

THE RELATIONSHIP BETWEEN WORKING FROM HOME AND EMPLOYEE PERFORMANCE: THE ROLE OF FAMILY CLIMATE AS A MODERATING VARIABLE

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Abstract

This study analyzes the relationship between Work From Home (WFH) and employee performance with family climate as a moderating variable. Using a correlational quantitative method, the study involved 206 respondents who work from home. The results of Moderated Regression Analysis show that WFH is significantly related to performance ($\beta = 0.69191$; $p < 0.001$). Family climate is also significantly related to performance ($\beta = 0.20040$; $p < 0.001$). In addition, family climate was found to significantly moderate the relationship between WFH and performance ($\beta = 0.00443$; $p = 0.038$). These findings confirm that the implementation of WFH and family climate support play an important role in improving employee performance.

Keywords: *Work From Home, employee performance, family climate*

INTRODUCTION

Changes in modern work patterns require organizations to transform, such as the implementation of Work From Home (WFH) or remote working. This system allows employees to work from home with the support of communication technology (Huuhtanen, 1997). In addition, WFH also provides high flexibility in terms of work time and location (Ashal, 2020). The implementation of this system is often associated with an increase in work-life wellness because travel time is reduced, comfort is increased, and interaction with family becomes more intense (Como et al., 2021; Hill et al., 2003). According to Fisher et al. (2009), work-life wellness in the context of WFH encompasses three aspects, namely work-life balance, the improvement of work on personal life, and the disruption of work on personal life. These three aspects are significant considering that the success of WFH is greatly influenced by an individual's ability to manage the balance between work and family life.

Although it offers several advantages, the WFH work system also presents its own challenges. In Indonesia, the culture of remote working is still relatively new, so not all employees are able to adapt well (Mustajab et al., 2020). Some of the obstacles that arise include distractions from the home environment, multitasking between office work and household chores, and fatigue due to blurred work boundaries (Clapp et al., 2011; Jacobs, 2017). These conditions show that the effectiveness of WFH is not only determined by individual abilities and organizational support, but also by the home environment where the work is done. As work systems such as WFH develop, the issue of employee performance becomes increasingly crucial because performance is a major factor in organizational success. Challenges arise when companies must ensure that performance remains optimal amid changes in work patterns and environments. In an era of globalization and increasingly fierce competition, organizations are required to be productive, efficient, and adaptive to changes in technology and work culture (Schwab, 2019). Thus, understanding employee performance becomes increasingly relevant as work systems shift from traditional patterns to flexible ones such as WFH.

According to Koopmans (2014), performance is a pattern of employee behavior and actions that are in line with organizational goals, which are reflected in the quality and quantity of work results. Employee performance includes the implementation of main tasks, positive behavioral contributions outside of main tasks, and efforts to avoid behavior that is detrimental to the organization (Koopmans et al., 2012). Koopmans et al. (2012) divide performance into three dimensions, namely task performance, contextual performance, and counterproductive work behavior. These three dimensions emphasize that performance is multidimensional and influenced by various factors, including the work environment and family conditions in the context of WFH.

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In the context of working from home, family climate is a factor that influences employee performance. Family climate refers to the dynamics of relationships, communication, emotional support, and the level of conflict between family members (Beavers et al., 1990). A positive family climate can increase motivation and focus at work, while a stressful climate tends to reduce concentration and productivity (Schneider et al., 2002). Beavers et al. (1990) identified five main aspects of family climate, namely health/competence, conflict, cohesion, expressiveness, and directive leadership. These five aspects show that the quality of family interactions can strengthen or weaken the effectiveness of WFH implementation, as well as affect employee comfort and productivity. Previous studies have shown that the implementation of WFH can have both positive and negative effects on performance. Rokhani (2020) found that WFH can increase flexibility, but also cause work disruptions. Simarmata (2020) reported a positive effect of WFH on lecturer productivity, while Narpati et al. (2021) highlighted the influence of the work environment and WFH on employee productivity during the pandemic. These findings indicate that the effectiveness of WFH is not universal, but rather highly dependent on supporting factors beyond the work itself, particularly home environment conditions.

However, research that explicitly examines family climate as a moderating variable in the relationship between WFH and employee performance is still limited. In fact, the literature shows that a supportive family climate can improve focus and emotional stability, while family conflict can weaken work effectiveness during WFH (Moos, 2002). The limitations of previous studies indicate an empirical gap regarding the role of family climate in influencing the success of WFH. Therefore, this study was conducted to fill this gap by examining how family climate moderates the relationship between WFH and employee performance. Based on the above description, this study aims to determine the relationship between Work From Home (X) and employee performance (Y) with family climate (M) as a moderating variable. This study is expected to provide a deeper understanding of employee performance in the era of remote working, as well as serve as a reference for organizations in designing adaptive work policies that support employee welfare. To achieve these objectives, this study proposes several hypotheses, namely: H1: There is a relationship between work from home (X) and employee performance (Y); H2: There is a relationship between employee performance (Y) and family climate (M); H3: There is a relationship between work from home (X) and employee performance (Y) moderated by family climate (M).

METHOD

Research Design

This research was conducted using a quantitative research method with a correlational design. A correlational design is used to explain the relationship between variables and predict values based on that relationship. According to Creswell (2012), this design uses correlation statistics to describe and measure the extent of the relationship between two or more variables. This design was chosen because it was in line with the research objectives, namely to analyze the relationship between work from home (X) and employee performance (Y) with family climate (Z) as a moderating variable. The subjects of this study were as follows: 1) Working with a work from home system; 2) Living with family or relatives.

The population in this study refers to all employees who work with a work from home system and live with family or relatives, according to the definition of population and sample according to Azwar (1998). The minimum sample size was determined using the G*Power 3.1.9.7 application with an effect size of 0.3, alpha error probability of 0.05, and power of 0.8, which resulted in a minimum requirement of 84 respondents. Sampling was conducted using purposive sampling, which is the selection of respondents based on specific criteria in line with the research objectives. Data collection was conducted online through Google Forms distributed via social media, and 206 respondents were successfully obtained. Of these, 7 respondents were in the low category, 121 in the medium category, and 78 in the high category, meaning that the number of samples collected exceeded the minimum requirement.

Operational Definition

Working from home is associated with better work-life wellness (WLW) because it provides more time for personal life, increases comfort, reduces travel time, and minimizes distractions from coworkers (Como et al., 2021; Hill et al., 2003; Johri & Teo, 2018). According to Fisher et al. (2009), work-life wellness encompasses three aspects, namely work-life balance, work enhancement of personal life, and work interference with personal life. According to Koopmans (2014), employee performance is the behavior and actions of employees that support the achievement of organizational goals, with three main dimensions (Koopmans et al., 2012), namely task performance, contextual performance, and counterproductive work behavior. Family climate, according to Beavers et al. (1990), describes the

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emotional conditions and relationships among family members, consisting of five dimensions: health/competence, conflict, cohesion, expressiveness, and directive leadership.

Research Variables

There are three variables in this study, namely independent variables, dependent variables, and moderating variables. The work from home variable acts as the independent variable (X), employee performance acts as the dependent variable (Y), and family climate acts as the moderating variable (Z).

Instruments

This study used three main instruments, namely the Work-Life Wellness Scale (Fisher et al., 2009) to measure work from home, the Individual Work Performance Questionnaire (Koopmans, 2014) to measure employee performance, and the Self Report Family Inventory (Beavers et al., 1990) to measure family climate. The Work-Life Wellness Scale consists of 10 items with a 1–7 Likert scale (strongly disagree–strongly agree), where a high score indicates a better level of work well-being. The employee performance instrument consists of 18 items covering the dimensions of task performance, contextual performance, and counterproductive work behavior with a Likert scale of 1–5 (never–always), and has been adapted into Indonesian by Widyastuti and Hidayat (2018) with good validity ($r > 0.3$). Meanwhile, the family climate instrument consists of 36 items with a Likert scale of 1–5 (strongly disagree–strongly agree), where a higher score indicates a better family climate. The scales used have been adapted using expert judgment through consultation with competent supervising lecturers to determine the suitability of the items.

Data Collection Techniques

Data collection in this study was conducted using a closed questionnaire method, in which respondents chose from a list of provided answers. The questionnaire was distributed online via Google Forms to those working from home. Each statement used a Likert scale in accordance with the instrument for each variable to obtain relevant quantitative data that could be analyzed statistically.

Data Analysis Techniques

The data analysis techniques in this study used a correlational quantitative approach using Jamovi software version 2.3.28 to test the relationship between work from home (X) and employee performance (Y) with family climate (Z) as a moderating variable. Before testing the hypothesis, several classical assumption tests were conducted, including a normality test to ensure that the data was normally distributed, a multicollinearity test to detect correlations between independent variables (multicollinearity did not occur if $VIF < 10$ and $Tolerance > 0.10$), a heteroscedasticity test using the Glejser method to ensure that there were no differences in variance between observations ($p > 0.05$), and an autocorrelation test, which was considered fulfilled if the Durbin-Watson value was between 1.5 and 2.5 and the p-value was > 0.05 . Data analysis for the moderation variable is Moderated Regression Analysis (MRA) with a significance value < 0.05 .

RESULTS AND DISCUSSION

This section describes the results of the study related to the relationship between working from home and employee performance moderated by family climate. The results of the study that will be explained include descriptive statistics, classical assumption tests, Spearman's correlation, and Moderated Regression Analysis (MRA).

Descriptive Statistics

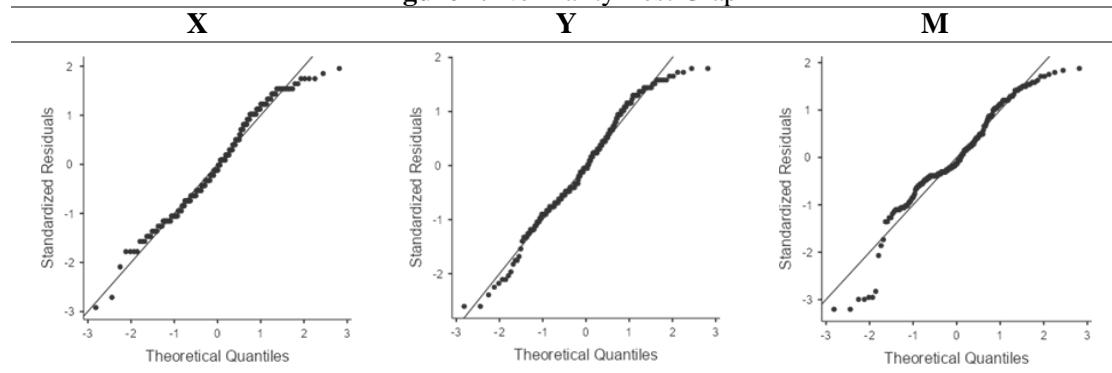
The reliability test results show that all research instruments are in the reliable category, with Cronbach's Alpha values of 0.856 for Work From Home (X), 0.928 for Employee Performance (Y), and 0.750 for Family Climate (M). These findings indicate that the three scales have good internal consistency and are suitable for use in analysis. Furthermore, descriptive statistics from 206 respondents show that the Work From Home variable has an average value of 51.2, Employee Performance of 42.7, and Family Climate of 127. There were 7 respondents in the low category, 121 in the medium category, and 78 in the high category. Overall, the combination of reliability tests and descriptive overview indicates that the data obtained is of adequate quality.

Table 1. Descriptive Statistics of Research Data

	X	Y	M
N	206	206	206
Mean	51.2	42.7	127
Median	50.0	42.0	124
Standard deviation	9.65	14.1	23.8
Minimum	23	6	51
Maximum	70	68	172

Classical Assumption Test

Figure 1. Normality Test Graph



Based on the results of visualization through the Q-Q Plot, it can be seen that the distribution of residual points follows the diagonal line quite well. There is only a slight deviation at the tail of the distribution, which is still within reasonable limits. Thus, it can be concluded that the data is visually distributed close to normal. The large sample size ($N = 206$) also reinforces the assumption that the data meets the normality requirement, so that regression analysis can be continued.

Table 2.1 Multicollinearity Test

	VIF	Tolerance
X	2.30	0.434
M	2.30	0.434

The multicollinearity test results show that the WFH and Family Climate variables have a Tolerance value of 0.434 and a VIF value of 2.30. The Tolerance value is greater than 0.10 and the VIF value is less than 10, so it can be concluded that there is no multicollinearity problem or that the multicollinearity test assumption has been met.

Table 2.2 Heteroscedasticity Test

Predictor	SE	p
Intercept	3.5250	1.000
X	0.0960	1.000
M	0.0389	1.000

The results of the heteroscedasticity test show that the p-value (significance) for all variables, namely work from home (X) and family climate (M), is 1.000, which is clearly greater than 0.05 (> 0.05). Based on these results, it can be concluded that the data has passed the heteroscedasticity test using the Glejser test method. This indicates that there are no symptoms of heteroscedasticity in the regression model, so that the residual variance is constant and the model is declared to meet the assumption of homoscedasticity.

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Table 2.3 Autocorrelation Test

Autocorrelation	DW Statistic	p
0.00635	1.98	0.898

Based on the results of the autocorrelation test using the Durbin–Watson Test, a DW value of 1.98 was obtained with a p-value of $0.898 > 0.05$. This indicates that the data used has passed the autocorrelation test or, in other words, the autocorrelation test assumption has been met.

Table 2.4 Spearman's Correlation Test

	X	Y	M
Spearman's rho	—		
X	df	—	
	p-value	—	
	Spearman's rho	0.735	—
Y	df	204	—
	p-value	<.001	—
	Spearman's rho	0.761	0.641
M	df	204	204
	p-value	<.001	<.001

Based on the results of the Spearman correlation test, a significant positive relationship was found between the variables of Work From Home (X) and Employee Performance (Y) ($\rho = 0.735$, $p < 0.001$), between Work From Home (X) and Family Climate (M) as a moderating variable ($\rho = 0.761$, $p < 0.001$), and between Family Climate (M) and Employee Performance (Y) ($\rho = 0.641$, $p < 0.001$). This indicates that an increase in the implementation of Work From Home (X) is followed by an increase in Employee Performance (Y) and Family Climate (M), and that the three variables have a positive and mutually supportive relationship with each other.

Table 3. Moderated Regression Analysis (MRA)

	Estimate	SE	Z	p
X	0.69191	0.06145	11.26	<.001
M	0.20040	0.02448	8.19	<.001
X*M	0.00443	0.00213	2.08	0.0038

Based on the results of the moderation regression analysis, it was found that the Work From Home (X) variable had a p-value of $0.001 < 0.05$ with a positive regression coefficient of 0.69191, indicating that Work From Home had a significant effect on Employee Performance (Y). This means that the better the implementation of Work From Home, the higher the Employee Performance will be, thus accepting the first hypothesis (H1). Furthermore, the Family Climate (M) variable has a p-value of $0.001 < 0.05$ and a positive regression coefficient of 0.20040, which means that Family Climate has a significant effect on Employee Performance, where the better the Family Climate, the higher the Employee Performance, so the second hypothesis (H2) is accepted. The interaction between Work From Home (X) and Family Climate (M) or X*M shows a p-value of 0.0038 (< 0.05) with a positive regression coefficient of 0.00443, which means that Family Climate can significantly moderate the relationship between Work From Home and Employee Performance, where the better the Family Climate, the stronger the relationship between Work From Home and Employee Performance. Thus, the third hypothesis (H3) is also accepted.

Reviewed from Domestic Characteristics (Place of Residence)

Figure 2. Diagram of Place of Residence Characteristics



The difference in scores between categories shows that domestic conditions play an important role in the dynamics of WFH implementation. Respondents in the low category, which is dominated by individuals who live with their parents, tend to face more complex household situations due to the presence of more members, rules, interactions, and role expectations in large families. These conditions can increase domestic pressure and potentially exacerbate work-family conflict (WFC). This finding is in line with research by Adetya (2025), which reveals that WFC causes stress and emotional exhaustion, which ultimately reduces individual performance effectiveness. Meanwhile, the moderate and high categories are dominated by respondents who live with their spouse or children, who generally have a simpler family structure, allowing for more stable role arrangements. Respondents in the high category are likely to have a more supportive family environment, clearer division of tasks, and more controlled role burdens, thereby reducing role conflicts and improving their WFH effectiveness and performance.

From a Gender Perspective

Table 4. Diagram of Gender Characteristics

Category	Male	Female	Total
Low	2	5	7
Medium	28	95	121
High	32	44	78
Total	58	148	206

The low, medium, and high categories are dominated by women, indicating that women are the group most affected by the dynamics of WFH in this study. In the low category, the dominance of women living in more complex family structures (e.g., with parents) has the potential to increase role burdens and domestic pressures, resulting in lower scores. However, these results do not entirely indicate poor performance, given that several previous studies have shown that women actually have a high capacity for adaptation. Sa'adah et al. (2021) explain that women's performance tends to remain superior even when facing the double pressure of work and family demands. This finding is in line with Adetya (2025), who states that women, despite being vulnerable to work-family conflict, are still able to develop effective coping strategies. However, a study by Gunawan et al. (2024) shows that work-family conflict can still reduce engagement and performance, especially among working mothers.

Townsend et al. (2023) added that belief in gender role flexibility affects the level of work-family conflict, where rigid gender roles tend to increase conflict. The negative impact of work-family conflict on performance can be explained through emotional exhaustion and stress caused by role imbalance that triggers burnout, thereby reducing individual work effectiveness. In the context of the medium and high categories in this study, women who live with their partners or children appear to have more stable domestic support, enabling them to maintain or even improve their performance despite facing multiple pressures. This shows that gender factors, family support, and role flexibility are important elements that influence women's work effectiveness in WFH situations.

Table 5. Diagram of Marital Status Characteristics

Category	Male	Female	Total
Low	0	7	7
Medium	109	14	121
High	26	50	78
Total	135	71	206

The three categories show a pattern whereby married respondents dominate the low and high categories, while the low category is filled more by married female respondents who live with their parents, so that the burden of roles they face tends to be more complex. Marital status is an important factor in influencing how individuals respond to the demands of WFH. Married respondents appear to be able to maintain better performance when living with their spouse or children, indicating more stable emotional support and division of domestic roles. Conversely, married individuals living in large household structures, such as with parents or extended families, may experience higher intensity of domestic demands, resulting in lower categorization scores. Townsend et al. (2023) explain that gender role flexibility influences the level of work-family conflict (WFC). When gender roles are rigid, conflict tends to increase and can cause stress, emotional exhaustion, and burnout, which ultimately reduces performance. This condition is more commonly experienced by married employees because they have greater family demands, although unmarried employees may also experience pressure if they have certain family responsibilities.

Family Climate Moderates Work From Home and Employee Performance

Family Climate (M) has a significant effect on performance, as indicated by a coefficient of 0.20040 and $p < 0.001$. In the context of working from home, family climate plays an important role because it reflects the quality of interaction, emotional support, communication, and the level of conflict within the family (Beavers et al., 1990). A positive family climate can increase motivation and work concentration, while stressful family conditions have the potential to reduce productivity (Schneider et al., 2002). The interaction between WFH and Family Climate yielded a coefficient value of 0.00443 with $p = 0.0038$, indicating that family climate significantly moderates the relationship between WFH and performance. A good family climate reinforces the benefits of WFH, while a less supportive climate can hinder the effectiveness of WFH. This is in line with the findings of Sa'adah et al. (2021) and Townsend et al. (2023), which show that family role pressure, inflexible gender roles, and high work-family conflict can trigger burnout and reduce performance. Thus, all three hypotheses (H1, H2, and H3) are accepted. The results of this study confirm that employee performance in a WFH system is not only influenced by work aspects but is also determined by family conditions. Therefore, family support and family-friendly organizational policies are key elements in maximizing the success of WFH implementation.

CONCLUSION

Based on the analysis results, it was found that working from home has a significant effect on employee performance, and that family climate also has a positive effect on performance. In addition, family climate has been proven to moderate the relationship between working from home and employee performance, which means that a good family environment can strengthen the effectiveness of working from home in improving performance. The findings of this study confirm that employee performance while working from home is not only influenced by work aspects, but also highly dependent on domestic conditions and family environment support.

Implications

The results of this study have practical implications for organizations and policy makers. First, organizations need to consider the family conditions of employees when formulating flexible work policies, as family support has been proven to strengthen the effectiveness of WFH. Second, companies can provide more family-friendly work programs such as flexible working hours and clear communication regarding workloads. Third, these findings can serve as a basis for HR to develop interventions to help employees balance work and family responsibilities.

Limitations

This study only used quantitative survey methods, so it was unable to explore subjective dynamics, personal experiences, or in-depth contexts related to WFH conditions and family support that may have influenced respondents' answers.

Recommendations for Further Research

Based on these limitations, future research should use a mixed-method approach. This approach can provide a deeper understanding of employees' real experiences during WFH, how family interactions affect work, and the dynamics of conflict or support that may not be captured through quantitative surveys.

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During the preparation of this work the author(s) used Chat GPT in order to improve language and readability. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

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