



Rahmat Sihombing¹, Mesra B², Muhammad Isa Indrawan³, Kiki Farida Ferine⁴

¹Mahasiswa Magister Manajemen Universitas Pembangunan Panca Budi ^{2,3,4}Magister Manajemen Universitas Pembangunan Panca Budi Correspondence Author: mesrab@dosen.pancabudi.ac.id

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Abstract

This study aims to analyze the effect of compensation and training on work motivation with individual characteristics as moderating variables at PT PLN (Persero) UP3 Pematang Siantar. Work motivation is an important aspect in improving employee performance and organizational effectiveness, where compensation and training are seen as two main factors that influence it. Individual characteristics such as age, education, and work experience are assumed to strengthen or weaken the relationship. The research method used is quantitative with the Partial Least Square (PLS) approach to test the structural model. The research sample consisted of 93 respondents who were employees in the customer service unit. The research instrument has met the validity and reliability tests, with outer loadings values above 0.70 and composite reliability above 0.90. The results show that compensation, training, and individual characteristics have a positive and significant effect on work motivation. However, individual characteristics do not play a significant role as moderating variables in strengthening the effect of compensation and training on work motivation. The R² value of 0.733 indicates that 73.3% of the variation in work motivation can be explained by this research model. These findings suggest that the management of PT PLN (Persero) UP3 Pematang Siantar needs to pay attention to providing quality compensation and training as a strategy to increase work motivation, even though individual characteristics do not significantly strengthen the relationship.

Keywords: Compensation, Training, Work Motivation, Individual Characteristics

INTRODUCTION

In today's increasingly competitive workplace, companies are required to create a work environment that sustainably supports employee motivation. Work motivation is a crucial factor driving individuals to achieve optimal performance and contribute positively to organizational goals (Robbins & Judge, 2022). In the context of a service company like PT PLN (Persero) UP3 Pematang Siantar, employee work motivation directly impacts the quality of public service, speed of response, and customer satisfaction. Two key factors believed to significantly contribute to work motivation are compensation and training. Adequate compensation, both financial and non-financial, can boost employee morale and loyalty. According to Sutrisno (2020), fair compensation is an indicator of a company's concern for employee welfare, which directly impacts work motivation. A study by Hidayat et al. (2021) also showed that compensation has a significant positive correlation with work motivation and employee satisfaction. Besides compensation, training also plays a crucial role in increasing motivation. Training provides employees with opportunities to improve their knowledge, skills, and abilities, which in turn strengthens their self-confidence and work ethic (Mangkunegara & Prabu, 2021). Research by Hasibuan and Siregar (2022) found that well-targeted training can increase intrinsic motivation because individuals feel more prepared and valued by the organization. However, the relationship between compensation and training on work motivation is not always uniform, as individual characteristics such as age, education level, work experience, and personality can influence perceptions and responses to organizational policies. Individual characteristics are seen as moderating variables that can strengthen or weaken the influence of organizational factors on employee work behavior (Gibson, 2021; Rahmawati

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& Sari, 2023). For example, employees with higher levels of education may respond more positively to training, while more senior employees may value financial compensation as a form of recognition for their dedication. PT PLN (Persero) UP3 Pematang Siantar, a strategic unit providing electricity in North Sumatra, faces challenges in human resource management, particularly in increasing employee motivation to provide optimal service to the public. Internal dynamics, workloads, and efficiency demands highlight the importance of managerial strategies based on human resource development through effective compensation and training. Based on this background, this study aims to analyze the effect of compensation and training on work motivation, with individual characteristics as a moderating variable, at PT PLN (Persero) UP3 Pematang Siantar. The results are expected to contribute to the development of more adaptive HR policies based on actual employee needs.

LITERATURE REVIEW

Theoretical Framework

Work motivation

Understanding Work Motivation

Mangkunegara & Prabu (2021) define work motivation as a condition that influences, stimulates, and directs a person's behavior in the work environment to achieve organizational goals. Motivation is seen as an internal force that drives a person to work effectively.

Work Motivation Indicators

Work motivation indicators according to Mangkunegara & Prabu (2021):

- 1. Physiological needs
 - Fulfillment of basic needs such as food, rest, and physical comfort in the work environment.
- 2. Occupational safety and security (safety and security needs)
 - A sense of security in employment, including job security, a healthy work environment, and protection from risks.
- 3. Social (social needs)
 - Good interpersonal relationships in the workplace, such as teamwork, communication, and friendship.
- 4. Esteem needs
 - Recognition of achievements, self-confidence, and a sense of appreciation from superiors and coworkers.
- 5. Self-actualization
 - Opportunities to develop, channel potential, and receive challenges at work.

Individual Characteristics

Understanding Individual Characteristics

Sutrisno (2020) individual characteristics are personal backgrounds that include age, education, work experience, and socioeconomic status that can influence a person's attitudes and behavior at work. Sutrisno's emphasis lies in how personal differences form the basis of variations in performance and responses to work situations.

Individual Characteristic Indicators

Individual Characteristic Indicators According to Sutrisno (2020):

- 1. Age
 - As a person gets older, they usually become more mature in their thinking and attitude when facing work.
- 2. Gender
 - While not always a determinant of performance, gender often influences work approaches, communication, and roles in the workplace.
- 3. Level of Education
 - Education contributes to thinking skills, problem solving, and understanding of new tasks and technologies.
- 4. Work Experience (Work Experience)
 - Previous experience will enrich skills, insight, and effectiveness in completing work.
- 5. Marital Status
 - This status can affect a person's emotional stability, responsibility, and work motivation.

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Training

Definition of Training

Hasibuan & Siregar (2022) define training as an activity undertaken by organizations to improve the technical, operational, and administrative work skills of employees in order to optimally achieve organizational goals. They emphasize training as a tool for increasing work productivity.

Training Indicators

Training Indicators according to Hasibuan & Siregar (2022):

- 1. Suitability of Training Materials
 - To what extent does the material provided match the employee's work needs? The training material matches my duties and responsibilities.
- 2. Instructor Competence
 - Competence, experience, and delivery method of the trainer/instructor during the training process.
- 3. Training Methods
 - The approaches used in delivering training, such as lectures, simulations, practice, discussions, etc.
- 4. Training Facilities and Infrastructure (Training Facilities)
 - Supporting facilities during the training process, such as space, tools, media, and environmental comfort.
- 5. Training Benefits (Training Benefits or Outcomes)
 - The real impact or results felt by participants after attending the training.

Compensation

Understanding Compensation

Sutrisno (2020) defines compensation as any form of remuneration provided by an organization to employees, both financial and non-financial, in exchange for their contribution to achieving organizational goals. He emphasizes that compensation includes more than just salary, but also other rewards such as benefits, recognition, and work facilities.

Compensation Indicator

Compensation Indicators According to Sutrisno (2020):

- 1. Base Salary
 - Fixed compensation given to employees according to their position and responsibilities.
- 2. Allowance
 - Additional income such as position allowances, family allowances, transportation allowances, meals allowances, and others.
- 3. Incentives
 - Additional rewards based on performance or targets, such as bonuses, commissions, and achievement rewards.
- 4. Work Facilities
 - Indirect forms of compensation include the provision of facilities such as official vehicles, laptops, insurance, etc.
- 5. Compensation Fairness
 - Employee perceptions of fairness in compensation compared to other coworkers.

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Conceptual Framework

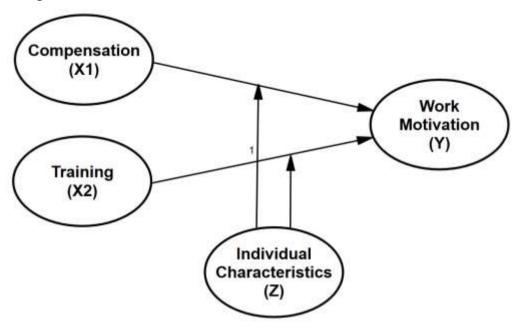


Figure 1. Conceptual Framework

Research Hypothesis

- H1: Compensation has a positive and significant effect on work motivation at PT PLN (Persero) UP3 Pematang Siantar.
- H2: Training has a positive and significant effect on work motivation at PT PLN (Persero) UP3 Pematang Siantar.
- H3: Individual character has a positive and significant influence on work motivation at PT PLN (Persero) UP3 Pematang Siantar.
- H4: Compensation has a positive and significant effect on work motivation which is strengthened by individual characteristics at PT PLN (Persero) UP3 Pematang Siantar.
- H5: Training has a positive and significant effect on work motivation which is strengthened by individual characteristics at PT PLN (Persero) UP3 Pematang Siantar.

RESEARCH METHOD

Types of research

The type of research used by the researcher was quantitative. This type of quantitative research was conducted to conduct a study aimed at tailoring the research and analyzing the relationship between working hours and workload on work productivity, with job satisfaction as a moderating variable at PT PLN's Binjai Kota Customer Service Unit.

Research Location and Research Time

The research location was conducted at PT PLN (Persero) Binjai City Customer Service Unit, which is located in Jl. Kapten MH Sitorus No. 1, Proklamasi, West Siantar District, Pematang Siantar City, North Sumatra The research period was carried out for 3 months, starting from May to July 2025.

Population and Sample

In this study, the population consisted of 93 individuals working in the customer service unit. The sample size represents a subset of the population and its characteristics. The sample was used because it was impossible for researchers to study the entire population due to time, cost, and personnel constraints.

Research Data Sources

The data sources used in this study are primary data.

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RESULTS AND DISCUSSION

Outer Model Analysis

Outer Model Analysis musePLS Algorithm, produce:

Validity Test

Table 1. ValuesOuter Loadings

	Compensation	Individual Characteristics	Training	Work Motivation	Compensation * Individual Characteristics	Training * Individual Characteristics
Compensation * Individual Characteristics					1,730	
Training * Individual Characteristics						1,820
X1.1	0.878					
X1.2	0.913					
X1.3	0.864					
X1.4	0.876					
X1.5	0.917					
X2.1			0.926			
X2.2			0.922			
X2.3			0.954			
X2.4			0.950			
X2.5			0.957			
Y.1				0.875		
Y.2				0.874		
Y.3				0.890		
Y.4				0.804		
Y.5				0.793		
Z.1		0.931				
Z.2		0.909				
Z.3		0.950				
Z.4		0.919				
Z.5		0.922				

Source: Smart PLS Output, 2025

Based on the values in Table 1 above, it shows the results of testing the outer model through the loading factor value /Based on outer loadings, all indicators in each variable have a loading value of ≥ 0.70 . This indicates that each indicator is able to represent the construct being measured validly and robustly. Therefore, it can be concluded that all items in the questionnaire have met the convergent validity criteria and can be used in further analysis. For more details on the above values, see the following figure.

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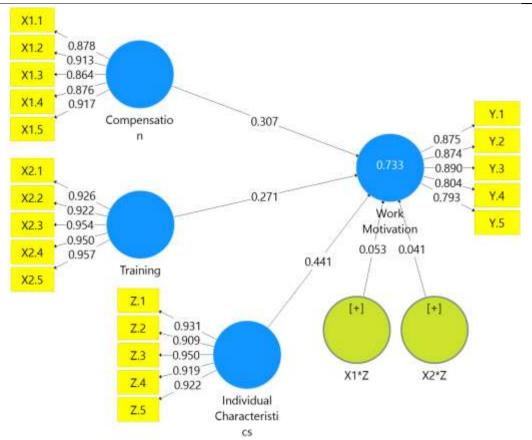


Figure 1. Outer Loadings

In this study there are two equations consisting of structural equation 1 and structural equation 2. Substructure Equation 1:

 $Y1 = \beta 1X1 + \beta 3(X1*Z) + e1$

Y1 = 0.307X1 + 0.053(X1*Z) + e1

Substructure Equation 2:

 $Y2 = \beta 2X2 + \beta 4(X2*Z) + e2$

Y2 = 0.271X2 + 0.041(X2*Z) + e2

Reliability Test

Table 2. Construct Reliability and Validity Test

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Compensation	0.934	0.939	0.950	0.791
Training	0.968	0.969	0.975	0.887
Individual Characteristics	0.959	0.960	0.968	0.858
Work Motivation	0.903	0.920	0.927	0.719
Compensation*Individual Characteristics	1,000	1,000	1,000	1,000
Training*Individual Characteristics	1,000	1,000	1,000	1,000

Source: Smart PLS Output, 2025

Table 2 above shows that the reliability test results show that the Cronbach's Alpha and Composite Reliability values for all constructs are above 0.70. This indicates that all indicators have high internal consistency and can be relied

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upon to measure their respective constructs. Therefore, the research instrument is deemed reliable and suitable for use in testing the structural model.

Coefficient of Determination (R2)

Evaluating a model with PLS begins by examining the R-square for each dependent latent variable. The table below shows the results of R-square estimation using SmartPLS.

Table 3. R Square Results

	R Square	R Square Adjusted
Work Motivation	0.733	0.724

Source: Smart PLS, 2025

In table 3, there is an R square value for work motivation of 0.733, meaning that compensation, training and individual characteristics are 0.733 or the remaining 73.3% are in other variables outside the model.

Structural Model Testing (Inner Model)

Hypothesis Testing

Direct Influence Between Variables

The influence between Moderated Regression Analysis variables can be seen in the path coefficients. The data processing results show the direct influence values, as shown in the following table.

Table 4. Moderated Regression Analysis

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	Original Sample	T Statistics	P Values	Conclusion
Compensation -> Work Motivation	0.307	3,042	0.002	Accepted
Training -> Work Motivation	0.271	1,994	0.047	Accepted
Individual Characteristics -> Work Motivation	0.441	3,244	0.001	Accepted
Compensation*Individual Characteristics -> Work Motivation	0.053	0.423	0.673	Rejected
Training*Individual Characteristics -> Work Motivation	0.041	0.357	0.721	Rejected

Source: Smart PLS Output, 2025

In the results of Table 4 there are direct influence values which will be explained as follows:

- 1. Compensation has a positive and significant effect on work motivation with a t-statistic value of 3,042A value above 1.96 and a significance level of 0.002, below 0.05, indicates that compensation has a positive and significant effect on work motivation, as the significance value is below 0.05. This finding aligns with previous research that found compensation to have a positive and significant effect on work motivation (Sholeh, 2024).
- 2. Training has a positive and significant effect on work motivation with a t-statistic value of 1,994A value above 1.96 and a significance level of 0.047, below 0.05, indicates that training has a positive and significant effect on work motivation, as the significance value is below 0.05. This finding aligns with previous research that found training to have a positive and significant effect on work motivation (Soegesti & Anggarini, 2020).
- 3. Individual characteristics have a positive and significant influence on work motivation with a t-statistic value of 3,244 above 1.96 and a significance level of 0.001 below 0.05, indicating that individual characteristics have a positive and significant effect on work motivation because the significance value is below 0.05. The results of this study are consistent with previous research, indicating that individual characteristics have a positive and significant effect on work motivation at the Batanghari Regency Land Office (Said, 2023).
- 4. Compensation has a positive but insignificant effect on work motivation which is strengthened by individual characteristics with a t-statistic value of 0.423 below 1.96 and a significance of 0.673 above 0.05. Here, individual characteristics play less of a role as moderating variables in strengthening the influence of compensation on work motivation.
- 5. Training has a positive but not significant effect on work motivation which is strengthened by individual characteristics with a t-statistic value of 0.357 is below 1.96 and the significance is 0.721 above 0.05. Here,

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individual characteristics play less of a role as moderating variables in strengthening the influence of training on work motivation.

CONCLUSION

- 1. Compensation has a positive and significant effect on work motivation at PT PLN (Persero) UP3 Pematang Signatur
- 2. Training has a positive and significant effect on work motivation at PT PLN (Persero) UP3 Pematang Siantar.
- 3. Individual character has a positive and significant influence on work motivation at PT PLN (Persero) UP3 Pematang Siantar.
- 4. Compensation has a positive but insignificant effect on work motivation which is strengthened by individual characteristics at PT PLN (Persero) UP3 Pematang Siantar.
- 5. Training has a positive but not significant effect on work motivation which is strengthened by individual characteristics at PT PLN (Persero) UP3 Pematang Siantar.

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