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The Impact of Training; Motivation Towards Employee Performance with Object at PT XZY

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Abstract

Human resources play a crucial role in determining the success of organizational goals. PT XYZ, operating in the IT sector, has encountered challenges, as a significant number of employees have not consistently achieved performance targets over the past two years. This research aims to examine the influence of training and motivation on employee performance at PT XYZ. Employing a quantitative approach with a survey method, data were analyzed using Partial Least Squares-Structural Equation Modeling (PLS-SEM) via SmartPLS 4.0. The results indicate that both training and motivation exert significant positive effects on employee performance, with training demonstrating a stronger direct influence. The combined contribution of training and motivation explains 90.6% of the variance in employee performance. This research underscores the importance of designing training programs aligned with career development and implementing motivational strategies that foster employee engagement and accountability. These findings offer practical implications for enhancing human resource practices in the IT industry by providing empirical evidence on the relative importance of training versus motivation, suggesting that organizations should prioritize structured training programs while simultaneously maintaining robust motivational systems to optimize employee performance outcomes.

Keywords: Training, Motivation, Employee Performance, Human Resources, IT Indus-try

INTRODUCTION

Human resources are central to organizational success, particularly in industries characterized by rapid technological advancements and high-performance demands (Al_Kasasbeh, 2024; Fareed, Noor, Isa, & Salleh, 2016). The IT sector in Indonesia has experienced significant growth over the past decade, creating both opportunities and challenges for human resource management (Bawono, 2021; Burgess, Dayaram, Lambey, & Afrianty, 2020). Companies in this sector must continuously adapt their workforce capabilities to remain competitive in an environment where technological skills quickly become obsolete and employee expectations evolve rapidly (Kvirchishvili, 2023; Li, 2024).

PT XYZ, a mid-sized IT company operating in Indonesia, exemplifies these challenges (Mclean, 2024; Possner, Anandya, & Setyawan, 2024). Despite heavy investments in employee training and development programs over recent years, performance data reveal a concerning trend: many employees have struggled to achieve their performance targets consistently over the past two years. This gap between organizational investment in human capital and actual performance outcomes suggests a disconnect in how HR initiatives translate into measurable employee productivity and effectiveness (Alagaraja & Shuck, 2015; Viljoen, 2023).

This phenomenon raises critical questions about the effectiveness of current training programs and the role of motivational factors in driving performance (Abbas, Kusumawardani, Suprayitno, & Jafar, 2023). While PT XYZ has implemented various training modules covering technical skills, soft skills, and leadership development, the persistent performance gaps indicate that training alone may be insufficient (Shafa & Wolor, 2025; Thejane, 2024). Similarly, the company's motivational strategies—including performance bonuses, recognition programs, and career advancement opportunities—have not yielded the expected results in terms of consistent target achievement (Gallus & Frey, 2016; Kuranchie-Mensah & Amponsah-Tawiah, 2016).

Previous research has extensively examined the relationships between training, motivation, and employee performance across various industries (Joung, Goh, Huffman, Yuan, & Surles, 2015; Saudi, Baker, Saudi, & Mohamed, 2021). However, a review of the existing literature reveals four significant research gaps that this study aims to address:

First, Mangkunegara (2017) and Susanti et al. (2018) demonstrated that training positively impacts employee performance in manufacturing and service sectors, but their studies did not account for the unique characteristics of the IT industry, where rapid technological change demands continuous skill updating and where the nature of work is highly cognitive and project-based. Second, Herzberg (2017) and Hamali (2016) explored motivational factors in traditional work environments, yet research specifically examining motivation in the Indonesian IT sector—where employees often face high stress, long working hours, and rapidly changing project demands—remains limited. Third, while several studies have examined training and motivation independently, few have analyzed their combined and relative effects on performance using advanced statistical methods such as PLS-SEM, particularly in the context of IT companies facing specific performance challenges. Fourth, most existing research focuses on Western contexts or large multinational corporations, leaving a gap in understanding how these HR practices function in mid-sized Indonesian IT companies with their unique organizational cultures, resource constraints, and market conditions.

The novelty of this research lies in its comprehensive examination of both training and motivation as simultaneous predictors of employee performance specifically within the Indonesian IT sector. Unlike previous studies that examined these variables in isolation or in different industry contexts, this research employs PLS-SEM to quantify the relative contributions of training and motivation to performance outcomes, while accounting for the specific challenges faced by PT XYZ. Furthermore, this study extends existing theoretical frameworks by testing their applicability in a context characterized by rapid technological change, high performance expectations, and the unique cultural and organizational dynamics of Indonesian IT companies.

Therefore, this study aims to analyze the extent to which training and motivation impact employee performance at PT XYZ. By addressing this gap, the research contributes to the broader discourse on human resource management and offers practical recommendations for organizational improvement. The benefits of this research are threefold. Theoretically, it contributes to the human resource management literature by providing empirical evidence on the relative importance of training versus motivation in the IT sector context, enriching our understanding of how these constructs operate in knowledge-intensive industries. Practically, the findings offer actionable insights for PT XYZ and similar IT companies to optimize their

HR investments by identifying which interventions—training or motivation—yield stronger performance returns. Methodologically, this study demonstrates the application of PLS-SEM in organizational research, providing a model that can be replicated or adapted by other researchers investigating similar phenomena in different organizational contexts.

RESEARCH METHOD

This research employed a quantitative approach using survey methodology to investigate the relationship between training, motivation, and employee performance. Data were collected through structured questionnaires distributed to employees across various departments within the organization. The analysis utilized Partial Least Squares-Structural Equation Modeling (PLS-SEM) implemented via SmartPLS 4.0 to assess measurement validity and the structural relationships among the study variables.

Data collection was conducted through questionnaires and structured interviews, with the questionnaire items adapted from established indicators used in prior research, especially, The population consisted of 190 employees, and the sampling technique employed was Slovin.

This study's instrument adopted Hadi *et al* (2020) framework, measuring training with 3 dimensions which are using easy access to training; support for training & the perceived benefits of training. Motivation following Robbin & Judge (2019) with 5 dimensions consist of Physiological Needs; Safety Needs; Social (Belongingness) Needs; Esteem Needs &Self-Actualization Needs

Employee performance was assessed using five dimensions namely Quality; Quantity; Timeliness; Cost Effectiveness; Need for Supervision; Interpersonal Impact

Each item was rated using a Likert scale with ordinal values. To ensure the accuracy of measurement, the questionnaire was pre-tested and validated for reliability through Cronbach's Alpha.

The data were analyzed using descriptive statistics and Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0. Descriptive analysis summarized respondent demographics and construct scores. PLS-SEM was used to evaluate the measurement model for convergent validity, discriminant validity, and reliability, as well as to assess the structural model, including collinearity issues, R^2, and Q^2 values. Hypothesis testing was conducted by examining path coefficients, t-values, and p-values to determine the significance and strength of the relationships between training, motivation, and employee performance.

Hypothesis

H1: Training has significant impact towards the employee engagement
H2: Motivation has significant impact towards the employee engagement
H3 : Training & Motivation has significant impact towards the employee engagement

RESULT AND DISCUSSION

Outer Model

a) Convergent Validity

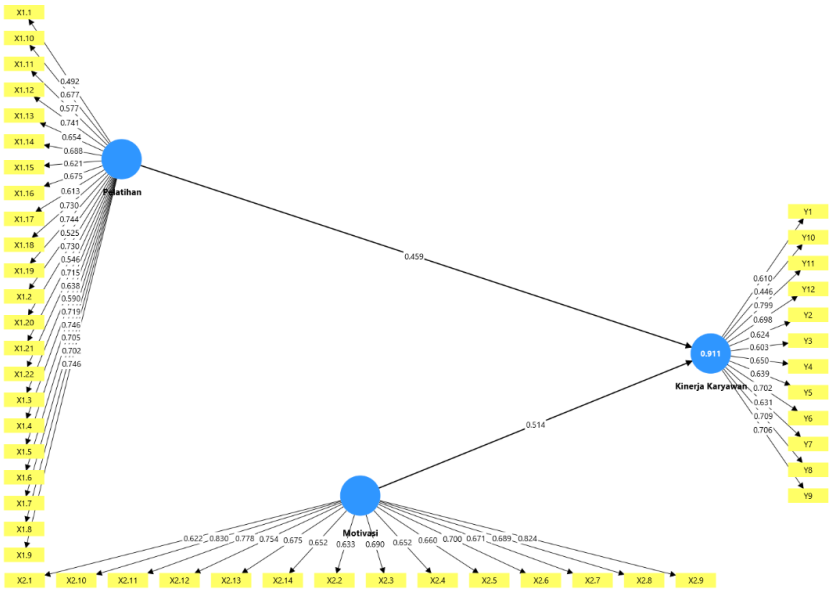

Figure 1. Conceptual Model Diagram PLS-SEM
Source: SmartPLS 4.0 Output (2023)

Based on the results of testing the final model, the results show that some manifest (observed variables) have a loading factor value smaller than 0.70. So that the PLS-SEM model is said to not fully meet the ideal convergent validity criteria. The loading factor value that is below 0.70 indicates that some indicators are less able to represent latent constructs optimally.

b) Loading Factor

Table 1. Loading Factor

Construct	Loading Factor	Critical R	Criteria
X1.12 <- Training	0.708	0.7	Valid
X1.18 <- Training	0.771	0.7	Valid
X1.19 <- Training	0.774	0.7	Valid
X1.20 <- Training	0.743	0.7	Valid
X1.22 <- Training	0.729	0.7	Valid
X1.5 <- Training	0.747	0.7	Valid
X1.6 <- Training	0.753	0.7	Valid
X1.7 <- Training	0.782	0.7	Valid
X1.8 <- Training	0.759	0.7	Valid
X1.9 <- Training	0.712	0.7	Valid
X2.10 <- Motivation	0.697	0.7	Valid
X2.11 <- Motivation	0.894	0.7	Valid
X2.12 <- Motivation	0.784	0.7	Valid
X2.6 <- Motivation	0.803	0.7	Valid
X2.7 <- Motivation	0.772	0.7	Valid
X2.8 <- Motivation	0.790	0.7	Valid
X2.9 <- Motivation	0.793	0.7	Valid
Y11 <- Employee Performance	0.704	0.7	Valid
Y12 <- Employee Performance	0.763	0.7	Valid
Y6 <- Employee Performance	0.710	0.7	Valid
Y8 <- Employee Performance	0.821	0.7	Valid
Y9 <- Employee Performance	0.830	0.7	Valid

Source: Primary Data Processed with SmartPLS 4.0

Table 1 presents the loading factor values for each construct, all exceeding 0.7, indicating adequate contributions of the indicators to their respective latent variables, though further evaluation may still be necessary. Such an evaluation could involve removing low-loading indicators or revising the measurement instruments for better construct representation. Additionally, the Average Variance Extracted (AVE) was tested to strengthen evidence of convergent validity, where an AVE value of at least 0.5 suggests that a construct explains more than half of the variance of its indicators Musyaffi et al. (2021). The AVE results were obtained using SmartPLS-4.

c) Average Variance Extracted

Table 2. AVE (Average Variance Extracted)

Variable	AVE	R Critical	Criteria
Training (X1)	0.560	0.5	Valid
Motivation (X2)	0.628	0.5	Valid
Employee Performance (Y)	0.560	0.5	Valid

Source: Primary Data Processed with SmartPLS 4.0

Table 2 shows that the AVE values for Training is (0.560), Motivation (0.628) and Employee Performance is (0.560) are above 0.5, confirming strong convergent validity as each construct accounts for over half of the variance in its indicators.

d) Cross Loading

Table 3. Cross Loading

	Employee Performance	Motivation	Training
X1.5	0.72	0.686	0.747
X1.6	0.682	0.662	0.753
X1.7	0.821	0.655	0.782
X1.8	0.83	0.658	0.759
X1.9	0.706	0.7	0.712
X1.12	0.584	0.61	0.708
X1.18	0.676	0.638	0.771
X1.19	0.659	0.667	0.774
X1.20	0.618	0.621	0.743
X1.22	0.61	0.643	0.729
X2.6	0.67	0.803	0.635
X2.7	0.639	0.772	0.554
X2.8	0.697	0.79	0.604
X2.9	0.787	0.793	0.864
X2.10	0.704	0.697	0.706
X2.11	0.763	0.894	0.667
X2.12	0.743	0.784	0.779
Y6	0.71	0.546	0.663
Y8	0.821	0.655	0.782
Y9	0.83	0.658	0.759
Y11	0.704	0.697	0.706
Y12	0.763	0.894	0.667

Source: Primary Data Processed with SmartPLS 4.0

Based on the results of discriminant validity testing through cross-loading analysis, the correlations between each indicator and its associated construct were compared with the correlation coefficients between that indicator and other constructs.

e) Fornell-Lacker

Table 4. Fornell Lacker

	Employee Performance	Motivation	Training
Employee Performance	0.767		
Motivation	0.907	0.792	
Training	0.934	0.875	0.748

Source: Primary Data Processed with SmartPLS 4.0

Based on the results of discriminant validity testing using the Fornell-Larcker criterion, the square root of the AVE for each construct was greater than its correlation with other constructs. Therefore, the variables in this study meet the Fornell-Larcker criterion for discriminant validity

f) Reliability Test

Table 5. Cronbach's alpha & Composite Reliability test

Variable	Composite reliability (rho_a)	Composite reliability (rho_c)	Cronbach's alpha	Results
Employee Performance	0.827	0.877	0.824	Reliable
Motivation	0.902	0.922	0.9	Reliable
Training	0.916	0.927	0.913	Reliable

Source: Primary Data Processed with SmartPLS 4.0

Table 5 shows that all construct indicators meet the validity requirements, as the Average Variance Extracted (AVE) values exceed 0.5. Reliability testing is also satisfied, with each construct's Composite Reliability exceeding 0.7. Therefore, all constructs are considered to have good reliability. Discriminant validity is deemed sufficient if the Cronbach's Alpha value is greater than 0.7 7 Ghozali (2017)

1.1 Inner Model

a) *Collinearity Issues*

Table 6. Coefficient of Determination - R^2

Indicator	VIF
X1.5	1.917
X1.6	2.118
X1.7	2.718
X1.8	2.515
X1.9	2.017
X1.12	2.051
X1.18	2.116
X1.19	2.172
X1.20	2.26
X1.22	2.013
X2.6	3.345

Indicator	VIF
X2.7	3.338
X2.8	2.907
X2.9	2.407
X2.10	1.959
X2.11	3.873
X2.12	2.139
Y6	1.504
Y8	2.348
Y9	2.359
Y11	1.445
Y12	1.594

Source: Primary Data Processed with SmartPLS 4.0

Based on the results shown in the collinearity assessment table, all variance inflation factor (VIF) values were below 5. This indicates that there are no multicollinearity issues among the indicators. Multicollinearity typically occurs when several indicators are highly correlated. According to Musyaffi et al. (2021), a VIF value ≤ 5 suggests that collinearity is not a concern in the model.

b) Coefficient of Determination - R^2

Table 7. Coefficient of Determination - R^2

Variable	R-square	R-square adjusted
Employee Performance	0.906	0.905

Source: Primary Data Processed with SmartPLS 4.0

Table 7 presents an R^2 value of 0.906 and an adjusted R^2 of 0.905 for Employee Performance, indicating that approximately 90.6% of its variation is explained by the model's independent variables. Based on standard criteria, this reflects a strong effect, indicating the model's high explanatory capability.

c) Predictive Relevance - Q^2

Table 8. Predictive Relevance - Q^2

Variable	Q^2 predict	Results
Employee Performance	0.906	predictive relevance

Source: Primary Data Processed with SmartPLS 4.0

As shown in Table 8 above, the Q^2 value for Employee Performance is 0.906, which exceeds the threshold of 0.35. This indicates that the model has strong predictive relevance, meaning it is highly capable of accurately predicting the observed outcomes for this construct.

d) Hypothesis

Table 9. Path Coefficients dan T-statistics

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
T -> EP	0.657	0.654	0.055	11.897	0.000
M-> EP	0.326	0.330	0.058	5.609	0.000

Source: Primary Data Processed with SmartPLS 4.0

As shown in the analysis, Motivation has a path coefficient of 0.326 toward Employee Performance, with a t-statistic of 5.609 and a p-value of 0.000. Since the t-value exceeds 1.96 and the p-value is below 0.05, the result is statistically significant. Thus, Motivation positively affects Employee Performance at XYZ.

Similarly, Training shows a path coefficient of 0.657, a t-statistic of 11.879, and a p-value of 0.000, indicating a significant positive impact on Employee Performance. This confirms that effective training programs contribute strongly to enhancing employees' work outcomes and performance levels.

CONCLUSION

The study confirms that training has a substantial impact on improving employee performance, with a stronger effect than motivation, supporting previous research highlighting the importance of skill development and knowledge enhancement. However, motivation also plays an essential supporting role, particularly through intrinsic factors such as recognition and opportunities for growth. The relatively lower scores for career development opportunities and task execution accuracy suggest that PT XYZ should integrate career pathway guidance into training initiatives and reinforce motivational strategies centered on intrinsic rewards. Overall, training and motivation together explain 90.6% of performance variance, underscoring their critical role in sustaining competitiveness in the IT sector. Future research should examine how the integration of continuous learning systems and personalized career development frameworks can further strengthen the training–motivation–performance relationship in dynamic, knowledge-intensive industries.

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