



The influence of perceived organizational support, training and development and employee engagement on employee performance mediated by employee engagement at the director's office PT XYZ

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ABSTRACT

PT XYZ employees' performance shows a decline of 3.65% from 2022 to 2023 or below the target set by management. This decrease may be caused by increased job demands without an accompanying rise in individual competence and capacity. Based on the 2022 employee engagement survey, as many as 54% of employees feel disengaged with the company and their work. Apart from that, it was found that there was unfair treatment in terms of training intensity. This situation can affect employee performance at PT XYZ. Primary data was collected via a Google Form distributed directly to 484 employees by WhatsApp, resulting in 220 responses. The data was then analyzed using the smartPLS 4.0 program with the partial least squares equation analysis method. The results show a positive of perceived organizational support, training and development, and employee engagement on employee performance. As a mediating variable, employee engagement mediates the relationship between perceptions of organizational support and training and development on employee performance. The study advances theoretical understanding in educational contexts and suggests that PT XYZ can improve employee performance by implementing and continuously refining comprehensive training programs. Future research should include diverse employee groups and additional factors influencing performance. PT XYZ is advised to use these insights to significantly boost employee performance.

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INTRODUCTION

The continuously increasing population of Indonesia each year leads to a rising domestic demand for sugar. The need for sugar in the food and beverage industry increases by about five to seven percent annually and is expected to exceed 9.81 million tons by 2030. National sugar production

has been 2.2 million tons per year for the past five years. Consequently, imports must cover a sugar deficit of 3.8 million tons. The sugar purchase price does not cover production costs, the high retail price policy burdens farmers, fertilizer shortages and price hikes, and limited land are the main issues in Indonesia's sugar production. To address these issues, the government has set a minimum price for white crystal sugar at Rp12,500 per kilogram at the farmer level. This policy will encourage farmers to plant sugarcane and maintain stable sugar prices. Of the 700 thousand hectares targeted for sugar self-sufficiency, only 180 thousand hectares have been utilized. Sugar production needs to increase from 2.7 million tons to 4.7 million tons to meet the target, which is then expected to reach 5.7 million tons. The government is working to accelerate national sugar self-sufficiency and has devised plans to achieve this goal. First, they aim to increase sugarcane productivity (93 tons per hectare) by improving agricultural techniques such as seeding, planting, crop maintenance, and the harvest transportation process. Second, they plan to add 700 thousand hectares of new sugarcane plantations from forest land and sugarcane farmers. Third, they intend to enhance the efficiency, utilization, and capacity of sugar factories. Fourth, by setting a minimum auction price of Rp12,500 per kilogram of sugar for all sugar factories owned by state-owned food enterprises, state-owned plantation companies, and private entities, the government aims to improve the welfare of sugarcane farmers. Fifth, they plan to increase the production of bioethanol from sugarcane (Purwanto, 2023).

PT XYZ, a subsidiary of a state-owned food company, is responsible for producing sugar to meet national demand. In 2023, PT XYZ produced 120,000 tons of sugar, which fell significantly short of the demand in West Java. This gap is due to low factory productivity and declining employee performance, driven by increased work demands and inadequate skills and capacity. As a result, performance targets were unmet, and employee anxiety increased. Specifically, employee performance at PT XYZ decreased by 3.65%, from 92.41% in 2022 to 88.76% in 2023, failing to reach the 100% target set by management. Operational challenges, such as the need for employees to manage multiple machines and cover for absent colleagues, contributed to this decline. Moreover, employee engagement has declined, with 54% of employees reporting disengagement. This issue is further aggravated by the lack of fair training opportunities and insufficient feedback from supervisors. The study explores the influence of perceived organizational support, training and development, and employee engagement on employee performance at PT XYZ.

The research involved 484 employees at PT XYZ's head office, including both managerial (staff) and operational (non-staff) roles, all with at least two years of work experience. The demographics of these employees significantly impact their performance in various ways. Employees with over two years of experience generally have a better understanding of their roles and responsibilities, but may also experience burnout or dissatisfaction if they lack new challenges or career development opportunities. While extensive experience can improve efficiency, the absence of continuous training or skill updates can hinder adaptation to new technologies or work methods. Therefore, employee demographics, particularly in terms of experience and workload distribution, play a crucial role in performance.

Enhancing skills and ensuring a fair distribution of workloads could improve overall performance. In terms of productivity, PT XYZ's production of 120,000 tons of sugar in 2023 was distributed within West Java, but this fell far short of the region's demand. This highlights PT XYZ's productivity as low compared to market needs and potentially other sugar factories in Indonesia or abroad. The low productivity can be linked to various factors, including the suboptimal performance of employees due to heavy workloads and inadequate competencies. Compared to sugar factories in other countries, especially those with more advanced technology and superior human resource management, PT XYZ may struggle to keep pace in terms of productivity and operational efficiency. To strengthen PT XYZ's position in the sugar industry, it is essential to boost both machine productivity and employee performance. The company should

prioritize developing employee skills and optimizing machine utilization to increase production output and meet established targets.

Several previous studies have shown that perceptions of organizational support have varying effects on employee performance. Febriantoro et al. (2018) and Nurcholis & Budi (2020) found a positive effect, while Alfiana (2020) did not find a significant effect. Employee engagement generally has a positive and significant impact on employee performance (Rohman et al., 2021; Savitri et al., 2023; Suherman et al., 2023), although Joushan et al. (2015) did not find a significant impact. Training and development also positively influence employee performance (Tondang, 2023). Additionally, employee engagement serves as a mediator in the relationship between perceptions of organizational support and employee performance (Yusuf et al., 2023) and between training and development and employee performance (Sannagy & Hassan, 2023).

Based on the phenomenon gap and research gap, several studies on performance in sugar factories have been found. However, there is still a lack of research on employee performance in sugar factories in Indonesia, particularly in the Cirebon area. Therefore, research on various factors influencing performance needs to be conducted. The research model is adapted from several previous studies related to perceptions of organizational support, training and development, employee engagement, and employee performance.

RESEARCH METHODS

This study is quantitative research, characterized by the use of numerical data and statistical analysis, underpins this study. The research design involves collecting, measuring, and analyzing data through questionnaires, with a cross-sectional approach where data is gathered at a single point in time (Sekaran & Bougie, 2016). The primary focus of this study is to explore the relationships among perceived organizational support, training and development, employee engagement, and employee performance. The variables include independent variables (perceived organizational support, training and development, and employee engagement), a dependent variable (employee performance), and a mediating variable (employee engagement). The research subjects are employees at PT XYZ's directorate office with at least two years of experience. The analysis unit is individuals, targeting employee assessments affecting performance at PT XYZ's directorate office. Data collection employs primary sources through surveys distributed via Google Forms. The research instrument used was a questionnaire and used a Likert Scale. This research uses a Likert Scale of 1 to 5, with an answer scale that supports indicators using perception scores per variable which will be grouped into intervals. After the data collection process was completed, the formula was calculated as shown in the following equation:

$$\text{Interval} = \frac{m-n}{b}$$

Explanation:

n = lowest score (1)

m = highest score (5)

b = number of interval classes

Based on this calculation, the interval range for each variable was determined as follows:

Table 1. Categorization of Respondent Answers

Value	Category
1.00 - 1.80	Strongly Disagree
1.81 - 2.60	Disagree
2.61 - 3.40	Neutral
3.41 - 4.20	Agree
4.21 - 5.00	Strongly Agree

The sample is a subset that represents the characteristics and size of the population (Sugiyono, 2023). The sample size was determined using the G*Power 3.1 program. This program was chosen because it allows researchers to perform power analysis using an a priori method. The a priori analysis in G*Power helps determine the required sample size based on parameters set by the researcher, including the significance level (α), statistical power ($1-\beta$), and effect size (f^2). For this method, the values used were $\alpha = 0.05$, power = 0.80, and $f^2 = 0.15$ (Sofyani, 2023). The test family used was F tests, with the statistical test being linear multiple regression: fixed model, R^2 deviation from zero. The type of power analysis was A priori: Compute the required sample size given α , power, and effect size, with input parameters including $f^2 = 0.15$ and the number of predictors corresponding to the three independent variables (Memon et al., 2020). Based on these calculations, the minimum sample size required for this study was determined to be 77 respondents. The sample consists of 220 respondents. Data analysis utilizes PLS-SEM with SmartPLS 4.0 software, assessing both measurement and structural models to test hypotheses and understand complex variable relationships (Ghozali & Kusumadewi, 2023). This method is suitable for small sample sizes and complex models, emphasizing prediction and latent variable scores (Jankelová et al., 2021).

RESULTS AND DISCUSSION

This study investigates the influence of perceived organizational support, training and development, and employee engagement on employee performance at the director's office PT XYZ. Primary data was collected via a Google Form distributed directly to 484 employees, resulting in 220 responses. The descriptive analysis of the respondent profile includes characteristics such as gender, age, education, length of work, employment status, directorate, and field of work, as detailed in Table 2.

Table 2. Participant Demographics

Respondent Profile	Characteristics	Frequency (n)	Percentage (%)
Gender	Man	194	88.18
	Woman	26	11.82
Age	21-30 years old	23	10.45
	31-40 years old	22	10.00
	41-50 years old	81	36.82
	>50 years	88	40.00
	Elementary/MI	1	0.45
Last education	SMP/MTS	4	1.82
	SMA/SMK/MAN	32	14.55
	Diploma (D1/D2/D3/D4)	8	3.64
	Bachelor degree)	171	77.73
	Master (S2)	2	0.91
Length of work	2-5 years	41	18.64
	5-10 years	7	3.18
	11-20 years old	121	55.00
	21-30 years old	39	17.73
Employee status	More than 30 years	8	3.64
	Leadership Staff/Employees	130	59.09
	Non-staff/Executing	90	40.91
Directorate	Employees	14	6.36
	Main	14	6.36
	Finance and Business	148	67.27
	Support	58	26.36
Field of work	Operational	29	13.18
	Plant	80	36.36
	HR and General	29	13.18
	Asset Optimization	29	13.18

Respondent Profile	Characteristics	Frequency (n)	Percentage (%)
	Engineering and Technology	38	17.27
	Accounting and Finance	25	11.36
	Internal Supervisory Unit (SPI)	6	2.73
	Company Secretary	11	5.00

Based on the descriptive analysis of 220 respondents, the sample comprises 194 men (88.18%) and 26 women (11.82%), indicating a male-dominated respondent group. In terms of age distribution, the majority are over 50 years old (88 respondents, 40%), followed by 41-50 years old (81 respondents, 36.82%), 21-30 years old (23 respondents, 10.45%), and 31-40 years old (22 respondents, 10%). Regarding educational background, most respondents hold a Bachelor's degree (171 respondents, 77.73%). This is followed by high school graduates (32 respondents, 14.55%), Diploma holders (8 respondents, 3.64%), junior high school graduates (4 respondents, 1.82%), Master's degree holders (2 respondents, 0.91%), and one respondent with a primary school education (0.45%). The length of work distribution shows that most respondents have worked for 11-20 years (121 respondents, 55%), followed by 2-5 years (41 respondents, 18.64%), 21-30 years (39 respondents, 17.73%), over 30 years (8 respondents, 3.64%), and 5-10 years (7 respondents, 3.18%). In terms of employment status, the majority are staff (130 respondents, 59.09%), with the remainder being non-staff (90 respondents, 40.91%). Directorate, 14 respondents (6.36%) belong to the main directorate, 148 respondents (67.27%) to the finance and business support directorate, and 58 respondents (26.36%) to the operations directorate. Finally, the field of work distribution indicates a predominance in the HR and general affairs department (80 respondents, 36.36%), followed by the engineering and technology department (38 respondents, 17.27%), the plantation and asset optimization department (29 respondents, 13.18%), the accounting and finance department (25 respondents, 11.36%), the corporate secretary department (11 respondents, 5%), and the internal audit department (6 respondents, 2.73%).

Table 3. Convergent Validity Test Results

Variable	Indicator	Outer Loading	AVE	Result
<i>Perceived Organizational Support</i>	POS1: The company I work for cares about my opinion.	0.709	0.512	Valid
	POS2: The company I work for cares about my well-being.	0.678		Valid
	POS3: The company where I work takes my goals into consideration.	0.659		Valid
	POS4: The company I work for takes my values into consideration.	0.720		Valid
	POS5: The company where I work will forgive me if I am honest about my mistakes.	0.799		Valid
	POS6: The company where I work provides assistance if I have a problem.	0.676		Valid
	POS7: The company where I work shows great concern for me.	0.760		Valid
<i>Training and Development</i>	TD1: The company provided me with training.	0.679	0.558	Valid
	TD2: The training provided by the company is relevant to my job.	0.635		Valid
	TD3: Training helps solve problems in my work.	0.801		Valid
	TD4: Training improves my performance level.	0.754		Valid
	TD5: I immediately apply the concepts learned during the training in my daily work.	0.823		Valid
	TD6: I got benefits after attending the training.	0.775		Valid
	TD7: I had the opportunity to develop new skills.	0.834		Valid
	TD8: The development program helped me achieve personal satisfaction.	0.698		Valid
	TD9: The company provides support for further education.	0.699		Valid
<i>Employee Engagement</i>	EE1: I feel excited when I go to work in the morning.	0.796	0.502	Valid
	EE2: I feel energized when I work.	0.662		Valid
	EE3: I feel excited about doing work in the office.	0.803		Valid
	EE4: I can persist in doing work for long periods of time at a time.	0.627		Valid
	EE5: The task that I will work on becomes a challenge that I will complete.	0.741		Valid
	EE6: The work I am doing is a source of inspiration in my life.	0.732		Valid
	EE7: I feel enthusiastic about the work I am currently doing.	0.632		Valid
	EE8: I feel proud of the work I am doing now.	0.651		Valid

Variable	Indicator	Outer Loading	AVE	Result
Employee Performance	EE9: I feel my work is meaningful.	0.820	0.534	Valid
	EE10: I feel focused when doing the work I am currently doing.	0.726		Valid
	EE11: I am willing to sacrifice my rest time when there is a task to be completed.	0.642		Valid
	EE12: I feel responsible for providing the best results for the progress of the company.	0.679		Valid
	EE13: I can complete the work on time according to the deadline that has been set.	0.653		Valid
	EP1: I am able to complete all the work requested within the specified time limit.	0.679		Valid
	EP2: The tasks I have completed have met the work quality standards set by the company.	0.832		Valid
	EP3: I understand the work I have to complete.	0.840		Valid
	EP4: I understand the knowledge required to complete a specific task.	0.627		Valid
	EP5: I easily collaborate well in a team when working.	0.742		Valid
	EP6: I am willing to provide guidance to colleagues who need it.	0.666		Valid
	EP7: I am always present at work according to the specified schedule.	0.620		Valid
	EP8: I am present at work in accordance with the duration stipulated by applicable regulations.	0.789		Valid
EP9: I often provide input to companies regarding work completion.	0.743	Valid		

Outer loading values ranging from 0.400 to 0.700 can still be used if they do not lower the AVE (Average Variance Extracted) below 0.500. The AVE values for the variables are as follows: perceived organizational support at 0.512 (>0.5), training and development at 0.558 (>0.5), employee engagement at 0.502 (>0.5), and employee performance at 0.534 (>0.5). Based on Table 3, all indicators have outer loading values higher than 0.400 and AVE values higher than 0.500. Therefore, it can be stated that the convergent validity test has passed. Consequently, all indicators are valid in measuring their respective constructs (Hair et al., 2022).

Table 4. Discriminant Validity Test Results

Variable	Employee Engagement	Employee Performance	Perceived Organizational Support	Training and Development
Employee Engagement				
Employee Performance	0.640			
Perceived Organizational Support	0.622	0.566		
Training and Development	0.571	0.523	0.628	

Following the convergent validity test, discriminant validity testing ensures that each latent variable or construct is distinct from other variables. Discriminant validity is assessed by examining the Heterotrait-Monotrait (HTMT) ratio. Discriminant validity is satisfied if the HTMT value is less than 0.9 (Henseler et al., 2015). The results of the discriminant validity test are presented in Table 4. According to this table, all HTMT values are below 0.9. Therefore, it can be concluded that all constructs are valid and meet the criteria for discriminant validity.

Table 5. Reliability Test Results

Variable	Cronbach's alpha	Composite reliability	Information
Employee Engagement	0.916	0.928	Reliable
Employee Performance	0.888	0.911	Reliable
Perceived Organizational Support	0.840	0.880	Reliable
Training and Development	0.900	0.919	Reliable

The reliability test is conducted to measure the accuracy and consistency of responses. The accuracy and consistency of responses for each variable are essential to ensure that the instrument is reliable. The purpose of the reliability test is to determine the internal consistency of indicators in

measuring a particular construct or latent variable. A questionnaire is considered reliable and consistent if the Cronbach's Alpha value is greater than 0.70 and the Composite Reliability value is also greater than 0.70 (Hair et al., 2019). The statistical results of the reliability test are presented in the following Table 5 shows that all variables have a Cronbach's Alpha value greater than 0.7 and a Composite Reliability value greater than 0.7. Therefore, it can be concluded that all variables or constructs meet the established reliability criteria.

Table 6. Multicollinearity Test Results

Independent Variable	Dependent Variable		
	Employee Engagement	Employee Performance	Perceived Organizational Support
Employee Engagement		1,611	
Perceived Organizational Support	1.436	1.661	
Training and Development	1.436	1.607	1.00

The multicollinearity test aims to determine whether the variables in the study are correlated and have independent or interrelated relationships (Hair et al., 2019). If the Variance Inflation Factor (VIF) value is greater than 5, multicollinearity issues exist in the research model, which can affect the path coefficient values. However, if the VIF value is less than 3, there is no multicollinearity in the research model (Hair et al., 2022). Table 6 shows that the VIF values for all variables are less than 3. This indicates that the quality of the research model is acceptable and there are no multicollinearity issues.

Table 7. R Square Test Results

Variable	R-square	Criteria
Employee Engagement	0.379	Weak
Employee Performance	0.404	Weak
Perceived Organizational Support	0.304	Weak

R Square (R^2), or the coefficient of determination, indicates how much variance in the endogenous variables can be explained by the exogenous variables (Yamin, 2023). R^2 values can be categorized as substantial ($R^2 > 0.75$), moderate ($R^2 > 0.50$), and weak ($R^2 > 0.25$) (Hair et al., 2019). Table 7 presents the R^2 coefficients for this study. The results show that the variable employee engagement is weakly influenced by the exogenous variables perceived organizational support, training and development, and employee performance, with an R^2 value of 0.379 (37.9%). This indicates that 62.1% of the variance in employee engagement is explained by other factors outside the model. Similarly, the variable employee performance is weakly explained by the exogenous variables perceived organizational support, training and development, and employee engagement, with an R^2 value of 0.404 (40.4%). This means that 59.6% of the variance in employee performance is attributed to factors outside the model. Furthermore, the variable perceived organizational support is weakly explained by the exogenous variables training and development, employee engagement, and employee performance, with an R^2 value of 0.304 (30.4%). This indicates that 69.6% of the variance in perceived organizational support is due to factors outside the model.

Table 8. Q Square Test Results

Endogenous Variables	Q Square Predictive Relevance (Q^2)	Criteria
Employee Engagement	0.263	Currently Small
Employee Performance	0.210	Small
Perceived Organizational Support	0.284	Currently Small

Q Square (Q^2) measures the predictive relevance of the exogenous variables on the endogenous variables (Yamin, 2023). A Q^2 value greater than 0 indicates low predictive relevance, greater than 0.25 indicates medium predictive relevance, and greater than 0.50 indicates high predictive relevance (Hair et al., 2019). Table 8 presents the Q^2 values for this study. The results show that the Q^2 value for the variable employee engagement is 0.263, for employee performance is 0.210, and for perceived organizational support is 0.284. These values indicate that all Q^2 values are greater than 0, suggesting that the model has predictive relevance. Consequently, the model can be considered fit and suitable for further hypothesis testing.

Table 9. F Square Test Results

Independent Variable	Dependent Variable		
	Employee Engagement	Employee Performance	Perceived Organizational Support
Employee Engagement		0.167	
Perceived Organizational Support	0.157	0.034	
Training and Development	0.119	0.027	0.436

The effect size (F^2) measures the magnitude of the impact of exogenous/latent variables on endogenous variables at the structural level (Yamin, 2023). F^2 values are categorized as follows: $F^2 > 0.02$ indicates a small effect, $F^2 > 0.15$ indicates a medium effect, and $F^2 > 0.35$ indicates a large effect. If $F^2 \leq 0.02$, it suggests that the independent variable does not significantly influence the dependent variable (Hair et al., 2021). The variable employee engagement on employee performance has an F^2 value of 0.167 (> 0.15), indicating a medium effect. The variable perceived organizational support on employee engagement has an F^2 value of 0.157 (> 0.15), indicating a medium effect. The variable perceived organizational support on employee performance has an F^2 value of 0.034 (> 0.02), indicating a small effect. The variable training and development on employee engagement has an F^2 value of 0.119 (> 0.02), indicating a small effect. The variable training and development on employee performance has an F^2 value of 0.027 (> 0.02), indicating a small effect. The variable training and development on perceived organizational support has an F^2 value of 0.436 (> 0.35), indicating a large effect. These findings demonstrate that employee engagement, perceived organizational support, and training and development have varying degrees of influence on the different endogenous variables in the model.

Table 10. Hypothesis Test Results

Hypothesis	Path Coefficient	Original Sample	T-statistics	P-values	Information
H1	Perceived Organizational Support-> Employee Performance	0.185	2,598	0.005	Supported
H2	Perceived Organizational Support-> Employee Engagement	0.374	4,319	0,000	Supported
H3	Training and Development-> Perceived Organizational Support	0.551	5,572	0.000	Supported
H4	Training and Development-> Employee Engagement	0.325	4,939	0,000	Supported
H5	Employee Engagement-> Employee Performance	0.401	5,842	0.000	Supported
H6	Training and Development-> Employee Performance	0.161	2,314	0,010	Supported
H7	Perceived Organizational Support-> Employee Engagement-> Employee Performance	0.150	3,201	0,001	Supported
H8	Training and Development-> Employee Engagement-> Employee Performance	0.130	3,528	0.000	Supported

Hypothesis 1, a positive and significant relationship was established with a coefficient of 0.185, t-statistic of 2.598, and p-value of 0.005, supporting the hypothesis that perceived organizational support positively influences employee performance. Perceived organizational support can make employees feel valued and appreciated by the company, leading to better performance and exceeding routine roles (Ratnasari et al., 2023). Hypothesis 2, the results showed a significant positive relationship, with a coefficient of 0.374, t-statistic of 4.319, and p-value of 0.000, indicating that perceived organizational support significantly enhances employee engagement. Employees who receive organizational support are more likely to work harder and show higher engagement levels (Yamin & Pusparini, 2022). Hypothesis 3, a strong positive relationship was confirmed with a coefficient of 0.551, t-statistic of 5.572, and p-value of 0.000, supporting the hypothesis that training and development positively impact perceived organizational support. Training and development provided by the company serve as tangible evidence of organizational support. Hypothesis 4, the findings showed a significant positive relationship, with a coefficient of 0.325, t-statistic of 4.939, and p-value of 0.000, indicating that training and development significantly enhance employee engagement. Training and development are crucial for enhancing employee engagement. Improving employee competencies in line with business and industry needs is a priority for companies to navigate the dynamic business landscape (Azmy, 2022).

Hypothesis 5, the study confirmed a significant positive relationship, with a coefficient of 0.401, t-statistic of 5.842, and p-value of 0.000, supporting the hypothesis that employee engagement positively influences employee performance. Employee engagement reflects their enthusiasm and responsibility towards work, benefiting the company. Engaged employees proactively perform their tasks, leading to improved performance (Ghani et al., 2023). Hypothesis 6, a positive and significant relationship was found with a coefficient of 0.161, t-statistic of 2.314, and p-value of 0.010, supporting the hypothesis that training and development positively affect employee performance. Performance results from successfully completing tasks within one's responsibility and authority to achieve organizational goals. It involves a series of activities contributing to the organization and reflects how well tasks are performed (Lu et al., 2023). Hypothesis 7, the mediation effect was supported with a coefficient of 0.150, t-statistic of 3.201, and p-value of 0.001, indicating that employee engagement partially mediates the relationship between perceived organizational support and employee performance. When companies invest in and treat employees as valuable assets, employees feel happy and engaged in their work. Recognition and good relationships with colleagues and supervisors enhance their engagement, which is crucial for improving employee performance (Tensay & Singh, 2020). Hypothesis 8, the mediation effect was confirmed with a coefficient of 0.130, t-statistic of 3.528, and p-value of 0.000, indicating that employee engagement partially mediates the relationship between training and development and employee performance. Training and development aim to provide the necessary knowledge, skills, and abilities for the job, enabling the company to meet employees' needs. Benefits include introducing new work methods and improving work outcomes (Stirpe et al., 2022). Fully engaged employees are more motivated, committed, and focused. Employee engagement encompasses cognitive, emotional, and behavioral aspects guiding their actions (Rahman et al., 2020).

The Importance-Performance Matrix Analysis (IPMA) using SmartPLS 4.0 reveals that the variable of training and development falls in quadrant IV for both the constructs of employee engagement and employee performance. The IPMA results indicate that within employee engagement, the training and development indicators in quadrant IV are TD1 and TD9, and within employee performance, they are TD1, TD2, and TD9. This suggests that while these variables are important, their performance is lacking. Therefore, the company needs to enhance these aspects as they significantly impact employee performance. Employees perceive the training provided by the company as insufficient. To address this, the company should increase the frequency and quality of training sessions to meet employee expectations. There is a gap between the training offered and its relevance to employees' jobs. Introducing more specific training directly related to daily tasks

can improve the relevance and effectiveness of these programs. Employees also feel that support for continuing education is inadequate. The company could consider offering scholarship programs or additional courses to support long-term skill development. For existing training programs, the company should conduct a thorough evaluation to identify weaknesses and areas for improvement. Involving employees in the design of training programs can make them more relevant to their needs. Additionally, the company should enhance resources and facilities for continuing education, such as providing flexible time and access to online courses, and implement a continuous monitoring and feedback system. By focusing on these critical areas, the company can significantly improve overall employee performance.

CONCLUSION

In conclusion, this study explored the influence of perceived organizational support, training and development, and employee engagement on employee performance at PT XYZ. Data from 220 employees, collected via digital questionnaires and analyzed using SmartPLS 4.0, revealed that perceived organizational support significantly enhances both employee performance and engagement. Training and development were also found to positively impact perceived organizational support, employee engagement, and performance. Additionally, employee engagement was shown to improve performance and mediate the effects of perceived organizational support and training on performance. This study advances theoretical understanding in educational contexts and suggests that PT XYZ can improve employee performance by implementing and continuously refining comprehensive training programs.

This study has limitations, as it only examines three variables affecting employee performance. Future research could be improved by exploring other factors influencing employee performance in the company. The study also faces theoretical limitations due to the difficulty in accessing secondary data from journal references, publications, and news related to the application of sugar factories, as such studies are relatively rare, particularly in Cirebon, Indonesia. This research focuses exclusively on employees at PT XYZ's head office, and the analysis results are based on responses predominantly from male employees, which may not fully represent the entire workforce.

Suggestions for future research on this topic include expanding the scope to include permanent employees, temporary employees, and contract workers at PT XYZ, or extending the research to other manufacturing companies and sectors to gain a broader understanding of employees across various industries. Additionally, it is recommended that future studies balance the number of male and female respondents across different age groups, as each group has distinct characteristics. PT XYZ is advised to simultaneously implement the three variables—perceived organizational support, training and development, and employee engagement—to enhance employee performance.

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