

Analysis of the Influence of Work Stress and Work Life Balance on Worker Performance: Case Study of Sugio Lamongan Faizam Concrete Workers by Mediating Work Family Conflict

Eka Dewi Saputri¹, Lilik Nurcholidah²

¹Department of Management, Universitas Islam Lamongan, Indonesia

²Departement of Management, Universitas Islam Lamongan, Indonesia

Abstract

The purpose of this study is to determine the effect of work stress on work life balance on worker performance as a mediating variable of work family conflict using PLS-SEM (case study on faizam beton sugio lamongan workers). the type of research used is quantitative research. the population in this study sample amounted to 40 respondents in faizam beton workers. data collection in this study used the location survey method and questionnaire distribution. the data analysis technique used is PLS (partial least square) using supporting instruments, namely SmartPLS4 sofare. The results of the direct influence study indicate that work stress has a positive and significant effect on worker performance. Work stress has a positive and significant effect on work family conflict. Work life balance has a positive and significant effect on worker performance. Work life balance has a negative and significant effect on work family conflict. Work family conflict has a negative and insignificant effect on worker performance. Work Stress Has a Positive and Significant Effect on Work Family Conflict Through Worker Performance Faizam Beton Sugio Lamongan.

Keyword: Work Stress; Work Life Balance; Worker Performance; Work Family Conflict

Introduction

The increasing awareness of the importance of balance between professional and personal life has been the first driver behind this transformation (Hartono et al., 2023). Corporate justice and environmental sustainability (Kusuma et al, 2023) The work results achieved by a person to complete responsibilities are the definition of performance. In the targets that have been determined, it is necessary to determine an assessment as a form of interest in the performance of all employees because at the same time employees need assessments as feedback.

Job demands, company-set targets, sometimes fail to make an employee experience work stress where the work stress experienced by an employee can cause a decline in performance and can reduce the productivity of the company where the employee works. Work stress is also one of the serious problems that befalls every employee in the workplace.

Rijanto (2023) stated that work stress has a positive effect on employee performance. Sari, et. Al (2020) showed that work stress has a negative and significant effect on employee performance. Which means that the level of work stress decreases or decreases, it will be followed by an increase in employee performance. Nusran (2019) work stress is a condition that is internal in nature due to physical demands, the environment, and social situations that have the potential to be damaging and uncontrolled.

Material and Method

This study employs a quantitative research design to analyze the influence of work stress and work life balance on worker performance, mediated by work family conflict. The methodology is structured to ensure reproducibility, detailing the research design, sample selection, data collection procedures, and analytical tools.

Design Study

The population comprises workers at Faizam Beton Sugio Lamongan, Indonesia. A purposive sampling technique was applied, resulting in 40 respondents who met the criteria of being full-time employees actively using digital platforms for work-related tasks. Data were collected through structured questionnaires distributed online via Google Forms. The questionnaire items were adapted from validated constructs, measuring variables such as work stress, work life balance, work family conflict, and worker performance using a 5-point Likert scale.

Data Analysis

Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0 software. The analysis followed three stages:

1. **Measurement Model Evaluation:** Assessed convergent validity (outer loadings > 0.70 , AVE > 0.50) and discriminant validity (HTMT ratio < 0.90).
2. **Reliability Testing:** Calculated Cronbach's alpha ($\alpha > 0.70$) and composite reliability (CR > 0.70) to ensure internal consistency.

3. **Structural Model Evaluation:** Tested hypotheses using bootstrapping (5,000 subsamples) to determine t-statistics and p-values (significance: $p < 0.05$).

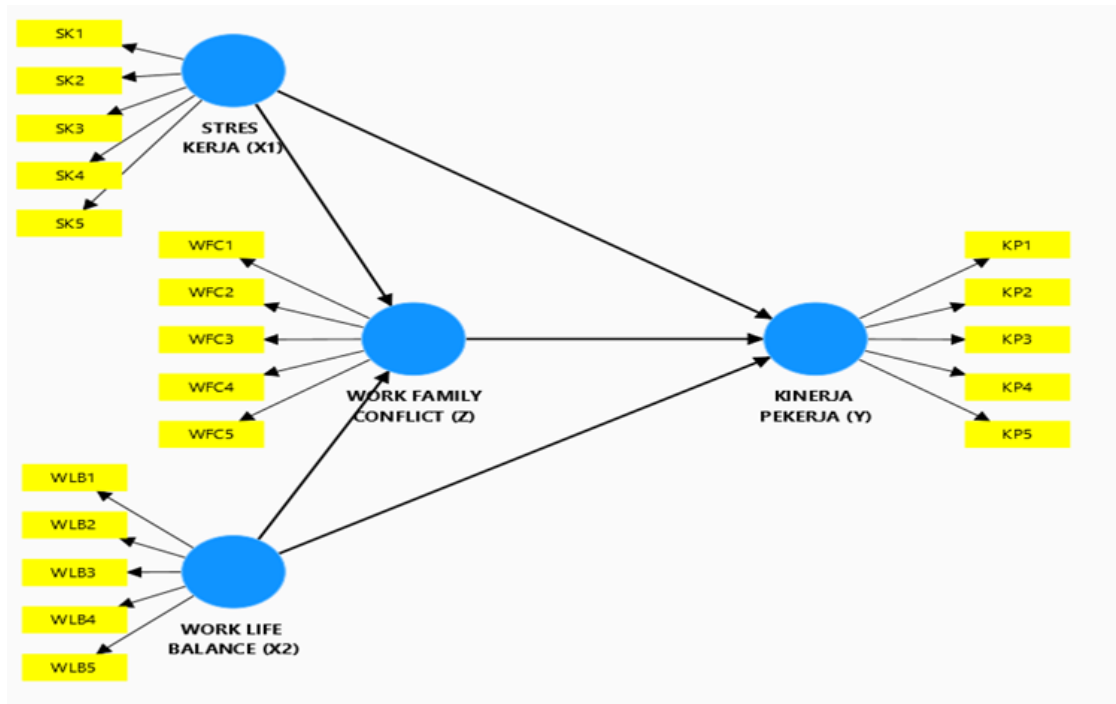


Figure 1. Research Model

3. Result

RESULTS OF DATA ANALYSIS

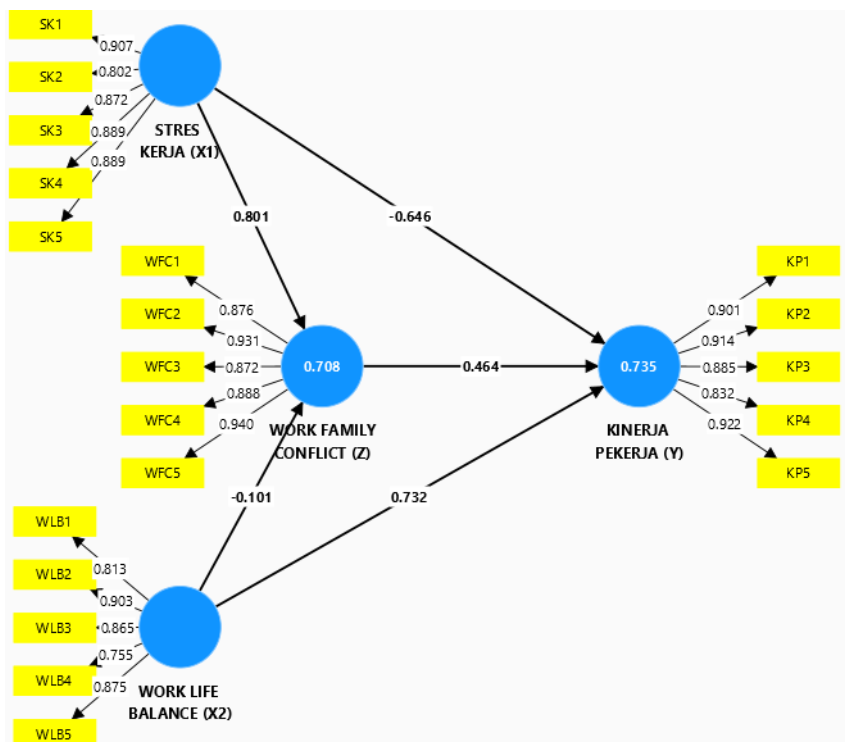


Figure 4.1 PLS diagram

Validity Test**Convergent Validity**

Convergent validity is used as a measure of an indicator in each variable by looking at the outer loading value. where if the outer loading value is > 0.70 then it is declared valid. The following are the test results using SmartPLS 4 software:

Table 1. Outer Loding Results

Indicator	Outer Loading Results	Rate Of Thumb	Information
KP1	0.901	0.700	Valid
KP2	0.914	0.700	Valid
KP3	0.885	0.700	Valid
KP4	0.832	0.700	Valid
KP5	0.922	0.700	Valid
SK1	0.907	0.700	Valid
SK2	0.802	0.700	Valid
SK3	0.872	0.700	Valid
SK4	0.889	0.700	Valid
SK5	0.889	0.700	Valid
WFC1	0.876	0.700	Valid
WFC2	0.931	0.700	Valid
WFC3	0.872	0.700	Valid
WFC4	0.888	0.700	Valid
WFC5	0.940	0.700	Valid
WLB1	0.813	0.700	Valid
WLB2	0.903	0.700	Valid
WLB3	0.865	0.700	Valid
WLB4	0.755	0.700	Valid
WLB 5	0.875	0.700	Valid

Smartpls 4 Processed Data (2025)

The above test shows that each variable indicator has an outer loading value > 0.700 , meaning that each variable is declared valid as per the results in the outer loading results.

Discriminant validity (discriminant validity)

In this test, two tests are obtained. the first is cross loading and the second is using Average variance extracted (AVE), using the first method through cross loading, if the cross loading indicator value meets the discriminant validity. the following are the test results using SmartPLS4 software

Table 2. Cross Loading

Indicator	Job Stress (X1)	Work Life Balance (X2)	Worker Performance (Y)	Work Family Conflict (Z)
SK1	0.907	-0.339	-0.393	0.728
SK2	0.802	-0.230	-0.423	0.764
SK3	0.872	-0.338	-0.505	0.734
SK4	0.889	-0.256	-0.381	0.700
SK5	0.889	-0.315	-0.497	0.712
WLB1	-0.206	0.813	0.645	-0.402
WLB2	-0.309	0.903	0.689	-0.278
WLB3	-0.228	0.865	0.624	-0.318
WLB4	-0.388	0.755	0.619	-0.359
WLB 5	-0.303	0.875	0.698	-0.213
KP1	-0.534	0.777	0.901	-0.366
KP2	-0.373	0.696	0.914	-0.265
KP3	-0.386	0.643	0.885	-0.176
KP4	-0.469	0.680	0.832	-0.419
KP5	-0.483	0.659	0.922	-0.327
WFC1	0.733	-0.302	-0.284	0.876
WFC2	0.774	-0.329	-0.282	0.931
WFC3	0.690	-0.373	-0.257	0.872
WFC4	0.761	-0.374	-0.340	0.888
WFC5	0.812	-0.312	-0.399	0.940

Smartpls 4 Processed Data (2025)

Table 2 above shows that the cross loading value <0.90 means the variable has good discriminant validity (valid). because it can be said to be valid if the heterotrait - monotrait ratio of correlation (HTMT) value <0.9 .

Average variance extracted (AVE)

In addition to looking at the cross loading value, it can also be compared with the Average Variance Extracted (AVE) value of each variable with the correlation between variables. if the AVE value is greater, it can be said that the variable. if the AVE value is greater than the correlation, it can be said that the variable has a good correlation (valid). in measurement it is recommended to have a value of >0.5 . here are the test results:

Tabel 3 Hasil Average Variance Extracted (AVE)

Variables	Average Variance Estracted (AVE)	Information
Work stress (X1)	0.743	Valid
Work life balance (X2)	0.698	Valid
Worker performance (Y)	0.768	Valid
Work family conflict (Z)	0.637	Valid

Smartpls 4 Processed Data (2025)

Table 3 above shows that the AVE value for each variable of work stress, work life balance, worker performance and work family conflict tested has an Average Variance Extracted (AVE) value >0.5 , so it can be said that all variables in this study have discriminant validity criteria measured through the AVE test.

Reliability Test

Reliability Test can be seen through the results of the cronbach's alpha value to measure the upper and lower and composite reliability for the actual reliability of a contract or variable. is said to be reliable or not the respondent's answer to the questionnaire if the composite reliability value (greater) > 0.700.

Table 4. Composite Reliability values

Variabel	Composite Reliability (rho_A)	Composite Reliability (rho_C)	Keterangan
Job Stress (X1)	0.922	0.941	Reliabel
Work Life Balance (X2)	0.898	0.925	Reliabel
Worker Performance (Y)	0.930	0.951	Reliabel
Work Family Conflict (Z)	0.946	0.956	Reliabel

Smartpls 4 Processed Data (2025)

So if you look at the results in table 4 above, it is known that the variables of work stress, work life balance, employee performance and work family conflict in this study have a composite reliability value of > 0.700, which means that all variables are reliable for testing.

Cronbach's Alpha

Table 5. Cronbach's alpha value

Variabel	Cronbach's alpha	Keterangan
Stres kerja (x1)	0.935	Reliabel
Work life balance (x2)	0.921	Reliabel
Stres kerja (y)	0.942	Reliabel
Work family conflict (z)	0.898	Reliabel

Smartpls 4 Processed Data (2025)

Based on table 5, the results of the Cronbach's alpha value test can be seen that each variable in this study has a Cronbach's alpha > 0.7, meaning all variables are reliable.

Structural Method (Inner Model)

Coefficient of Determination R Square

R-square is a measure of the proportion of endogenous variation in variable values that can be explained by the variable. The R-Square value can be said to be "weak" if the R-Square value is 0.25 < 0.5 and the R-Square criteria are said to be "moderate" if the R-Square value is 0.5 < 0.75 and the R-Square value criteria are said to be "strong" if the R-Square value is 0.75. The following are the results of testing using SmartPLS 4 software:

Table 6. R-square results

Variables	R-square	Information
Worker Performance(Y)	0.735	Moderat
Work family conflict (Z)	0.708	Moderat

Smartpls 4 Processed Data (2025)

It can be explained that (1) the worker performance variable has a value of 0.735 or 73.5% which is included in the "moderate" category, so it can improve worker performance, independent variables or work stress variables and work life balance. (2) the satisfaction variable has a value of 0.708 or 70.8% which is included in the "moderate" category.

HYPOTHESIS TESTING

The variable criteria can be stated as a significant influence, both direct and indirect influences or indirect influences seen from the t-statistic value > 1.68 can be stated as a significant influence. In addition to using t-statistics, significant influences on direct and indirect influences can be influenced by p-value, if the p-value is $0 < 0.05$ (5%) then the direct and indirect influences are stated as significant.

Table 7. hypothesis tests

Variables	Original sample (O)	Sample mean (M)	Standar Deviation (STDEV)	T Statistic ($\frac{O}{STDEV}$)	P Values	information
Job Stress (X1) – Worker Performance (Y)	-0.646	-0.687	0.198	3.255	0.001	Positif dan signifikan
Work Stress (X1) -Work Family Conflict (Z)	0.801	0.802	0.073	10.995	0.000	Positif dan signifikan
Work Life Balance (X2) – Worker Performance (Y)	0.732	0.741	0.094	7.821	0.000	Positif dan signifikan
Work Life Balance (X2) – Work Family Konflikt (Z)	-0.101	-0.102	0.075	1.349	0.177	Negatif dan tidak signifikan
Work Family Conflict (Z) – Worker Performance (Y)	0.464	0.508	0.205	2.263	0.024	Positif dan signifikan
Work Stress (X1) – Work Family Conflict (Z) – Worker Performance (Y)	0.372	0.413	0.190	1.961	0.050	Positif dan tidak signifikan
Work Life Balance (X2) – Work Family Conflict (Z) – Worker Performance (Y)	-0.047	-0.055	0.048	0.980	0.327	Negatif dan tidak signifikan

Smartpls 4 Processed Data (2025)

From table 7 above which has been tested with SmartPLS 4 on 40 respondents to answer the truth of the hypothesis, the results obtained are that Work Stress Has a Positive and Significant Effect on Worker Performance Due to the Significant Value of P- Values $0.001 < 0.05$ (5%) and T-Statistic $3.255 > 1.96$ So the Hypothesis is True and Accepted. 2. Work Stress Has a Positive and Significant Effect on Work Family Conflict Due to the Significant Value of P Values $0.000 < 1.96$ (5%) and T-Statistic $10.995 > 1.68$ So the Hypothesis is True and Accepted. 3. Work Life Balance is Positive and Significant on Worker Performance Because the Significant Value of P-Values $0.000 < 0.05$ (5%) and T-Statistic $7.821 > 1.96$ So the Hypothesis is True and Accepted. 4. Work Life Balance has a Negative and Insignificant Effect on Work Family Conflict Because the Significant Value of P-Values $0.177 < 0.05$ (5%) and T-Statistic $1.349 > 1.96$ So the Hypothesis is False and Accepted. 5. Work Family Conflict has a Negative and Significant Effect on Worker Performance Because the Significant Value of P-Values $0.024 < 0.05$ (5%) and T-Statistic $2.263 < 1.96$ So the Hypothesis is False and Not Accepted.

Discussion

Mediation Test is used to show the relationship between independent variables and dependent variables on the mediating variable or can be said to be intervening. This indirect effect is obtained by calculating the effect of the dependent variable on the intervening variable, with the test method multiplied between the intervening variable and the independent variable. The connecting or mediating variable in this study is satisfaction as an intervening variable.

Based on the Mediation Test Results Table, it is known that the Work Stress Variable on Work Family Conflict Through Worker Performance has a t-statistic of 1.961, which means that the relationship is not significant, and has a p-value of 0.050, which means it is positive. while the work life balance variable on work family conflict through work performance has a t-statistic of 0.980, which means that the relationship is not significant, and has a p-value of 0.327, which is negative.

Conclusion, Implication, and Recommendation

Based on the results of data analysis through PLS (Partial least square) using smartPLS 4 software, the conclusions of this study are as follows: work stress has a positive and significant effect on the performance of faizam beton sugio lamongan workers. work stress has a positive and significant effect on the work family conflict of faizam beton sugio lamongan workers. work life balance has a positive and significant effect on the performance of faizam beton sugio lamongan workers. work life balance has a negative and significant effect on the work family conflict of faizam beton sugio lamongan. work family conflict has a negative and insignificant effect on the performance of faizam beton sugio lamongan workers. work stress has a positive and significant effect on work family conflict through the performance of faizam beton sugio lamongan workers. work life balance has a negative and significant effect on work family conflict through the performance of faizam beton sugio lamongan workers.

Based on the researcher's direct experience in conducting a study, of course there are limitations that must be considered by further researchers. several limitations found in this study:

1. limitations of time, energy, and the ability of researchers that affect the course of the study.
2. there is a limitation of respondents which is only 45 respondents
3. for further researchers it is expected to be able to develop this research by adding data collection techniques other than using questionnaires and surveys, it can be done by using data collection techniques in the form of interviews. and for further researchers it is expected to be able to develop the research results by adding other variables such as work stress, work life balance, work family conflict and others that affect the determining factors of worker performance so that the results of the research produced are more optimal and maximal.

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