19). *Ministry of Health: After Covid-19, although prolonged fatigue and the following 4 symptoms need to be examined for early prediction and treatment*. Retrieved May 20, 2023, from <https://suckhoedoisong.vn/bo-y-te-hau-COVID-19-neu-met-moi-keo-dai-kem-4-trieu-chung-sau-can-di-kham-de-chan-doan-dieu-tri-som-169220519145055205.htm>
- Thai Binh (2022b, June 9). *68% of F0 have symptoms of Covid-19 consequences: There are 4 signs to explore for prediction and treatment*. Retrieved May 20, 2023, from <https://suckhoedoisong.vn/68-f0-ton-tai-trieu-chung-hau-COVID-19-co-4-dau-hieu-can-di-kham-de-duoc-chan-doan-dieu-tri-169220609170802413.htm>
- Toropova, A., Myrberg, E., & Johansson, S. (2021). Teacher job satisfaction: The importance of school working conditions and teacher characteristics. *Educational Review*, 73(1), 71-97.
- Tran, K. T., Nguyen, P. V., Dang, T. T. U., & Ton, T. N. B. (2018). The impacts of the high-quality workplace relationships on job performance: A perspective on staff nurses in Vietnam. *Behavioral sciences*, 8(12), 1-21. doi:10.3390/bs8120109
- Trist, E. L., & Bamforth, K. W. (1951). Some social and psychological consequences of the longwall method of coal-getting. *Human relations*, 4(1), 3-38.
- Truong, T. T., Duong, Q. T., & Nguyen, V. T. T. (2022). Factors affecting hotel employees' job quitting intention in Phu Quoc (Kien Giang Province) in the context of Covid-19. *Can Tho University Journal of Science*, 58(2), 305-314. doi:10.22144/ctu.jvn.2022.059
- Tu Chi (2022, December 29). *More than 143 thousand businesses will withdraw from the market in 2022*. Retrieved May 10, 2023, from <https://thuonghieuvaphapluat.vn/hon-143-nghin-doanh-nghiep-rut-lui-khoi-thi-truong-trong-nam-2022-d57901.html>
- Turner, V. (1988). *The anthropology of performance*. New York, NY: PAJ Publications.
- United Nations. (2023). *Report of world economic situation and prospects as of mid-2023*. Retrieved May 10, 2023, from <https://desapublications.un.org/>
- Vo, T. T. T. (2018). Factors affecting academic burnout and job performance: A study of married working women in Vietnam. *Van Hien University Journal of Science*, 6(1), 58-68. doi:10.58810/vhujs.6.1.2018.5209

- Warr, P. (1999). Well-being and the workplace. In D. Kahneman, E. Diener & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 392-412). New York, NY: Russell SAGE Foundation.
- Wolor, C. W., Dania, R. F. R., Suherdi, S., Nurkhin, A., & Ardiansyah, A. (2022). Effects of Covid-19 cultural change on employee performance: A cross-sectional study in Jakarta, Indonesia. *Journal of Intercultural Communication*, 22(4), 1-13. doi:10.36923/jicc.v22i4.42
- World Health Organization. (2021). *A clinical case definition of post-Covid-19 condition by a Delphi consensus, 6 October 2021*. Retrieved May 10, 2023, from https://www.who.int/publications/i/item/WHO-2019-nCoV-Post_COVID-19_condition-Clinical_case_definition-2021.1
- Wright, T. A., Cropanzano, R., & Bonnet, D. G. (2007). The moderating role of employee well-being on the relation between job satisfaction and job performance. *Journal of Occupational Health Psychology*, 12(2), 93-104. doi:10.1037/1076-8998.12.2.93
- Zakaria, M., Abdulatiff, N. K., & Ali, N. (2014). The role of well-being on performance in the services sector. *Procedia-Social and Behavioral Sciences*, 164(2014), 358-365. doi:10.1016/j.sbspro.2014.11.088

