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RELATIONSHIP BETWEEN REMOTE WORK, ORGANIZATIONAL CLIMATE, AND WORK STRESS ON EMPLOYEE PERFORMANCE

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KEYWORDS
employee performance, remote work, organizational climate, work stress, multi-group analysis.

ABSTRACT
The remote work system is developing to be a solution for increasing employee performance and one of the challenges is maintaining the organizational climate. Besides, remote work is expected to reduce stress. Therefore, the main objective of this research is to develop and empirically test a research model that includes these four factors. The developed model is a reflective construct. This study used a quantitative approach with the PLS-SEM technique with a total of 78 respondents. In addition, a multi-group analysis was carried out in the study to determine differences in results in gender. Data collection was carried out using a purposive sampling technique. The survey was distributed to research respondents from Tokopedia, Shopee, Bukalapak, Blibli, and Lazada. The results showed that remote work had a significant positive effect on employee performance, the organizational climate had a significant positive effect on remote work, and the organizational climate had a significant effect on work stress, and found a mediating role of remote work for the construct relationship between organizational climate and employee performance. The results of the multi-group analysis stated that in all the relationships studied, there was not enough evidence to accept significant differences in the male and female groups.

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INTRODUCTION

The digital world is currently developing very quickly. It must be connected to the online world, which continues to increase yearly (Fatahila, 2022). E-commerce companies that rank in the top five based on the number of customer visits to websites and applications are Shopee, Tokopedia, Lazada, Blibli, and Bukalapak (Similarweb, 2023). Companies compete to maintain or increase their position to the top ranking (Surya Wijaya et al., 2023). One important factor of a competition is performance. Performance is the result of work achieved by a person or a group in carrying out certain tasks to achieve the goals set (Gary Dessler, 2015). With good performance in all aspects of the organization, achieving goals is possible (Hasibuan, 2014).

Organizations need to continue to strive to be able to produce increased employee performance and provide comfort for employees to be able to work well. One solution that is developing for this problem is a remote work system or remote work. Remote work is a special arrangement for employees of an organization in which they are not required to travel or commute to certain work locations, such as offices, shops, or warehouses (Chatterjee et al., 2022). According to a study, 98% of remote workers want to work remotely for at least the rest of their careers (Buffer, 2021). According to previous researchers, remote work can increase job satisfaction, performance, or turnover intention (Suryaningtyas et al., 2022). However, these benefits also come with their own set of challenges that

must be overcome. One of the challenges of working remotely for organizations is maintaining an organizational climate (Pradoto et al., 2022).

The relationship between remote work and organizational climate is becoming increasingly important as remote work increases, especially during the COVID-19 pandemic (Pradoto et al., 2022). Organizational climate is an individual's view of aspects of work and values in the organization or each individual's perception of organizational characteristics and situations that influence a person's behaviour in his work (Meithiana, 2017). Previous research said that there is a relationship between organizational climate and employee performance (Jannah et al., 2022). Based on a preliminary study regarding the definition and benefits of organizational climate, it was concluded that an individual's view of work and the work environment includes values, norms, and policies within the organization and can influence employee behaviour and performance.

An organizational climate that has the effect of being tense and politically charged can have a negative impact on employee productivity and disrupt formal organizational structures (Kumar & Mohan, 2014). While some individuals may perform better under pressure, it ultimately depends on the employee's attitude. The inability to cope with stress can lead to increased absenteeism and employee turnover. Work stress was found to have a direct negative effect on employee performance (Irawanto et al., 2021); (Pradoto et al., 2022); (Saranani, 2015).

By understanding the factors that affect employee performance, organizations can take appropriate action to improve it. Organizations are trying to answer the challenge of remote work; there is a need for research to understand the relationship between organizational climate (organizational climate), remote work (remote work), work stress (work stress), and employee performance (employee performance). This study identifies and analyses relationship between remote work, organizational climate, and work stress on employee performance. This research can be input for companies that want to improve employee performance for the benefit of the organization in implementing remote working methods. This research found there are 5 dimensions to reflect organizational climate, namely trust, interpersonal dynamics, transformational leadership, organizational culture and management structure. Apart from that, 3 dimensions were found to reflect remote work, namely working time flexibility, place flexibility and infrastructure flexibility.

METHODS

The method used in this research is quantitative. Sampling was carried out in this study using purposive sampling. This research determines the minimum sample size using R^2, as Cohen (1992) stated in (Hair Jr. et al., 2014). With a minimum R^2 of 0.5 and the maximum number of arrows pointing to one construct in the model is 3 (three), the minimum number of data samples is 38 samples. Data collection was carried out to test and validate the relevance of the model to real conditions in the field. The process of collecting data is done by distributing questionnaires to company employees start on April until June 2023 while the research start from January until July 2023. Respondent criteria in this study include (1) Working background in e-commerce companies such as Shopee, Tokopedia, Lazada, Bukalapak, and Bblibli; (2) Doing work with a remote work system (remote work).

The number of validated respondents is expected to reach 76, and that collection of as many as 78 respondents. The questionnaire was distributed online via the Google form. After the data is collected, testing of measuring instruments will be carried out. The questions in the questionnaire were adapted from previous research, which were considered the most relevant and had the highest loading factor. Data was collected in Indonesia from May to July 2023. Currently, only some e-commerce companies are undergoing remote work. In the companies targeted in this study, only a few sections implemented a hybrid system or a mixture of work from the office and remote work. Respondent

participation sequentially from the companies from the five research objects in e-commerce companies, namely Tokopedia, Shopee, Blibli, Bukalapak, and Lazada, was 15%, 23%, 22%, 30%, and 10%.

RESULTS AND DISCUSSION

It was found that male respondents (58%) and female respondents (42%) had little difference in numbers. This slight difference is due to the spread of the questionnaire using a fairly even number of female and male workers in the e-commerce company that is the object of research. Apart from gender, there is an age difference found in 4 categories, with the largest percentage in the age range 21-25 years (55%), age range 26-30 years (37%), age range 31-35 (5%), and age range age> 35 years (3%). Respondents' job levels were dominated by staff, with 63 respondents, 81%, and 20 supervisors/managers, or 19%. Sequentially, the origin of the respondent companies from the five research objects in e-commerce companies, namely Tokopedia, Shopee, Blibli, Bukalapak, and Lazada, is 15%, 23%, 22%, 30%, and 10%. Finally, the length of time the respondents worked was less than one year by 10%, the range of 1-3 years dominated by 73%, and the remaining 4-6 years by 17%. These explanations can be summarized in Table 1.

Table 1. Demographics of respondents

Characteristics of Respondents	Category	Amount	Percentage
Gender	Man	45	58%
	Woman	33	42%
Age	21-25	43	55%
	26-30	29	37%
	31-35	4	5%
	>35	2	3%
Position	staff	63	81%
	Supervisors/Managers	15	19%
The type of company	Tokopedia	12	15%
	Shopee	18	23%
	Blibli	17	22%
	Bukalapak	23	30%
	Lazada	8	10%
Length of working	<1 Year	13	10%
	1-3 Years	57	73%
	4-6 Years	8	17%

In testing the validity and reliability of the measurement model, SmartPLS4 was used. The software is also used to test structural models and perform multi-group analysis by gender. This study uses three independent variables: remote work, organizational climate, and work stress. In addition, there is one dependent variable, namely employee performance. The total indicators of the measurement model are 40 indicators. After testing the validity and reliability of the indicators used, eight indicators are removed so that there are 32 indicators ready for further testing.

Measurement Model

They are based on the results of the assessment of the measurement model using three measurement tools: convergent validity, discriminant validity, and composite reliability (CR). All indicators that pass are in accordance with the standard, namely having outer loading > 0.708. Each construct has a composite reliability value of > 0.7 and AVE > 0.5. The measurement results can be seen in Table 2. In addition, discriminant validity was carried out to evaluate how much a construct differs from others. In this study, testing the discriminant validity was carried out by testing the HTMT. All model improvements by eliminating problematic indicators all HTMT values are below the

recommended threshold of 0.9 according to research of (Hair Jr. et al., 2014). The HTMT test shows that all variables have an HTMT value <0.9. The constructs meet the HTMT criteria, are valid, and are quite different from one another. The results of the HTMT test can be seen in Table 3.

Table 2 Measurement Model

Construct	Indicator	Outer Loadings	Cronbach's Alpha	Composite Reliability (CR)	AVE
Employee Performance	EP1	0.864	0936	0.949	0.756
	EP2	0910			
	EP3	0.822			
	EP4	0.843			
	EP5	0891			
	EP6	0.859			
Organizational Climate	OC1	0.854	0.950	0.961	0.638
	OC2	0.827			
	OC3	0.831			
	OC4	0.732			
	OC5	0.823			
	OC6	0.716			
	OC11	0.734			
	OC12	0.805			
	OC13	0.878			
	OC14	0.833			
	OC15	0.804			
	OC16	0.761			
	OC17	0.724			
	OC18	0.840			
Remote Work	RW1	0.707	0.809	0.858	0.504
	RW2	0.763			
	RW3	0.708			
	RW4	0.800			
	RW8	0.708			
	RW10	0.720			
Work Stress	WS1	0.799	0897	0.920	0.659
	WS2	0.738			
	WS3	0.848			
	WS4	0.802			
	WS5	0811			
	WS6	0.866			

Table 3. Discriminant validity evaluation of the measurement model using HTMT

	Employee Performance	Organizational Climate	Remote Work	Work Stress
Employee Performance				
Organizational Climate	0.175			
Remote Work	0.349	0.394		
Work Stress	0.101	0.416	0.289	

Structural Model Assessment

Bootstrapping is done on the model to test significance. In bootstrapping, there are testing rules, including the following (Hair Jr. et al., 2014).

1. The minimum number of bootstrap samples must be at least equal to the number of valid observations or up to 5,000.

2. The critical values for the two-tailed test are 1.65 (for a 10% significance level), 1.96 (for a 5% significance level), and 2.57 (for a 1% significance level). The standard error rate was 5% (p-value <0.05) at the 95% confidence level.

The results of the significance test of the structural model path coefficient and the total effect using the bootstrapping method follow the rules (Hair Jr. et al., 2014), which can be seen in Table 4. The constructs that have a significant direct effect include (a) organizational climate on remote work, (b) organizational climate on work stress, and (c) remote work on employee performance. Constructs that have direct effects that are not significant include (a) organizational climate on employee performance, (b) remote work on work stress, and (c) work stress on employee performance. There are differences in the results between the path coefficient and the total effect. This also means that the mediating role of work stress on the relationship between organizational climate and employee performance and remote work and employee performance does not occur. The research found the mediating role of remote work on the relationship between organizational climate and employee performance.

Table 4. Structural model assessment

hypothesis	Relationships	Path coefficient	t values	p-values	f^2
H1	**OC -> EP**	0.077	0.507	0.613	0.005
H2	**RW -> EP**	0.336	3,499	0.001	0.108
H3	**WS -> EP**	0.087	0.808	0.421	0.007
H4	**OC -> RW**	0.389	5.214	0.000	0.179
H5	**RW -> WS**	-0.102	0.733	0.466	0.011
H6	**OC -> WS**	-0.372	3,241	0.002	0.143
H7	**RW -> WS -> EP**	-0.009	0.608	0.359	
H8	**OC -> WS -> EP**	-0.033	0.757	0.511	
Finding	**OC -> RW -> EP**	0.131	2,469	0.015	

The coefficient of determination measures the accuracy of the model's predictions and the square of the correlation between the actual and predicted values of the endogenous construct. The coefficient of determination represents the combined effect of exogenous latent variables on endogenous latent variables. The coefficient of determination for the endogenous construct of 0.75 is generally considered strong/large, 0.5 is considered quite strong/moderate, and 0.25 is considered weak. Meanwhile, Q^2 is an indicator of the predictive reliability of the model. While PLS-SEM demonstrates predictive relevance, it accurately predicts indicator data points in reflective measurement models from endogenous and single indicator constructs. In the structural model, if the value of Q^2 > 0 indicates that the exogenous construct has predictive relevance for the endogenous construct studied. In testing, the Q^2 value can be applied using a blindfolding procedure to measure the cross-validated redundancy of each endogenous construct—the test results of the coefficient of determination (R^2) and stone-Geisser's value (Q^2). Using SmartPLS software can be seen in Table 5.

Table 5. Test results for R^2 and Q^2

Construct	R^2	Q^2
Employee Performance	0.127	0.083
Organizational Climate	-	
Remote Work	0.152	0.063
Work Stress	0.178	0.104

Multi-group Analysis

At this stage, the purpose of the test is to test whether the difference in path coefficients between male and female sexes is significant. SmartPLS4 software is used to find out the permutation test output. If the p-value is ≤ 0.05, gender significantly moderates the hypothesized path relationship. Based on

Table 6, it can be concluded that there is no significant difference between male and female gender in each path relationship tested. This is obtained based on the permutation p-value > 0.05.

Table 6. PLS-MGA Analysis

Connection	Path Coef. Origin (L)	Path Coef. Origin (F)	Path Coeff. Ori difference	Path Coef. Permutation Mean Differences	2.5 %	97.5 %	p-Values
OC->EP	0.111	0.169	-0.058	-0.001	-0.615	0.543	0.900
OC -> RW	0.443	0.284	0.159	-0.019	-0.305	0.309	0.430
OC -> WS	-0.259	-0.589	0.330	-0.032	-0.432	0.264	0.100
RW -> EP	0.386	0.284	0.102	-0.018	-0.518	0.355	0.760
RW -> WS	-0.212	-0.009	-0.203	0.035	-0.452	0.495	0.520
WS -> EP	0.089	0.141	-0.052	-0.038	-0.488	0.423	0.850
OC->WS->EP	-0.023	-0.061	0.038	0.003	-0.162	0.174	0.710
RW->WS->EP	-0.019	-0.001	-0.018	-0.001	-0.070	0.080	0.587
OC->RW-> EP	0.171	0.079	0.092	-0.002	-0.237	0.206	0.430

Notes:
***significant at the 0.01 level (2-tailed), **significant at the 0.05 level (2-tailed)**
EP: Employee Performance, OC: Organizational climate, RW: Remote Work, WS: Work Stress

This study aims to identify the relationship between remote work, organizational climate, work stress, and employee performance in e-commerce companies in Indonesia. Research results contribute to developing or expanding research on the relationships of these variables. Based on preliminary studies, it was found that the implementation of remote work increased employee performance (Irawanto et al., 2021). Following the preliminary study, the research proved that this way of working can have a positive impact on companies to improve employee performance. In addition, a preliminary study found that organizational climate plays an important role in improving performance and supporting remote work systems (Lebopo et al., 2020); (Screwdriver et al., 2021) ; (Pradoto et al., 2022).

Contrary to preliminary studies, organizational climate cannot directly impact employee performance but can have a significant effect if mediated by remote work. It can be concluded that the influence of the new organizational climate has a significant positive impact if the company implements good remote work methods by taking into account the three main dimensions found in this study, namely worktime flexibility, workplace flexibility, and infrastructure flexibility (Chatterjee et al., 2022). However, these results are supported by other studies which state that the relationship between organizational climate and employee performance is not significant for the research object. Other researchers also state that organizational climate variables do not affect employee performance variables with employee respondents (Happy et al., 2013). In addition to the mediation relationship, the research states a significant direct relationship between organizational climate and remote work. Support from organizations can support the success of implementing remote work (Lebopo et al., 2020). In addition to the organizational climate variable, one variable is examined, namely work stress.

Contrary to the preliminary study, the study found that the relationship between remote work and work stress was insignificant. This is supported by research that remote work is one of the main drivers of employee anxiety and stress. The main reasons are peer interactions, enjoyable rest routines, and conflicts between work and family (Prasad et al., 2023). On the other hand, it was found that organizational climate and work stress had a positive and significant relationship, in accordance with previous research, which found that organizational climate had a negative and significant effect on work stress (Pradoto et al., 2022).

The relationship between work stress was also tested for its significance directly with employee performance, and the study's results stated that there was no significant relationship. The mediating role

of job stress has also yet to be proven. So, in the implementation of remote work, the priority is to improve the organizational climate so that it can impact employee performance. The stress variable can be ignored because, based on research, it does not determine employee performance. Finally, in multi-group analysis, an interpretation of the results of the permutation test is carried out by looking at the p-value > 0.05 so that it can be concluded that gender does not moderate the relationship between the hypothesized constructs or, in other words, the different path coefficient values do not indicate that there is a different effect either.

CONCLUSION

This research developed an employee performance model for implementing remote work in e-commerce companies. The developed model consists of 4 latent variables: employee performance, organizational climate, remote work and work stress. There are five dimensions to reflect organizational climate, namely trust, interpersonal dynamics, transformational leadership, organizational culture and management structure. In addition, three dimensions were found to reflect remote work, namely flexibility of working time, flexibility of place, and flexibility of infrastructure.

Based on testing the structural model using the entire sample, the relationship between remote work and employee performance is significant. However, when a multi-group analysis was performed, the male gender sample was significant. In contrast, the female gender sample was not significant. Second, based on the results of testing the structural model using all samples, a significant relationship was found in the relationship between organizational climate and work stress. However, when a multi-group analysis was performed, the male gender was insignificant, while the female gender sample was significant. Third, based on the results of testing the structural model using all samples, a significant relationship was found between organizational climate and remote work. However, when a multi-group analysis was performed, the male gender sample was significant. In contrast, the female gender sample was not significant.

The multi-group analysis results show no significant difference between male and female gender in terms of both the overall measurement model and the entire structural model—employee performance. However, when a multi-group analysis was performed, the male gender sample was significant. In contrast, the female gender sample was not significant.

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