

The Influence of Cross-Generational Leadership Styles on the Performance of Generation Z Employees Through Employee Engagement, Job Satisfaction, and Organizational Culture as Intervening Variables in the Coal Mining Industry at PT Khotai Makmur Insan Abadi Kutai Kartanegara

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Keywords

Leadership Styles
Employee Engagement
Job Satisfaction
Organizational Culture
Employee Performance

ABSTRACT

Employee performance refers to the level of success achieved by employees in completing their tasks, as reflected in the quality and quantity of work outcomes according to their roles, responsibilities, and organizational standards. This study aims to examine the effect of leadership styles on Generation Z employee performance, with employee engagement, job satisfaction, and organizational culture as intervening variables. The research employed a quantitative method with descriptive and verification approaches. The data sources consisted of primary and secondary data. Data were collected through interviews, questionnaires, and observations from a population of 135 employees. The sampling technique used was non-probability sampling with a purposive sampling method. The analytical tools used in this study were SPSS 25 for descriptive analysis and SmartPLS 4 for verification analysis. The measurement model (outer model) was evaluated using convergent validity, discriminant validity, Average Variance Extracted (AVE), composite reliability, and Cronbach's alpha. The structural model (inner model) was assessed using the coefficient of determination (R^2) and predictive relevance (Q^2). The results showed that leadership styles had positive and significant effects on employee engagement, job satisfaction, and organizational culture. Employee engagement and job satisfaction significantly influenced employee performance, whereas leadership styles and organizational culture did not have a direct significant effect on employee performance. Furthermore, organizational culture did not mediate the relationship between leadership styles and employee performance. In contrast, employee engagement and job satisfaction successfully mediated the effect of leadership styles on employee performance.

INTRODUCTION

The mining industry is a strategic sector that supports the national economy. Statistics Indonesia (Badan Pusat Statistik [BPS]) reported that mineral and coal mining contributed 7.8% to the Gross Domestic Product (GDP), employed 1.47 million direct workers, and

contributed 14.3% of foreign exchange earnings through exports. Nickel, copper, and coal are important commodities supporting national energy transition and downstream industrial development, as stipulated in Law No. 3/2020. However, despite its strategic role, the mining industry faces triple challenges involving safety, productivity, and human resource sustainability amid high-risk operations, complex 24/7 operational demands in remote areas, uncertainty surrounding the energy transition, and inherent fatality risks. These characteristics create extreme job demands that distinguish mining from other industrial sectors.

The Ministry of Energy and Mineral Resources (Kementerian Energi dan Sumber Daya Mineral [KESDM]) recorded a fatality rate of 0.11 per one million working hours in Indonesia's mining sector, which was three times higher than Australia's rate of 0.04. A significant proportion of mining accidents has been associated with human factors, including fatigue, non-compliance with Standard Operating Procedures (SOPs), and inadequate situational awareness. Systemic contributing factors include work rotation patterns such as 2-1 or 14-7 rosters with 12-hour shifts that may disrupt circadian rhythms, exposure to temperatures exceeding 35°C, silica dust, noise levels above 85 dB, and whole-body vibration. The World Health Organization (WHO) has classified mining work as an occupation involving extreme job demands. The cost of a single fatality may reach IDR 15–22 billion, excluding potential consequences such as suspension of a Mining Business License (Izin Usaha Pertambangan [IUP]) and disruption to the company's social license to operate.

One mining company in Indonesia, PT Khotai Makmur Insan Abadi, received recognition for its Community Development and Empowerment (Pengembangan dan Pemberdayaan Masyarakat [PPM]) program at the 2023 Indonesia Sustainable Development Award (ISDA). PT Khotai Makmur Insan Abadi is an open-pit coal mining company located in Kutai Kartanegara, East Kalimantan, with an operational area of 2,748 hectares. In the mining sector, coal extraction relies heavily on heavy equipment, but safety, productivity, and sustainability are ultimately determined by human resources. Without adaptive human resource management capable of addressing extreme operational risks and generational diversity, achieving zero harm and operational excellence becomes challenging. Therefore, PT Khotai Makmur Insan Abadi places strong emphasis on employee performance, productivity, and occupational safety.

According to Ratnasari et al. (2020), employee performance refers to the quality and quantity of work achieved by employees, either individually or collectively, in performing their duties according to organizational standards and procedures. In the mining industry, employee performance plays a critical role due to the high-risk and high-cost nature of operations, where inadequate performance may result in operational failures, safety incidents, regulatory sanctions, and financial losses. At PT Khotai Makmur Insan Abadi, employee performance from January 2025 to March 2026 consistently remained below the company's target range of 95%–100%. The lowest performance level was recorded in July 2025 at 78%, while the highest level was achieved in March 2025 at 92%, which still did not meet the expected standard. Although performance gradually improved over time, the company continued to implement various strategies to enhance employee productivity and effectiveness in achieving performance targets.

In the mining industry, employee performance is strongly influenced by employee engagement with their work. Employee engagement reflects employees' motivation, commitment, sense of responsibility, and level of involvement in performing their duties. In the mining sector, engagement is not only related to work satisfaction but also directly contributes to operational safety and productivity. According to Norawati and Fahraini (2022), employee commitment refers to a psychological condition experienced by employees that generates positive attitudes toward their organization, including identification with and loyalty to organizational goals.

Interviews with several employees indicated a high level of employee engagement and organizational commitment. This was demonstrated by employees' willingness to remain with the company and maintain its reputation despite challenging mining conditions, including heat exposure, dust, noise, 12-hour working shifts, separation from family, and occupational risks. Employees expressed commitment to completing their duties effectively and safely while maintaining the safety of themselves and their colleagues. Without adequate engagement, employees may experience fatigue, reduced concentration, and increased likelihood of violating safety procedures. Even a brief loss of attention while operating a 100-ton haul truck may result in a fatal accident. These findings are consistent with research conducted by Pardi et al. (2024), Zebua et al. (2025), Sudarijati et al. (2025), Nurmadani and Wakito (2025), Ariyesa and Marnisah (2025), Kurniadi (2025), and Anggraeni et al. (2025), which demonstrated that employee engagement influences employee performance. This is further supported by studies conducted by Wati et al. (2026), Sandi et al. (2026), and Putria et al. (2026), which found that employee engagement has a positive and significant effect on employee performance. High levels of employee engagement encourage employees to remain focused, comply with safety regulations, improve productivity, and maintain operational safety, particularly in the mining sector.

In the mining industry, job satisfaction directly affects employee performance. Job satisfaction is not determined solely by financial compensation but also by employees' perceptions of appreciation, fairness, suitability with their roles, relationships with supervisors, and working conditions. Employees who experience higher job satisfaction tend to demonstrate better performance, whereas dissatisfaction may reduce productivity and increase operational risks. According to Lubis et al. (2023), job satisfaction represents an individual's response to various aspects of work based on comparisons between actual workplace experiences and personal expectations.

Interviews with several employees revealed that most employees were generally satisfied with their jobs and working environment despite the challenging conditions of the mining industry, including remote locations, two-weeks-on and one-week-off work schedules, long working hours, extreme weather conditions, dust exposure, and high occupational risks. Employees stated that financial compensation alone was insufficient to maintain motivation when accompanied by unfair treatment, lack of recognition, or excessive criticism from supervisors. They also perceived job satisfaction as contributing to higher discipline, compliance with company regulations, and adherence to occupational safety procedures, such as equipment inspections and consistent use of personal protective equipment (PPE), thereby reducing workplace accidents. Employee job satisfaction was also reflected in attendance levels. From January 2025 to March 2026, employee attendance generally remained below the

company's target range of 95%–100%, with the lowest attendance rate recorded in July 2025 at 90% and the highest in March 2025 at 96%. Although attendance gradually improved, PT Khotai Makmur Insan Abadi continued implementing strategies to enhance attendance and achieve expected performance standards.

Satisfied employees are less likely to demonstrate absenteeism or turnover intentions. In mining operations, the absence of one operator may disrupt equipment utilization and create substantial productivity losses. Employees with higher job satisfaction tend to demonstrate stronger teamwork, greater willingness to assist colleagues, readiness to learn new operational practices, and increased awareness in reporting hazards. Consequently, job satisfaction contributes to improved productivity, operational efficiency, and achievement of company targets while maintaining compliance with safety requirements.

This finding aligns with research conducted by Pardi et al. (2024), Prastyorini et al. (2024), Nurdin et al. (2024), and Setiawan et al. (2024), which demonstrated that job satisfaction influences employee performance. Furthermore, studies by Zebua et al. (2025), Praditya et al. (2025), Alqorni et al. (2025), and Ariyesa and Marnisah (2025) confirmed that job satisfaction has a positive and significant effect on employee performance.

In the mining industry, organizational culture represents the shared values, behaviors, and working practices adopted by employees across organizational levels, from management to operational personnel. Organizational culture significantly influences employee performance because, in hazardous work environments, daily practices and behavioral norms often have stronger effects than formal written regulations. According to Robbins (in Pakpahan, 2022), organizational culture is a system of shared meanings held by organizational members that distinguishes one organization from another. Mining operations involve significant risks and require strict adherence to regulations and SOPs. However, a culture that prioritizes production targets over safety may encourage employees to disregard procedures. Conversely, a safety-oriented culture that encourages employees to stop unsafe work practices can strengthen compliance even without direct supervision. ICAM 2023 data indicated that cultural factors, including fear of reporting incidents, blame-oriented responses, and acceptance of unsafe shortcuts to achieve targets, contribute significantly to mining accidents.

Interviews with employees indicated that organizational culture at PT Khotai Makmur Insan Abadi had been strongly embedded, particularly regarding discipline, responsibility, and compliance with work procedures. The company also maintained a strong occupational safety culture that had become part of daily operational practices. One implementation of this culture was the routine safety talk activity conducted every Friday from 8:00 to 8:30 WITA (Waktu Indonesia Tengah). This mandatory activity involved all employees across office, pit, and port operations. Employees perceived safety talks as an important communication platform for reinforcing occupational safety awareness, discussing potential hazards, and strengthening compliance with Occupational Health and Safety (OHS) procedures. Through consistent implementation, the company's safety culture developed beyond formal requirements and became an embedded value reflected in employees' daily work behaviors.

Organizational culture functions as a mechanism that can either accelerate or constrain employee performance. A positive safety-oriented culture enables employees to work safely, consistently, and productively, whereas a negative culture may encourage unsafe behavior, fear of reporting, and employee dissatisfaction. This finding aligns with research conducted by

Pardi et al. (2024), Zebua et al. (2025), Fatin and Yanuar (2024), and Anggraeni et al. (2025), which demonstrated that organizational culture influences employee performance. This relationship was further supported by Sandi et al. (2026), who found that organizational culture has a positive and significant effect on employee performance.

METHOD

The research employed a quantitative method with descriptive and verification approaches. The data sources consisted of primary and secondary data. Data were collected through interviews, questionnaires, and observations from a population of 135 employees. The sampling technique used was non-probability sampling with a purposive sampling method. Data analysis was performed using SmartPLS 4 for verification analysis. The measurement model (outer model) was assessed using convergent validity, discriminant validity, Average Variance Extracted (AVE), composite reliability, and Cronbach's alpha. The structural model (inner model) was evaluated using the coefficient of determination (R^2) and predictive relevance (Q^2).

RESULT AND DISCUSSION

Measurement Model (Outer Model)

According to Junaidi (2018:42), a measurement model functions to measure the strength of the structure of the dimensions that form a factor/variable/construct. The primary objective of assessing a measurement model is to determine the validity and reliability of the measuring instrument (questionnaire) used. The measurement model will produce an assessment of convergent validity, discriminant validity, and reliability.

1. Validity

a. Convergent Validity

Table 1. Outer Loading

Indicator	Organizational Culture	Employee Engagement	Leadership	Job Satisfaction	Employee Performance
X1			0.907		
X2			0.860		
X3			0.869		
X4			0.896		
Y11		0.858			
Y12		0.914			
Y13		0.913			
Y14		0.744			
Y21				0.788	
Y22				0.867	
Y23				0.855	
Y24				0.766	
Y25				0.757	
Y26				0.759	
Y31	0.764				
Y32	0.857				
Y33	0.864				
Y34	0.787				
Y35	0.872				
Y36	0.777				
Y37	0.823				

Z1	0.807
Z2	0.723
Z3	0.847
Z4	0.794
Z5	0.784
Z6	0.723

Source: SmartPLS Output, 2026

According to Barclay et al. (in Santosa, 2018:83), the minimum value of an indicator's outer loading is 0.707, meaning that $0.72 \approx 50\%$ of an indicator's variability can be explained or absorbed by its latent variable. Based on Table 1, it can be concluded that the outer loadings in this study were all above 0.7, which is in accordance with the requirements. Therefore, the indicators of leadership (X), employee engagement (Y1), job satisfaction (Y2), organizational culture (Y3), and employee performance (Z) are declared valid.

b. AVE

Table 2. AVE

Variable	Average Variance Extracted (AVE)
Organizational Culture	0.675
Employee Engagement	0.739
Leadership	0.780
Job Satisfaction	0.640
Employee Performance	0.610

Source: SmartPLS Output, 2026

According to Hair et al. (in Santosa, 2018:83), using the same logic to determine the outer loading value, an AVE value of 0.5 or greater indicates that the construct explains more than half of the variance derived from its indicators. Based on Table 2, it can be concluded that the AVE values in this study are all above 0.5, which is in accordance with the requirements. Therefore, the indicators of leadership (X), employee engagement (Y1), job satisfaction (Y2), organizational culture (Y3), and employee performance (Z) are declared valid.

c. Discriminant Validity

Table 4.3 Cross-Loading

Indicator	Organizational Culture	Employee Engagement	Leadership	Job Satisfaction	Employee Performance
X1	0.749	0.328	0.907	0.687	0.389
X2	0.859	0.302	0.860	0.649	0.384
X3	0.675	0.437	0.869	0.734	0.565
X4	0.742	0.332	0.896	0.647	0.482
Y11	0.256	0.858	0.305	0.533	0.688
Y12	0.300	0.914	0.334	0.562	0.681
Y13	0.270	0.913	0.309	0.537	0.687
Y14	0.422	0.744	0.415	0.507	0.626
Y21	0.735	0.393	0.784	0.788	0.497
Y22	0.656	0.517	0.787	0.867	0.524
Y23	0.438	0.572	0.579	0.855	0.630
Y24	0.611	0.456	0.592	0.766	0.553
Y25	0.373	0.535	0.442	0.757	0.697
Y26	0.403	0.535	0.462	0.759	0.613
Y31	0.764	0.309	0.548	0.467	0.366

Y32	0.857	0.345	0.604	0.516	0.333
Y33	0.864	0.320	0.609	0.491	0.321
Y34	0.787	0.261	0.779	0.571	0.327
Y35	0.872	0.293	0.844	0.635	0.367
Y36	0.777	0.380	0.672	0.649	0.500
Y37	0.823	0.201	0.782	0.526	0.348
Z1	0.444	0.569	0.512	0.586	0.807
Z2	0.316	0.488	0.291	0.449	0.723
Z3	0.432	0.739	0.493	0.619	0.847
Z4	0.378	0.696	0.415	0.597	0.794
Z5	0.258	0.621	0.344	0.528	0.784
Z6	0.250	0.501	0.337	0.608	0.723

Source: SmartPLS Output, 2026

Barclay et al. (in Santosa, 2018:84) state that the loading value of an indicator for a construct must be greater than the loading value of that indicator for another construct, or for all indicators, the value must be at least 0.710, which means it exceeds the criteria. Based on Table 3, it can be concluded that the cross-loadings in this study were all above 0.710, which is in accordance with the requirements. Therefore, the leadership (X), employee engagement (Y1), job satisfaction (Y2), organizational culture (Y3), and employee performance (Z) indicators were declared valid.

2. Reliability

a. Composite Reliability and Cronbach's Alpha

Table 4. Composite Reliability and Cronbach's Alpha

Variable	Cronbach's Alpha	Composite Reliability
Organizational Culture	0.920	0.935
Employee Engagement	0.880	0.919
Leadership	0.906	0.934
Job Satisfaction	0.887	0.914
Employee Performance	0.872	0.903

Source: SmartPLS Output, 2026

According to Fornell et al. (in Santosa, 2018:152), item reliability is considered adequate if the correlation between an indicator and its latent variable is at least 0.7. George and Mallery (in Santosa, 2018:153) state that the minimum Cronbach's alpha value is 0.7. Based on Table 4, it can be concluded that the Composite Reliability and Cronbach's Alpha in this study were all above 0.7, which is in accordance with the requirements. Therefore, the variables leadership (X), employee engagement (Y1), job satisfaction (Y2), organizational culture (Y3), and employee performance (Z) are declared reliable. The following is an illustration of the outer model in this study.

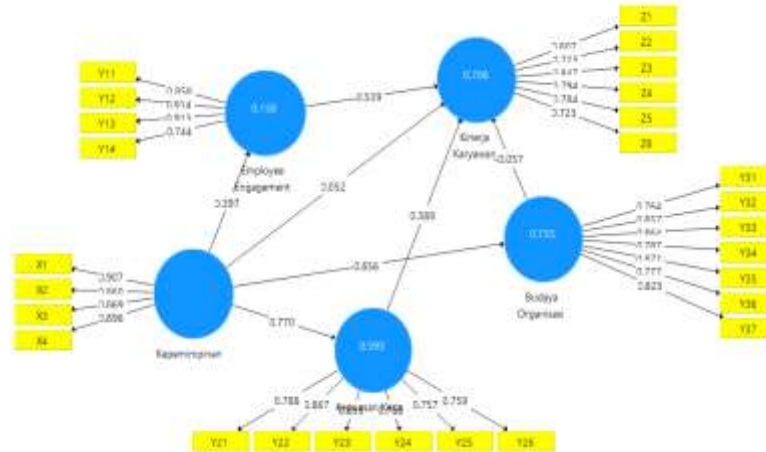


Figure 1. Measurement Model (Outer Model)

Source: SmartPLS Output, 2026

Structural Model (Inner Model)

According to Santosa (2018:184), structural model assessment is used to determine the path coefficient and determination coefficient. This structural model can be explained through structural equations, as in regression analysis. These structural equations describe the predictions of latent (exogenous) independent variables against latent (endogenous) dependent variables. The structural model or inner model testing in this study is as follows:

1. Coefficient of Determination (R^2)

Table 5. Coefficient of Determination (R^2)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.833	0.694		0.687
				3.077

a. Predictors: (Constant), Organizational Culture, Employee Engagement, Job Satisfaction

Source: SmartPLS Output, 2026

According to Sahir (2021:54), the coefficient of determination, often symbolized by R^2 , essentially measures the extent of the influence of the independent variables on the dependent variable. Based on Table 5, it can be concluded that the coefficient of determination of employee engagement, job satisfaction, and organizational culture on employee performance in this study is 0.694. The coefficient of determination formula is as follows:

$$KP = R^2 \times 100\%$$

$$KP1 = 0.694 \times 100\% = 69.4\%$$

Therefore, it can be concluded that the influence of employee engagement, job satisfaction, and organizational culture on employee performance is 69.4%, while 30.6% is influenced by other factors.

Table 6. Coefficient of Determination (R^2)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.833 ^a	.694	.685	3.088

a. Predictors: (Constant), Leadership, Employee Engagement, Job Satisfaction, Organizational Culture

Source: SmartPLS Output, 2026

Based on Table 6, it can be concluded that the coefficient of determination of leadership, employee engagement, job satisfaction, and organizational culture on employee performance in this study is 0.694. The coefficient of determination formula is as follows:

$$KP = R^2 \times 100\%$$

$$KP2 = 0.694 \times 100\% = 69.4\%$$

Therefore, it can be concluded that the influence of leadership, employee engagement, job satisfaction, and organizational culture on employee performance is 69.4%, while 30.6% is influenced by other factors.

2. Predictive Relevance (Q^2)

According to Santosa (2018:97), the assessment of the Q^2 value is based on the following assumption, if the Q^2 value is greater than 0, then the endogenous construct has predictive relevance. If the Q^2 value is equal to or less than 0, it indicates no predictive relevance. To calculate the Q-square value, use the following formula:

$$Q^2 = 1 - (1 - (R_{Square})^2)$$

$$Q^2_1 = 1 - (1 - (0,694)^2) = 0,482$$

$$Q^2_2 = 1 - (1 - (0,694)^2) = 0,482$$

Therefore, it can be concluded that the construct has predictive relevance, as defined by the following assumption: If the Q^2 value is greater than 0, then the endogenous construct has predictive relevance. The following is a diagram of the inner model in this study:

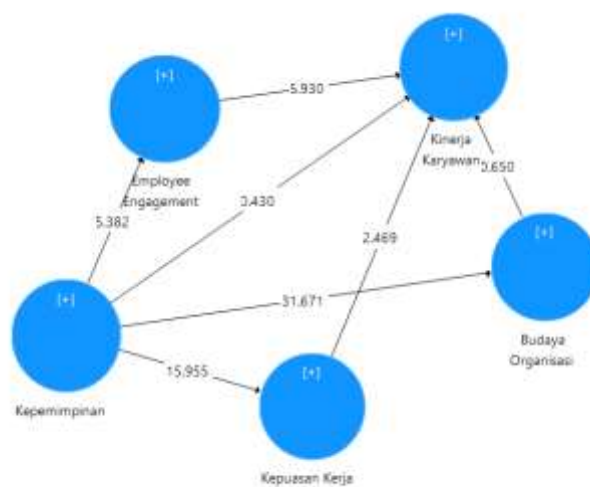


Figure 2. Structural Model (Inner Model)

Source: SmartPLS Output, 2026

Hypothesis Testing

Table 7. Direct and Indirect

	T Statistics (O/STDEV)	P Values	Ha
Organizational Culture -> Employee Performance	0.660	0.509	Rejected
Employee Engagement -> Employee Performance	6.150	0.000	Accepted
Leadership -> Organizational Culture	30.057	0.000	Accepted
Leadership -> Employee Engagement	5.083	0.000	Accepted
Leadership -> Job Satisfaction	16.213	0.000	Accepted
Leadership -> Employee Performance	0.433	0.665	Rejected

Job Satisfaction -> Employee Performance	2.674	0.008	Accepted
Leadership -> Organizational Culture -> Employee Performance	0.658	0.511	Rejected
Leadership -> Employee Engagement -> Employee Performance	4.843	0.000	Accepted
Leadership -> Job Satisfaction -> Employee Performance	2.483	0.013	Accepted

Source: SmartPLS Output, 2026

According to Sahir (2021:26), hypothesis testing aims to find the final answer to research questions using appropriate methods. If the hypothesis aligns with the facts, it is called confirmation. A significance value greater than 0.05 means H_0 is accepted and H_a is rejected. If the significance value is less than 0.05, H_0 is rejected and H_a is accepted. Based on table 7 it can be described as follows:

1. The significance value of the leadership variable (X) is 0.000, which is less than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a1} is accepted. Therefore, leadership (X) has a positive and significant effect on employee engagement (Y1).
2. The significance value of the leadership variable (X) is 0.000, which is less than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a2} is accepted. Therefore, leadership (X) has a positive and significant effect on job satisfaction (Y2).
3. The significance value of the leadership variable (X) is 0.000, which is less than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a3} is accepted. Therefore, leadership (X) has a positive and significant effect on organizational culture (Y3).
4. The significance value of the leadership variable (X) is 0.665, which is greater than 0.05. Therefore, it can be concluded that H_0 is accepted and H_{a4} is rejected. Therefore, leadership (X) has no effect on employee performance (Z).
5. The significance value of the employee engagement variable (Y1) is 0.000, which is less than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a5} is accepted. Therefore, employee engagement (Y1) has a positive and significant effect on employee performance (Z).
6. The significance value of the job satisfaction variable (Y2) is 0.008, which is less than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a6} is accepted. Therefore, job satisfaction (Y2) has a positive and significant effect on employee performance (Z).
7. The significance value of the organizational culture variable (Y3) is 0.509, which is greater than 0.05. Therefore, it can be concluded that H_0 is accepted and H_{a7} is rejected. Therefore, organizational culture (Y3) does not have a positive and significant effect on employee performance (Z).
8. The significance value of the leadership variable (X) on employee performance (Z) through employee engagement (Y1) is 0.000, which is less than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a10} is accepted. Thus, employee engagement (Y1) can mediate leadership (X) on employee performance (Z).
9. The significance value of the leadership variable (X) on employee performance (Z) through job satisfaction (Y2) is 0.013, which is smaller than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a11} is accepted. Therefore, job satisfaction (Y) can mediate leadership (X) on employee performance (Z).

10. The significance value of the leadership variable (X) on employee performance (Z) through organizational culture (Y3) is 0.511, which is greater than 0.05. Therefore, it can be concluded that H_0 is accepted and H_{a12} is rejected. Therefore, organizational culture (Y3) cannot mediate leadership (X) on employee performance (Z).

The Influence of Leadership on Employee Engagement

The research results show that the significance value of the leadership variable (X) is 0.000, which is less than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a1} is accepted. Therefore, leadership (X) has a positive and significant effect on employee engagement (Y1). According to Mulyasa (in Elfrianto et al., 2023), leadership is the activity of influencing and directing subordinates to achieve organizational goals. Effective leadership can create harmonious working relationships, increase a sense of belonging to the organization, and encourage employee loyalty. In the context of Generation Z, a communicative, participatory, and adaptive leadership style will increase employees' emotional attachment to the organization, thereby increasing their commitment. This is in line with research conducted by (Karma et al., 2025), (Amalia & Cahyoadi, 2025), (Sudarijati et al., 2025), (Nursapni et al., 2026), (Shakoor, 2026), (Agarwal et al., 2025), and (Reinati et al., 2026), which showed that leadership influences employee commitment or employee engagement.

The Influence of Leadership on Job Satisfaction

The research results show that the significance value of the leadership variable (X) is 0.000, which is less than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a2} is accepted. Therefore, leadership (X) has a positive and significant effect on job satisfaction (Y2). According to Saleh (2023:161), leadership style is a leader's pattern of actions reflected through attitudes, skills, and behaviors in influencing subordinates. Good leadership can create a comfortable work environment, effective communication, and employee support, thereby increasing job satisfaction. Generation Z tends to prefer leaders who are open, supportive, and provide opportunities for growth. This is in line with research conducted by Akbar et al., (2026); Daniyati et al., (2022); Fajar et al., (2025); Fatin & Yanuar, (2025); Jumawan & Fauzan, (2024); Permana et al., (2026); Rahmawati et al., (2026); Setiawan et al., (2024); Shakoor, (2026); and Wujarso et al., (2025), which shows that leadership influences job satisfaction.

The Influence of Leadership on Organizational Culture

The research results show that the significance value of the leadership variable (X) is 0.000, which is less than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a3} is accepted. Therefore, leadership (X) has a positive and significant effect on organizational culture (Y3). According to Robbins (in Pakpahan, 2022:34), organizational culture is a system of shared meanings held by organizational members. Leaders play a crucial role in shaping values, norms, and work habits within an organization. Effective leadership will create an organizational culture that is positive, collaborative, and adaptive to change. This is in line with research conducted by Anggraeni et al., (2025); Amalia & Cahyoadi, (2025); Chaidir et al., (2024); Rahmawati et al., (2026); Randy & Nur, (2024); and Sandi et al., (2026), which shows that leadership influences organizational culture.

The Influence of Leadership on Employee Performance

The research results show that the significance value of the leadership variable (X) is 0.665, which is greater than 0.05. Therefore, it can be concluded that H_0 is accepted and H_{a4} is rejected. Therefore, leadership (X) does not affect employee performance (Z). This is because in this study, other factors, namely employee engagement and job satisfaction, significantly influence employee performance.

The Effect of Commitment on Employee Performance

The research results show that the significance value of the employee engagement variable (Y1) is 0.000, which is less than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a5} is accepted. Therefore, employee engagement (Y1) has a positive and significant effect on employee performance (Z). According to Norawati & Fahraini (2022:56), employee commitment is a psychological condition that fosters loyalty and attachment to the organization. Employees with high commitment will work optimally, be responsible, and strive to achieve organizational goals, thus impacting improved performance. This is in line with research by Ariyasa & Marnisah, (2025), Kurniadi, (2025), Nurmadani & Waskito, (2025), Nursapni et al., (2026), Permana et al., (2026), Reinati et al., (2026), Wati et al., (2026), and Zebua et al., (2025), which shows that commitment influences employee performance.

The Effect of Job Satisfaction on Employee Performance

The research results show that the significance value of the job satisfaction variable (Y2) is 0.008, which is smaller than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a6} is accepted. Therefore, job satisfaction (Y2) has a positive and significant effect on employee performance (Z). According to Kinicki and Fugate (in Lubis et al., 2023:28), job satisfaction is an emotional response to work. Employees who are satisfied with their jobs will have higher work enthusiasm, thereby improving the quality and quantity of work. This is in line with research by Alqorni et al., (2025), Akbar et al., (2026), Ariyasa & Marnisah, (2025), Fatin & Yanuar, (2025), Nurdin et al., (2024), Permana et al., (2026), Praditya et al., (2025), and Setiawan et al., (2024), which shows that job satisfaction influences employee performance.

The Influence of Organizational Culture on Employee Performance

The research results show that the significance value of the organizational culture variable (Y3) is 0.509, which is greater than 0.05. Therefore, it can be concluded that H_0 is accepted and H_{a7} is rejected. Thus, organizational culture (Y3) does not have a positive and significant effect on employee performance (Z). This is because in this study, other factors, namely employee engagement and job satisfaction, significantly influence employee performance.

The Influence of Commitment, Satisfaction, and Organizational Culture on Employee Performance

The results of this study indicate that the coefficient of determination for employee engagement, job satisfaction, and organizational culture on employee performance in this study was 0.694. Therefore, it can be concluded that employee engagement, job satisfaction, and organizational culture influence employee performance by 69.4%, while other factors contribute to the remaining 30.6%. Commitment, job satisfaction, and organizational culture are important factors that can influence employee behavior and work outcomes. Employees who are highly committed, satisfied with their jobs, and work within a positive organizational

culture are more likely to produce optimal performance. This is in line with research by Pardi et al., (2024), Permana et al., (2026), Sandi et al., (2026), and Zebua et al., (2025) which shows that commitment, job satisfaction, and organizational culture influence employee performance.

The Influence of Leadership, Commitment, Satisfaction, and Organizational Culture on Employee Performance

The research results show that the coefficient of determination for leadership, employee engagement, job satisfaction, and organizational culture on employee performance in this study was 0.694. Therefore, it can be concluded that leadership, employee engagement, job satisfaction, and organizational culture influence employee performance by 69.4%, while other factors influence the remaining 30.6%. Effective leadership can build commitment, increase job satisfaction, and create a positive organizational culture, which in turn impacts employee performance. In modern organizations, especially among Generation Z, the combination of these factors is crucial for organizational success in achieving its goals. This is in line with research by Akbar et al., (2026), Anggraeni et al., (2025), Fatin & Yanuar, (2025), Karma et al., (2025), Permana et al., (2026), Sandi et al., (2026), and Wati et al., (2026) showing that leadership, commitment, job satisfaction, and organizational culture influence employee performance.

The Effect of Leadership on Employee Performance Through Commitment as an Intervening Variable

The research results show that the significance value of the leadership variable (X) on employee performance (Z) through employee engagement (Y1) is 0.000, which is less than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a10} is accepted. Therefore, employee engagement (Y1) can mediate leadership (X) on employee performance (Z). Good leadership can increase employee loyalty and attachment to the organization, thereby fostering commitment, which can improve employee performance. Thus, employee engagement can be an intervening variable between leadership and performance. This is in line with research by Nursapni et al., (2026); Reinati et al., (2026); and Sudarijati et al., (2025), which shows that employee engagement mediates the influence of leadership on employee performance

The Influence of Leadership on Employee Performance Through Job Satisfaction as an Intervening Variable

The research results show that the significance value of the leadership variable (X) on employee performance (Z) through job satisfaction (Y2) is 0.013, which is smaller than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a11} is accepted. Therefore, job satisfaction (Y2) can mediate the influence of leadership (X) on employee performance (Z). Effective leadership will create a sense of comfort and job satisfaction for employees. This job satisfaction encourages employees to work more optimally, thereby improving performance. Therefore, job satisfaction can be an intervening variable in the relationship between leadership and performance. This is in line with research by Akbar et al., (2026), Fatin & Yanuar, (2025), Prastyorini et al., (2024), and Setiawan et al., (2024), which shows that job satisfaction mediates the influence of leadership on performance

The Influence of Leadership on Employee Performance Through Organizational Culture as an Intervening Variable

The research results show that the significance value of the leadership variable (X) on employee performance (Z) through organizational culture (Y3) is 0.511, which is greater than 0.05. Therefore, it can be concluded that H_0 is accepted and H_{a12} is rejected. Therefore, organizational culture (Y3) cannot mediate leadership (X) on employee performance (Z). This is because organizational culture has no effect on employee performance compared to employee engagement and job satisfaction in this study.

CONCLUSION

The results of this study can be summarized as follows: Leadership was found to have a positive and significant effect on employee engagement, job satisfaction, and organizational culture. Furthermore, employee engagement and job satisfaction had positive and significant effects on employee performance. However, leadership style and organizational culture did not have significant direct effects on employee performance. In addition, employee engagement and job satisfaction successfully mediated the relationship between leadership style and employee performance, whereas organizational culture did not mediate this relationship.

The results showed that the coefficient of determination (R^2) of employee engagement, job satisfaction, and organizational culture on employee performance was 0.694. This indicates that employee engagement, job satisfaction, and organizational culture explained 69.4% of the variance in employee performance, while the remaining 30.6% was explained by other factors outside the research model. Furthermore, the coefficient of determination (R^2) of leadership style, employee engagement, job satisfaction, and organizational culture on employee performance was also 0.694, indicating that these variables collectively explained 69.4% of the variance in employee performance, with 30.6% influenced by other factors not examined in this study.

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