

Telework Affecting Job Stress and Job Performance of Telecommunication Business Employees

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Abstract: This research is a quantitative research. Samples were 396 telecommunication business. Research instruments were questionnaire. Data were analyzed using frequency, percentage, mean, standard deviation, and multivariate analysis of variance (MANOVA). The results showed that: (1) Employees with different frequency of working outside an office were not different in job stress ($F=1.77$ $df=1$ $p=0.183$) and job performance ($F=0.09$ $df=1$ $p=0.757$). (2) Employees with different time spent teleworking were not different in job stress ($F=1.70$ $df=2$ $p=0.182$), while employees with different time spent teleworking were different in job performance ($F=5.25$, $df=2$, $p=0.006$) at a statistical significance level of 0.01. (3) Employees with different alternative worksite were different in job stress ($F=3.11$ $df=2$ $p=0.045$) at a statistical significance level of 0.05, and employees with different alternative worksite were different in job performance ($F=11.71$ $df=2$ $p=0.000$) at a statistical significance level of 0.01. (4) Employees with different telecommunications technology were different in job stress ($F=7.95$ $df=2$ $p=0.000$) and job performance ($F=5.34$ $df=2$ $p=0.000$) at a statistical significance level of 0.01. (5) Employees with different types of employment were different in job stress ($F=8.33$ $df=1$ $p=0.000$) at a statistical significance level of 0.01 and job performance ($F=6.01$ $df=1$ $p=0.015$) at a statistical significance level of 0.05. (6) Employees with different preference towards telework were different in job stress ($F=13.73$ $df=4$ $p=0.000$) at a statistical significance level of 0.01, while employees with different preference towards telework were not different in job performance ($F=1.36$ $df=4$ $p=0.245$).

Keywords: Telework, Job stress, Job performance, Employees

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INTRODUCTION

Nowadays, technology advancement has improved humans' lives in a better way. There are many facilitative technology devices and gadgets especially internet communications which allow people to access data all the time. Along with the COVID-19 (Coronavirus Disease 2019) pandemic that has rapidly spread all over the world during March – April 2020, the government of Thailand has issued the Emergency Decree on Public Administration in Emergency Situations B.E. 2558 (2015) in order to reduce the spread of the disease. Primary measures are to prevent the assembly or gathering of persons and keep social distance. The Ministry of Public Health has suggested companies and organizations to shift from working inside the usual office to working from home (WFH) in order to reduce social interactions which can

prevent infections. This abrupt change has inevitably affected how people work since many have to work from their home.

Nakrošienė, Bučiūnienė and Goštautaitė (2019) said that telework is an extensive and a complex phenomenon with no acceptable definition. To work from places other than the usual office may be considered telework, telecommuting, virtual work, or remote work. Mann and Holdsworth (2003) discovered that telework helps reduce work pressure and improve work-life balance of employees. Sparrow (2000) revealed that telework in an organizational aspect increases employee productivity. Also, Hesse and Grantham (1991), Hill et al. (1998), and Lupton and Haynes (2000) found that telework can be evaluated in terms of both quantity and quality of work.

Leka, Griffiths and Cox (2004) explained that job stress is a person's response in an anxious way which can be caused by workloads and pressure from not fitting job requirements or not having problem-solving skills. Job stress can occur in several work situations such as when a person feels that one isn't supported from supervisors or coworkers. It is inevitable as work environment, awareness, motivation, and an ability to learn depend on resources and personalities. The research of Mirchandani (2000) indicated that working from home is the cause of anxiety and stress because a person needs to carry out both work and family activities. Furthermore, Moore (2006) indicated that working from home doesn't help improve quality of life related to personal life. It is reported that a person working from home has to take care of children and receives low compensation, resulting in feeling more stressed.

In this research, the researcher is interested in investigating samples working in telecommunication industries because it is in accordance with telework and working from home, according to the aforementioned. Therefore, the researcher is interested in telework affecting job stress and job performance of telecommunication business employees so that organizations can develop or adjust teleworking patterns in order to reduce job stress and increase job performance of employees.

RESEARCH OBJECTIVES

- (1) To study the telework related to frequency of working outside an office which affects job stress and job performance of telecommunication business employees.
- (2) To study the telework related to time spent teleworking which affects job stress and job performance of telecommunication business employees.
- (3) To study the telework related to alternative worksite which affects job stress and job performance of telecommunication business employees.
- (4) To study the telework related to telecommunications technology which affects job stress and job performance of telecommunication business employees.
- (5) To study the telework related to types of employment which affects job stress and job performance of telecommunication business employees.
- (6) To study the telework related to preference towards telework which affects job stress and job performance of telecommunication business employees.

METHODOLOGY

Population

Population in this research was 39,800 employees in total working in 2 telecommunication organizations.

Samples

Sample size was calculated using the formula of Yamane (1973) with 0.05 sampling error and 95% confidence level. The number of populations which equals 39,800 was suitable for 396 samples. The sample size formula of Yamane (1973) is presented as follows:

$$n = \frac{N}{1 + Ne^2} \quad (1)$$

n = the sample size

e = the acceptable sampling error

N = the population size

Sampling Methods

Proportional stratified random sampling was used to select 167 employees from the 1st company, and convenient sampling was used to select 229 employees from the 2nd employees, so there were 396 employees in total.

Research Instrument Development

The researcher developed the questionnaire by examining concepts, theories, documents, and research related to variables. The research instrument used to collect data was a questionnaire consisting of 3 sections as follows:

The 1st section was a telework questionnaire with multiple choices developed from concepts of Nakrošienė, Bučiūnienė and Goštautaitė (2019) in which telework was divided into 6 elements: 1. Frequency of working outside an office 2. Time spent teleworking 3. Alternative worksite 4. Telecommunications technology 5. Types of employment, and 6. Preference towards telework.

The 2nd section was a job stress questionnaire. The questionnaire was a 5-Likert scale questionnaire ranging from highest, high, moderate, low, to lowest developed from concepts of Wagner and Hollenbeck (2020); Leka et al. (2004), Mirchandani (2000); Mann, Varey and Button (2000); Weiman (1977); Cooper and Marshall (1976); Andre (2008); Caplan (1987).

The 3rd section was a job performance questionnaire. The questionnaire was a 5-Likert scale questionnaire ranging from highest, high, moderate, low, to lowest developed from concepts of Motowidlo & Schmit (1999) in which job performance was divided into 2 elements: task performance and contextual performance.

Content Validity in Terms of Quality Assessment

The researcher provided the questionnaire to 2 experts in industrial and organizational psychology and a company director, 3 experts in total, in order to assess content validity. The researcher decided to adjust or eliminate items that have index of item-objective congruence

)IOC(lower than 0.50, according to Rovinelli and Hambleton (1977), in accordance with suggestions of the experts. All 3 sections of the questionnaire passed the criteria.

Reliability and Corrected Item - Total Correlation Coefficient of the questionnaire

(1) The researcher contacted a telecommunication business company in which samples were similar to the real samples selected for data collection in the research, and wrote a permission contract in order to collect data for testing the questionnaire.

(2) The researcher explained research objectives and steps of data collection to supervisors.

(3) The researcher requested to meet with 30 research participants, then distributes all 30 copies of 4-section questionnaires and explained research objectives and steps of data collection to them. The researcher let the participants decide for themselves whether they wanted to participate in this research without any command or threat that made them feel unsafe. Also, the researcher emphasized data confidentiality and asked participants to sign the consent form and complete the questionnaire within 1 hour. After finishing the questionnaire, all questionnaires were collected instantly.

(4) The researcher calculated corrected item - total correlation coefficient and reliability from all 30 questionnaires. Any item with corrected item - total correlation coefficient greater than 0.20 was considered a qualified discrimination (Backhoff et al., 2000). Also, Cronbach's coefficient alpha was calculated. The reliability of job stress questionnaire equaled 0.766, and the reliability of job performance questionnaire equaled 0.804, as shown in the table showing reliability, content validity, and corrected item - total correlation coefficient related to Job performance of the questionnaire.

Table 1. Reliability, content validity, and corrected item total correlation coefficient related to job stress of the questionnaire.

Questionnaire	IOC	Corrected item total correlation coefficient	Reliability
Telework*	0.67 - 1	-	-
Job stress	0.67 - 1	0.207 - 0.636	0.766
Job performance	0.67 - 1	0.209 - 0.684	0.804
-Task performance	0.67 - 1	0.231 - 0.648	0.686
-Contextual performance	0.67 - 1	0.209 - 0.684	0.732

* Items contained in telework questionnaire were checklists, so corrected item - total correlation coefficient and reliability were not calculated.

Data Collection

The researcher created an online questionnaire on Google Form, then sent the link to supervisors of 2 companies in order to send to employees.

Data Analysis and Statistics

The researcher analyzed data collected from the Google Form with a statistical analysis software as follows:

- (1) Frequency and percentage were descriptive statistics used to describe respondents' data including gender, age, marital status, education, and data related to telework including frequency of working outside an office, time spent teleworking, alternative worksite, telecommunications technology, types of employment, and preference towards telework.
- (2) Mean and standard deviation were used to measure central tendency and analyze data distribution of job performance and job stress of employees.
- (3) Multivariate analysis of variance (MANOVA) was used to compare job stress with job performance of telecommunication business employees, divided by telework related to frequency of working outside an office, time spent teleworking, alternative worksite, telecommunications technology, types of employment, and preference towards telework. If there was any statistically significant difference, Bonferroni method was used to identify the pairs that differed.

The Test on Assumptions of Multivariate Analysis of Variance (MANOVA)

The researcher considered normal distributions from the p-value (2-tailed), if the p-value was greater than 0.05, the data was normally distributed (Kaiwan, 2007). It was found that job stress was normally distributed as the p-value was greater than 0.05 (Kolmogorov-Smirnov=0.15, df=427, p=0.200), and job performance was also normally distributed as the p-value was greater than 0.05 (Kolmogorov-Smirnov=0.11 df=427 p=0.206), in accordance with assumptions.

Box's M test was used to examine the variance-covariance matrices. It was found that variance-covariance matrices were not different, in other words, homogeneous (Wanichbancha, 2009). Bartlett's test of sphericity was used to examine the correlation between the variables. The variables must be correlated, however, the correlation coefficient calculated by Pearson's method must not be too extremely high (Wanichbancha, 2009).

Results of The Test on Assumptions of Multivariate Analysis of Variance (MANOVA)

Results of The Test on Assumptions Divided by Telework Related to Frequency of Working Outside an Office

According to Box's M test, it was found that job stress and job performance of telecommunication business employees were not different (Box's M=7.60, F=2.52, df1=3, df2=34450217.18, p=0.06). This indicated that variance and covariance of job stress and job performance of telecommunication business employees were not different, in accordance with assumptions, therefore, the one-way multivariate analysis of variance (one-way MANOVA) could be used to analyze.

Bartlett's test of sphericity was used to examine the correlation between job stress and job performance of telecommunication business employees. It was found that job stress and job performance of telecommunication business employees were correlated at a statistical significance level of 0.01 (Likelihood Ratio=0.00, $\chi^2=23.34$, df=2, p=.000), in accordance with assumptions. Also, Pearson's method was used to examine the strength of the relationship. It

was found that the correlation coefficient (r) which should not be too extremely high equaled 0.25, therefore, the two variables were statistically significantly correlated, and the one-way multivariate analysis of variance (one-way MANOVA) could be used to analyze.

Results of The Test on Assumptions Divided by Time Spent Teleworking

According to Box's M test, it was found that job stress and job performance of telecommunication business employees were not statistically significantly different (Box's $M=7.41$, $F=1.22$, $df_1=6$, $df_2=1056684.19$, $p=.289$). This indicated that variance and covariance of job stress and job performance of telecommunication business employees were homogeneous, in accordance with assumptions, therefore, the one-way multivariate analysis of variance (one-way MANOVA) could be used to analyze.

According to the test on the correlation between job stress and job performance of telecommunication business employees, it was found that job stress and job performance of telecommunication business employees were correlated at a statistical significance level of 0.05 (Likelihood Ratio=0.00, $\chi^2=21.68$, $df=2$, $p=.000$), in accordance with assumptions. Also, Pearson's method was used to examine the strength of the relationship. It was found that the correlation coefficient (r) which should not be too extremely high equaled 0.22, therefore, the one-way multivariate analysis of variance (one-way MANOVA) could be used to analyze.

Results of The Test on Assumptions Divided by Alternative Worksite

According to Box's M test, it was found that job stress and job performance of telecommunication business employees were not statistically significantly different (Box's $M=10.26$, $F=1.69$, $df_1=6$, $df_2=265804.24$, $p=.110$). This indicated that variance and covariance of job stress and job performance of telecommunication business employees were homogeneous, in accordance with assumptions, therefore, the one-way multivariate analysis of variance (one-way MANOVA) could be used to analyze.

According to the test on the correlation between job stress and job performance of telecommunication business employees, it was found that job stress and job performance of telecommunication business employees divided by alternative worksite were correlated at a statistical significance level of 0.05 (Likelihood Ratio=0.00, $\chi^2=19.69$, $df=2$, $p=0.000$), in accordance with assumptions. Also, Pearson's method was used to examine the strength of the relationship. It was found that the correlation coefficient (r) which should not be too extremely high equaled 0.23, therefore, the one-way multivariate analysis of variance (one-way MANOVA) could be used to analyze.

Results of The Test on Assumptions Divided by Telecommunications Technology

According to Box's M test, it was found that job stress and job performance of telecommunication business employees were not statistically significantly different (Box's $M=13.16$, $F=1.93$, $df_1=6$, $df_2=26562.09$, $p=0.060$). This indicated that variance and covariance of job stress and job performance of telecommunication business employees divided by telecommunications technology were homogeneous, in accordance with assumptions, therefore, the one-way multivariate analysis of variance (one-way MANOVA) could be used to analyze.

According to the test on the correlation between job stress and job performance of telecommunication business employees, it was found that job stress and job performance of telecommunication business employees were correlated at a statistical significance level of

0.05 (Likelihood Ratio=0.00, $\chi^2=25.56$, $df=2$, $p=0.000$), in accordance with assumptions. Also, Pearson's method was used to examine the strength of the relationship. It was found that the correlation coefficient (r) which should not be too extremely high equaled 0.23, therefore, the one-way multivariate analysis of variance (one-way MANOVA) could be used to analyze. Results of The Test on Assumptions Divided by Types of Employment

According to Box's M test, it was found that job stress and job performance of telecommunication business employees were not statistically significantly different)Box's $M=15.34$, $F=5.08$, $df_1=3$, $df_2=4549654.80$, $p=.002$ (. This indicated that variance and covariance of job stress and job performance of telecommunication business employees divided by types of employment were homogeneous, in accordance with assumptions, therefore, the one-way multivariate analysis of variance (one-way MANOVA) could be used to analyze.

According to the test on the correlation between job stress and job performance of telecommunication business employees, it was found that job stress and job performance of telecommunication business employees were correlated at a statistical significance level of 0.05 (Likelihood Ratio=0.00, $\chi^2=21.59$, $df=2$, $p=0.000$), in accordance with assumptions. Also, Pearson's method was used to examine the strength of the relationship. It was found that the correlation coefficient (r) which should not be too extremely high equaled 0.21, therefore, the one-way multivariate analysis of variance (one-way MANOVA) could be used to analyze. Results of The Test on Assumptions Divided by Preference Towards Telework

According to Box's M test, it was found that job stress and job performance of telecommunication business employees divided by preference towards telework not statistically significantly different)Box's $M=21.08$, $F=1.72$, $df_1=12$, $df_2=59313.44$, $p=0.055$ (. This indicated that variance and covariance of job stress and job performance of telecommunication business employees divided by preference towards telework were homogeneous, in accordance with assumptions, therefore, the one-way multivariate analysis of variance (one-way MANOVA) could be used to analyze.

According to the test on the correlation between job stress and job performance of telecommunication business employees divided by preference towards telework, it was found that job stress and job performance of telecommunication business employees divided by preference towards telework were correlated at a statistical significance level of 0.05 (Likelihood Ratio=0.00, $\chi^2=26.74$, $df=2$, $p=0.000$), in accordance with assumptions. Also, Pearson's method was used to examine the strength of the relationship. It was found that the correlation coefficient (r) which should not be too extremely high equaled 0.28, therefore, the one-way multivariate analysis of variance (one-way MANOVA) could be used to analyze.

RESULTS

Table 2. A comparison between job stress and job performance of telecommunication business employees divided by telework related to frequency of working outside an office.

Variable	SS	df	MS	F	p	Pairwise comparison
Job stress						
Between groups	0.49	1	0.90	1.77	0.183	-
Error	117.90	425	0.27			
Total	118.39	426				
Job performance						
Between groups	0.03	1	0.03	0.09	0.757	-
Error	135.94	425	320			
Total	135.97	426				

Symbols used in pairwise comparison: 1 = Full-time (9.00 - 17.00), 2 = Part-time

As shown in the Table 2 showing a comparison between job stress and job performance of telecommunication business employees divided by telework related to frequency of working outside an office, it was found that telecommunication business employees with different frequency of working outside an office were not different in job stress)F=1.77 df=1 p=0.183(and job performance)F=0.09 df=1 p=0.757(.

Table 3. A comparison between job stress and job performance of telecommunication business employees divided by time spent teleworking.

Variable	SS	df	MS	F	p	Pairwise comparison
Job stress						
Between groups	0.94	2	0.47	1.70	0.182	-
Error	117.45	424	0.27			
Total	118.39	426				
Job performance						
Between groups	3.29	2	1.64	5.25**	0.006	3 > 1** 3 > 2**
Error	132.68	424	0.31			
Total	135.97	426				

**p<0.01

Symbols used in pairwise comparison: 1 = work in working hours, 2 = work in the evening and on holidays, 3 = work in working hours, in the evening, and on holidays

As shown in the Table 3 showing a comparison between job stress and job performance of telecommunication business employees divided by time spent teleworking, it was found that telecommunication business employees with different time spent teleworking were not different in job stress)F=1.70 df=2 p=0.182), while telecommunication business employees with different time spent teleworking were different in job performance at a statistical significance level of 0.01. When performing a pairwise comparison, it was found that there were 2 pairs which were different: telecommunication business employees working in working hours, in the evening, and on holidays) \bar{X} =3.36) had higher mean of job performance than

telecommunication business employees working in working hours ($\bar{X}=3.20$) and telecommunication business employees working in the evening and on holidays ($\bar{X}=3.15$) at a statistical significance level of 0.01.

Table 4. A comparison between job stress and job performance of telecommunication business employees divided by alternative worksite.

Variable	SS	df	MS	F	p	Pairwise comparison
Job stress						
Between groups	1.71	2	0.85	3.11*	0.045	2 > 3*
Error	116.68	424	0.27			
Total	118.39	426				
Job performance						
Between groups	7.12	2	3.56	11.71**	0.000	3 > 1**
Error	128.85	424	0.30			
Total	135.97	426				

* $p < .05$ ** $p < .01$

Symbols used in pairwise comparison: 1 = Home, 2 = Others, 3 = Home and others

As shown in the Table 4 showing a comparison between job stress and job performance of telecommunication business employees divided by alternative worksite, it was found that telecommunication business employees with different alternative worksite were different in job stress) $F=3.11$ $df=2$ $p=0.045$ (at a statistical significance level of 0.05. When performing a pairwise comparison, it was found that there was 1 pair which was different: telecommunication business employees working at other alternative worksite) $\bar{X}=2.92$ (had higher mean of job stress than those working at home and other alternative worksite) $\bar{X}=2.76$ (, and telecommunication business employees with different alternative worksite were different in job performance) $F=11.71$ $df=2$ $p=0.000$ (at a statistical significance level of 0.01. When performing a pairwise comparison, it was found that there was 1 pair which was different: telecommunication business employees working at home and other alternative worksite) $\bar{X}=3.40$ (had higher mean of job performance than telecommunication business employees working at home) $\bar{X}=3.12$).

Table 5. A comparison between job stress and job performance of telecommunication business employees divided by telecommunications technology.

Variable	SS	df	MS	F	p	Pairwise comparison
Job stress						
Between groups	4.28	2	2.14	7.95**	0.000	1 > 2** 2 > 3**
Error	114.11	424	0.26			
Total	118.39	426				
Job performance						
Between groups	3.34	2	1.67	5.34**	0.000	1 > 2** 1 > 3**

Error	132.63	424	0.31
Total	135.97	426	

** $p < 0.01$, Symbols used in pairwise comparison: 1 = Mobile phone, 2 = Others, 3 = Mobile phone and others

As shown in the Table 5 showing a comparison between job stress and job performance of telecommunication business employees divided by telecommunications technology, it was found that telecommunication business employees with different telecommunications technology were different in job stress ($F=7.95$ $df=2$ $p=0.000$). When performing a pairwise comparison, it was found that there were 2 pairs which were different: telecommunication business employees teleworking with mobile phone ($\bar{X}=3.02$) had higher mean of job stress than telecommunication business employees teleworking with other technology ($\bar{X}=2.81$), and telecommunication business employees teleworking with other technology ($\bar{X}=2.81$) had higher mean of job stress than telecommunication business employees teleworking with mobile phone and other technology ($\bar{X}=2.78$). Also, telecommunication business employees with different telecommunications technology were different in job performance ($F=5.34$ $df=2$ $p=0.000$) at a statistical significance level of 0.01. When performing a pairwise comparison, it was found that there were 2 pairs which were different: telecommunication business employees teleworking with mobile phone ($\bar{X}=3.02$) had higher mean of job performance higher than telecommunication business employees teleworking with other technology ($\bar{X}=2.84$) at a statistical significance level of 0.05 and telecommunication business employees teleworking with mobile phone and other technology ($\bar{X}=2.78$) at a statistical significance level of 0.01.

Table 6. A comparison between job stress and job performance of telecommunication business employees divided by types of employment.

Variable	SS	df	MS	F	p	Pairwise comparison
Job stress						
Between groups	2.27	1	2.27	8.33**	0.004	1 > 2**
Error	116.12	425	0.27			
Total	118.39	426				
Job performance						
Between groups	1.89	1	1.89	6.01*	0.015	2 > 1**
Error	134.07	425	0.31			
Total	135.96	426				

* $p < 0.05$ ** $p < 0.01$

Symbols used in pairwise comparison: 1 = Contract (1 year , 3 years , 5 years etc.(, 2 = Traditional)no limited time(

As shown in the Table 6 showing a comparison between job stress and job performance of telecommunication business employees divided by types of employment, it was found that telecommunication business employees with different types of employment were different in job stress ($F=8.33$ $df=1$ $p=0.000$) (at a statistical significance level of 0.01 and job performance ($F=6.01$ $df=1$ $p=0.015$) (at a statistical significance level of 0.05. When performing a pairwise

comparison, it was found that telecommunication business employees with an employment contract (1year , 3years , 5years etc.($\bar{X} = 2.93$) had higher mean of job stress than telecommunication business employees with traditional employment)no limited time($\bar{X} = 2.78$), while telecommunication business employees with traditional employment)no limited time($\bar{X} = 3.30$) had higher mean of job performance than telecommunication business employees with an employment contract (1 year , 3 years , 5 years etc.($\bar{X} = 3.16$) at a statistical significance level of 0.01.

Table 7. A comparison between job stress and job performance of telecommunication business employees divided by preference towards telework.

Variable	SS	df	MS	F	p	Pairwise comparison
Job stress						
Between groups	13.64	4	3.41	13.73**	0.000	1 > 4,5** 2 > 4,5** 3 > 4**
Error	104.75	422	0.24			
Total	118.39	426				
Job performance						
Between groups	1.73	4	0.43	1.36	0.245	-
Error	134.23	422	0.31			
Total	135.96	426				

**p<.01

Symbols used in pairwise comparison: 5 = Highly preferred , 4 = Very preferred , 3 = Moderately preferred , 2 = Not very preferred, 1 = Not at all preferred

As shown in the Table 7 showing a comparison between job stress and job performance of telecommunication business employees divided by preference towards telework, it was found that telecommunication business employees with different preference towards telework were different in job stress)F=13.73 df=4 p=0.000(at a statistical significance level of 0.01. When performing a pairwise comparison, it was found that telecommunication business employees who did not prefer teleworking at all ($\bar{X} = 3.13$) had higher mean of job stress than telecommunication business employees who very preferred teleworking ($\bar{X} = 2.70$) and who highly preferred teleworking ($\bar{X} = 2.58$). Also, telecommunication business employees who did not very prefer teleworking ($\bar{X} = 3.08$) had higher mean of job stress than telecommunication business employees who very preferred teleworking ($\bar{X} = 2.70$) and who highly preferred teleworking ($\bar{X} = 2.58$). Moreover, telecommunication business employees who moderately preferred teleworking ($\bar{X} = 2.95$) had higher mean of job stress than telecommunication business employees who very preferred teleworking ($\bar{X} = 2.70$). However, telecommunication business employees with different preference towards telework were not different in job performance)F=1.36 df=4 p=0.245(.

CONCLUSION

- (1) When examining job stress and job performance of telecommunication business employees divided by telework related to frequency of working outside an office, it was found that telecommunication business employees with different frequency of working outside an office were not different in job stress ($F=1.77$ $df=1$ $p=0.183$) and job performance ($F=0.09$ $df=1$ $p=0.757$).
- (2) When examining job stress and job performance of telecommunication business employees divided by time spent teleworking, it was found that telecommunication business employees with different time spent teleworking were not different in job stress ($F=1.70$ $df=2$ $p=0.182$), while telecommunication business employees with different time spent teleworking were different in job performance ($F=5.25$ $df=2$ $p=0.006$) at a statistical significance level of 0.01.
- (3) When examining job stress and job performance of telecommunication business employees divided by alternative worksite, it was found that telecommunication business employees with different alternative worksite were different in job stress ($F=3.11$ $df=2$ $p=0.045$) at a statistical significance level of 0.05, and telecommunication business employees with different alternative worksite were different in job performance ($F=11.71$ $df=2$ $p=0.000$) at a statistical significance level of 0.01.
- (4) When examining job stress and job performance of telecommunication business employees divided by telecommunications technology, it was found that telecommunication business employees with different telecommunications technology were different in job stress ($F=7.95$ $df=2$ $p=0.000$) and job performance ($F=5.34$ $df=2$ $p=0.000$) at a statistical significance level of 0.01.
- (5) When examining job stress and job performance of telecommunication business employees divided by types of employment, it was found that telecommunication business employees with different types of employment were different in job stress ($F=8.33$ $df=1$ $p=0.000$) at a statistical significance level of 0.01 and job performance ($F=6.01$ $df=1$ $p=0.015$) at a statistical significance level of 0.05.
- (6) When examining job stress and job performance of telecommunication business employees divided by preference towards telework, it was found that telecommunication business employees with different preference towards telework were different in job stress ($F=13.73$ $df=4$ $p=0.000$) at a statistical significance level of 0.01, while telecommunication business employees with different preference towards telework were not different in job performance ($F=1.36$ $df=4$ $p=0.245$).

DISCUSSION

It was found that telecommunication business employees with different frequency of working outside an office were not different in job stress ($F=1.77$ $df=1$ $p=0.183$) and job performance ($F=0.09$ $df=1$ $p=0.757$). The reason could be that teleworking full time requires being at home all the time, so family obligations no matter associated with wife, children, or cousins probably bother work, in other words, work-family conflict can occur. For employees teleworking part time, they have to work both from home and in the office during the outbreak of COVID-19 pandemic, so they are at a higher risk for infection, and they can be bothered by colleagues or coworkers. Furthermore, to work both from home and in the office causes difficulty in

dislocating office supplies and equipment to employees. Therefore, employees teleworking full time and those teleworking part time are not different in job stress, which is in accordance with the research of Arntz, Yahmed, and Berlingieri (2020a). They found that working off-site especially during quarantine period which is intended to reduce the risk of infection made some employees inevitably blend work and life together. If the organization does not formulate a policy allowing employees to design their own working hours or frequency of working off-site, employees may experience difficulty in working and higher job stress.

The reason why employees teleworking full time and part time are not different in job performance can be that all disturbances at home and at workplace, traveling from home to work, and dislocating supplies and equipment affect job stress of employees, and these factors also affect job performance of employees.

It was found that telecommunication business employees with different time spent teleworking were not different in job stress ($F=1.70$ $df=2$ $p=0.182$). The reason could be that employees are divided by the time spent teleworking: those working in business hours; those working in the evening and on holidays; and those working in business hours, in the evening, and on holidays, and naturally, employees have to answer customer service calls all the time. Employees have to search for information in order to answer customers' questions or refer the questions to another department. This responsibility is the same regardless of working hours, so employees are not different in job stress. Nevertheless, this is not in accordance with the research of Lodovici et al. (2021). They revealed that the increase in flexibility in telework space and time and teleworking using information and communication technology were useful for the workers; job satisfaction was increased, job stress was reduced, and work-life balance was improved.

DiMarco (2018) discovered that telework was a highly efficient way to increase employees' quality, proficiency, and quality of customer interaction.

In this research, it was found in details that telecommunication business employees with different time spent teleworking were different in job performance at a statistical significance level of 0.01. The researcher thinks that working in business hours, in the evening, and on holidays results in higher job performance than working in business hours and working in the evening and on holidays because working in different time reduces repetitiveness and boredom. Therefore, employees teleworking in different time have higher job performance than employees teleworking in business hours or employees teleworking in the evening and on holidays.

It was found that telecommunication business employees with different alternative worksite were different in job stress ($F=3.11$ $df=2$ $p=0.045$) at a statistical significance level of 0.05. The reason could be that working at other places rather than home results in higher job stress than working from home because employees are perhaps separated from their family; they do not have a chance to meet and talk with their wife, children, and cousins. This agrees with the research of Heiden et al. (2021) in which they found that telework worsened employees' well-being as social isolation rarely caused work-life balance, and employees were exhausted from using social media. The research of Mann and Holdsworth (2003) also revealed that employees teleworking had a higher level of stress than employees working in the office.

Telecommunication business employees with different alternative worksite were different in job performance ($F=11.71$, $df=2$, $p=0.000$) at a statistical significance level of .01. The reason

why working both from home and at other places results in higher job performance than working only from home could be that supplies and equipment at home are not sufficient, so working at other places allows employees to utilize supplies and equipment.

It was found that telecommunication business employees with different telecommunications technology were different in job stress ($F=7.95$, $df=2$, $p=0.000$). The reason why employees using phones or phones and other devices have higher job stress than employees using other devices could be that holding a phone causes soreness, muscle tension, and a fear of phone radiation because using a phone for a long period of time may affect physical health. Also, phone conversations may involve more emotions than other types of conversations such as communicating via social medias on computer. This agrees with the research of Omar Lim (2021b) in which they found that working with smartphones was positively correlated with work-life conflict.

Telecommunication business employees with different telecommunications technology were different in job performance ($F=5.34$, $df=2$, $p=0.000$) at a statistical significance level of 0.01. The reason why employees using phones have higher job performance than employees using other devices or phones and other devices could be that using phones allows employees to respond quickly, for example, employees can answer complainers' questions instantly which requires fewer steps than other devices.

It was found that telecommunication business employees with different types of employment were different in job stress ($F=8.33$, $df=1$, $p=0.000$) at a statistical significance level of 0.01 and job performance ($F=6.01$, $df=1$, $p=0.015$) at a statistical significance level of 0.05. An employee contract (1 year, 3, years, 5 years) makes employees worried whether they obtain a contract renewal when the existing contract ends, so they are more stressed than employees with traditional employment in which there is no limited employment period; employees have employment stability and do not have to worry about looking for a new job in case the company does not renew the contract. Hence, they will work as well as they can for a career advancement or a higher position at their job, they may work until they retire from work. In conclusion, employees with traditional employment have higher job performance than employees with an employee contract (1 year, 3 years, 5 years). This agrees with the research of Ahmed (2021) in which job insecurity was found positively influencing job stress at a statistical significance level. In addition, it agrees with the research of Baert et al. (2020) in which they found that some employees were afraid that working outside the office would decrease their opportunity to get a promotion and weaken their relationship with coworkers and employers.

It was found that telecommunication business employees with different preference towards telework were different in job stress ($F=13.73$ $df=4$ $p=0.000$) at a statistical significance level of 0.01. The reason could be that employees who do not at all prefer, do not very prefer, or moderately prefer teleworking reluctantly telework because they do not like technology used for teleworking or do not like to learn new things, in other words, they do not like to adjust to change, so they are more stressed than employees who very prefer or highly prefer teleworking. This is in accordance with the research of Mann and Holdsworth (2003) in which they found that negative emotions of employees who teleworked included loneliness, worry, guilt, and irritability.

Telecommunication business employees with different preference towards telework were not

different in job performance ($F=1.36$ $df=4$ $p=0.245$). No matter how much employees prefer teleworking, their job performance are not different because they have to keep their preference secret and complete their assigned work as usual. This agrees with the research of Tanathitikorn and Tanathitikorn (2021) in which effects of working from home during COVID-19 pandemic was examined. They revealed that the productivity of employees working from home was increased as employees had positive feelings on being allowed to work from home.

RECOMMENDATIONS

Recommendations for using the results

Institutes or organizations can use the results as a guideline on employees' job stress reduction, for instance, executives may give employees an opportunity to work from home and other places. Also, organizations should support employees on telecommunications technology apart from mobile phones such as laptops and programs used for telecommunication in order to ease difficulties and complexity in working from home. Furthermore, organizations should change types of employment to traditional employment that has no contract renewal so that employees perceive job security, and it helps reduce telework stress than contract employment: 1 year, 3 years, 5 years etc. Organizations should make employees prefer telework as much as possible before starting telework because telework stress will be reduced more than employees who moderately, not very, and not at all prefer telework.

Executives can use the results for training, developing, or adjusting working patterns of employees so that job performance is increased, for instance, time spent teleworking can be adjusted to be more flexible, in other words, employees can work in working hours, in the evening, or on holidays, or employees can work at any time for 8 hours in total instead of 8 hours straight as usual. For telecommunication business in which employees need to work in shifts 24 hours a day, working patterns can be adjusted to be more flexible. Furthermore, in the matter of worksite, executives may allow employees to work off-site such as coffee shops or home in order to reduce job boredom. Another way is to emphasize telecommunications technology; executives may adjust working patterns to be facilitative for telecommunication such as online meetings and electronic signature which employees can do via smartphones, tablets, or laptops. Optimizing work processes provides convenience and increases work efficiency. Finally, executives may change types of employment to traditional employment: long-term employment. This is a way to gain employees' confidence; they know that they will continually be employed, although they have to work from home, or any crisis happens. This way also creates employees' goodwill and job performance.

Recommendations for future research

The results should be used in other businesses involved telework as a guideline on employees' job stress reduction and employees' job performance increase, for instance, employees should work from home and sometimes from other places so that their job performance is increased. Also, employment period should not be limited so that employees' job stress is reduced, and their job performance is increased.

Mixed methods research: quantitative and qualitative method should be conducted such as interviews or group conversation for the increment in knowledge of telework.

In this research, the researcher studied telework affecting job stress and job performance of

employees. For future research, the researcher should study the effects of telework such as job satisfaction, organizational engagement, and intention of resignation. The study of these variables may provide useful findings.

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