



The Study of Factors that Affect Job Performance during Work from Home in Top 2 E-commerce Businesses in Thailand

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Abstract

Since COVID-19 or Coronavirus Disease's first outbreak broke in China in the last quarter of 2019, it has brought a major change to how people live, work, and survive in the severe condition of the disease. Besides, it drastically affected the economy and many organizations around the world. Many businesses found themselves unable to adjust their operations during the COVID-19. Millions of people had lost their jobs and most businesses had to adjust as quickly as possible during COVID-19, e.g., by shifting traditional work practices to work from home in order to stay afloat. Therefore, the purpose of this study is to explore the factors that affect job performance in e-commerce businesses while employees are working from home. These factors include the physical work environment, work motivation, technology support, and work stress. The study used a quantitative method, and the target respondents will be specific to those employees who are working in top-ranking 2 e-commerce companies in Thailand. However, the questionnaires were distributed to 230 respondents in the top 2 e-commerce companies in Thailand, but there were 220 employees who responded to the questionnaires. The questionnaires were sent online through Google Forms. The datasets were tested for validity and reliability with Jamovi software. The result of the study showed that there are three independent variables, which are physical work environment, work motivation, and technology support, that influence job performance in e-commerce businesses during work from home. Conversely, work stress is the only factor that doesn't influence job performance in this industry.

Keywords: Work from home, Physical work environment, Work motivation, Technology Support, Work stress, Covid-19, E-commerce business, E-commerce company

1. Introduction

Since COVID-19, or Coronavirus Disease, first emerged in China in the fourth quarter of 2019, it has brought about significant changes in how people live, work, and survive in the disease's severe state. Besides, it drastically affected the economy and many organizations around the world. Many businesses found themselves unable to adjust their operations during COVID-19. Millions of people had lost their jobs, and most businesses had to adjust as quickly as possible during COVID-19, for example, by shifting traditional work practices to work from home in order to stay afloat. Moreover, people must stay at home due to the government's regulations being set to stop the spread of COVID-19.

Thailand is one of the countries that has been affected by this disease outbreak, which started in March 2020. The lockdown and social distancing policies were announced and controlled by the Thai government. Therefore, people who live and work in Thailand couldn't go out to work as usual. Under this crisis, organizations had to adjust their operations and make sure that they could maintain their business by shifting the usual office work to work from home. Some studies show that employees are happier to work from home since they are able to sit anywhere in the house, can wear whatever they want, etc. In the information era, communication and information technology have reportedly played an unprecedented role, according to a study by Beno (2018). It gives people the chance to use digital tools and means both in and outside of the office to complete their everyday tasks. Globally, this phenomenon of work has been applied. According to



research by Gajendran et al. (2007), the most well-known pattern of distributed work is also developed as an alternative work arrangement to allow employees to use electronic tools and informational media to communicate with others both inside and outside the organization and complete other tasks that are typically done in the primary workplace. Additionally, remote working is a flexible work pattern, which has significant benefits for both the company and the individuals. The likelihood of participants in remote work being engaged and satisfied with their work is higher and the conflict between work and family are also declining (Masuda et al., 2017) During COVID-19, there were several changes in trends and lifestyles as well. Since

lockdowns have made a new normal way of living and working, everything went to digital. The advancement of technology has invaded people's lives, and people tend to use them for their convenience. One of the changing lifestyles is that people tend to shop online more and more because of the restrictions of the government and the fear of COVID-19. However, one of the business sectors less impacted by the COVID-19 pandemic is e-commerce

(Dannenberg et al., 2020). E-commerce is mostly dependent on the internet, where business covers the buying and selling of goods or services online due to the nature of the industry (Schafer et al., 2001). Likewise, e-commerce businesses typically maintain the level of their interactions with clients by constantly developing and enhancing the usability and appearance on their websites (Zhang et al., 2011). The demand for physical stores and facilities in the traditional business core has been questioned, and the need for physical shopping is also significantly declining. Electronic commerce plays a crucial role in improving the lives of the public today. Moreover, there is supported information from Bangkok Post showing that even before COVID-19, trends in online shopping have been increasing steadily in Thailand. In 2020, there is a significant change in the number of people who order almost everything necessary, such as household items (e.g., personal care, furniture), gadgets, fashions, or even food, through online platforms. According to Figure 1, e-commerce revenue is categorized by product categories. The graph shows that total revenue in the e-commerce market in Thailand has significantly increased since

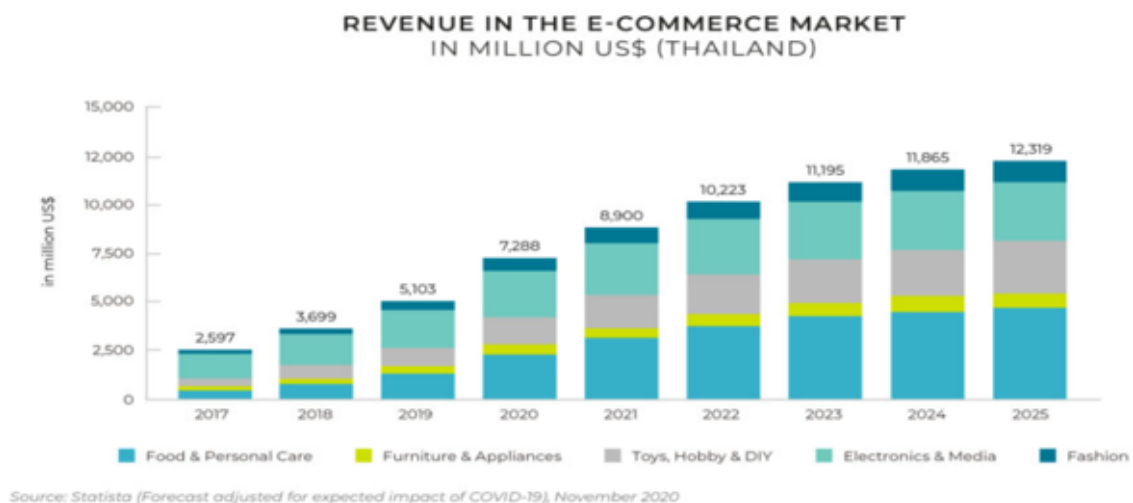


Figure 1 Revenue in the E-commerce market in Million US\$ (Thailand)



2017 and the revenue is expected to grow continuously to US\$12.3 billion by 2025. (Monks, 2021).

The evaluation of employees' performance is one of the company's main concerns since understanding the factors that influence the effectiveness of each employee could help the firm find a way to improve its business performance as well. When it comes to a difficult and unpredictable situation like when a disease will be gone, it might be difficult for all businesses to evaluate their employees' performances. One of the significant changes is the performance of employees in the e-commerce firm. Before COVID-19, all employees worked at the same office, and it was easy for employees to communicate, discuss issues, or maintain relationships with colleagues. Besides, it was easy for the management to review performance since all employees had shown up at work. The manager could notice employees' behaviors and arrange the performance review session easily in person. Besides, the factors that directly affect an employee's performance while they are working from home remain questionable (Allen, Golden & Shockley, 2015). These concerns have compelled businesses to investigate the significant factors influencing employee performance.

Employees' job performances will demonstrate how well companies operate. Therefore, the purpose of this research is to study the factors that affect job performance when employees work from home by focusing on the top 2 e-commerce businesses in Thailand. The research focuses on four factors, which are physical work environment, work motivation, technology support and work stress, by defining the significant factors. This research will benefit e-commerce companies that use the findings and adapt them to their own strategies to improve employee and organizational performance. In addition, the e-commerce companies will be able to manage and operate their businesses to get higher profits and gain a competitive advantage, allowing them to succeed in the future.

1.1. Research Objective

1. To study the factors that affect Job Performance during work from home in e-commerce business in Thailand.
2. To determine the levels of significant factors to increase Job Performance of employees in e-commerce business in Thailand.
3. To investigate the most influencing factors that affect Job Performance during work from home in e-commerce business in Thailand.
4. To recommend the result of this research to the company to adjust the operational strategies to improve Job Performance of employees in e-commerce business in Thailand.

2. Review of Related Literature

2.1. Explanation of Theory

2.1.1. Physical Work Environment

According to Palvalin (2017), the physical work environment is all the physical conditions surrounding the employees while they are working. The condition of the physical work environment can have direct or indirect impacts on employees. The physical work environment includes space, furniture, noise level, temperature, odor, climate, lighting, safety, etc.

2.1.2. Work Motivation

Motivation is one of the factors that affect the levels of willingness or enthusiasm to accomplish something or the stimulation that urges employees to take action. Motivation has an impact on the employees' achievements. The previous study revealed that motivations can be classified as internal and external or intrinsic and extrinsic (Vallerand and Ratelle 2004). Intrinsic motivation comes from internal motivation such as a passion for the job, a willingness to put more effort into the job, or an individual's target goal. On the other hand, external motivation, or extrinsic motivation, comes from other factors that aren't linked with internal forces. It might



come in the form of rewards, punishment, policies, leadership styles, etc.

2.1.3. Technology Support

Organizations should support employees with the use of technology (Avery & Baker, 2002). For example, organizations should have sufficient IT support staff who are able to give employees assistance with technical issues while they are working from home. So, if they need emergency technological assistance, the faster IT staff can provide them solutions, the faster employees can continue their work. Organizational support in terms of technology can be any technology that can support collaborative work, communication, search tools, storage, etc.

2.1.4. Work Stress

Work stress, by Nugrahaningsih (2021), can be defined as a condition that an employee confronts, and it might affect physical or psychological imbalance, e.g., workload, demand, opportunity, colleague, organizational culture, etc. Work stress levels will vary among each employee depending on the condition they are facing. However, work stress can be avoided or mitigated if an employee knows how to get out of it. Aboramadan and Karatepe (2021) explained that work stress arises when employees have a workload, time pressure, a bad leadership style, conflicts with colleagues, etc.

2.1.5. Job Performance

Based on Motowidlo, Borman, and Schmidt (1997), job performance is clarified as the outcome of each individual, which will indicate the quality and value that an individual has brought throughout a period of time. The organization evaluates employees' performance to track or measure how well they perform their jobs. The purpose of a performance evaluation is to give employees feedback on what they've done well and what they're lacking during the evaluation period so that they will know their strengths and weaknesses. Thus, they can keep monitoring their performance and improving what they are lacking to achieve team targets and business goals. Javed, Baloch, and Hassan (2014) also described job

performance as how well an employee can deliver their tasks. Employee performance is important to an organization since understanding the factors that influence the effectiveness of an employee could help the firm find a way to improve its business performance. Other than that, the quality of performance is also important for each employee since they will know whether the efforts they put into job performance should be improved or not. Moreover, if the outcome of individual performance reaches the target or beyond, those employees can experience better opportunities such as promotions or incentives. There are numerous factors that can have positive or negative impacts on employees' job performance (Saeed, Mussawar, Lodhi, Iqbal, Nayab, & Yaseen, 2013).

2.2 Related Previous Studies

2.2.1. Physical Work Environment and Employee Performance

The physical work environment is the physical surroundings or conditions that affect employees while they're working from home. The better the physical work environment the employees are surrounded by or set in, the better the performance the employees can perform since they can be more focused and concentrate while they are working. Mutia et al. (2014) disclose that the level of employees' productivity will vary depending on the work environment they have. Desmoda (2016) also added to the aforementioned information that the physical work environment had a significant influence on employee productivity. The physical work environment includes space, furniture, noise level, temperature, odor, climate, lighting, safety. There is supported research from Duru and Shimawua (2017) that shows a poor or inappropriate physical work environment has a great impact on the level of employees' productivity since it can reduce their enthusiasm level or willingness to complete their work and employees will feel disturbed. It can also lead to the unhealthy health of employees due to poor working conditions (Davis, M.C., Leach, D.J., and



Clegg, C.W., 2011). Temessek (2009) suggested that there are some tips for employees to consider when setting up space. First, the employees must check whether the place they select to set up a workstation has adequate light. Natural light would be nice since it's proven that it can boost your mood and make you more productive. Second, the room temperature must be adjusted to an appropriate temperature. Besides, the furniture should be set comfortably and follow the right ergonomic tips. Early studies show that all these settings will benefit an employee's health and productivity.

2.2.2. Relationship between Work Motivation and Job Performance

Previous studies show that when employees feel like they are valued for something or they are recognized, these are the factors that drive employees to be motivated and committed to the organization (Rudge, 2011). Motivation is a factor that affects an individual's level of enthusiasm to accomplish something or the stimulation that urges employees to take action. Each individual has a different work motivation as a main factor when they have to accomplish their work. The stronger an individual's work motivation is, the better the individual's job performance will be delivered (Chaudhary & Sharma, 2012). So, if organizations can analyze what factors affect the employee's motivation, they can encourage employees to work more effectively, which will increase the employee's performance. Furthermore, studies show that employees who are highly motivated perform better and achieve higher goals than those who are less motivated (Owusu, 2012). According to Franco et al. (2004), the feeling of being proud, transparency in management, safety of the job, incentives in terms of both financial and non-financial, flexible working hours, and positive feedback are the most important motivational factors. When employees are motivated, they will focus on their work and put in more effort to achieve the goal they set or the company's performance evaluation requirements. Thus, if the employees put more effort into their work, the possibility of achieving better job performance will increase as well (Ali and Ahmed, 2009). In addition,

work motivation consists of two types of motivation, which are intrinsic and extrinsic motivation (Ryan and Deci, 2000). Intrinsic motivation is influenced by internal factors, such as if an employee is satisfied or enjoying the experience or the job, he or she will be motivated by those fulfillments. (Deci and Ryan, 1985; Bauer et al., 2016; Legault, 2016). On the contrary, extrinsic motivation is the motivation that comes from external factors such as rewards, incentives, money, recognition, etc. However, intrinsic motivation tends to be more effective than extrinsic motivation (Deci et al., 1999). Employees can pursue intrinsic motivation by surrounding themselves with positive people, believing in their own capabilities, changing habits to stop working when it's time to rest, etc.

2.2.3. Relationship between Technology Support and Job Performance

One thing that has been drastically changed from time to time is technology. Technology plays an important role among organizations, with its transformation, it facilitates organizations to work more efficiently throughout normal or tough times (Ahmad, 2014). According to Odeh (2019), the implementation of adequate technology helps to increase business's efficiency and productivity. The availability of hardware and software systems supported by an organization can enhance and improve employees' performances (ITU, 2019). Organization support in terms of technology is when an organization can support employees by offering best-quality and adequate technology tools to ease the burden during work hours, including data storage, communication tools, learning hubs, collaborative work tools, search tools, or IT services, etc. Besides, technology can reduce human errors, offer accurate automation, fast communication, data storage, etc. However, the right technology adoption should be selected to fit with the organization. So, organizations can leverage technology to improve business efficiency and productivity of both the company and its employees to gain a competitive advantage over competitors in the market.

2.2.4. Relationship between Work Stress and Job Performance

Work stress can be defined as a condition that an employee faces, and it might affect physical or psychological imbalance. Bogdanova, A., Enfors, H., & Naumovska, S. (2008) declared that stress can arise from several factors, such as poor time management, organizational culture, workload, the difficulty of the work, etc.

Moreover, Dean (2002) added that stress can affect the levels of productivity of each employee. Several studies mentioned that job stress could bring the following symptoms such as sleep disorders, heart disease, etc. that will eventually affect an employee's performance in a negative way, e.g., increased absenteeism and resignation (Poissonnet & Veron, 2000). Suffering from work strain at work might have a great impact on not only an employee but also the organization's performance. However, there is some evidence that categorizes job stress into two types. (Rizwan, Waseem, & Bukhari, 2014). The first type is called "positive stress. This kind of stress will bring positive feelings or thoughts to employees. Employees deploy this stress as a positive motivation factor and pressure themselves to work harder in order to improve their performance or to reach the performance

target. According to Zafar, Ali, Hameed, Ilyas, and Younas (2015), the information to support the aforementioned sentence is that an appropriate level of stress will help enhance an employee's performance. On the contrary, the second type of stress is called negative stress or distress. This kind of stress will arise when the level of stress is not controlled. Negative stress or distress will affect the employee's performance in a negative way.

3. Research Framework

3.1. Conceptual Framework

Researcher has constructed conceptual framework based on based on previous research, theoretical concepts, and testing literature indicating the effects of independent variables such as physical work environment, work motivation, technology support, and work stress have had impacts on dependent variables such as job performance. The conceptual framework of the impacts of several factors, such as physical work environment, work motivation, technology support, and work stress on job performance during work from home is shown in Figure 2.

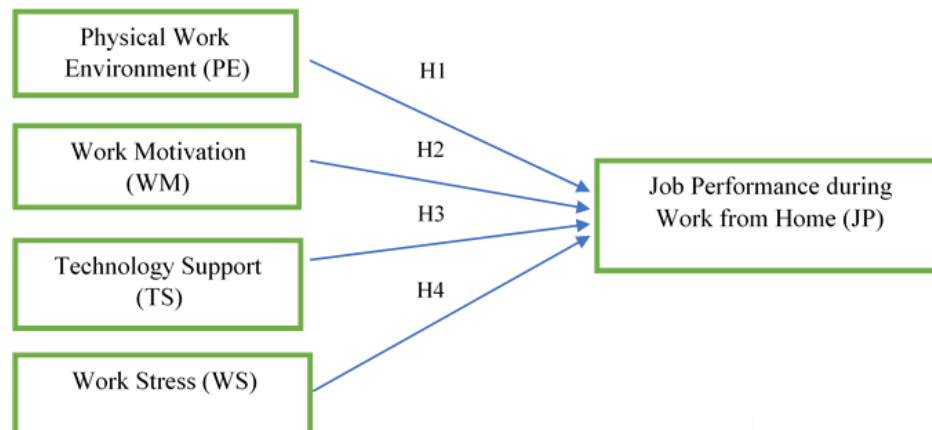


Figure 2 The Research Conceptual Framework



3.2. Research Hypotheses

Based on the proposed conceptual framework, the researchers composed four hypotheses to investigate the factors that affect job performance during work from home in e-commerce business. The hypotheses are as follows:

Hypotheses 1

H1o: Physical Work Environment has no significant effect on job performance during work from home in e-commerce businesses.

H1a: Physical Work Environment has significant effect on job performance during work from home in e-commerce businesses.

Hypotheses 2

H2o: Work Motivation has no significant effect on job performance during work from home in e-commerce businesses.

H2a: Work Motivation has significant effect on job performance during work from home in e-commerce businesses.

Hypotheses 3

H3o: Technology Support has no significant effect on job performance during work from home in e-commerce businesses.

H3a: Technology Support has significant effect on job performance during work from home in e-commerce businesses.

Hypotheses 4

H4o: Work Stress has no significant effect on job performance during work from home in e-commerce businesses.

H4a: Work Stress has significant effect on job performance during work from home in e-commerce businesses.

4. Research Methodology

4.1 Research Design

This study investigated the influencing factors on employees' job performance in the top 2 e-commerce businesses while they are working from home. In the proposed conceptual model in Figure 6, there were four factors that researchers chose to focus on, which are: physical work environment, work motivation,

technology support, and work stress. In this study, it was quantitative research because the researchers used it for gathering primary data. The researcher decided to collect 30 respondents first to test the reliability of all the questions in the questionnaire. All respondents were selected by convenience sampling and snowball sampling. Moreover, the researcher used multiple linear regression (MLR) as a statistical analysis approach to determine if the aforementioned factors had a significant impact on job performance during work from home. In the questionnaire, the researcher utilized the Five Point Likert Scale to let respondents reveal their opinion on each question by rating 1–5, which referred to strongly disagree, disagree, neutral, agree, and strongly agree, respectively. Then, the researcher used the Jamovi program to calculate Cronbach's Alpha. Next, researchers applied the descriptive analysis to the primary data collection which were collected through questionnaires. This study also used secondary data from reliable sources such as research, articles, journals, and websites. All secondary data is already stated in the part of the review of related literature.

4.2 Respondents and Sampling Procedures

4.2.1. Target Population

This research stressed the factors that affect job performance during work from home, which are physical work environment, work motivation, technology support, and work stress. The target respondents will be employees from Thailand's top two e-commerce companies. Also, the employees must work in e-commerce business at least 6 months. The period that research started to collect the data was July 10, 2022, to August 3, 2022.

4.2.2. Sample Size

In this study, the researcher used sample size from two previous studies (Mirela, B., 2020 & Richard T., Nina E., Jeannifer M., and Mochammad F., 2019), which collected questionnaires from 150 respondents. The researchers decided to collect more than the referent number in previous study. So, the questionnaires were distributed to 230 respondents



among employees who work in the top 2 e-commerce businesses in Thailand equally (115 each). However, only 220 respondents completed the questionnaire, with a 95.6% response rate.

4.2.3. Sampling Procedure

According to Ogula (2005), sampling was defined as the process of selecting a number of individuals to study, in which this group of individuals will represent a large group of the target population. Also, there are two types of sampling, which are probability and non-probability (Zikmund, Babin, and Griffin, 2013). In this study, the authors applied a non-probability sampling method, which is a method involving non-random selection based on convenience and easy to collect data. The researchers select convenience sampling and snowball sampling methods to gather information as the respondents will be screened first based on the research objective. The sampling will be selected close to hand and convenient.

4.3 The Development of Research Instrument

In this research, the authors developed a questionnaire as a research instrument to analyze the key factors and the correlation between the variables. The questionnaire is divided into three parts with a total of 30 questions. The first part is the screening questions that will help to screen the respondents who are working in e-commerce businesses, and their companies require work from home. The second part is a question for dependent and independent variables. The last part is the question on demographic information of respondents. The details of the questionnaire are showing in Table 1.

Part	Type of Question	Number of Question	Questionnaire Scale
1	Screening Questions	4	Nominal Scale
2	Measurement of Variables	20	Likert scale
3	Demographic Information	6	Ordinal Scale
Total Question		30	

Table 1 Summary of Research Instrument Questions Design.

5. Analysis and Presentation of Findings

5.1 Reliability Analysis of Research Instrument

In order to have good research quality, there are a few tests that should be done to ensure the consistency of the result. The reliability of the research survey questionnaires needs to be considered as it reflects the replicability and consistency of results. In this research, the Cronbach coefficient of Alpha (α) is used to estimate the reliability, measure the internal consistency of a set of scales or test items, and calculate the split-half reliability for multiple items. Besides, it also determines the relationship between individual item scores. The Cronbach coefficient of reliability ranges from 0 to 1. The pilot test result is said to be consistent and reliable when the coefficient value is said to be higher. For the values of 0.7 and above, it illustrates that the internal consistency reliability is satisfactory (DeVellis, 2016). If the coefficient is less than or equal to 0.7, it is considered low reliability and unacceptable as it would cause the overall result to be inaccurate. Thus, the reliability issue in this research is fully addressed to best suit the research needs and purpose. A pilot study was conducted by distributing the survey questionnaires to 30 respondents before conducting the main research.

This pilot test was done to check the feasibility of the approach before proceeding to a large-scale study. Once the pilot test results suit the purpose of the study, survey questionnaires will be distributed to a large scale of respondents.

Table 2 shows that the researcher used Cronbach's alpha to measure the scale of reliability using the Jamovi program to determine how closely related a set of items are as a group. The result showed the overall variables of the factors that impact job performance during work from home consist of four items. The result shows that all variables are reliable and valid since a value greater than 0.7 indicates that the reliability of all factors are accepted.

n=30

Construct	Cronbach's Alpha	Result
Physical Work		Reliable
Environment	0.778	
Work Motivation	0.770	Reliable
Technology Support	0.891	Reliable
Work Stress	0.837	Reliable
Job Performance	0.791	Reliable

Table 2 Cronbach's Alpha

5.2 Descriptive Analysis of Demographic Factors

To analyze demographic information of respondents who are currently working with top 2 e-commerce business in Thailand over 6 months, the researcher used descriptive analysis in the Jamovi program to analyze demographic information of the respondents.

Based on the data, it showed that among all respondents,

- 66% (n=145) were female 33% (n=74) were male, and 0.5% (n=1) is other.
- 55% (n=120) were aged between 20 – 29 years old, 39% (n=86) were aged between 30

– 39 years old and 6% (n=14) were aged between 40-49 years old.

- 68% (n=150) of respondents graduated with a bachelor's degree, 31% (n=68) of respondents graduated with master's degree and 1% (n=2) were people who had education level lower than bachelor's degree.
- 54% (n=119) of respondents had an income range between 25,001-50,000 Baht per month, followed by 35% (n=77) of respondents had income range between 50,001-100,000 Baht per month, followed by 10.5% (n=23) of respondents had an income over 100,000 Baht per month, and 0.5% (n=1) had an income below 25,000 Baht.
- 65.5% (n=144) of respondents had working experience between 1-3 years, 31% (n=69) of respondents had working experience between 4-6 years, 3% (n=6) of respondents had working experience between 7-9 years and 0.5% (n=1) had working experience of 10 years and above.
- 40% (n=88) of respondents occupied Associate or Administrative staff, 28% (n=61) were Senior Associates, 18% (n=40) held Team Leader positions, 13% (n=29) held Supervisor positions, and 1% (n=2) were Head of Department or Superior.
- The analysis of demographic factors using the frequency distribution and percentage was shown in Table 3.



Demographic Factors	Frequency	Percent
Gender		
Male	74	33.6
Female	145	65.9
Other	1	0.5
Total	220	100
Age (Years)		
20 - 29 years old	120	54.5
30 - 39 years old	86	39.1
40 - 49 years old	14	6.4
Above 50 years old	0	0
Total	220	100
Education		
Lower than Bachelor's Degree	2	0.9
Bachelor's Degree	150	68.2
Master's Degree	68	30.9
Ph.D. Degree	0	0
Total	220	100
Income per month		
Below 25,000 Baht	1	0.5
25,001-50,000 Baht	119	54
50,001-100,000 Baht	77	35
Over 100,000 Baht	23	10.5
Total	220	100
Working experience		
1-3 years	144	65.4
4-6 years	69	31.4
7-9 years	6	2.7
10 years and above	1	0.5
Total	220	100
Job level		
Associate / Administrative Staff	88	40
Senior Associate	61	27.7
Team Leader	40	18.2
Supervisor	29	13.2
Head of Department or Superior	2	0.9
Total	220	100

Table 3 The analysis of demographic factors using the frequency distribution and percentage

5.3 Research Result

The researcher has distributed 230 questionnaires to be filled out by the targeted respondents. However, there were 220 respondents who completed all the questions. Before distributing 230 questionnaires, the researcher conducted a pre-test that was distributed to 30 respondents in order to check the data validity and reliability of each question in the questionnaire, which was going to be used in the main data collection by using the Jamovi program.

In this part, the authors used multiple linear regression as a statistical analysis approach to determine the levels of several factors that can affect job performance. By using multiple linear regression, multicollinearity should also be computed as it can suggest which unnecessary variable should be eliminated. Moreover, Akinwande et al. (2015) recommended that the Variance Inflation Factor (VIF) be better if there are fewer than or equal to 5 proposed overlapping variables. The multicollinearity problem happened when the independent variables had a VIF of more than 5 (Kim, 2019). In addition, the variable can be explained by using the R-square (R²) value, which will present the proportion of variation in the dependent variable based on the independent variable. Significant value or commonly known as "p-value" to examine whether there are statistically significant effects on job performance or not. The result is shown in the Table 4.

n = 200

Predictor	Estimate	SE	t-stat	p-value	VIF	Result
Intercept	0.3931	0.2521	1.56	0.120		
Physical Work Environment (PE)	0.3207	0.0616	5.21	<0.001*	2.42	Rejected H0
Work Motivation (WM)	0.4995	0.0653	7.65	<0.001*	2.57	Rejected H0
Technology Support (TS)	0.1243	0.055	2.26	0.025*	1.56	Rejected H0
Work Stress (WS)	-0.0508	0.0344	-1.48	0.14	1.06	Failed to Reject H0

Note. R² = .678, * =significant at 5% level. Dependent Variables: Job Performance during Work from Home in top 2 e-commerce business in Bangkok

Table 4 shows a multiple linear regression was carried out to determine if physical work motivation, work motivation, technology support and work stress significantly predicted job performance. The result from hypotheses 1, 2, 3 and 4 showed that all independent variables had no problem of multicollinearity due to VIF being less than 5. The result of the VIF value of physical work motivation, work motivation, technology support and work stress are 2.42, 2.57, 1.56, and 1.06. Moreover, R-square was .678 at 95% of confidence level. It means that the independent variables (Physical Work Environment, Work Motivation, Technology Support, and Work Stress) can justify the dependent variables (job performance) by approximately 67.8%.

5.3.1. Regression analysis: Physical Work Environment and Job Performance

The multiple regression result shows that the significant level was lower than .001, which was less than 0.05. The null hypothesis was rejected between physical work environment and job performance. As a result, it can be concluded that physical work environment significantly affected job performance. Moreover, physical work environment has a standardized coefficient of .3207. It can be implied that if physical work environment increases by 1%, the job performance can be raised by 32.07%.

Table 4 The result of Correlation Relationship between Independent Variables and Dependent Variables

5.3.2. Regression analysis: Work Motivation and Job Performance

The multiple regression result shows that the significant level was lower than .001, which was less than 0.05. The null hypothesis was rejected between work motivation and job performance. As a result, it can be concluded that work motivation significantly affected job performance. Moreover, work motivation has a standardized coefficient of .4995. It can be implied that if work motivation increases by 1%, the job performance can be raised by 49.95%.

5.3.3. Regression analysis: Technology Support and Job Performance

The multiple regression result shows that the significant level was .025, which was less than 0.05. The null hypothesis was rejected between technology support and job performance. As a result, it can be concluded that technology support significantly affected job performance. Moreover, technology support has a standardized coefficient of .1243. It can be implied that if employee commitment increases by 1%, the job satisfaction can be raised by 12.43%.

5.3.4. Regression analysis: Work Stress and Job Performance

The multiple regression result shows that the significant level was 0.14 which was greater than 0.05. The null hypothesis was failed to reject between work stress and job performance. So, it can be concluded that work stress has no statistically significant influence on job performance during work from home in e-commerce businesses.

business for at least 6 months and have experience of working from home. The result is shown in Table 5.

Table 5 represents the summary of all the 4 hypotheses tests that have been mentioned in the previous chapter. From the table above, it is shown that the null hypotheses for each independent variable, which are physical work environment, work motivation, and technology support, are rejected. However, the null hypotheses of work stress (an independent variable) failed to be rejected.

Table 6 shows the strengths of the factors influencing job performance in the e-commerce business. The beta is used to measure the relationship between an independent variable and a dependent variable. The results show that the independent that has the strongest relationship with job performance is work motivation 0.4995, this means that for each 1 unit increase in work motivation, the job performance will increase by 49.95%, followed by physical work environment 0.3207, this means that for each 1 unit increase in physical work environment, the job performance will increase by 32.07% and the least influential factor that influences job performance is technology support 0.1243 which means that for each 1 unit increase in technology support, the job performance will increase by 12.43%.

6. Discussion, Conclusion, and Recommendation

6.1. Summary of the Research Result

There were 220 respondents who completed all the questions in the questionnaires via Google form. So, 220 were employees who are currently working for the top 2 e-commerce companies in Thailand. Also, the employees must have worked in an e-commerce



Hypotheses	Text	Findings
H10	Physical Work Environment has no significant effect on job performance during work from home.	Rejected H0
H20	Work Motivation has no significant effect on job performance during work from home.	Rejected H0
H30	Technology Support has no significant effect on job performance during work from home.	Rejected H0
H40	Work Stress has no significant effect on job performance during work from home.	Failed to Reject H0

Table 5 Hypotheses Testing Results

Rank	Independent Variable	Beta
1 st	Work Motivation	0.4995
2 nd	Physical Work Environment	0.3207
3 rd	Technology Support	0.1243

Table 6 Strengths of factor influence of variables to Job Performance during Work from Home in top 2 e-Commerce business in Thailand

6.2. Discussion & Conclusion

The purpose of this study is to explore the factors that affect job performance in e-commerce businesses while working from home. These factors include physical work environment, work motivation, technology support and work stress. So, the summary of these four independent variables and their comparison with the previous study were discussed as follows.

The result shows that there are three independent variables, which are physical work environment, work motivation, and technology support, are the influential factors that affect job performance in e-commerce business during work from home. The results supported the previous study by Kithuka (2016) that the physical work environment had a significant influence on employee productivity. The results also supported the previous studies that the stronger an individual's work motivation is, the better the individual's job performance will be delivered (Ismail,



2010). When employees are motivated, they will focus on their work and put in more effort in order to achieve the goal they set or the company's performance evaluation requirements. Thus, if the employees put more effort into their work, the possibility of achieving better job performance will also increase (Ali and Ahmed, 2009). Lastly, according to Odeh (2019), the implementation of adequate technology helps increase business's efficiency and productivity. The result confirmed that technology support influences job performance. However, work stress is the only factor that doesn't influence job performance in this industry. Therefore, the result is not supported by the related previous study. Moreover, the strengths of the factors influencing job performance were ranked from the most significant influent factors to the least significant, which are work motivation, physical work environment, and technology support, respectively.

Based on this research, the respondents are employees who are working in an e-commerce business in Bangkok and must have had work experience in an e-commerce business for at least 6 months. The information was gathered in order to conduct data analysis, which included demographic factors and job performance factors. Most respondents are female, aged 20–29 years old, with bachelor's degrees, an income range of 25,001–50,000 baht, and have 1-3 years of working experience, mostly as administrative staff. After analyzing the results from hypotheses testing, the researcher found that physical work environment, work motivation, and technology support have a significant effect on an employee's performance during work from home. However, work stress has no significant effect on job performance when working from home. The factor that has the strongest relationship with job performance is work motivation, followed by physical work environment, and the least influencing factor on job performance is technology support. The results of the hypotheses testing, however, indicate that work stress has no appreciable impact on job performance. E-commerce is one of the sectors that experienced less influence during COVID-19, which could be the cause. In addition, businesses still run almost the same manner,

and more and more individuals are making purchases online. Therefore, employees' work habits at the office and at home are similar since they run the operation online and mainly using the same tools as they work at office.

From the research, it can be concluded that the performance of employees is very important since it is one of the things that has changed considerably. Thus, the evaluation of employees' performance is a must for every company, because being aware of the variables that affect an employee's effectiveness could aid businesses in finding ways to enhance both corporate performance and employee job performance.

6.3. Recommendation

The result shows that there are three independent variables, which are physical work environment, work motivation, and technology support, are the influential factors that affect job performance in e-commerce business during work from home. There are several recommendations for the companies and their employees. In perspective companies, they should ensure that their employees have positive work motivation. Thus, good motivation will increase work effectiveness and work satisfaction, which are the factors that lead to better performance. Besides, companies should encourage employees to create a better physical work environment and provide facilities that make employees comfortable at work. Most importantly, companies should offer high-quality technology to support employees while they are working from home, including data storage, communication tools, learning hubs, collaborative work tools, search tools, or IT services. For management, they should find a way to make employees stay motivated and offer opportunities for employees to be rotated or promoted while they're working from home. For employees, they should create a good physical work environment and arrange things well ergonomically at home in order to increase job performance.



6.4. Further Studies

Since this research was conducted by studying only some factors that affect job performance during work from home in an e-commerce business in Thailand, further studies should consider other factors, e.g., age, to deeply identify how age ranges affect job performance during work from home by comparing job performance between young and old employees. Furthermore, future research should consider gathering a larger number of respondents and expanding to more than two top-ranking e-commerce companies to see how employee job performance differs among other e-commerce companies. In addition, further studies should include and emphasize more factors that can help the company improve the job performance of employees when they also have the choice to work from anywhere. However, this research focused on factors that affect job performance when working from home during COVID-19 only, so the result might not be able to adapt to post COVID-19 where work from home policy might become a choice. Therefore, further studies should collect information both during COVID-19 and post-COVID-19 to understand more related factors and their differences.

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