

THE EFFECT OF WORKFORCE FORMATION AND SKILLS ON EMPLOYEE PERFORMANCE THROUGH MOTIVATION AS AN INTERVENING VARIABLE AT PT PLN (PERSERO) UP2D NORTH SUMATERA

Doli Panca Setiawan¹⁾, Husni Muharram Ritonga²⁾, Hernawaty³⁾

^{1,2,3} Universitas Pembangunan Panca Budi, Medan, North Sumatera

Corresponding email: doli.p.setiawan241612@gmail.com,

Author email : husnimuharram@dosen.pancabudi.ac.id

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ABSTRACT

The purpose of this research is to analyze how the creation of the workforce and their competencies impact the effectiveness of employees, considering motivation as an intermediary element within PT PLN (Persero) UP2D North Sumatra. Employing a quantitative research design, information was gathered through surveys distributed among 117 staff members. The method used to analyze the information was Partial Least Squares-Structural Equation Modeling (PLS-SEM). The discovery reveals that the development of the workforce and the skills possessed have a favorable and notable influence on how employees perform. Additionally, the study demonstrated that both factors also exert a favorable and substantial influence on workplace motivation. Workplace motivation independently demonstrates a favorable and considerable effect on employee effectiveness. Nonetheless, the examination of the secondary influence suggests that motivation does not act as a mediator in the connection between the creation of the workforce and competencies alongside employee performance. In conclusion, enhancements in employee performance are more immediately impacted by the composition of the workforce and the skills they bring. The results of this investigation are anticipated to supply administration with factors to consider when attempting to increase employee effectiveness by managing the formation of the workforce and advancing skill sets.

Introduction

Human resources play a crucial role in determining the success of an organization, both in the public and private sectors (Hasibuan, 2018). In large-scale companies such as PT PLN (Persero) UP2D North Sumatra, employee quality and performance are key

factors in ensuring the reliability and efficiency of the electricity distribution system (Sedarmayanti, 2017). Therefore, organizations need to ensure the availability of appropriate workforce formation, adequate skills, and high work motivation so that company goals can be optimally achieved (Mangkunegara, 2019). Workforce formation is related to regulating the number, type, and placement of employees according to the organization's operational needs (Rivai, 2017). Rivai (2017) states that workforce formation is the process of determining the number, quality, and distribution of employees according to job requirements to increase organizational effectiveness. Inaccurate employee placement based on their competencies can lead to an imbalance in the workload, reduce productivity, and weaken work motivation (Sutrisno, 2019). In the context of PT PLN (Persero) UP2D North Sumatra, the accuracy of workforce formation is very important considering that operational work requires special technical expertise and readiness to face the dynamics of field work (Sedarmayanti, 2018).

In addition to workforce formation, employee skills also play a crucial role in improving organizational performance (Wibowo, 2018). Skills encompass technical, conceptual, and interpersonal abilities that enable employees to perform tasks effectively (Sutrisno, 2019). Sutrisno (2019) explains that skills are an individual's ability to utilize knowledge and experience to complete work efficiently and with quality. In the electricity industry, technical and digital skills are becoming increasingly important as the use of technology and automation systems in electricity grid management increases (Robbins & Judge, 2020).

However, good workforce formation and skills do not necessarily directly result in optimal performance if not supported by high work motivation (Mangkunegara, 2019). Work motivation is an internal and external drive that drives individuals to work with enthusiasm and responsibility (Hasibuan, 2018). Robbins and Judge (2020) define motivation as a process that explains the intensity, direction, and persistence of a person's behavior in achieving goals. Employees with high motivation tend to demonstrate greater commitment, discipline, and innovation, thus positively impacting performance improvement (Wibowo, 2018).

In human resource research, motivation is often positioned as an intervening variable that strengthens the relationship between personal factors, such as workforce formation and skills, and employee performance (Sugiyono, 2019). This means that appropriate placement and high skills will have a more optimal impact on performance when supported by strong work motivation (Robbins & Judge, 2020). Conversely, low motivation can hinder the utilization of employee potential even though the formation and skills are adequate (Mangkunegara, 2019). As the implementing unit regulating electricity distribution in the North Sumatra region, PT PLN (Persero) UP2D North Sumatra faces significant challenges in maintaining the reliability of the electricity system along with increasing energy needs and demands for fast and accurate public services (Sedarmayanti, 2018). Therefore, improving employee performance is a top priority that cannot be ignored

(Wibowo, 2018). Various problems that are still encountered include a mismatch between workforce formation and work field needs, limited advanced technical training, and decreased work enthusiasm due to disproportionate workloads (Sutrisno, 2019).

This research is important because it examines how workforce development and their skills affect employee performance, with work motivation as a mediating factor at PT PLN (Persero) UP2D North Sumatra (Sugiyono, 2019). It is hoped that the results of this study can be used as consideration for management in formulating more effective human resource management policies, especially regarding employee placement, skills development through training, and increasing work motivation to improve company performance and the quality of public services (Mangkunegara, 2019). To strengthen the research background, the researcher also conducted a pre-survey involving 40 employees through distributing questionnaires to obtain an initial overview of the problems faced by PT PLN (Persero) UP2D North Sumatra employees (Sugiyono, 2019). The results of the pre-survey are then presented in the following table.

Table 1.Pre -Survey Workforce Formation (X1)

No	Related Statements Labor	Yes	Percentage	No	Percentage
1	I feel proud to be part of this organization.	19	47.5%	21	52.5%
2	I still want to work in this organization because I have invested a lot in it (time, energy, and experience).	10	25%	30	75%
3	I feel I have a moral obligation to continue working in this organization.	15	37.5%	25	62.5%

Based on the results of the Pre-Survey of Workforce Formation (X1) in Table 1.1, it is known that Based on this incident, this study is important to examine how workforce development and capabilities affect employee performance, using work motivation as a mediating factor at PT PLN (Persero) UP2D North Sumatra (Sugiyono, 2019). As many as 52.5% of respondents stated that they did not feel proud to be part of the organization, 75% of respondents expressed reluctance to continue working even though they had devoted time and energy, and 62.5% of respondents did not feel a moral obligation to maintain their membership in the organization. These conditions indicate that the implementation of workforce formation has not been fully effective, so further evaluation is needed regarding

the accuracy of employee placement and the suitability between individual competencies and job demands.

Table 2 Pre -Survey Skills (X2)

No	Related Statements Survey Skills	Yes	Percentage	No	Percentage
1	I have mastered the technical skills required for my job.	17	42.5%	23	57.5%
2	I am able to understand and analyze work problems thoroughly.	13	32.5%	27	67.5%
3	I can communicate and cooperate well with colleagues.	11	27.5%	29	72.5%

Based on the results of the Skills Pre-Survey (X2) in Table 1.2, it can be seen that the majority of employees have not demonstrated an adequate level of work skills. As many as 57.5% of respondents do not have optimal mastery of technical skills, 67.5% of respondents have not been able to conduct a comprehensive analysis of work problems, and 72.5% of respondents have not demonstrated effective communication and collaboration skills. These findings indicate that employee skills are still relatively low, so that efforts are needed to improve them through training programs and continuous work competency development.

Table 3 Pre -Survey Motivation (Z)

No	Related Statements Motivation	Yes	Percentage	No	Percentage
1	I try to achieve better work results than the set targets.	12	30%	28	70%
2	I enjoy working in a team and building good relationships with my coworkers.	20	50%	20	50%
3	I have a desire to positively influence and lead others.	16	40%	24	60%

Based on the results of the Motivation Pre-Survey (Z) in Table 1.3, it is known that the level of employee work motivation is still relatively low. As many as 70% of

respondents have not shown any effort to achieve work results that exceed the set targets, 50% of respondents do not feel comfortable working in a team, and 60% of respondents do not have the drive to exert influence or take on a positive leadership role. These results indicate that employee work motivation still needs to be improved to encourage work enthusiasm and more optimal employee involvement in carrying out tasks.

Table 4 Pre -Survey Employee Performance (Y)

No	Related Statements Employee Performance	Yes	Percentage	No	Percentage
1	My work results meet the quality standards set by the organization.	13	32.5%	27	67.5%
2	I am able to complete the work according to the targeted amount.	9	22.5%	31	77.5%
3	I always finish my work on time.	11	27.5%	29	72.5%

Based on the results of the Employee Performance Pre-Survey (Y) in Table 1.4, it can be seen that the majority of employees have not demonstrated optimal performance levels. As many as 67.5% of respondents stated that the work results achieved did not meet the established quality standards, 77.5% of respondents were not able to realize work targets, and 72.5% of respondents had not shown consistency in completing tasks according to the specified deadline. These conditions indicate that employee performance is still relatively low, so that improvement efforts are needed through improving the work system, as well as increasing employee motivation and skills. After the pre-survey was conducted, employee performance data for the past year, namely 2024, is presented as follows:

Table 5 Employee Performance Results in 2024

No	Strategic Objective	KPI / Deliverable	Weight	Target	Achievement (117 Employees)	Score	Total Score
1	Employee Absenteeism	% Employee Attendance	25%	97%	78% (91 of 117 regular attendees)	70	17.5
2	Collective Labor Agreement	% of Employees Join Socialization	25%	100%	65% (76 of 117 participated in the socialization)	60	15
3	Labor Case Handling	% Case Closed	20%	100%	70% (Some cases have not been followed up)	65	13
4	Legal Compliance	% Compliance	20%	100%	85% (There are minor violations regarding documentation & SOP)	80	16
5	Bipartite LKS	Amount of LKS Bipartite Meeting	10%	12	8	67	6.7
Total Weight			100%				68.2

The performance evaluation results showed that the performance of 117 employees was still in the unsatisfactory category with an overall score of 68.2. The employee attendance rate was recorded at 78%, with only 91 of the 117 employees showing consistent attendance, resulting in a low absenteeism indicator score. Employee participation in the Collective Labor Agreement socialization activity was also relatively low, at 65%, indicating that most employees had not optimally participated in the activity. In terms of labor case resolution, the achievement level only reached 70% because there were still a number of cases that had not been followed up to completion. Compliance with regulations was recorded at 85%, although several minor violations related to administrative completeness and the implementation of standard operating procedures were still found. In addition, the implementation of the LKS Bipartite meeting was not fully in accordance with the target, with only 8 of 12 meetings being successfully held, resulting in a low score on this indicator. Overall, these findings indicate that there are still several aspects of performance that require further attention and improvement, particularly in the level of employee attendance, participation in socialization activities, resolution of employment cases, and fulfillment of the organization's official meeting agenda.

Problem Formulation

1. Does workforce formation have a positive and significant effect on employee performance at PT PLN (Persero) UP2D North Sumatra employees?
2. Do skills have a positive and significant effect on employee performance at PT PLN (Persero) UP2D North Sumatra employees?

3. Does workforce formation have a positive and significant effect on motivation at PT PLN (Persero) UP2D North Sumatra?
4. Do skills have a positive and significant effect on motivation at PT PLN (Persero) UP2D North Sumatra?
5. Does motivation have a positive and significant effect on employee performance at PT PLN (Persero) UP2D North Sumatra?
6. Does workforce formation have a positive and significant effect on employee performance through motivation at PT PLN (Persero) UP2D North Sumatra?
7. Do skills have a positive and significant effect on employee performance through motivation at PT PLN (Persero) UP2D North Sumatra?

Research Objectives

1. To test and analyze the effect of workforce formation on employee performance at PT PLN (Persero) UP2D North Sumatra.
2. To test and analyze the effect of skills on employee performance at PT PLN (Persero) UP2D North Sumatra.
3. To test and analyze the effect of workforce formation on motivation at PT PLN (Persero) UP2D North Sumatra.
4. To test and analyze the effect of skills on motivation at PT PLN (Persero) UP2D North Sumatra.
5. To test and analyze the effect of motivation on employee performance at PT PLN (Persero) UP2D North Sumatra.
6. To test and analyze the effect of workforce formation on employee performance through motivation at PT PLN (Persero) UP2D North Sumatra.
7. To test and analyze the effect of skills on employee performance through motivation at PT PLN (Persero) UP2D North Sumatra.

Benefits of research

1. Theoretical Benefits

This study aims to advance scientific knowledge, particularly in human resource management and organizational behavior, in the following ways:

- a. Offers data-driven insights into how workforce composition and capabilities impact employee performance, considering work motivation as a mediating factor.
 - b. Act as a basis for additional studies exploring the relationship between workforce assignment, skills, work motivation, and employee performance.
 - c. To increase scientific resources regarding employee performance management in the public service industry, particularly in government-owned companies such as PT PLN (Persero).
- 2.**

2. Practical Benefits

Practically, the results of this research are expected to provide benefits to the following parties:

- a. For the Management of PT PLN (Persero) UP2D North Sumatra
 1. To be taken into consideration in preparing workforce formation plans that are more appropriate and in accordance with the needs of each work field.
 2. To be the basis for designing training programs and developing employee skills to align with operational demands and technological developments.
 3. Providing input in efforts to increase employee work motivation to encourage more optimal performance and productivity.
- b. For employees of PT PLN (Persero) UP2D North Sumatra
 1. Provides an understanding of the importance of improving work skills and motivation in supporting performance and career development.
 2. Encourage employees to participate more actively in learning and training programs organized by the company.
- c. For further researchers
 1. To be a reference material for other researchers who are interested in studying similar variables with different approaches and contexts.
 2. Opening up opportunities for further research that examines other factors that have the potential to influence employee performance, such as organizational culture, leadership, and job satisfaction.

Employee Performance

According to Wibowo (2018), employee performance is the actual behavior displayed by an individual in carrying out their role or job according to standards set by the organization. According to Mangkunegara (2018), employee performance is the work results, both in quality and quantity, achieved by an employee in performing their duties according to the given responsibilities.

Employee Performance Indicators

According to Wibowo (2018), employee performance indicators include:

1. Work quality.
2. Work quantity.
3. Timeliness.
4. Responsibility in work.
5. Cooperation with co-workers.

Workforce Formation

According to Rivai (2018), workforce formation is a managerial activity related to the placement of labor based on competencies, qualifications, and workload to achieve a

balance between organizational needs and human resource capabilities. According to Hasibuan (2018), workforce formation is the process of determining the number, quality, and distribution of employees according to organizational needs so that operational activities can run effectively and efficiently.

Workforce Formation Indicators

According to Hasibuan (2018), workforce formation indicators include:

1. Suitability of the number of employees with organizational needs.
2. Suitability of employee qualifications with the position.
3. Efficiency of labor distribution.
4. Placement according to competencies.
5. Periodic evaluation and adjustment of formation.

Skills

According to Sutrisno (2018), skills are employees' proficiency in using technical and non-technical abilities to complete work with certain standards efficiently and with quality. According to Mangkunegara (2018), skill is a person's ability to carry out work tasks supported by knowledge, experience, and training, enabling them to produce effective performance.

Skills Indicators

According to Mangkunegara (2018), skill indicators consist of:

1. Technical skill.
2. Conceptual skill.
3. Interpersonal skill.
4. Managerial skill.
5. Ability to adapt to technological changes.

Motivation

According to Siagian (2018), motivation is the driving force that arises within a person to behave in a certain way in achieving desired organizational goals. According to Robbins and Judge (2018), motivation is the process that explains the intensity, direction, and persistence of a person in achieving specific work goals.

Motivation Indicators

According to Robbins and Judge (2018), motivation indicators include:

1. Need for achievement.
2. Need for affiliation.
3. Need for power.
4. Commitment to organizational goals.

5. Persistence in performing tasks.

Conceptual Framework

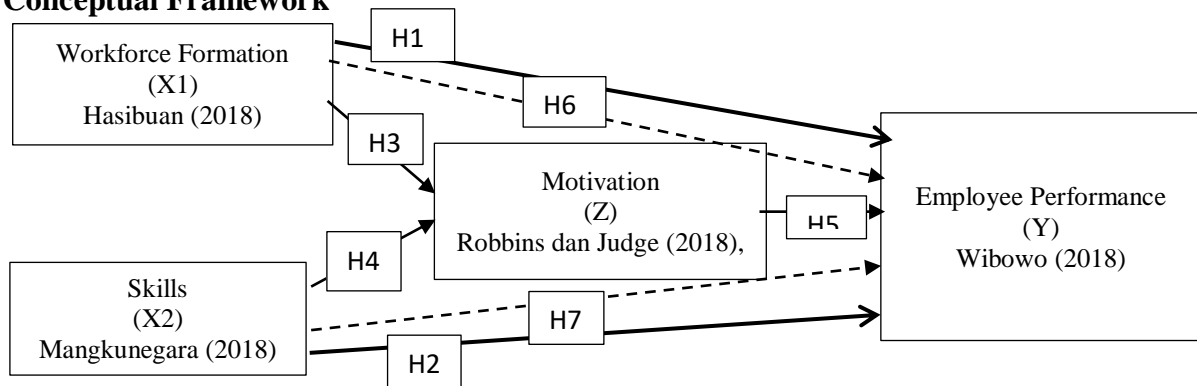


Figure I : Conceptual Framework

Research Hypotheses

H1 Workforce formation has a positive and significant effect on motivation among employees of PT PLN (Persero) UP2D North Sumatra.

H2 Skills have a positive and significant effect on motivation among employees of PT PLN (Persero) UP2D North Sumatra.

H3 Workforce formation has a positive and significant effect on employee performance at PT PLN (Persero) UP2D North Sumatra.

H4 Skills have a positive and significant effect on employee performance at PT PLN (Persero) UP2D North Sumatra.

H5 Motivation has a positive and significant effect on employee performance at PT PLN (Persero) UP2D North Sumatra.

H6 Workforce formation has a positive and significant effect on employee performance through motivation at PT PLN (Persero) UP2D North Sumatra.

Skills have a positive and significant effect on employee performance through motivation at PT PLN (Persero) UP2D North Sumatra.

Research Methodology

Research Type

According to Sugiyono (2018), quantitative research is research whose data is in the form of numbers and is analyzed using statistical techniques to test hypotheses.

This research is quantitative with a causality approach (causal relationship), aiming to determine the effect of workforce formation and skills on employee performance through motivation as an intervening variable at PT PLN (Persero) UP2D North Sumatra.

Research Location and Time

The research was conducted at PT PLN (Persero) UP2D North Sumatra, which is the electricity distribution implementation unit in the North Sumatra region, specifically at Jl. KL. Yos Sudarso No.284, Glugur Kota, Medan Barat District, Medan City, North Sumatra 20238 (PLN UID North Sumatra Office). The selection of this location is based on the relevance and availability of employee data that can be used as a research sample. The research was conducted from November to December 2025.

Population and Sample

The population for this study consisted of all employees of PT PLN (Persero) UP2D North Sumatra. A population is defined as all subjects or objects that are the focus of the study and serve as the basis for conclusions drawn (Arikunto, 2018). Based on the data collected, the total population for this study was 117 employees. The sample was formed using a saturated sampling method, or total sampling, in which every member of the population is included as part of the sample because the overall size is manageable and accessible (Sugiyono, 2018). Therefore, the sample size used in this study was 117 employees.

Method of collecting data

In this study, data were collected through a questionnaire distributed to each employee in the sample group. The measurement used was a five-point Likert scale, ranging from strongly disagree (score 1) to strongly agree (score 5), which aimed to quantitatively evaluate respondents' perceptions (Sugiyono, 2018). Along with the questionnaire, the researchers also conducted a document review as a supplementary method, gathering secondary information regarding employee performance, workforce development, and skills training implementation from internal company documents (Sugiyono, 2018).

Data Analysis Techniques Using SmartPLS

The analysis method applied in this study uses the Partial Least Squares–Structural Equation Modeling (PLS-SEM) technique with the help of SmartPLS software version 3.0. The PLS-SEM approach was chosen because it can analyze complex research models with a large number of variables, both reflective and formative, and can be applied with a relatively small sample size (Ghozali & Latan, 2018). Data analysis was carried out in two main phases: assessing the measurement model (outer model) and evaluating the structural model (inner model) (Ghozali & Latan, 2018).

External Model Assessment

The external model, also known as the measurement model, helps clarify how valid and reliable the indicators are in describing the latent variable being examined. The external model assessment is carried out in several steps:

1. Convergent Validity

Convergent validity measures how well an indicator represents the intended latent construct. This is evaluated by examining the factor loading values for each indicator, with a minimum acceptable value set at 0.70. Furthermore, the Average Variance Extracted (AVE) value assesses how much of the variance in an indicator is accounted for by the latent variables, with a minimum threshold of 0.50 (Ghozali & Latan, 2018).

2. Reliability

The purpose of reliability testing is to determine how consistently indicators measure latent constructs. Reliability is measured using Composite Reliability (CR) and Cronbach's Alpha; both metrics must have a value of 0.70 or higher to be considered reliable (Ghozali & Latan, 2018).

Internal Model Assessment

Internal models, or structural models, test the causal relationships between latent variables in a study. Evaluation of internal models is performed using several important metrics, including:

1. Coefficient of Determination (R^2)

The coefficient of determination (R^2) defines how well an independent variable can explain a dependent variable. An R^2 value ≥ 0.67 indicates a strong relationship, between 0.33 and 0.67 indicates a moderate relationship, and a value ≤ 0.19 indicates a weak relationship (Ghozali & Latan, 2018).

2. Path Coefficient

The path coefficient indicates the direction and degree of influence between latent variables. The significance of this influence was tested using a bootstrapping method with 5,000 resampling events. A relationship is considered significant if the t-statistic is ≥ 1.96 at a significance threshold of 5% ($\alpha = 0.05$) (Ghozali & Latan, 2018).

3. Predictive Relevance (Q^2)

The predictive relevance (Q^2) value evaluates the model's ability to predict endogenous variables using the blindfolding method. A model demonstrates strong predictive ability if the Q^2 value exceeds 0 (Ghozali & Latan, 2018).

Hypothesis Testing

After evaluating the outer and inner models, only indicators that meet validity and reliability standards are used in the latent measurement variables. Hypothesis evaluation involves analyzing the significance of path coefficient values, where meaningful relationships reflect effects between variables that align with the research hypotheses. Furthermore, R^2 and Q^2 values are used to measure the overall effectiveness and predictive

ability of the model (Ghozali & Latan, 2018). Using model visualization in SmartPLS also helps clarify relationships between variables, both at the indicator level (outer model) and at the latent construct level (inner model).

Results and Discussion

Outer Model Analysis

External model evaluation, also known as measurement model evaluation, is conducted to identify specific relationships between latent variables and their respective indicators. The purpose of this evaluation is to verify that each indicator used in the study meets validity and reliability standards, ensuring its suitability for further analysis. All indicators must be confirmed as valid and reliable before a more in-depth model examination can be conducted. The external model assessment in this study includes tests for convergent validity, discriminant validity, and reliability.

Convergent Validity

In a measurement model featuring reflective indicators, convergent validity is evaluated based on how strongly each indicator's score correlates with the score of the latent construct it represents. An indicator is identified as valid if its external loading value exceeds 0.70. However, for research still in development, external loading values between 0.50 and 0.60 are considered acceptable. According to the findings from the external loading assessment, several indicators showed loading values below 0.60 and were insignificant. Consequently, these indicators require additional review. The structural model for this study is illustrated in the following figure.

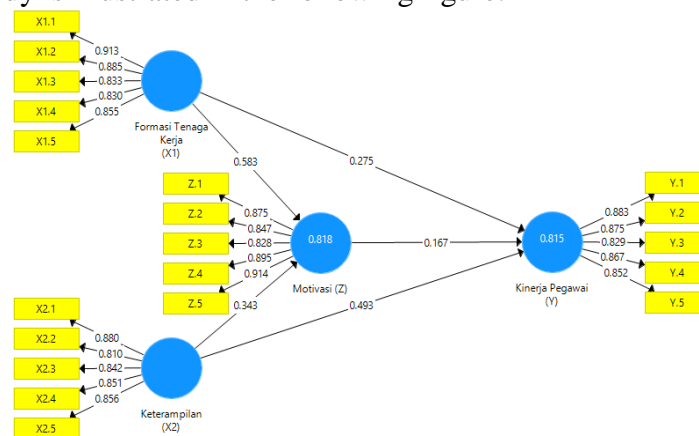


Figure 2. Outer Model

Source: Smart PLS 3.3.3

The Smart PLS output for loading factor gives the results in the following table: Outer Loadings In this study there is an equation and the equation consists of two substructures for substructure 1

$$Z = b_1X_1 + b_2X_2 + e_1$$

$$Z = 0.583 + 0.343 + e_1$$

For substructure 2

$$Y = b3X1 + b4X2 + b5Z + e2$$

$$Y = 0.275 + 0.493 + 0.167 + e2$$

Table 1. Outer Loadings

	Workforce Formation_(X1)_	Skill_(X2)	Employee Performance_(Y)	Motivation (Z)
X1.1	0.913			
X1.2	0.885			
X1.3	0.833			
X1.4	0.830			
X1.5	0.855			
X2.1		0.880		
X2.2		0.810		
X2.3		0.842		
X2.4		0.851		
X2.5		0.856		
Y.1			0.883	
Y.2			0.875	
Y.3			0.829	
Y.4			0.867	
Y.5			0.852	
Z.1				0.875
Z.2				0.847
Z.3				0.828
Z.4				0.895
Z.5				0.914

Source: Smart PLS 3.3.3

According to Table 1, it is clear that all indicators in the variables of Workforce Formation (X1), Skills (X2), Employee Performance (Y), and Motivation (Z) have outer loading values that exceed the minimum threshold of 0.70. This indicates that each indicator adequately represents the construct to be measured, meaning that all indicators are considered valid and appropriate for the next phase of model evaluation.

Discriminant Validity

The next phase of testing relates to discriminant validity, which aims to confirm that each indicator correlates more strongly with its corresponding latent variable than with other latent variables. This assessment is carried out by examining the cross-loading values associated with each indicator. When the cross-loading value for an indicator is greater for the construct it represents than for the other constructs, the indicator is considered to meet the requirements for discriminant validity. The findings from the cross-loading test aimed at evaluating discriminant validity in this study are shown in the following table.

Table 2. Discriminant Validity

	Workforce Formation_ (X1)_	Skill_ (X2)	Employee Performance_ (Y)	Motivation (Z)
X1.1	0.913	0.829	0.790	0.817
X1.2	0.885	0.807	0.821	0.818
X1.3	0.833	0.742	0.765	0.733
X1.4	0.830	0.741	0.683	0.747
X1.5	0.855	0.773	0.677	0.730
X2.1	0.786	0.880	0.796	0.713
X2.2	0.742	0.810	0.772	0.726
X2.3	0.774	0.842	0.751	0.760
X2.4	0.766	0.851	0.695	0.744
X2.5	0.755	0.856	0.738	0.739
Y.1	0.709	0.740	0.883	0.672
Y.2	0.730	0.740	0.875	0.768
Y.3	0.780	0.763	0.829	0.752
Y.4	0.760	0.758	0.867	0.685
Y.5	0.754	0.807	0.852	0.736
Z.1	0.779	0.802	0.695	0.875
Z.2	0.743	0.715	0.646	0.847
Z.3	0.735	0.681	0.701	0.828
Z.4	0.815	0.769	0.817	0.895
Z.5	0.813	0.815	0.790	0.914

Source: Smart PLS 3.3.3

According to Table 2, each measure in the Workforce Formation (X1), Skills (X2), Employee Performance (Y), and Motivation (Z) categories has an outer loading value that exceeds the minimum acceptable level of 0.70. This finding indicates that each measure effectively reflects the concept it is intended to assess, confirming that all measures are valid and can be continued to the next phase of model evaluation.

Composite Reliability

Composite reliability assessment was conducted to evaluate the level of internal consistency for each latent variable included in the study. A construct is considered reliable if its composite reliability score exceeds 0.60. Conversely, if the composite reliability score is below this level, the construct fails to meet reliability requirements. In addition to composite reliability, reliability assessment is also strengthened by Cronbach's Alpha and Average Variance Extracted (AVE) values to confirm that the evaluated construct is consistent and valid. The results of the reliability and construct validity evaluation, which include Cronbach's Alpha, composite reliability, and AVE, are shown in the table below.

Table 3. Construct Reliability and Validity

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Workforce Formation_(X1)_	0.915	0.936	0.746
Skill_(X2)	0.902	0.928	0.719
Employee Performance_(Y)	0.913	0.935	0.742
Motivation (Z)	0.921	0.941	0.761

Source: Smart PLS 3.3.3

According to Table 3, all research constructs demonstrated Cronbach's Alpha and Composite Reliability scores above the minimum required value of 0.70, and Average Variance Extracted (AVE) values exceeding 0.50. These results indicate that the research instrument meets reliability and convergent validity standards. Therefore, the constructs related to Workforce Formation, Skills, Employee Performance, and Motivation are considered reliable and suitable for the next phase of analysis.

Internal Model Analysis

The structural model (internal model) was evaluated to determine the precision and robustness of the structural model developed in this study. The purpose of this test was to validate that the relationships between latent variables in the model conform to established standards, thereby confirming the model's accuracy and robustness. The internal model analysis assessment considered several important indicators, including the coefficient of determination (R^2).

Coefficient of Determination (R^2)

Through data analysis using SmartPLS version 3.0 software, the coefficient of determination (R^2) was calculated, which indicates how well the independent variables can explain the dependent variable. The R^2 values are summarized in the table below.

Table .4 . R Square Results

	R Square	Adjusted Square	R
Employee Performance_(Y)	0.815	0.810	
Motivation (Z)	0.818	0.814	

Source: Smart PLS 3.3.3

Table 4 illustrates that the R-square for the Employee Performance (Y) variable is 0.815, while the Motivation (Z) variable has an R-square of 0.818. These results indicate that the independent variables in the model explain 81.5% of the change in Employee Performance and 81.8% of the change in Motivation. The remaining percentage is influenced by other factors not included in this research model. The high adjusted R-square also indicates that the model exhibits considerable explanatory power and is included in the favorable category.

Hypothesis Testing

After assessing the internal model, the next phase involves investigating the relationships between the latent constructs as detailed in the research hypotheses. In this study, hypothesis validation was conducted by examining the T statistic and P value. The hypothesis will be confirmed if the T statistic exceeds 1.96 and the P value is below 0.05. The findings from the evaluation of the direct impact between variables through the Path Coefficient are shown in the table below.

Table 5. Path Coefficients (Direct Effect)

	Original Sample (O)	T Statistics (O/STDEV)	P Values	Results
Workforce Formation (X1) -> Employee Performance (Y)	0.275	2,304	0.011	Accepted
Workforce Formation (X1) -> Motivation (Z)	0.583	6,370	0,000	Accepted
Skills (X2) -> Employee Performance (Y)	0.493	4,349	0,000	Accepted
Skill (X2) -> Motivation (Z)	0.343	3,717	0,000	Accepted
Motivation (Z) -> Employee Performance (Y)	0.167	1,706	0.044	Accepted

Source: Smart PLS 3.3.3

1. The Effect of Workforce Development on Employee Efficiency. The findings indicate that Workforce Development has a positive and significant effect on Employee Efficiency, as illustrated by a coefficient value of 0.275, a T statistic of 2.304, and a p-value of 0.011. Therefore, the initial hypothesis is proven correct, indicating that increased workforce development will result in better employee efficiency.
2. The Effect of Workforce Development on Motivation Levels. Workforce development has a positive and significant effect on motivation, as indicated by a coefficient value of 0.583, a T statistic of 6.370, and a p-value of 0.000. Thus, the second hypothesis is proven correct, indicating that effective workforce development can increase employee motivation.
3. The Influence of Ability on Employee Efficiency. The analysis results show that Ability has a positive and significant impact on Employee Efficiency, with a coefficient value of 0.493, a T statistic of 4.349, and a p-value of 0.000. Therefore, the third hypothesis is confirmed, meaning that increasing employee ability will directly affect efficiency.
4. The Effect of Ability on Motivation Level: Ability also has a positive and significant effect on motivation, with a coefficient of 0.343, a T statistic of 3.717, and a p-value of 0.000. This finding confirms that the fourth hypothesis is supported, which states that strong ability can increase employee work motivation.
5. The Effect of Motivation on Employee Efficiency: Motivation has a positive and significant effect on employee efficiency, with a coefficient of 0.167, a T statistic of 1.706, and a p-value of 0.044. Therefore, the fifth hypothesis is confirmed, indicating that increasing employee work motivation will increase employee efficiency.

Table 6. Path Coefficients (Indirect Effect)

	Original Sample (O)	T Statistics (O/STDEV)	P Values	Results
Workforce Formation (X1) -> Motivation (Z) -> Employee Performance (Y)	0.097	1,604	0.055	Rejected
Skills (X2) -> Motivation (Z) -> Employee Performance (Y)	0.057	1,552	0.061	Rejected

Source: Smart PLS 3.3.3

1. The Impact of Workforce Development on Employee Performance through Motivation. The findings show that the indirect impact of Workforce Development on Employee Performance through Motivation has a coefficient of 0.097, a T statistic of 1.604, and a p-value of 0.055. Since the p-value exceeds 0.05, the effect is not significant, so the hypothesis is rejected. This indicates that Motivation does not act as a mediator in the impact of Workforce Development on Employee Performance.
2. The Influence of Ability on Employee Performance through Motivation. The results of the analysis show that the indirect influence of Ability on Employee Performance through Motivation has a coefficient of 0.057, a T statistic of 1.552, and a p-value of 0.061. A p-value greater than 0.05 indicates that the influence is not significant, so the hypothesis is rejected. Therefore, Motivation does not act as a mediating factor between Ability and Employee Performance.

Conclusion

The findings of this study are stated as follows:

1. Impact of Workforce Development on Employee Performance: Workforce development has a positive effect on employee performance and has a significant impact.
2. Impact of Workforce Development on Motivation: Workforce development has a positive effect on employee motivation and its effect is significant.
3. Impact of Skills on Employee Performance: Skills have a positive and significant influence on employee performance.
4. Impact of Skills on Motivation: Skills significantly and positively influence employee motivation.
5. Impact of Motivation on Employee Performance: Motivation has a significant and positive influence on employee performance.
6. The Role of Motivation in the Relationship between Workforce Development and Employee Performance: Motivation does not act as a mediator in the relationship between Workforce Development and Employee Performance.
7. The Role of Motivation in the Relationship between Skills and Employee Performance: Motivation does not act as a mediator in the relationship between Skills and Employee Performance.

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