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The Influence of Job Demand and Job Resources on Job Satisfaction Mediated by Work-Life Balance Among Employees at PT. Daya Tani Sembada (Rice Milling)

Doni Ismail Awang Santoso*, Moch. Tutuk Safirin

Department of Industrial Engineering, Faculty of Engineering, Universitas Pembangunan Nasional "Veteran" Jawa Timur, Surabaya 60294, Indonesia

*donismail05@gmail.com

Abstract. One form of employee behavior is the desire to leave (turnover), where employees decide to leave their jobs. The employee turnover rate over the past three years at PT. Daya Tani Sembada has been above the normal limit each year, indicating that the company's turnover is high. This may suggest potential issues in human resource management or a mismatch between employees and the organization. Due to the high turnover rate, the company needs to conduct recruitment to replace these employees in order to maintain performance levels. Therefore, the researcher aims to understand the influence using the Partial Least Squares (PLS) method. Based on this research, it can be determined that job demands influence job satisfaction mediated by the work-life balance variable, and there is no influence of job resources on job satisfaction mediated by the work-life balance variable.

Keywords: Employee Turnover, Mediation Analysis, Organizational behavior, PLS, Work-Life Balance

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1. Introduction

The success of an organization is not solely determined by the available natural resources but is largely influenced by human resources as the driving force. Therefore, it is essential to pay attention to maintaining the quality of the organization's drivers or human resources [1]. One form of employee behavior is the desire to move (turnover), with various excessive job demands related to job satisfaction, and job resources (employee psychology) leading to their decision to leave their job [2].

PT. Daya Tani Sembada is a company engaged in the processing of paddy into packaged rice ready for sale, located in Ngawi Regency. To observe the turnover conditions at PT. Daya Tani Sembada, the researcher obtained secondary data from the company regarding the recapitulation of the number of employees entering and leaving PT. Daya Tani Sembada over the last three years (2021, 2022, and 2023), showing an increase in the number of employees resigning from the company. Employee turnover is considered normal if it ranges from 5-10% per year and is considered high if it exceeds 10% per year [3]. It can be concluded that the employee turnover rate at PT. Daya Tani Sembada is above the normal

limit each year, indicating high turnover, which may suggest problems in human resource management or incompatibility between employees and the organization.

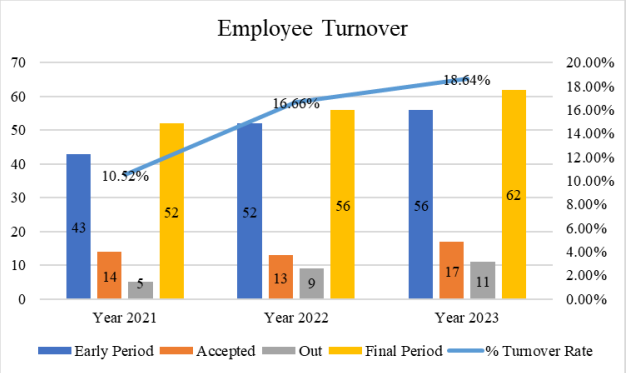

Figure 1. Employee Turnover

This study uses a mediation or intervening variable (the variable that acts as an intermediary or mediator between the independent and dependent variables) in the form of work-life balance [4]. The use of work-life balance as a mediating variable is because work-life balance does not occur by itself but rather through causes such as good job satisfaction, which then leads to a comfortable work environment. This comfort makes someone more satisfied with their job, thereby motivating them to improve their performance. This explanation shows that work-life balance arises due to the influence of another factor or variable, which then produces a new influence [5]. Therefore, to maintain the quality and commitment of employees who are required to achieve good performance, many companies today implement work-life balance programs. Inadequate work-life balance is an issue that can pose significant risks to employee well-being and organizational performance, making it difficult for many workers to balance their job responsibilities with their social lives [6]. Work-life balance has an impact on performance. Employee satisfaction can be achieved if this balance is met [7]. Previous research on the influence of work-life balance as a mediation role, showed that work-life balance has a significant positive effect on job satisfaction [8]. Work-life balance positively leads to higher employee performance through job satisfaction [9].

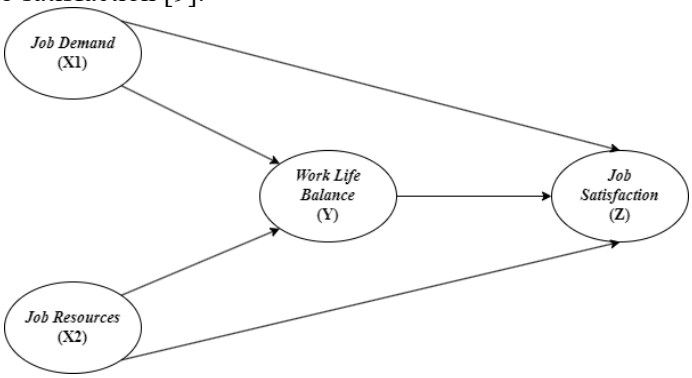

Figure 2. Conceptual Framework

Based on the above background, to understand the influence of job demand and job resources on job satisfaction mediated by work-life balance among employees of PT. Daya Tani Sembada using the Partial Least Squares (PLS) method. PLS is defined by two equations: the inner model and the outer model [10]. The advantage of applying verificative analysis using PLS-SEM is its applicability to both small and large samples, as well as its utility for exploratory research and its ability to explain latent variables [11]. The sample size used in PLS is very small, ranging from 30 to 100 samples [12]. With the implementation of this research, it is hoped that the company can better maintain and enhance employee job satisfaction, thus reducing complaints and turnover within the company.

2. Methods

This research uses quantitative methods. The quantitative method is a research method that involves the use of numerous numerical data [13][14]. The primary data used is obtained directly by the researcher in the form of information through interviews and the distribution of questionnaires [15][16]. The sample size used in this study consists of 62 employees. The consideration for selecting employees is to understand the level of individual knowledge, which requires truly knowing the habits within a company. The sampling technique employed in this study is saturated sampling, which is a technique where all members of the population are used as the sample [17].

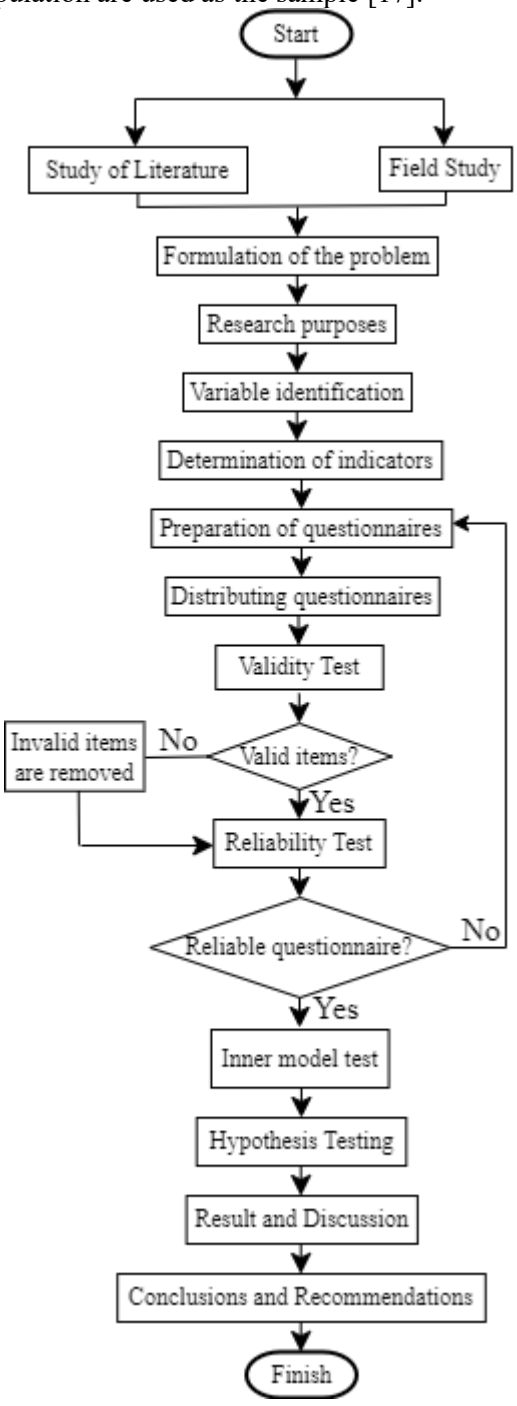

Figure 3. Flowchart

Partial Least Squares (PLS) is an analytical method that is quite effective and not based on many assumptions. The advantages of the Partial Least Squares (PLS) method are that the data does not need to be normally distributed multivariately, the sample size does not need to be large, and PLS can not only be used to confirm theory but also to explain whether or not there are relationships between latent variables. The processing using PLS-SEM is carried out in two stages. The first stage is the evaluation of the measurement model, which includes two sets of tests: validity tests and reliability tests. The validity test is further divided into two stages: convergent validity test and discriminant validity test. The reliability test is also divided into two stages: composite reliability test and Cronbach's Alpha reliability test. The second stage is the evaluation of the structural model, which consists of five test stages: R-square, path coefficients, t-statistic (bootstrapping), predictive relevance, and model fit [10].

3. Results and Discussion

3.1. Validity Test

The research results should indicate that all indicators of each variable have outer loading values > 0.7. After conducting the loading factor, it was found that indicators X14 and X24 have values below 0.7, indicating that these indicators are not valid. A value below 0.7 suggests that the indicator is not highly correlated with the measured variable, making it unreliable. Therefore, elimination of the invalid indicators was performed, resulting in the following loading factors. From the table, it can be observed that all indicators have values above 0.7, indicating that all indicators of the variable constructs are true.

Table 1. Loading Factor

Variable	Indicator	*Loading factor*	Table Value	Description
Job Demand (X1)	X1.1 (Work Pressure)	0.740	0.7	*Valid*
	X1.2 (Role Ambiguity)	0.801	0.7	*Valid*
	X1.3 (High Workload)	0.816	0.7	*Valid*
Job Resources (X2)	X2.1 (Work Related)	0.769	0.7	*Valid*
	X2.2 (Organization Related)	0.899	0.7	*Valid*
	X2.3 (Supervisor Support)	0.811	0.7	*Valid*
Worklife Balance (Y)	Y.1 (Time Balance)	0.843	0.7	*Valid*
	Y.2 (Satisfaction Balance)	0.925	0.7	*Valid*
	Y.3 (Engagement Balance)	0.861	0.7	*Valid*
Job Satisfaction (Z)	Z.1 (Supervisor)	0.892	0.7	*Valid*
	Z.2 (Co-worker correlation)	0.750	0.7	*Valid*
	Z.3 (Promotion Opportunities)	0.953	0.7	*Valid*
	Z.4 (Salary)	0.788	0.7	*Valid*
	Z.5 (Job Nature)	0.887	0.7	*Valid*

3.2. Reliabilty Test

A reliability test is a method in statistics and research used to assess the consistency and stability of an instrument or measuring tool. The purpose of this test is to ensure that the measuring tool produces consistent results each time it is used under the same conditions. The Composite Reliability test measures internal consistency with a value ≥ 0.6, while for Cronbach's Alpha reliability testing, the minimum value is 0.7.

Table 2. Reliabilty Test

Variable	Composite Reliability	Cronbach's Alpha	Description
Job Demand (X1)	0.831	0.709	Reliabel
Job Resources (X2)	0.903	0.840	Reliabel
Worklife Balance (Y)	0.909	0.855	Reliabel

Variable	Composite Reliability	Cronbach's Alpha	Description
Job Satisfaction (Z)	0.932	0.907	Reliabel

Based on the table output above, it is known that after conducting the reliability test, the values obtained for all variables are above 0.6 and above 0.7. This indicates that the internal consistency measurement is appropriate and can be considered reliable. Therefore, it can be said that each variable already has consistent values even when using different measuring instruments.

3.3. R-Square

R-Square, or the coefficient of determination, is a measure in statistics that indicates how well the observed data fit the regression model used. The R-Square value ranges from 0 to 1. R-Square indicates the proportion of variability in the dependent variable that can be explained by the independent variables in the model [10]. The R-Square value is a value possessed by the Y and Z variables, indicating how much the X variable influences Y and Z.

Table 3. R-Square

Variable	R *Square*
Worklife Balance (Y)	0.419
Job Satisfaction (Z)	0.471

From the table, it is known that the R-Square value of Variable Y is 0.419, which means that 41.9% of the variance in Worklife Balance can be explained by the formed variables, with the remainder influenced by other factors. Additionally, the R-Square value of Variable Z is 0.471, indicating that 47.1% of the variance in Job Satisfaction can be explained by the formed variables, with the remainder influenced by other factors.

3.4. T-Statistic and Path Coeffisient

At this stage, the output includes hypothesis testing and indicating the direction of the relationships between variables. The scale used to indicate the direction of the relationship is -1 (negative) and +1 (positive). Additionally, for the T-statistic value, if it is above 1.96, it can be said that the value is significantly influential.

1. Direct Effect

Direct influence is the effect that an independent variable (X) has on a dependent variable (Y) without going through a mediating variable. This is directly measured by the regression coefficient from X to Y or X to Z.

Table 4. Direct Effect

	Original Sample	T-Statistics	Description
Job Demand (X1) -> Worklife Balance (Y)	-0.513	4.386	Accepted
Job Demand (X1) -> Job Satisfaction (Z)	-0.084	0.534	Reject
Job Resource (X2) -> Worklife Balance (Y)	0.251	2.214	Accepted
Job Resource (X2) -> Job Satisfaction (Z)	0.484	4.184	Accepted
Worklife Balance (Y) -> Job Satisfaction (Z)	0.257	2.588	Accepted

It is known that for the variable job demand on work-life balance, the path coefficient value is -0.153 and the t-statistic value is 4.386, indicating that this variable has a negative relationship and a significant effect. This hypothesis supports on Manna Campus employees, which indicates that workload does not have a significant effect on job satisfaction [18]. This can occur because the company's support for work-life balance might help employees feel more satisfied with their jobs despite having a high workload.

2. Indirect Effect

Indirect influence is the effect that an independent variable (X) has on a dependent variable (Z) through one or more mediating variables (Y). This is calculated by multiplying the regression coefficients from X to Y and from Y to Z.

Table 5. Indirect Effect

	Original Sample	T-Statistics	Description
Job Demand (X1) -> Worklife Balance (Y) -> Job Satisfaction (Z)	-0.132	2.081	Accepted
Job Resource (X2) -> Worklife Balance (Y) -> Job Satisfaction (Z)	0.065	1.735	Reject

It is known that for the variable job demand on job satisfaction through work-life balance, the path coefficient value is -0.132 and the t-statistic value is 2.081, indicating that this variable has a negative relationship and a significant effect. This hypothesis supports which state that job resources have a positive but not significant effect on job satisfaction through work-life balance among employees at PT. Tirta Investama [19]. This can occur because each individual has different needs and preferences regarding work-life balance, resulting in varying effects on job satisfaction.

3.5. Predictive Relevance

The predictive relevance (Q^2) is crucial for determining the effectiveness and applicability of a model, ensuring that it not only fits the data well but also has substantial predictive power for practical use [20]. If the resulting value is > 0, it can be said that the model has predictive relevance, indicating that it has achieved good predictive accuracy and is accurate.

Table 6. Predictive Relenvance

	Q^2 (=1-SSE/SSO)
Worklife Balance (Y)	0.268
Job Satisfaction (Z)	0.313

The results of the Q2 testing for each variable have values > 0, indicating that the model has predictive relevance, and thus it can be said to have achieved good predictive accuracy and is accurate. A Q^2 value greater than 0 is a strong indicator that the model has sufficient predictive power and relevance, validating its use for practical predictions and decision-making. It underscores the model's overall quality and ensures that it can provide meaningful insights beyond mere statistical significance.

3.6. Model Fit

The NFI value is a measure of the model's fit based on a comparative baseline. The larger the NFI (normal fit index) value, the better or more fitting the model is with the data, it ranges from 0 to 1, where values closer to 1 indicate a better fit. In the context of SmartPLS, NFI is particularly valuable because it is specifically designed to handle the complexities of partial least squares path modeling, where traditional covariance-based fit indices may not be as applicable or informative. From the table, it can be seen that the NFI values for the saturated model and the estimated model are both 0.632, indicating that the researched model is good and has a data fit of 63.2%.

Table 7. Model Fit

	Saturated Model	***Estimated Model***
NFI	0.632	0.632

3.7 Structural Equation Model

Structural Equation Modeling (SEM) is a statistical technique used to analyze the structural relationships between complex variables. SEM combines aspects of factor analysis and regression analysis to assess the relationships between latent variables (theoretical concepts that cannot be directly measured) and observed variables (indicators) [10]. The structural equation model of this research is as follows:

$$Y = -0.513\ X1 + 0.251\ \ X2 \quad (1)$$
$$Z = -0.132\ X1 + 0.0645\ X2 \quad (2)$$

Information:
X1 = Job Demand
X2 = Job Resources
Y = Worklife Balance
Z = Job Satisfaction

Based on the equations above, two equations are obtained. The first is Y = -0.513 X1 + 0.251 X2, which means that job demand has a negative impact on work-life balance and job resources have a positive impact on work-life balance. The second is Z = -0.132 X1 + 0.0645 X2, which means that job demand has a negative impact on job satisfaction and job resources have a positive impact on job satisfaction.

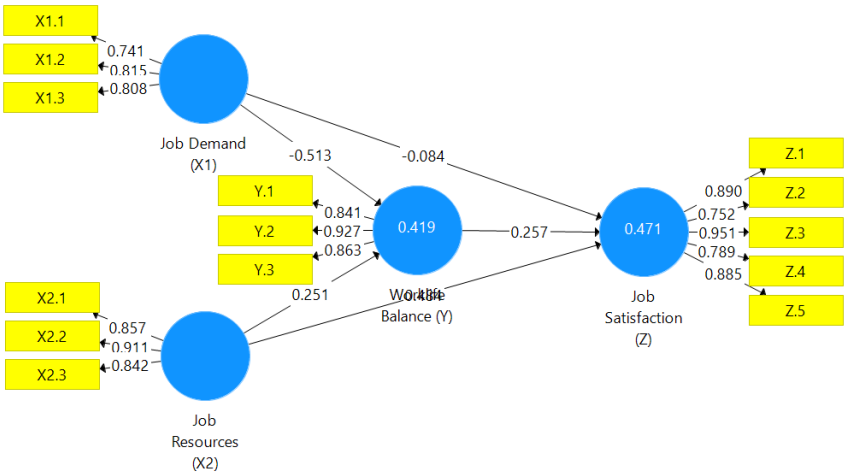

Figure 4. Final Framework

Based on the image above, there is a difference from the initial framework, specifically in the fourth indicator, which is time pressure on the job demand variable (X1), which was removed because it obtained a result of -0.248 in the convergent validity test. This result is below 0.7, indicating that the indicator is not valid. Additionally, the fourth indicator, coworker support on the job resources variable (X2), was removed because it obtained a result of 0.481 in the convergent validity test. This result is also below 0.7, indicating that the indicator is not valid. A value below 0.7 suggests that the indicator is not highly correlated with the measured variable, making it unreliable.

4. Conclusion

Based on the results of data analysis and discussion, the following conclusions can be drawn job demand has a significant and negative impact on job satisfaction, mediated by work-life balance. This indicates that job demands influence job satisfaction through the mediating variable of work-life balance. Job resources do not have a significant and positive impact on job satisfaction, mediated by work-life balance. This indicates that job resources do not influence job satisfaction through the mediating variable of work-life balance. Recommendations for three improvements include the fair redistribution of tasks among team members, taking into account each member's skills and capacities. Additionally, supervisors should adopt an inclusive approach to leadership and team development. Lastly, management should regularly evaluate objective and transparent promotion criteria. With these improvements, PT. Daya Tani Sembada is expected to better maintain and enhance employee job satisfaction, thereby reducing complaints and turnover within the company.

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