

The Effect of Green Employee Participation, Training, and Career Development on Sustainable Employee Performance Mediated by Job Satisfaction at Airnav Indonesia Jatsc Branch

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ABSTRACT

This study aims to examine the direct effects of Green Employee Involvement, Training, and Career Development on Job Satisfaction, as well as their direct influence on Sustainable Employee Performance. In addition, the study analyses the indirect effects of Green Employee Involvement, Training, and Career Development on Sustainable Employee Performance through Job Satisfaction as a mediating variable. The research employs a quantitative approach with a causal design. The population consists of 415 Air Traffic Controller (ATC) employees at AirNav Indonesia, Jakarta Air Traffic Services Center (JATSC) Branch. Using the Slovin formula, a total sample of 204 respondents was obtained through probability sampling. Data were collected using a structured questionnaire and analysed using Structural Equation Modelling - Partial Least Squares (SEM-PLS) with SmartPLS version 4 software. The results of the study indicate that: 1) Green Employee Involvement has a positive and significant effect on Job Satisfaction; 2) Training has a positive and significant effect on Job Satisfaction; 3) Career Development has a positive and significant effect on Job Satisfaction; 4) Green Employee Involvement has a positive and significant effect on Sustainable Employee Performance; etc. These findings suggest that management at AirNav Indonesia should continue to optimise Green HRM practices, training programmes, and career development initiatives to enhance job satisfaction and sustainable employee performance among ATC personnel.

INTRODUCTION

The Indonesian aviation industry plays a vital role in strengthening national and international connectivity and is a key driver of economic growth. AirNav Indonesia, as an air navigation service provider, bears a significant responsibility in ensuring the safety and smooth flow of air traffic. In facing the dynamics of globalization and post-pandemic challenges, optimal human resource (HR) management is crucial, especially for Air Traffic Controllers (ATCs) who work under high pressure. Performance data shows significant fluctuations in employee performance, underscoring the importance of an adaptive HR management approach.

The post-pandemic situation has placed additional pressure on AirNav Indonesia. Although aircraft movements increased in 2022–2023, the number of safety incidents also increased, highlighting the need to improve human resource quality. Data from the ATC Branch of JATSC shows a sharp decline in the number of High Performers, from 99% in 2022 to just 23% in 2023, although it rebounded to 82% in 2024. This fluctuation confirms that work environment factors, psychological stress, and organizational support significantly impact employee performance.

Important factors thought to influence sustainable employee performance include employee engagement (Green Employee Involvement), training, and career development. Employee engagement can increase motivation and a sense of belonging to the organization, while ongoing training supports the strengthening of technical and non-technical skills relevant to aviation safety. Furthermore, a clear career path can increase job satisfaction while encouraging long-term employee loyalty and commitment.

Pre-surveys and initial interviews revealed gaps in the implementation of these programs. Many employees considered the training received inadequate and inapplicable, while the career development system was deemed intransparent and poorly communicated. Furthermore, employee involvement in strategic decision-making remains limited, which can reduce intrinsic motivation and job satisfaction. These findings reinforce the need for more targeted, participatory, and sustainability-based HR policies.

By considering this phenomenon, this study attempts to analyze the influence of Green Employee Involvement, Training, and Career Development on Sustainable Employee Performance with Job Satisfaction as a mediating variable. This study is expected to not only provide theoretical contributions in the development of Green Human Resource Management (GHRM) studies, but also provide practical contributions for AirNav Indonesia in developing more adaptive, sustainable HR policies, and support the improvement of job satisfaction and employee performance in high-risk work environments such as ATC.

LITERATURE REVIEW

Sustainability

Sustainability has evolved from the traditional practices of ancient societies that instinctively maintained harmony with nature. Global awareness of the

importance of sustainability intensified in the 1960s, sparked by landmark works such as Rachel Carson's *Silent Spring* and Paul Ehrlich's *The Population Bomb*. Both works sparked widespread debate about the ecological consequences of uncontrolled population growth and resource exploitation (Griep et al., 2025; Mahmood et al., 2019).

Green Employee Involvement

Green Employee Involvement is a human resource management practice that integrates the principles of sustainability and environmental awareness into the organization's policies and activities. According to Nisar et al. (2021), this concept covers various aspects, such as green recruitment, environmentally based training, career development that supports sustainability, as well as active employee involvement in various pro-environmental initiatives in the workplace.

Besides that, Yuan et al. (2023) also stated that employee involvement in green activities can strengthen an environmentally oriented organizational culture, increase job satisfaction, and support the company's overall sustainability performance.

Training

Training Green orientation is a training process that equips employees with the skills and knowledge to apply sustainability principles in their daily work. This training aims to create an environmentally conscious, adaptive, and competent workforce in environmentally friendly practices (Pinzone et al., 2016).

Career Development

Career development that supports sustainability allows employees to see long-term prospects within the organization. This includes a promotion system, job rotation opportunities, and advanced training that supports ongoing personal and professional development (Permadi & Agustina, 2024).

Job Satisfaction

Job satisfaction is an employee's positive attitude toward their job, which includes feelings about the work environment, rewards, social relationships, and development opportunities. According to Abdelhamied et al. (2023) Job satisfaction plays an important role in increasing employee loyalty, engagement, and performance.

Sustainable Employee Performance

Sustainable Employee Performance is the extent to which an individual can complete their work tasks effectively and efficiently over the long term. According to Isrososiawan et al. (2003) Employee performance is the result of a combination of skills, motivation, work environment conditions, and organizational support. Furthermore, performance is also influenced by role clarity, reward systems, career development opportunities, and employee job satisfaction. Optimal performance reflects a real contribution to achieving

organizational goals, maintaining competitive advantage, and driving continuous productivity growth. In line with this, research conducted by Wahyono et al. (2024) showed that organizational learning and organizational commitment had a positive and significant influence on improving employee performance. This finding reinforces the understanding that, in addition to individual abilities, systemic support from the organization also plays a crucial role in shaping optimal employee performance.

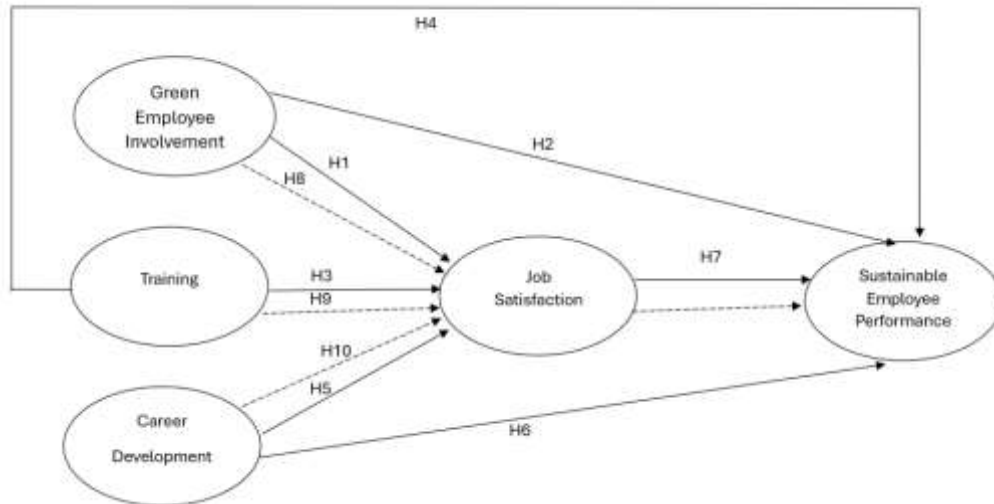


Figure 1. Research Framework
 Source: Data processed by the author (2025)

METHODOLOGY

This study uses a quantitative approach with a causality design to analyze the influence of Green Employee Involvement, Training, and Career Development on Sustainable Employee Performance, with Job Satisfaction as a mediating variable. The research variables are operationally defined through indicators adapted from previous literature, measured using a Likert scale.

The study population was 415 Air Traffic Controller (ATC) employees at AirNav Indonesia's Jakarta Air Traffic Services Center (JATSC) branch. The sample was determined using the Slovin formula, resulting in 204 respondents using a probability sampling method. Data collection was conducted through a structured questionnaire distributed directly to respondents.

The research instrument was tested for validity and reliability, then the data was analyzed using Structural Equation Modeling - Partial Least Squares (SEM-PLS) with the help of SmartPLS version 4 software. The analysis was carried out in two stages, namely the outer model test (convergent validity, discriminant validity, and construct reliability) and the inner model test (hypothesis test, R-square, Q-square, and path significance).

With this method, the research attempts to ensure that the causal relationship between variables can be tested empirically, both direct and indirect influences through Job Satisfaction as a mediator.

RESEARCH RESULTS

SEM-PLS (Partial Least Square) Data Analysis Results

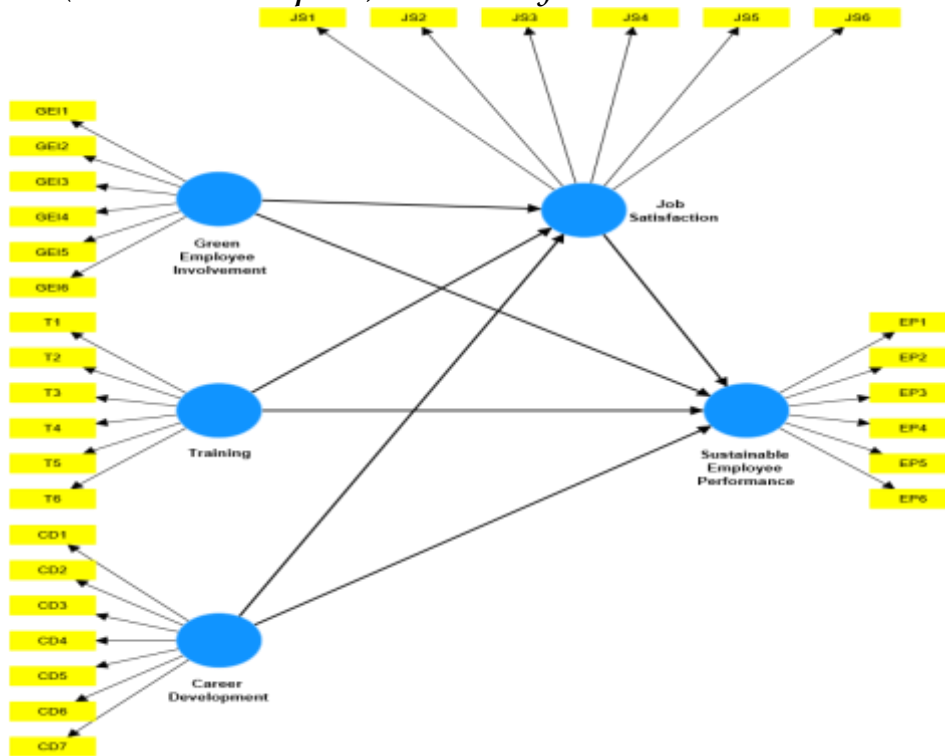


Figure 2. PLS SEM Model Specifications
 Source: Data processed by researchers using SmartPLS, 2025

The following will present the results of all stages of data analysis carried out using SmartPLS 4 to answer the hypothesis or research problem.

Measurement Model Test Results (Outer Model)

Validity Test

1. Convergent Validity Test

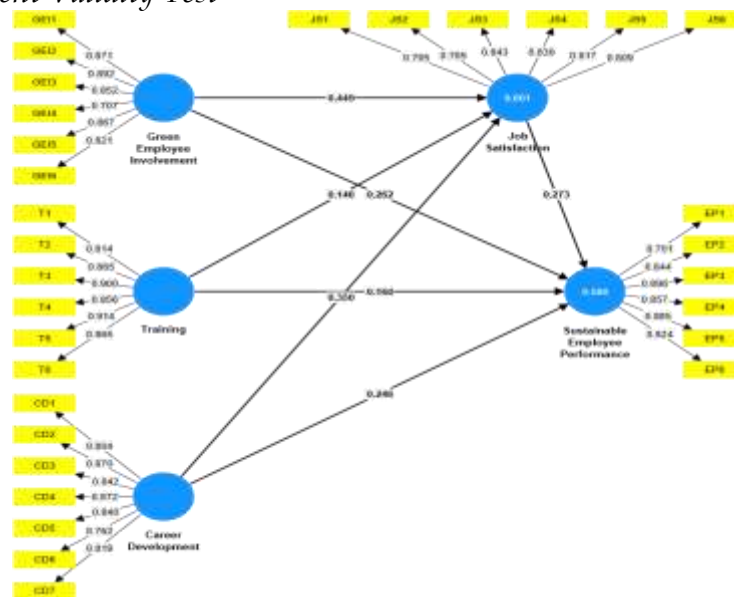


Figure 3. Results Outer Loading
 Source: Data processed by researchers using SmartPLS, 2025

Based on Figure 3 regarding the outer loading results above, it can be explained in more detail in the following table.

Table 1. Test Results *Outer Loading*

Variables	Indicator	Outer Loading	Condition	Information
<i>Green Employee Involvement</i>	GEI1	0.871	> 0.50	Valid
	GEI2	0.892	> 0.50	Valid
	GEI3	0.852	> 0.50	Valid
	GEI4	0.707	> 0.50	Valid
	GEI5	0.867	> 0.50	Valid
	GEI6	0.821	> 0.50	Valid
<i>Training</i>	T1	0.814	> 0.50	Valid
	T2	0.865	> 0.50	Valid
	T3	0.900	> 0.50	Valid
	T3	0.856	> 0.50	Valid
	T4	0.914	> 0.50	Valid
	T6	0.865	> 0.50	Valid
<i>Career Development</i>	CD1	0.804	> 0.50	Valid
	CD2	0.870	> 0.50	Valid
	CD3	0.842	> 0.50	Valid
	CD4	0.872	> 0.50	Valid
	CD5	0.840	> 0.50	Valid
	CD6	0.762	> 0.50	Valid
	CD7	0.819	> 0.50	Valid
<i>Job Satisfaction</i>	JS1	0.795	> 0.50	Valid
	JS2	0.785	> 0.50	Valid
	JS3	0.843	> 0.50	Valid
	JS4	0.830	> 0.50	Valid
	JS5	0.817	> 0.50	Valid
	JS6	0.809	> 0.50	Valid
<i>Sustainable Employee Performance</i>	EP1	0.701	> 0.50	Valid
	EP2	0.844	> 0.50	Valid
	EP3	0.896	> 0.50	Valid
	EP4	0.857	> 0.50	Valid
	EP5	0.885	> 0.50	Valid
	EP6	0.824	> 0.50	Valid

Source: Data processed by researchers using SmartPLS, 2025

Based on the figure and table above, it can be seen that all outer loading values resulting from the variable indicators Green Employee Involvement, Training, Career Development, Sustainable Employee Performance, and Job Satisfaction are >0.7. This proves that all variable indicators used in this study are valid and can be used for hypothesis testing and have met convergent validity.

2. Discriminant Validity Test

Table 2. Cross Loading Values of All Variables and Research Model Constructs

Indicator	<i>Green Employee Involvement</i>	<i>Training</i>	<i>Career Development</i>	<i>Job Satisfaction</i>	<i>Sustainable Employee Performance</i>	Information
GEI1	0.871	0.271	0.491	0.582	0.574	Valid
GEI2	0.892	0.320	0.498	0.632	0.586	Valid
GEI3	0.852	0.261	0.480	0.516	0.540	Valid
GEI4	0.707	0.246	0.420	0.560	0.469	Valid
GEI5	0.867	0.292	0.485	0.635	0.545	Valid
GEI6	0.821	0.307	0.477	0.567	0.528	Valid
T1	0.232	0.814	0.177	0.274	0.335	Valid
T2	0.358	0.865	0.286	0.348	0.433	Valid
T3	0.345	0.900	0.342	0.427	0.424	Valid
T4	0.265	0.856	0.272	0.347	0.354	Valid
T5	0.319	0.914	0.295	0.387	0.373	Valid
T6	0.224	0.865	0.281	0.335	0.363	Valid
CD1	0.367	0.214	0.804	0.496	0.481	Valid
CD2	0.449	0.249	0.870	0.529	0.518	Valid
CD3	0.367	0.235	0.842	0.494	0.503	Valid
CD4	0.610	0.315	0.872	0.613	0.584	Valid
CD5	0.397	0.192	0.840	0.495	0.466	Valid
CD6	0.523	0.307	0.762	0.560	0.513	Valid
CD7	0.547	0.332	0.819	0.578	0.547	Valid
JS1	0.706	0.370	0.593	0.795	0.627	Valid
JS2	0.531	0.368	0.469	0.785	0.475	Valid
JS3	0.499	0.361	0.510	0.843	0.514	Valid
JS4	0.490	0.299	0.555	0.830	0.507	Valid
JS5	0.588	0.344	0.469	0.817	0.591	Valid
JS6	0.547	0.255	0.565	0.809	0.583	Valid
EP1	0.555	0.410	0.563	0.648	0.701	Valid
EP2	0.554	0.364	0.526	0.538	0.844	Valid
EP3	0.512	0.339	0.484	0.528	0.896	Valid
EP4	0.546	0.314	0.559	0.620	0.857	Valid
EP5	0.542	0.389	0.539	0.571	0.885	Valid
EP6	0.515	0.378	0.432	0.478	0.824	Valid

Source: Data processed by researchers using SmartPLS, 2025

Based on the table above, it can be seen that all construct correlation values with their indicators are greater than the correlation values with other constructs. Thus, it can be concluded that all latent constructs show good discriminant validity because they can predict indicators in their blocks better than indicators in other blocks. Discriminant validity testing can also be conducted using the Fornell-Larcker criterion to determine whether latent variables have adequate discriminant power, namely by looking at the square root of the AVE value of a construct with other constructs. The Fornell-Larcker criterion method is a

recommended measurement method for comparing the correlation between each latent variable in the model and the square root of its AVE value. When each variable's square root of its AVE value exceeds the correlation value between that variable and the other variables in the model, the model is considered to have excellent discriminant validity (Hair et al., 2021).

The discriminant validity findings between the indicators and their corresponding constructs, as determined by the Fornell-Larcker criterion values, are as follows.

Table 3. Fornell-Larcker Criterion Values of All Research Variables

	Career Development	Green Employee Involvement	Job Satisfaction	Sustainable _Employee _Performance	Traini ng
Career Development	0.831				
Green Employee Involvement	0.569	0.837			
Job Satisfaction	0.652	0.697	0.813		
Sustainable _Employee _Performance	0.625	0.647	0.682	0.837	
Training	0.322	0.339	0.410	0.440	0.870

Source: Data processed by researchers using SmartPLS, 2025

The AVE value of each variable by itself is higher than the correlation value with other factors, as the above table demonstrates. Consequently, it can be said that, according to the Fornell-Larcker criterion, all of the variables in this research model exhibit strong discriminant validity. Examining the Herterotrait-Monotrait Ratio (HTMT) value is the next step in the validity test process. Since the necessary HTMT ratio is less than 0.90, the discriminant validity evaluation is satisfied (Hair et al., 2021).

Table 4. Mark Herterotrait-Monotrait Ratio (HTMT) of All Research Variables

	Career Development	Green Employee Involvement	Job Satisfaction	Sustainable _Employee _Performance	Training
Career Development					
Green Employee Involvement	0.611				
Job Satisfaction	0.707	0.760			
Sustainable _Employee _Performance	0.671	0.705	0.739		
Training	0.337	0.361	0.442	0.471	

Source: Data processed by researchers using SmartPLS, 2025

Based on the validity test using the HTMT parameter, the HTMT values of all variables in this study did not exceed the minimum required value, which is <0.90. Therefore, it can be said that the research model formed from all the variables above is valid.

The next discriminant validity test is to look at the Average Variance Extracted (AVE) value. An AVE value is considered good if it is greater than 0.5. The following are the AVE values for all research variables.

Table 5. AVE (Average Variance Extraction) Value of Research Model

Variables	AVE (Average Variance Extracted)
<i>Green Employee Involvement</i>	0.701
<i>Training</i>	0.756
<i>Career Development</i>	0.690
<i>Job Satisfaction</i>	0.661
<i>Sustainable Employee Performance</i>	0.700

Source: Data processed by researchers using SmartPLS, 2025

All study variables have an AVE value greater than 0.5, as shown in the above table, indicating that the AVE value for discriminant validity testing satisfies the criteria for additional testing.

Therefore, the study model is generally considered valid based on the findings of the convergent and discriminant validity tests.

Reliability Test

1. Cronbach's Alpha

Table 6. MarkCronbach's Alpha of the Research Model

Variables	Cronbach's Alpha	Condition	Information
<i>Green Employee Involvement</i>	0.917	≥ 0.70	Reliable
<i>Training</i>	0.942	≥ 0.70	Reliable
<i>Career Development</i>	0.927	≥ 0.70	Reliable
<i>Job Satisfaction</i>	0.901	≥ 0.70	Reliable
<i>Sustainable Employee Performance</i>	0.913	≥ 0.70	Reliable

Source: Data processed by researchers using SmartPLS, 2025

According to the above table, every variable in this study has a Cronbach's alpha value more than 0.6; the Job Satisfaction variable has the lowest value, 0.901, while the Training variable has the highest, 0.942. Consequently, these findings show that the Cronbach's alpha value has been satisfied by the research model.

2. Composite Reliability

Table 7. MarkComposite Reliability of the Research Model

Variables	Composite Reliability	Condition	Information
<i>Green Employee Involvement</i>	0.913	≥ 0.70	Reliable
<i>Training</i>	0.935	≥ 0.70	Reliable
<i>Career Development</i>	0.925	≥ 0.70	Reliable
<i>Job Satisfaction</i>	0.898	≥ 0.70	Reliable
<i>Sustainable Employee Performance</i>	0.913	≥ 0.70	Reliable

Source: Data processed by researchers using SmartPLS, 2025

The table above shows that each variable in this study has a composite reliability value >0.7 , with the lowest value of 0.898 for the Job Satisfaction variable and the highest value of 0.935 for the Training variable. Therefore, these results indicate that the research model meets the composite reliability requirements.

Overall, the reliability test that has been carried out can be concluded that the model has met the criteria for Cronbach's alpha and composite reliability so that this research model is declared reliable because it has met the reliability criteria and is a measuring tool that can be trusted and is reliable.

**Structural Model Test Results (Inner Model)
Coefficient of Determination / R-Square (R2) Test**

Table 8. R-Square (R2) Value of the Research Model

Variables	R-square	Criteria
Job Satisfaction	0.601	Moderate
Sustainable Employee Performance	0.580	Moderate

Source: Data processed by researchers using SmartPLS, 2025

In the table above, the relationship between constructs is shown based on the R2 value. Based on this value, it can be explained that the R2 value of the Job Satisfaction variable is 0.601, so the model can be said to be moderate. This shows that 60.1% of the Job Satisfaction variable can be influenced by the Green Employee Involvement, Training, and Career Development variables. While the remaining 29.9% is explained by other variables outside the model. The Sustainable Employee Performance variable has an R2 value of 0.580, so the model can be said to be moderate. This shows that 58.0% of the Sustainable Employee Performance variable can be explained by the Green Employee Involvement, Training, Career Development, and Job Satisfaction variables. While the remaining 42% is explained by other variables outside the model.

Predictive Relevance Value (Q2)

Table 9. Q2 Value Predictive Relevance

Construct	Q-square(Q2)	Criteria
Job Satisfaction	0.380	Strong
Sustainable _Employee _Performance	0.360	Strong

Source: Data processed by researchers using SmartPLS, 2025

Based on the table above, it is known that the Job Satisfaction variable has a Q2 value of 0.380 and the Sustainable Employee Performance variable has a Q2 value of 0.360. The results of the calculation indicate that the predictive relevance (Q2) of both variables is > 0 . Thus, it can be said that the model has a relevant predictive value or the model can be said to be suitable for hypothesis testing.

Goodness of Fit Index (GoF) Test

The measurement model's (outer model) and the structural model's (inner model) combined performance is validated using the Goodness of Fit Index (GoF). GoF value criteria are as follows: 0.1 indicates little GoF, 0.25 indicates medium GoF, and 0.36 indicates large GoF (Ghozali & Latan, 2021). The following are the findings of the Goodness of Fit Index (GoF) computation used in this study:

$$GoF = \sqrt{AVE \times R^2}$$

$$GoF = \sqrt{((0.701 + 0.756 + 0.690 + 0.661 + 0.700)/4) \times ((0.601 + 0.580)/2)}$$

$$GoF = \sqrt{0.702 \times 0.591}$$

$$GoF = \sqrt{0.414}$$

$$GoF = 0.644$$

The result of the Goodness of Fit Index (GoF) computation was 0.644. The findings of this study suggest that the measurement model (outer model) and structural model (inner model) belong to the large GoF group (0.644 > 0.36).

Hypothesis Testing

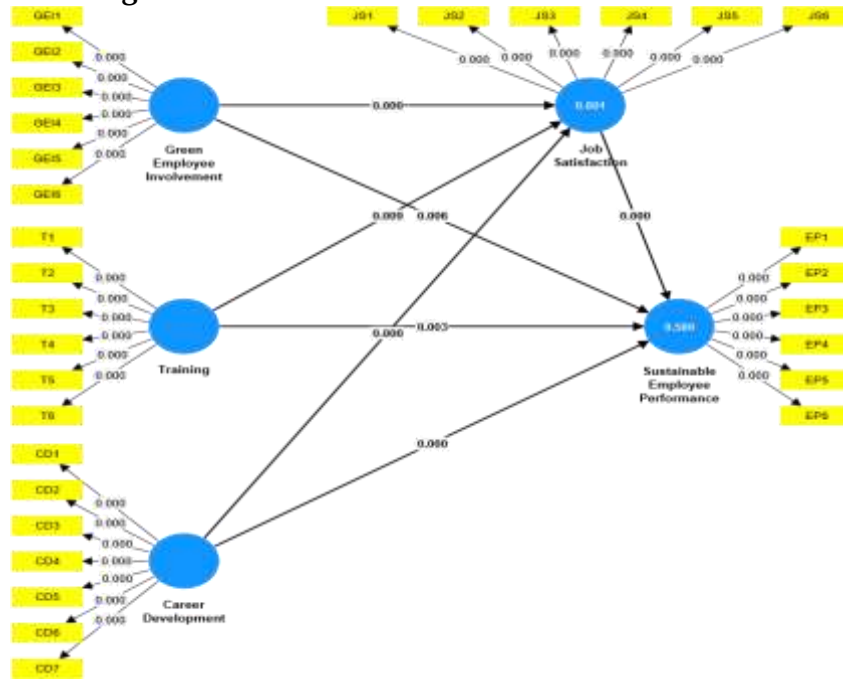


Figure 4. Path Coefficient Results (Bootstrapping)
 Source: Data processed by researchers using SmartPLS, 2025

From the results of the hypothesis test above, a detailed explanation is written in the table below:

Table 10. Hypothesis Testing for Direct Effect

Path	Original Sample (O)	T Statistics (O/STDEV)	P-Values	Information
Green Employee Involvement → Job Satisfaction	0.449	6,096	0.000	Significant
Training → Job Satisfaction	0.146	2,378	0.017	Significant
Career Development → Job Satisfaction	0.350	4,367	0.000	Significant

<i>Green Employee Involvement</i> → Sustainable Emp. Perf.	0.262	2,517	0.012	Significant
<i>Training</i> → Sustainable Employee Perf.	0.160	2,801	0.005	Significant
<i>Career Development</i> → Sustainable Employee Perf.	0.246	3,915	0.000	Significant
<i>Job Satisfaction</i> → Sustainable Employee Perf.	0.273	3,401	0.001	Significant

Source: Data processed by researchers using SmartPLS, 2025

Table 11. Hypothesis Testing for Indirect Effects

Path	Original Sample (O)	T Statistics (O/STDEV)	P-Values	Information
<i>Green Employee Involvement</i> → Job Satisfaction → Sustainable Emp. Perf.	0.1230	3.1760	0.0020	Significant
<i>Training</i> → Job Satisfaction → Sustainable Emp. Performance	0.0400	1.9650	0.0500	Significant
<i>Career Development</i> → Job Satisfaction → Sustainable Emp. Performance	0.0960	2.4950	0.0130	Significant

Source: Data processed by researchers using SmartPLS, 2025

DISCUSSION

The Influence of Green Employee Involvement on Job Satisfaction

Hypothesis 1 (H1) states that Green Employee Involvement has a positive and significant effect on Job Satisfaction, and the analysis results support this with an original sample value of 0.449, t-statistics of 6.096, and p-value of 0.000, indicating a significant effect. This means that employees who are actively involved in environmentally friendly programs, such as energy savings in CNS facilities or operational waste management, tend to have higher levels of job satisfaction than those who are less involved. The discussion shows that employee involvement in green initiatives not only increases intrinsic motivation but also creates a sense of ownership of the work process, so they feel appreciated and motivated to contribute optimally.

This finding is consistent with the research of Al-Sabi et al. (2024) and Abdelhamied et al. (2023) which showed that Green HRM and Green Employee Empowerment increase job satisfaction and encourage pro-environmental behavior, while Dewi Susita and Murdiono (2024) emphasized that green employee involvement positively influences job satisfaction. The managerial implication of this finding is that AirNav Indonesia JATSC Branch should expand employee involvement programs in environmentally friendly practices, including providing space for participation in decision-making related to sustainability, so that job satisfaction increases and the organization's sustainable performance can continue to be improved. In conclusion, Green Employee Involvement has proven to be an effective strategy for increasing Job Satisfaction while supporting the achievement of company sustainability targets.

The Influence of Training on Job Satisfaction

Hypothesis 2 (H2) was accepted with an original sample of 0.146, t-statistics of 2.378, and p-value of 0.017, indicating a positive and significant influence between Training on Job Satisfaction. These results indicate that the training program organized by AirNav JATSC, both in the form of technical Training and soft skills Training, is able to increase employee motivation, competence, and satisfaction in working. The discussion shows that training relevant to daily tasks, for example the use of the latest CNS system or operational simulations, provides adequate confidence and competence, so that employees feel more satisfied with their work.

These findings align with research by Grace Rimadianti and Supartha (2023) and Ali, Ahmed, and Khan (2023), which found that training increases work motivation and contributes to job satisfaction, particularly when the training material aligns with actual job requirements. The managerial implication is that AirNav JATSC needs to implement a comprehensive needs-based training program, involve certified instructors, and utilize realistic simulations to maximize the training's impact on job satisfaction. Thus, training strategies should not only improve technical skills but also strengthen job satisfaction, supporting sustainable performance.

The Influence of Career Development on Job Satisfaction

Hypothesis 3 (H3) which states that Career Development has a positive effect on Job Satisfaction is accepted, as evidenced by the original sample of 0.350, t-statistics of 4.367, and p-value of 0.000. This means that employees who receive clear and structured career development opportunities, such as promotion paths, job rotation, and further training, will show a higher level of job satisfaction. The discussion shows that career development provides future certainty and opportunities for competency improvement, which in turn increases work motivation and loyalty to the organization.

These findings are consistent with Suprayitno et al. (2023), Ali, Ahmed, and Khan (2023), and Kurniawan et al. (2022), who emphasized the importance of career development programs to improve job satisfaction and long-term performance, particularly in the public sector. The managerial implications are that AirNav JATSC management needs to strengthen its merit-based career development system, provide transparent promotion pathways, and ensure regular availability of ICAO-certified advanced training to motivate employees and maintain the retention of highly competent employees. Thus, Career Development plays a strategic role in improving job satisfaction while supporting sustainable performance.

The Influence of Green Employee Involvement on Sustainable Employee Performance

Hypothesis 4 (H4) was accepted with an original sample of 0.262, t-statistics of 2.517, and p-value of 0.012, indicating a significant positive effect of Green Employee Involvement on Sustainable Employee Performance. These results indicate that active employee involvement in environmentally friendly

practices, such as fuel-efficient route optimization and operational waste management, directly improves the company's sustainable performance. The discussion emphasizes that an internalized pro-environmental work culture encourages employees to contribute to the organization's sustainability targets without relying solely on job satisfaction.

These findings align with research by Rahman, Kabir, and Hossain (2023) and Abdelhamied et al. (2023), which showed that Green HRM and employee involvement practices significantly influence sustainable performance. Managerial implications include the integration of a green culture into operational SOPs and performance appraisal systems to make employee engagement a strategic factor in maintaining and improving sustainable performance. In conclusion, Green Employee Involvement not only increases motivation and job satisfaction but also has a direct impact on sustainable performance.

The Impact of Training on Sustainable Employee Performance

Hypothesis 5 (H5) was accepted with an original sample value of 0.160, a t-statistic of 2.801, and a p-value of 0.005, indicating that appropriate training can improve employee sustainable performance. This indicates that training programs not only improve technical skills but also prepare employees to face operational challenges and the latest technologies that impact sustainable performance. The discussion shows that strategic competency-based training and cutting-edge technology strengthen employees' abilities to perform tasks with high efficiency and accuracy.

These findings align with Ali, Ahmed, and Khan (2023) and KA Yulianti (2023), who asserted that training impacts performance through improved skills and job satisfaction. The managerial implication is that AirNav JATSC needs to strengthen its training roadmap with a focus on innovation, operational sustainability, and post-training evaluation to ensure training investments have a tangible impact on sustainable performance. With this strategy, training becomes a crucial pillar in supporting sustainable employee performance.

The Influence of Training on Sustainable Employee Performance of AirNav Indonesia JATSC Branch Employees

Hypothesis 6 (H6), which states that training has a positive and significant effect on sustainable employee performance, is accepted. The analysis results show an original sample value of 0.160, a t-statistic of 2.801, and a p-value of 0.005, indicating a significant effect at the 5% level. This means that the training program provided is able to improve employee skills, competencies, and readiness to support sustainable performance in a dynamic work environment such as AirNav JATSC.

This finding aligns with the study by Ali, Ahmed, and Khan (2023) which asserts that well-designed training can improve employee performance in both the public and private sectors, and also supports the findings of KA Yulianti (2023) regarding increased engagement through training. In the context of AirNav JATSC, effective training not only strengthens technical competency but

also fosters adaptability to ever-evolving navigation technology and safety procedures. The managerial implication is that companies need to strengthen their training roadmaps based on cutting-edge technology and sustainability, including operational simulations and relevant refresher training, so that every training investment makes a real contribution to Sustainable Employee Performance.

The Influence of Career Development on Sustainable Employee Performance of AirNav Indonesia JATSC Branch Employees

Hypothesis 7 (H7) is accepted because Career Development has a positive and significant effect on Sustainable Employee Performance, with an original sample of 0.246, t-statistics of 3.915, and a p-value of 0.000. This means that a clear and structured career development path can improve employee sustainable performance, both through improving skills, intrinsic motivation, and readiness to face operational challenges.

These findings align with Suprayitno et al. (2023) and Kurniawan et al. (2022) who emphasized the importance of career development in improving employee performance, especially in the context of a highly regulated organization like AirNav JATSC. Here, career development is not only related to promotion opportunities but also to the development of green competencies and sustainable technology readiness. The managerial implication is that AirNav JATSC needs to integrate career development programs with strategic training, additional certifications, and technology-based mentoring to ensure tangible and measurable contributions to Sustainable Employee Performance.

Job Satisfaction mediating The Influence Of Green Employee Involvement On Sustainable Employee Performance Of Airnav Indonesia JATSC Branch Employees

Hypothesis 8 (H8) is accepted, because Job Satisfaction is proven to mediate the influence of Green Employee Involvement on Sustainable Employee Performance, with an original sample of 0.123, t-statistics of 3.176, and a p-value of 0.002. This means that employee involvement in environmentally friendly practices not only improves direct performance, but also through increasing their job satisfaction.

This finding is consistent with research by Al-Sabi et al. (2024) which shows that job satisfaction can be an effective mediator in the relationship between green practices and environmental performance. In the context of AirNav JATSC, employees who actively participate in green initiatives feel more valued and motivated, thus enhancing job satisfaction as a reinforcement of their contribution to Sustainable Employee Performance. Managerial implications: Companies can design green engagement programs that also enhance job satisfaction, such as through recognition, rewards, and competency development, to optimize their impact on sustainable performance.

Job Satisfaction Mediating the Influence of Training on Sustainable Employee Performance among AirNav Indonesia JATSC Branch Employees

Hypothesis 9 (H9) is accepted because Job Satisfaction mediates the effect of Training on Sustainable Employee Performance, with an original sample of 0.040, t-statistics of 1.965, and a p-value of 0.050. This means that the training provided not only improves technical competence but also increases job satisfaction, which in turn strengthens sustainable performance.

These findings support the study by Ali, Ahmed, and Khan (2023), which emphasized the importance of job satisfaction as a link between training and performance improvement. At AirNav JATSC, relevant, up-to-date, and employee-focused training increased intrinsic motivation, a sense of appreciation, and job satisfaction, thereby strengthening employee contributions to Sustainable Employee Performance. The managerial implication is that companies must design training that is not only technical but also integrates soft skills, recognition, and reward systems to increase employee job satisfaction along with improved performance.

Job Satisfaction mediating the influence of Career Development on Sustainable Employee Performance of AirNav Indonesia JATSC Branch Employees

Hypothesis 10 (H10) is accepted because Job Satisfaction is proven to mediate the influence of Career Development on Sustainable Employee Performance, with an original sample of 0.096, t-statistics of 2.495, and a p-value of 0.013. This means that a clear career development path increases employee job satisfaction, which then encourages increased sustainable performance.

These findings align with those of Suprayitno et al. (2023) and Kurniawan et al. (2022), who emphasized the mediating role of job satisfaction in the relationship between career development and performance. At AirNav JATSC, employees who perceive a clear career path and learning opportunities are more motivated, committed, and able to maintain high performance, resulting in improved Sustainable Employee Performance. The managerial implication is that companies need to combine career development with job satisfaction enhancement programs, including mentoring, regular feedback, and recognition systems, to optimize the impact on sustainable performance.

CONCLUSION

This study proves that Green Employee Involvement, Training, and Career Development have a positive and significant effect on Job Satisfaction and Sustainable Employee Performance at AirNav Indonesia JATSC Branch. In addition, Job Satisfaction is proven to mediate the relationship between the three independent variables and sustainable employee performance. These findings indicate that employee involvement in organizational activities, relevant and applicable training, and a clear career development path can increase job satisfaction, which in turn has an impact on improving employee performance. Overall, this study emphasizes the importance of implementing integrated Green HRM practices to support sustainable performance in high-pressure work environments such as Air Traffic Controller (ATC).

RECOMMENDATION

1. For AirNav Indonesia management It is recommended to increase employee involvement in decision-making, strengthen experiential learning programs, and clarify transparent career development paths. This can strengthen employee job satisfaction and loyalty.
2. Human resource development program It needs to be supplemented with mentoring, coaching, and regular evaluation of the impact of training to ensure continuous improvement of technical and non-technical competencies.
3. Appreciation and reward policy, both material and non-material, need to be strengthened to increase intrinsic job satisfaction, so that employees feel more appreciated and motivated.

ADVANCED RESEARCH

For further researchers, it is recommended to expand the research object to other AirNav branches or other air transportation sectors to obtain more general results, as well as adding other variables such as work-life balance, organizational commitment, or work stress to enrich the analysis.

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