

The Effect of Work Life Balance and Work Environment on Job Satisfaction with Motivation as an Intervening Variable at PT PLN Indonesia Power UBP Barru

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ABSTRACT

Job satisfaction is crucial in human resource management as it directly impacts employee performance, loyalty, and productivity. This study examines the influence of work-life balance and work environment on job satisfaction, with motivation as an intervening variable, among employees of PT PLN Indonesia Power UBP Barru. The study is motivated by fluctuations in job satisfaction data and the demanding nature of the electrical energy sector, which includes high workloads, shift work, and safety risks. Using a quantitative approach and the Structural Equation Modeling-Partial Least Squares (SEM-PLS) technique, data were collected through questionnaires distributed to respondents selected by stratified random sampling, while secondary data were obtained from company reports and literature. The research variables included work-life balance (X1), work environment (X2), motivation (Z), and job satisfaction (Y). The results show that both work-life balance and work environment significantly impact job satisfaction, and that they positively influence motivation. Furthermore, motivation significantly affects job satisfaction and mediates the relationship between work-life balance, work environment, and job satisfaction. These findings align with Herzberg's Two-Factor Theory, which suggests that both motivator and hygiene factors contribute to job satisfaction. Therefore, this study highlights the importance of improving work-life balance, work environment, and motivation to enhance employee job satisfaction in the energy sector.

KEYWORDS *Job satisfaction, motivation, SEM-PLS, work environment, work life balance*



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INTRODUCTION

The development of an organization is a sign that the organization is quick to respond to change (Schakel & Wolbers, 2021). Globalization requires organizations to prepare Human Resources (HR) who can face change quickly and be ready (Lina, 2018). Employees, as individuals who are the company's human resources, are encouraged to be aware of their obligations to comply with the norms adopted by the company so that they can face changes and global competition (Guerci et al., 2015). Human Resources (HR) who can face global challenges and changes are quality resources (Yuwono et al., 2023).

PT PLN Indonesia Power, which is a large company engaged in public services as an electricity provider, has the main task of continually making the best efforts to serve the community optimally (Fitriadi, 2020). The human resources contained in the company are the best resources because they provide public services on a large and wide scale (Berman et al., 2021). The heavy workload, competencies that match the work performed, and the salary received determine the quality of the workers (Hsiao & Lin, 2018).

Quality human resources are generated through organizations that make maximum efforts to develop quality resources (Sinambela et al., 2022). Employees, as part of an organization and very important in achieving organizational goals, need to be well supported to provide the best for the company (Rodhiyatu Aliya & Saragih, 2020). Employees are a resource that must be maintained to enable them to perform their work optimally (Sinambela

et al., 2022). One factor that can improve the quality of human resources is the job satisfaction of employees (Darmawan et al., 2020).

Job satisfaction is a measure of how employees feel about their work (Dziuba et al., 2020). Organizations should pay attention to employee job satisfaction because it increases loyalty to the company, while dissatisfaction with work makes employees feel uncomfortable (Irabor & Okolie, 2019). Job satisfaction reflects the behavior and attitudes of workers regarding work conditions, physical and psychological states, and reciprocity received during work (Rahmani & Nurnida, 2022). It is a positive feeling about the work they do. High job satisfaction causes individuals to view their work positively, whereas low job satisfaction causes them to view their work negatively (Hsiao & Lin, 2018).

In Indonesia, the challenges to human resources are no less complex, especially in vital sectors such as electrical energy (Dutu, 2016). PT PLN Indonesia Power UBP Barru, as one of the backbones of national electricity providers, faces high pressure to maintain service performance while ensuring employee welfare (Kurniawati, 2022).

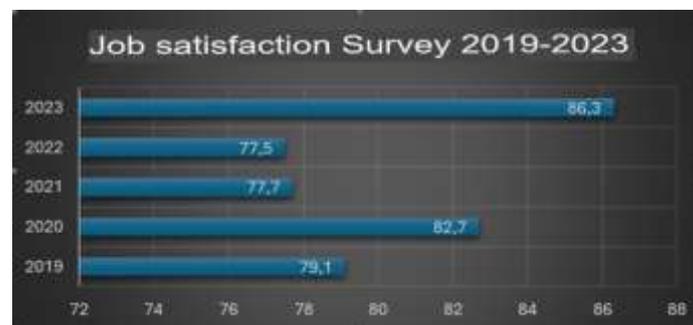


Figure 1. Job satisfaction survey 2019-2023

Based on the data of the Employee Job Satisfaction at PT (Badrianto & Ekhsan, 2020). PLN Indonesia Power from 2019 to 2023, this index reflects the level of employee satisfaction from year to year and is measured as a percentage that indicates the overall level of satisfaction (Kurniawan & Bagana, 2026). Data for 2019 shows employee satisfaction at 79.1%. In 2020, this increased to 82.7%. However, in 2021, satisfaction decreased to 77.7%, followed by a slight decrease in 2022 to 77.5%. In 2023, satisfaction rose sharply to 86.33%, marking the highest peak over the last five years (Blanchflower, 2025).

This data is important for understanding the longitudinal condition of employee satisfaction at PT. PLN Indonesia Power (Baraba, 2023). It shows fluctuations in job satisfaction from year to year (Chadi & Hetschko, 2018). The decline since 2021 suggests the presence of internal and external factors affecting employees' perceptions of the company (Ali et al., 2021). The phenomenon of fluctuating job satisfaction at PT PLN Indonesia Power UBP Barru should not be underestimated (Muhammad & Marsuki, 2023). Without further research, it has the potential to reduce the quality of public services, increase turnover risks, and lower long-term work morale (Grissom et al., 2016). Given the complexity of work and the company's strategic role in meeting national energy needs, human resource management based on work balance, a supportive environment, and appropriate motivation are key to the organization's sustainability (Parakandi & Behery, 2016).

As a public service provider, PT PLN Indonesia Power UBP Barru requires employees to dedicate significant time to serving the community at predetermined schedules. Consequently, time with family is often limited. Not only family time but also personal life, hobbies, and rest time tend to be reduced due to heavy work demands. Balancing roles between work and personal life is important to maintain employee job satisfaction, ensuring that time with family is balanced with time spent working—this is known as work life balance.

Work-life balance is a living concept involving the balance between work and personal life aspects such as family, social environment, and personal happiness. Individuals working in environments that support family relationships tend to feel more satisfied with their jobs (Rodhiyatu Aliya & Saragih, 2020). The balance gained makes individuals feel fully responsible for their work, family, and personal interests (Rahmani & Nurnida, 2022).

Companies that provide programs to maintain work-life balance help preserve employee quality and job satisfaction. Work-life balance means offering employees opportunities to balance work with external interests (Rodhiyatu Aliya & Saragih, 2020). Achieving a successful work-life balance can increase employee productivity, enabling companies to more easily achieve their goals (Rahmani & Nurnida, 2022).

Beyond work-life balance, the work environment also influences job satisfaction. To boost productivity and performance while affecting job satisfaction, the work environment must be healthy and comfortable. This environment includes both physical and psychological aspects, such as workspace conditions, layout, equipment, infrastructure, and interpersonal relationships among colleagues (Rahayu et al., 2020). Rodhiyatu Aliya & Saragih (2020) emphasize that a comfortable physical work environment can enhance job satisfaction.

Research by Harke et al. (2022) found that work-life balance and work environment affect job satisfaction with a magnitude of 91.2%. This aligns with Amalia & Permata Sari (2021), who showed a 55.2% influence of these variables on job satisfaction. Similarly, Rodhiyatu Aliya & Saragih (2020) reported a 57.5% influence. These studies demonstrate that work-life balance and work environment have a significant positive effect on job satisfaction.

Motivation arises not only from work-life balance and the work environment but also from job satisfaction itself. Job satisfaction can foster motivation. Satisfaction gained from work induces happiness and encourages enhanced individual performance. Motivation can be described as the energy that drives the body and mind to act (Priyono, 2016). Motivation results in job satisfaction; a strong drive makes individuals diligent in achieving their goals (Gautama & Marchyta, 2022).

Previous research by Rahayu et al. (2020) showed motivation had a significant positive effect on job satisfaction with a strong influence of 72%. Sandra (2021) similarly found that motivation affects job satisfaction. Although many studies have examined the influence of work-life balance and work environment on job satisfaction, relatively few have included motivation as an intervening variable.

Several prior studies have demonstrated the influence of work-life balance and work environment on job satisfaction (Rodhiyatu Aliya & Saragih, 2020; Amalia & Permata Sari, 2021). However, most did not include motivation as a mediating variable. When motivation was included, the approach was partial and not specific to the energy sector, especially under demanding conditions faced by PT PLN Indonesia Power UBP Barru. Therefore, this research

aims to fill that gap by using a quantitative approach and a comprehensive analytical model, contributing scientifically and practically to the energy sector.

In the electric energy industry context, particularly at PT PLN Indonesia Power UBP Barru, employees face challenges that may affect job satisfaction. High operational demands, shift work systems, occupational safety risks, and pressures to maintain electricity supply stability can impact employee well-being and motivation, influencing turnover rates, job satisfaction, and productivity.

The purpose of this study is to determine whether work life balance and work environment affect job satisfaction and motivation, and whether motivation mediates the relationship between them. It also aims to deepen understanding of the relationships among these variables. The study is expected to contribute theoretically by expanding knowledge of human resource management related to work-life balance, job satisfaction, work environment, and motivation. Practically, it aims to provide useful information for PT PLN Indonesia Power UBP Barru to assess employee satisfaction levels and identify influencing factors, ultimately enhancing employee satisfaction in the company.

METHOD

This study uses a quantitative approach with instruments measured through the Likert scale to collect data from questionnaires related to work-life balance, work environment, job satisfaction, and motivation. Data was collected using a quantitative method with two sources, namely primary data obtained directly from respondents through questionnaires and secondary data which included books, journals, and related articles. The research population is all employees of PT. PLN Indonesia Power UBP Barru, which totaled 300 people, with a sample calculated using the Slovin formula, produced 171 respondents, who were selected using the stratified random sampling technique. Data collection was carried out through a closed survey distributed through Google Forms, with four questionnaires for each variable studied.

Data analysis was carried out using the Structural Equation Modeling (SEM) method based on Partial Least Squares (PLS), which allows researchers to test the relationship between variables and data that does not have to be normally distributed. The analysis stage was carried out with two models: the measurement model (outer model) and the structural model (inner model). The evaluation of the external model includes validity and reliability tests, such as convergent and discriminant validity tests, as well as reflective testing of indicators and internal consistency reliability. Meanwhile, the inner model tests the cause-and-effect relationship between constructs through the R-squared test, the F-squared test, the path coefficient, and the indirect influence using indirect effect analysis to see the role of intervening variables in the relationship between exogenous and endogenous variables.

Overall, PLS-SEM makes it possible to map and confirm the theoretical relationships between the variables proposed in the research hypothesis, provide a clear picture of the direct and indirect influences between variables, and strengthen the understanding related to the work-life balance relationship, work environment, motivation, and job satisfaction in an organizational context.

RESULTS AND DISCUSSION

Descriptive Analysis

Descriptive analysis is an analysis that aims to provide a summary (description) of data so that it can be understood and informative. The information presented was based on 171 respondents' answers to 4 variable components. Furthermore, the number of interval classes must be equal to 5 intervals to determine the average score of each respondent's answer meets the assessment category. The assessment criteria can be divided into the following categories once the interval is known:

Table 1. Assessment Criteria Interval

Interval Classes	Rating Categories
1,00 – 2,60	Very Insufficient (SK)
2,61 – 3,00	Less (K)
3,01 – 3,50	Sufficient (C)
3,51 – 4,20	Good (B)
4,21 – 5,00	Excellent (SB)

Respondents' Perception of Work-Life Balance

The analysis of the variables of the Work life balance conflict is carried out based on the indicators that have been determined. The Work life balance conflict indicator consists of 9 statements. In this study, there are several factors that can be considered from the results of respondents' perceptions, as follows:

Table 2. Recapitulation of Respondents' Perception of Work-Life Balance

No	Statement	Mean	Category
1	"I have enough time for family, hobbies and work"	3,930	Good
2	"I can manage my time well between family, hobbies and work"	3,947	Good
3	"I have time to channel my hobbies"	3,836	Good
4	"The role between work and family can support each other"	4,082	Good
5	"I can get involved in helping with homework"	3,965	Good
6	"I play an active role in family activities even though I work"	3,807	Good
7	"I'm satisfied with my job"	4,146	Good
8	"I'm Happy with the Role According to Work"	4,041	Good
9	"I was able to meet my family's expectations of my job"	4,035	Good
Overall average		3,982	Good

Source: Data Processed 2025

Based on Table 2, the average value of the total perception of the respondent which ranges from 3.982 (on a scale of 1-5) to 5.00 with the good category is the average assessment of the respondent's perception of the Work life balance variable which indicates that employees tend to feel balanced between the demands of work and their personal life. The highest rated indicator is the satisfaction balance indicator (X1.7) with the statement "I am satisfied with my work" with an average score of 4.164 in the good category. followed by X1.4 (Roles between work and family can support each other) at 4,082. This indicates that job satisfaction and synergy between family and work roles are the main strengths felt by respondents.

In contrast, the lowest scores were found at X1.6 (I play an active role in family activities even though I work) with an average of 3,807, and X1.3 (I have time to channel hobbies) of 3,836. This can indicate that there is limited time or energy that employees have to be actively involved in family activities and personal development outside of work. These results illustrate that the work system within PT PLN Indonesia Power UBP Barru has sufficiently supported aspects of work-life balance, especially in terms of job role satisfaction, time management, and family expectations for work. However, organizations need to pay more attention to time flexibility and support for family and personal activities, as part of an employee well-being improvement strategy.

Respondents' Perception of the Work Environment

The workload analysis is carried out based on the indications that have been determined, there are 13 statements in the work environment indicator. The following are the results of respondents' perception of the work environment:

Table 3. Recapitulation of Respondents' Perception of the Work Environment

No	Statement	Mean	Category
1	Efficient office layout	3,766	Good
2	Adequate illumination	4,006	Good
3	Office wall color is comfortable to see	3,860	Good
4	Adequate office ventilation	3,836	Good
5	The volume of music in the office is not distracting	3,842	Good
6	Noise levels in the office within reasonable limits	3,825	Good
7	Workspace supports work activities	3,871	Good
8	The air circulation in the office is quite fresh	3,848	Good
9	Indoor temperature is sufficient	3,982	Good
10	Office facilities can support work	3,936	Good
11	The light that enters the office is enough	4,023	Good
12	My relationship with my boss was good and mutual respect.	4,251	Excellent
13	I have good communication with other employees	4,199	Good
Overall average		3,942	Good

Source: Data Processed 2025

Table 3 shows that the total average value of respondents' perception of the work environment of 3,942 (on a scale of 1-5) in the good category is the respondents' assessment of the work environment, this indicates that the majority of respondents are quite satisfied with the conditions of the physical work environment and social relations in their workplace. The indicator with the highest score is the working relationship with the boss (X2.12) with the statement "My relationship with the boss is good and mutual respect" with a score of 4.251, which is included in the very good category.

This was followed by "I have good communication with other employees" (4,199), and "There is enough light in the office" (4,023). These findings suggest that in addition to the physical aspects, interpersonal relationships in the workplace have a major contribution to creating a positive work environment and supporting performance. and the lowest rated

indicators namely Lighting, temperature, sound and safety (X2.1) with the statements "Efficient office layout" (3,766) and "Noise level in the office within reasonable limits" (3,825). Although still in the "good" category, these two aspects can be the focus of attention for improvement, given their effect on concentration and work comfort.

A positive work environment is determined not only by physical facilities, but also by the social climate within the organization. These findings are in line with Herzberg's theory of hygiene factors which states that adequate work environment conditions will prevent job dissatisfaction and create emotional stability for employees. By maintaining and improving the quality of the work environment, both physically and socially, companies can create healthier, more productive, and harmonious working conditions.

Respondents' Perception of Motivation

Motivation analysis is carried out based on the indications that have been determined, there are 10 statements in the Motivation indicator. The following are the results of respondents' perceptions of motivation:

Table 4. Recapitulation of Respondents' Perception of Motivation

No	Statement	Mean	Category
1	I am happy to increase my knowledge related to work	4,292	Excellent
2	I'm less interested in other jobs that aren't related to my job	4,076	Good
3	I do my job to the best of my ability	4,310	Excellent
4	I was challenged to work harder to get a promotion	4,018	Good
5	I can compete healthily with colleagues	4,064	Good
6	I believe that my abilities can support future career advancement	4,105	Good
7	I never thought about quitting my job when I was tired of work	4,099	Good
8	I work wholeheartedly	4,304	Excellent
9	I feel obligated to get my work done well	4,333	Excellent
10	I feel motivated to improve service when I get complaints from consumers	4,053	Good
Overall average		4,165	Good

Source: Data Processed 2025

Table 4 The results of the analysis show that in general, the respondents' work motivation was in the "good" category with an overall average of 4.165. This value reflects that the majority of employees have high work morale, are committed to tasks, and have a strong orientation towards self-development and service quality. The highest scoring indicators were Confidence (Z9) "I feel obligated to do my job well" (4,333), "I do my job to the best of my ability" (4,310) "I work wholeheartedly" (4,314).

These three statements reflect the intrinsic commitment and high moral responsibility among respondents to the work, most employees have a passion for learning and are committed to their work. Meanwhile, the indicator with the lowest score was imagination (Z4) with the statement "I am challenged to work harder to get a promotion" (4,018), "I feel motivated to improve the service when I get complaints from consumers" (4,053)

Although the value is not significantly low, this result can be used as input for management to focus more on the appreciation system and strengthening the spirit of service innovation. Strong work motivation is an important foundation for organizational success,

especially in an electrical industry that demands high precision and perseverance. These results reinforce theories such as Herzberg's Two-Factor Theory, which states that intrinsic factors such as achievement, responsibility, and personal growth are more dominant in shaping long-term work motivation than just external incentives.

By maintaining and improving motivational aspects such as learning opportunities, sense of responsibility, and recognition of performance, employee productivity and loyalty can continue to be improved.

Respondents' Perception of Job Satisfaction

Performance analysis is carried out based on the indications that have been determined, there are 15 statements in the job satisfaction indicator. The following are the results of respondents' perceptions of job satisfaction:

Table 5. Recapitulation of Respondents' Perception of Job Satisfaction

No	Statement	Mean	Category
1	I am satisfied with my current job	4,047	Good
2	The work I am currently doing is in accordance with my educational background, abilities, and skills	4,053	Good
3	My job gives me the opportunity to prepare for my future progress	4,070	Good
4	The salary I receive is satisfactory, in accordance with the workload and responsibilities I carry	3,860	Good
5	I am satisfied with the benefits provided by the company beyond the basic salary I receive	3,830	Good
6	The amount and type of allowance received is appropriate	3,801	Good
7	All employees in this company are given equal opportunities for promotion	3,842	Good
8	The existence of promotions carried out by companies motivates employees to develop and advance more	3,977	Good
9	The company provides the widest opportunity for every employee to be able to move up	3,895	Good
10	The boss has always given direction to the subordinates in every job	4,023	Good
11	Communication between superiors and subordinates is well established in solving work problems	4,012	Good
12	Firm superiors in enforcing employee discipline	4,023	Good
13	Relationships with coworkers are well established	4,158	Good
14	I can complete every task well if there is support from colleagues in the office	4,105	Good
15	Family atmosphere in work is well built	4,117	Good
Overall average		3,988	Good

Source: Data Processed 2025

Table 5 shows a mean value of 3.988. The overall average value of respondents' perception of performance is 3.988 with a good category can be seen from Table 4.10 of the average respondents' assessment of job satisfaction. The indicator with the highest score was Colleagues (Y13) with the statement "Relationships with colleagues are well established" with

an average score of 4,158 in the good category, "Family atmosphere in work is well fostered" with an average score of 4,117 in the good category, harmonious and communicative work is the main force in increasing job satisfaction within PT PLN Indonesia Power UBP Barru. while the indicator with the lowest value, namely Wages (Y6) with the statement "The amount and type of allowance received is appropriate", namely 3,819 good categories and "The salary I receive is satisfactory", which is 3,860 good categories, indicating that the aspect of financial compensation can be an area of evaluation and strengthening to increase long-term employee retention and motivation. These results are in line with Herzberg's Two-Factor Theory, which states that motivating factors (such as opportunities for development and achievement) and hygiene factors (such as salary and employment relationships) play a role in shaping job satisfaction. In this case, the factors of interpersonal relationships and career development are felt more strongly than the financial compensation factor.

Therefore, although employees are generally satisfied, more attention to strengthening the compensation system and fairness of promotions can be an effective long-term strategy to retain outstanding employees.

Data Analysis

1. Validity Test of Research Instruments

The results of the data collection process using an online questionnaire were obtained by 171 respondents. Before carrying out additional data processing, the suitability or validity of the questionnaire is checked. This study uses the SEM-PLS tool to conduct a validity test. The validity test findings are considered valid if the value is greater than 0.7 (Ghozali, 2018).

Table 6. Validity Test Results

Indicator	Coeficin	Information
X1.1	0,727	Valid
X1.2	0,821	Valid
X1.3	0,707	Valid
X1.4	0,792	Valid
X1.5	0,837	Valid
X1.6	0,816	Valid
X1.7	0,834	Valid
X1.8	0,796	Valid
X1.9	0,738	Valid
X2.1	0,774	Valid
X2.2	0,806	Valid
X2.3	0,807	Valid
X2.4	0,795	Valid
X2.5	0,766	Valid
X2.6	0,781	Valid
X2.7	0,857	Valid
X2.8	0,835	Valid
X2.9	0,803	Valid
X2.10	0,837	Valid
X2.11	0,786	Valid
X2.12	0,751	Valid
X2.13	0,730	Valid
Y1	0,705	Valid

Indicator	Coefficin	Information
Y2	0,803	Valid
Y3	0,775	Valid
Y4	0,826	Valid
Y5	0,730	Valid
Y6	0,764	Valid
Y7	0,821	Valid
Y8	0,833	Valid
Y9	0,806	Valid
Y10	0,739	Valid
Y11	0,786	Valid
Y12	0,777	Valid
Y13	0,789	Valid
Y14	0,745	Valid
Y15	0,837	Valid
Z1	0,824	Valid
Z2	0,724	Valid
Z3	0,821	Valid
Z4	0,803	Valid
Z5	0,774	Valid
Z6	0,855	Valid
Z7	0,713	Valid
Z8	0,800	Valid
Z9	0,829	Valid
Z10	0,720	Valid

Source: Data Processed, 2025

2. Reliability Test of Research Instruments

After the research questionnaire is declared valid, it is then necessary to conduct a reliability test or the confidence level of the questionnaire. Questionnaires are used to conduct research during recurrence, and reliability tests are conducted to assess whether it is trustworthy to measure research variables. When the Cronbach Alpha value is greater than or equal to 0.9, the reliability is perfect; when between 0.7 and 0.9, high reliability; when between 0.5 and 0.7, the reliability is medium; and when it is less than 0.5, reliability is low (Chin, 1995; Hair et al., 2014). The test results show that all the items of the research question are so trustworthy that they can be used in the research, can be seen in Table 7.

Table 7. Reliability Test Results

Variabel	Cronbach's Alpha	Information
Job satisfaction	0,955	Reliabel
Work environment	0,951	Reliabel
Motivation	0,931	Reliabel
Work life balance	0,923	Reliabel

Source: Data Processed, 2025

3. Discriminating Validity Test

Table 8 shows that the substantial variance of indicators included in the concept can be seen by looking at the FL values that represent the results of the reliability assessment of the discriminant validity-based construct. The FL value limit (Fornell-Larcker, 1981:227) which

is the source of the discriminant validity criteria. Based on table 4.13 below, each FL value is less than or equal to 0.5.

Table 8. Discriminant Validity (Fornell-Lacker criterion)

	Job satisfaction	Work environment	Motivation	Work life balance
Job satisfaction	0,783			
Work environment	0,758	0,795		
Motivation	0,782	0,665	0,788	
Work life balance	0,720	0,729	0,666	0,787

Source: Data Processed, 2025

If the constructed construct has a greater value than the cross-loading of columns and other rows, then the measurement of all connected statements meets the value of the criteria. Therefore, the reliability of discriminant validity can be assessed if these requirements are met.

4. Coefficient Determination (R²)

How much influence other variables have on dependent variables can be calculated using the magnitude of the coefficient determination (R-square). The R-Square values resulting from data processing with smartPLS 3.0 are as follows:

Table 9. Coefficient of Determination

	R Square	R Square Adjusted
Job satisfaction (Y)	0,728	0,723
Motivation (Z)	0,512	0,506

Source : Data processed 2025

Job Satisfaction (Y) The R-Square value of 0.728 shows that exogenous variables, namely Work-Life Balance (X1) and Work Environment (X2) with Motivation (Z) mediation, are able to explain the variation in Job Satisfaction by 72.8%. The remaining 27.2% was explained by other variables outside the research model. This value belongs to the substantial (strong) category. Motivation (Z) The R-Square value of 0.512 shows that exogenous variables, namely Work Life Balance (X1) and Work Environment (X2), are able to explain the variation in Motivation by 51.2%. The remaining 48.8% is explained by other variables outside the research model. This value belongs to the moderate (medium) category.

The results of this R-Square test show that the research model has good explanatory power. The variables of Work Life Balance and Work Environment directly or indirectly play a significant role in shaping Motivation, which ultimately has an impact on employee Job Satisfaction. These findings strengthen the theoretical assumption that life balance and work environment are important determinants in increasing motivation and job satisfaction in technology-intensive organizations such as PT PLN Indonesia Power UBP Barru.

5. Test F square (F^2)

It is a measure used to assess the relative impact of an affecting variable (exogenous) on the affected variable (endogenous). The F-Square values resulting from data processing with smartPLS 3.0 are as follows:

Table 10. F square (F^2)

	Job satisfaction	Work environment	Motivation	Work life balance
Job satisfaction				
Work environment	0,163		0,141	
Motivation	0,345			
Work life balance	0,054		0,143	

Source : Data processed 2025

Work Life Balance on Job Satisfaction (0.054, Moderate) Although the contribution is not as large as other variables, Work Life Balance still has a significant influence on employee job satisfaction. This means that the better the work-life balance, the more satisfied the employee will be with his work.

Work Environment on Job Satisfaction (0.163, Moderate) The work environment has a higher influence than Work Life Balance on job satisfaction. This indicates that physical comfort and social relationships in the workplace are more dominant in influencing employee satisfaction.

Motivation to Job Satisfaction (0.345, Large) The motivation variable has the greatest influence on job satisfaction. This means that the higher the motivation of employees, the higher their job satisfaction level. These findings are in line with Herzberg's motivation theory which emphasizes the importance of intrinsic factors in increasing job satisfaction.

Work-Life Balance to Motivation (0.143, Moderate) Work-life balance plays an important role in increasing motivation. Employees who are able to manage their work roles and personal lives tend to have higher work motivation.

Work Environment to Motivation (0.141, Moderate) A good work environment has also been shown to increase employee motivation. This shows that physical and psychosocial factors in the workplace can be a driver of work morale.

These results confirm that motivation is a key variable in building employee satisfaction of PT PLN Indonesia Power UBP Barru employees. Although Work Life Balance and Work Environment are influential, they both play a role through increased motivation. Thus, managerial interventions that focus on motivation-boosting strategies will have a more significant impact on job satisfaction than just improving one single factor.

PLS SEM Analysis

The latent variables in this study consisted of 4 variables. In accordance with what has been mentioned in the operational variables, each latent variable has a unique manifest (indicator). The SEM PLS analysis was carried out to determine the relationship between these variables, and was tested by evaluating the outer model (evaluation of the measurement model) and the inner model (evaluation of the structural model).

1. Evaluation of Measurement Models (Outer Model)

According to Ghazali (2015), the outer model is a measurement model that activates the validity and reliability of the model. Inner models seek to predict how latent variables will relate to each other. The parameters of the measurement model (outer model) are declared to have converged. "Convergent validity is indicated by the values of Loading Factor and Average Variance Extracted (AVE)". The validity of the discriminator was then tested by looking at the cross loading value. The dependency of the measurement model is rotated using composite reliability. In evaluating the measurement model (outer model), the validity and reliability of the data for each latent variable will be assessed using the Smart PLS software. The results are based on data transfer through the help of Smart PLS software, and are summarized in the outer model image below. The results of the initial outer model analysis are presented in Figure 1.

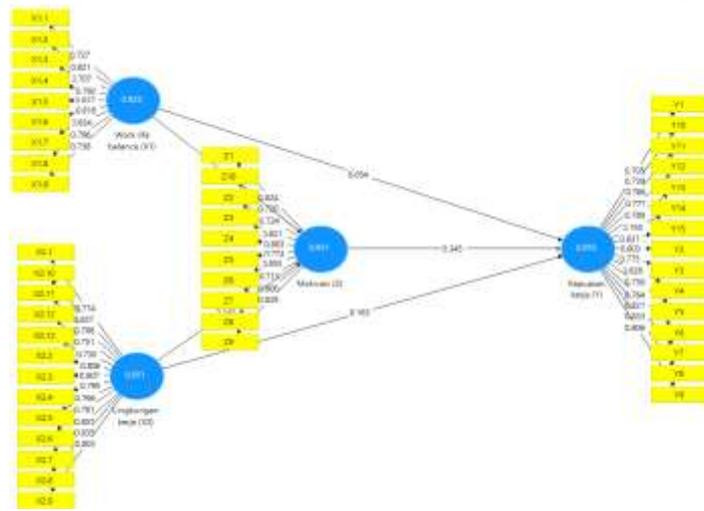


Figure 1. The initial outer model

Some evaluation of the variable coefficients and their indicators was not found in the findings of the first external model analysis. As an external model, Figure 1 is known to meet the conventional value of the external model criteria. This shows the high validity and dependency of the model.

2. Evaluation of the assessment on the outer model

Analyzing the relationships between observed variables or indicators that support the latent variables being studied is known as external model analysis. The study required the implementation of four tests: Cronbach's Alpha, Average Variance Extracted (AVE), Composite Reliability, and Convergent Validity. If a test shows validity and consistency, it is considered valid. One measure of precision benchmarking is validity. This statistic is indicated by the Average Variance Extracted (AVE) value. Table 4.14 shows the average variance for each of the four variables. > 0.5 is a common AVE value. The AVE value for all study variables was more than 0.5. The standard AVE values show that the study is highly accurate and consistent. (Bagozzi & Yi, 1988 : Chin & Dibbern, 2010).

Table 11. Construct reliability and validity

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Job satisfaction	0,955	0,960	0,614

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Work environment	0,951	0,957	0,632
Motivation	0,931	0,942	0,621
Work life balance	0,923	0,936	0,619

Source : Data Processed 2025

3. Evaluation of Assessment on Structural Model Test (Inner Model)

The inner model assessment is used to ascertain the relationship between the three latent variables that make up the inner model. In Smart PLS, the path coefficient and the statistical value T are generated through the bootstrapping technique. "The requirement that T calculate > T table = 1.96 and P-value < 0.05 suggests that the model variable has a strong positive influence (Hair et al 2019)". The results of bootstrapping using Smart PLS are shown in Table 12.

**Table 12. Bootstrapping Results
Path Coefficients**

	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Work life balance (X1) -> Job satisfaction (Y)	0,068	2,785	0,006
Work environment (X2)_ -> Job satisfaction (Y)	0,066	5,006	0,000
Work life balance (X1) -> Motivation (Z)	0,096	4,006	0,000
Work Environment (X2)_ -> Motivation (Z)	0,097	3,971	0,000
Motivation (Z) -> Job satisfaction (Y)	0,066	6,593	0,000

Source : Data Processed 2025

Table 13. Specific Indirect Effects

Work life balance (X1) -> Motivation (Z) -> Job satisfaction (Y)	0,053	3,214	0,001
Work environment (X2)_ -> Motivation (Z) -> Job satisfaction (Y)	0,045	3,738	0,000

Source : Data Processed 2025

Discussion

Work life balance has a positive and significant effect on job satisfaction at PT. PLN Indonesia Power UBP Barru

The results of the hypothesis test showed that *work life balance* had a positive and significant influence on job satisfaction (T = 2.785; P = 0.006) indicates that hypothesis 1 is accepted. This means that the better the work-life balance, the higher the employee's job satisfaction. This is in line with the research of Greenhaus et al. (2003) who explain that *work-life balance* is an important determinant of individual quality of life and job satisfaction. In the context of PT PLN Indonesia Power UBP Barru, a shift work system and high workload can be the main challenge for employees in maintaining a life balance. When management is able to manage a fair work schedule, provide appropriate time off, and create a flexible work climate, employees will feel more satisfied with their work. This condition supports the findings of Maharani et al. (2023) which show that there is a direct relationship between *work-*

life balance and job satisfaction. In addition, employees who have a *work-life balance* tend to be better able to reduce work stress, maintain mental health, and have better social relationships. This in turn reinforces their commitment to the organization. Therefore, *work-life balance* is not only a supporting factor, but one of the crucial aspects that determine employee job satisfaction in the electric energy sector which has a high level of risk.

The Work Environment has a positive and significant effect on job satisfaction at PT. PLN Indonesia Power UBP Barru.

The results of the analysis showed that the work environment had a significant positive effect on job satisfaction ($T = 5.006$; $P = 0.000$), which means that hypothesis 2 is accepted. These findings confirm that a good work environment, both physical and non-physical, is able to increase employee job satisfaction. At PT PLN Indonesia Power UBP Barru, physical environmental factors such as work facilities, lighting, cleanliness, and the implementation of Occupational Safety and Health (K3) standards play a major role in work comfort. A safe work environment reduces concerns about the risk of accidents, increasing job satisfaction, while non-physical factors such as communication between colleagues and a collaborative work climate also strengthen employee satisfaction. These findings are consistent with Herzberg's (1959) theory of motivation, which states that a good work environment can prevent dissatisfaction and promote satisfaction. Therefore, the management of PT PLN Indonesia Power UBP Barru needs to continue to improve the work environment, both physical and social, to maintain sustainable job satisfaction.

Work-life balance to motivation has a positive and significant effect on job satisfaction at PT. PLN Indonesia Power UBP Barru.

Hypothesis testing showed that work life balance had a significant positive effect on work motivation ($T = 4.006$; $P = 0.000$), which means the better the work-life balance, the higher the employee's work motivation. These findings are in line with Herzberg's (1959) theory that life balance can be a motivating factor that increases work drive. Research by Amin & Sudiana (2024) also revealed a positive relationship between Work Life Balance and work motivation, where employees who have enough time for family and personal activities tend to be more enthusiastic and committed to their work. At PT PLN Indonesia Power UBP Barru, a structured work pattern allows employees to have time for their personal lives, which increases morale. Conversely, an imbalance that causes stress can lower motivation. The motivation arising from work-life balance is not only extrinsic but also intrinsic, increasing employee loyalty, engagement, and readiness to contribute more to the organization.

The Work Environment has a positive and significant effect on motivation at PT. PLN Indonesia Power UBP Barru.

The results of the analysis show that the work environment has a positive and significant effect on work motivation, which confirms the importance of a conducive work environment in increasing employee enthusiasm and motivation. In accordance with Herzberg's theory, a good work environment, including aspects of occupational safety (K3), adequate facilities, and harmonious interpersonal relationships, can increase motivation, although poor conditions can decrease motivation. At PT PLN Indonesia Power UBP Barru, the implementation of K3 procedures, personal protective equipment, and a supportive social climate, contributes greatly to employee morale and commitment. A good environment also strengthens employee loyalty and the desire to stay in the organization. Therefore, creating a

healthy and safe work environment is a strategic investment to increase motivation and support the company's operational sustainability and performance.

Motivation has a positive and significant effect on job satisfaction at PT PLN Indonesia Power UBP Barru.

The results showed that motivation had a positive and significant effect on job satisfaction, which supports Herzberg's Two-Factor Theory, which distinguishes between motivating factors that promote satisfaction and hygiene factors that prevent dissatisfaction. Intrinsic motivations, such as the desire to excel, developing skills, and responsibility for high-risk jobs, greatly contribute to job satisfaction at PT PLN Indonesia Power UBP Barru. When employees feel their work is meaningful and their contributions are recognized, they will feel satisfied. These findings also reinforce the results of studies that show that the higher the work motivation of employees, the higher the level of job satisfaction they feel. Therefore, increasing work motivation by meeting motivator and hygiene factors is an important strategy to maintain employee job satisfaction in the electric energy sector.

Motivation can mediate work life balance to the job satisfaction of PT PLN Indonesia Power UBP Barru

The results show that motivation significantly mediates the relationship between work-life balance and job satisfaction, which means that a good work-life balance not only affects job satisfaction directly, but also through increased employee motivation. These findings can be explained through Herzberg's Two-Factor Theory, where motivating factors such as achievement, recognition, and responsibility grow more optimally when employees feel their lives are balanced between work and personal life. At PT PLN Indonesia Power UBP Barru, a good life balance can be achieved through flexible work schedule arrangements and adequate time off, which increases motivation and, in turn, job satisfaction. In addition, life balance also strengthens extrinsic motivation, which supports the hygiene factor, thereby creating a sense of psychological and social security that reduces dissatisfaction. Therefore, this study emphasizes the importance of work-life balance as a managerial strategy to increase motivation and job satisfaction, which should be considered an organizational investment in the long run.

Motivation can mediate the work environment on employee job satisfaction at PT PLN Indonesia Power UBP Barru

The results show that motivation mediates the relationship between the work environment and job satisfaction significantly, which means that a conducive work environment not only increases job satisfaction directly, but also through increased employee motivation. A safe, comfortable, and supportive work environment, both physical and non-physical, increases employee motivation and strengthens job satisfaction. This is in line with Herzberg's Two-Factor Theory, where hygiene factors, such as working conditions and interpersonal relationships, prevent dissatisfaction and encourage motivation that contributes to job satisfaction. At PT PLN Indonesia Power UBP Barru, safety facilities, K3 standards, and adequate equipment support create a sense of security for employees, which in turn increases morale. Thus, building a good work environment is an important strategy that not only prevents dissatisfaction but also increases long-term motivation and job satisfaction.

CONCLUSION

Based on the results of data analysis, this study found that work life balance and work environment have a significant positive influence on job satisfaction and motivation. Motivation plays a role as a mediating variable that connects work life balance and work environment to job satisfaction, which shows the importance of managing work-life balance and work environment in increasing job satisfaction. This research makes a theoretical contribution by strengthening Herzberg's Theory of Two Factors, which states that motivator factors and hygiene factors play an important role in determining job satisfaction, especially in the high-risk electrical energy sector. Practically, the results of this study show that the management of PT PLN Indonesia Power UBP Barru needs to develop a more flexible and fair work policy, improve work facilities, and create a harmonious work climate to increase employee motivation and job satisfaction. In addition, companies are advised to develop performance-based rewards programs, training, and career development to maintain intrinsic and extrinsic motivation. However, this study has limitations in location, variables used, instrument, and research time, which affect the generalization of results. For further research, it is recommended to expand the scope of the research location by involving other PLN units or similar companies, adding other variables such as leadership, organizational culture, and compensation, and using mixed research methods to obtain more in-depth data. Longitudinal research is also recommended to look at the dynamics of employee job satisfaction in the long term.

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