



# The Influence Of Leadership, Education And Training, Career Development And Job Satisfaction On Employee Performance In The Department Of Industry, Trade, Energy And Mineral Resources Of North Sumatra Province

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## ABSTRACT

This study aims to analyze the influence of Green Brand Image and Legal Compliance in Business on Consumer Loyalty in MSMEs Grama Sphere Medan. In an era of increasing consumer awareness of sustainability issues and the importance of legal compliance, these two factors are considered to play an important role in shaping consumer trust and loyalty. This study uses a quantitative approach with an associative method, involving 80 respondents who have made at least two purchases at Grama Sphere. The data collection technique was carried out through a questionnaire with a Likert scale, and data analysis was carried out using multiple linear regression in SPSS 27. The results of the study indicate that both partially and simultaneously, Green Brand Image and Legal Compliance have a positive and significant effect on Consumer Loyalty. The coefficient of determination ( $R^2$ ) value of 60.8% indicates that the independent variables are able to explain variations in consumer loyalty substantially. The implications of these findings suggest that MSMEs need to strengthen their environmentally friendly brand image and maintain legal compliance as a strategy in building long-term loyalty. This study contributes to the local literature on sustainable marketing and ethical and legal-based business practices.

## INTRODUCTION

In the current era of globalization, every company naturally strives to acquire great and qualified human resources to support the effectiveness of work in achieving its objectives.

Human resources are one of the essential elements of an organization and play a significant role in organizational activities (Budiyanto & Wikan, 2021). Therefore, human resources must be managed properly and effectively to realize the vision and mission of the company. To have professional employees, it requires the efforts and hard work of all aspects of the organization, especially the role of leaders in making plans, policies, strategies, activities, and programs that are oriented toward improving the quality of human resources. Leadership is the ability of a leader to achieve organizational goals by mobilizing, directing, and influencing others to carry out their tasks (M. I. K. Nasution & Rizky, 2024).

Leaders can drive performance improvement by assigning their employees to actively participate in competency development activities, such as education, training, workshops, seminars, technical guidance, socialization, and others. Education and training are efforts to improve employee performance in specific tasks that are their responsibility (Zahra, 2024). The purpose of education and training is to align employees' attitudes, behaviors, knowledge, and skills with the demands of job development.

In addition to education and training, a wise leader will not discriminate in treating subordinates. Leaders will provide equal opportunities to their subordinates in developing their potential or careers. Career development is the action of an employee to achieve their career plan in the workplace. Besides employees planning their careers, organizations or companies assist with career development programs to help employees reach each career stage according to their plans. No matter how good an employee's career plan is, if there is no systematic and well-programmed career development, the plan will not succeed (Ramli & Yudhistira, 2018).

Another important aspect that companies or organizations must understand in order to improve employee performance is job satisfaction. Employee welfare and satisfaction depend on their level of job satisfaction. This includes the degree of satisfaction employees have with their work, their relationships with colleagues, and the alignment between their personal goals and the tasks at hand (Putri et al., 2023). Based on the explanation above, the author intends to conduct further research related to leadership, education and training, career development, and job satisfaction on employee performance at the Department of Industry, Trade, Energy, and Mineral Resources of North Sumatra Province.

## **LITERATURE REVIEW**

### **Employee Performance**

In carrying out their work, employees produce something called performance. Performance is the result achieved by an employee and can be measured by the quality and quantity of work completed in performing their duties and responsibilities within the company (Rizky, 2022). Employees who perform well also provide good results for the company.

According to another perspective (Siagian & Khair, 2018), employee performance is a measure that can be used to determine the comparison of the implementation results of duties and responsibilities assigned by the organization within a certain period and can be relatively used to measure work achievement.

From the above definitions, performance can be interpreted as the work results achieved by an individual within a certain period. Employee performance is a measure that can be used to determine the comparison of task execution and responsibilities assigned by the organization in a certain period and can relatively be used to measure work achievement.

### **Leadership**

Leadership is the act of a leader directing and supervising team members to follow his or her vision in order to achieve specific goals and objectives. Simply put, leadership is how a leader influences their followers. According to Siagian (2019), leadership can be defined as the ability of a person, when holding a leadership position in a particular organization, to influence others,

especially subordinates. The role of leadership is also a way of influencing people or groups of subordinates to work together with enthusiasm and confidence to achieve predetermined goals (L. Nasution & Ichsan, 2021).

Considering all the above definitions, leadership can be defined as the art or process of encouraging, influencing, coordinating, motivating, commanding, and guiding individuals or groups to achieve specific objectives willingly and without coercion.

### **Education and Training**

Education and training are efforts to improve human resources, particularly aimed at developing intellectual abilities and human personality. Education and training programs are among the most important human resource activities to face various current and future organizational challenges (Yohanas, 2007, in Sari & Widiastuti, 2024). Meanwhile, according to AA. Anwar Prabu Mangkunegara (2017), education and training are directed toward employees to increase their knowledge and skills.

From these definitions, it can be understood that education and training consist of a series of activities intended to improve a person's skills, knowledge, experience, or attitudes. In most cases, education and training focus on providing employees with specific skills or helping them improve their deficiencies in performance.

### **Career Development**

Career development is the process by which an employee plans and pursues their career goals. In this regard, each organization has its own ways of developing employee careers through various career development programs. According to Putri (2019), career development is the decision made today about the things to be done in the future, meaning that someone who has set a career plan needs to take certain steps to realize that plan.

Based on these opinions, it can be concluded that career development is the action taken by an employee to achieve their career plan in the workplace. In addition to employees planning their careers, organizations or companies provide career development programs to assist workers in achieving each career stage in accordance with their career plans.

### **Job Satisfaction**

Job satisfaction reflects how employees feel about their work. It is an employee's attitude toward their job, which is related to the work environment, cooperation among colleagues, compensation received at the workplace, as well as physical and psychological factors (Edy Sutrisno, 2019). This includes the level of satisfaction employees have with their work, their relationships with coworkers, and the alignment between their personal goals and the tasks they face (Putri et al., 2023). Another opinion states that job satisfaction includes the level of contentment and happiness employees feel regarding aspects of their jobs such as salary, work environment, recognition, development opportunities, and relationships with colleagues (Pratiwi & Rizky, 2024).

From the above definitions, it can be concluded that job satisfaction is an important factor in achieving optimal results. Job satisfaction can also be interpreted as a person's feelings toward their work, whether pleasant or unpleasant, which involves aligning personal goals with existing job demands.

## **METHODS**

### **Research Method**

The research method used in this study is a quantitative research method. The researcher collected, processed, and analyzed data using statistical techniques, then drew conclusions through a survey approach, namely by collecting data using surveys. The researcher took a

sample from the population of employees in the institution by using a questionnaire as the research data collection tool, with a population of 265 and a sample of 73 respondents. The type of research used in this study is associative. According to Sugiyono (2019), associative research aims to prove and identify the relationship between two or more variables. In this study, the researcher intends to explain the effect of the independent variables—leadership, education and training, career development, and job satisfaction—on the dependent variable, namely employee performance.

### Research Location

This research was conducted at the Department of Industry, Trade, Energy, and Mineral Resources of North Sumatra Province, located at Jl. Putri Hijau No. 6, Kesawan, Medan Barat District, Medan City, North Sumatra.

### Population and Sample

According to Sugiyono (2018), the population is the entire subject under observation. In this study, the population consisted of all employees of the Department of Industry, Trade, Energy, and Mineral Resources of North Sumatra Province, totaling 265 employees. According to Sugiyono (2018), a sample is a subset of the population. In this study, the researcher used probability sampling with the Slovin formula, resulting in a sample size of 73 employees or respondents..

## RESULTS

### Partial Test (t-test)

The t-test was conducted to determine the effect of each independent variable on the dependent variable. The criteria for conducting the t-test are by comparing the t-count value with the t-table value. In this study, with the number of respondents ( $n$ ) = 73, the degree of freedom ( $df$ ) =  $73 - 2 = 71$  and using  $\alpha = 5\%$ , the t-table value is 1.666. Based on the significance value, if the significance value is smaller than 0.05, then  $H_0$  is rejected; if the significance value is greater than 0.05, then  $H_0$  is accepted. Based on the comparison of the t-count and t-table values, if  $t\text{-count} > t\text{-table}$ , then  $H_0$  is rejected; if  $t\text{-count} < t\text{-table}$ , then  $H_0$  is accepted. The following are the results of the t-test of the independent variables on the dependent variable:

**Table 1. T Test Results**

Model		Standardized Coefficients	t	Sig.
		Beta		
1	(Constant)		2.662	.010
	Leadership	.183	2.061	.043
	Education and Training	.313	3.438	.001
	Career Development	.343	3.775	.000
	Job Satisfaction	.611	6.836	.000

$\alpha$ . Dependent Variable: Employee Performance

Source: Data Processed in SPSS, 2025

### Multiple Linear Regression Test

This test is used to determine the effect of two or more independent variables on one dependent variable.

**Table 2. Multiple Linear Regression Test**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.045	3.398		2.662	.010
	Leadership	.079	.038	.183	2.061	.043
	Education and Training	.129	.038	.313	3.438	.001
	Career Development	.117	.031	.343	3.775	.000
	Job Satisfaction	.241	.035	.611	6.836	.000

a. Dependent Variable: Employee Performance

Source: Data Processed in SPSS, 2025

Based on Table 2 above, the multiple linear regression equation in this study is as follows:

$$Y=9.045+0.079X_1+0.129X_2+0.117X_3+0.241X_4+\epsilon$$

### Simultaneous Test (F-test)

The F-test was conducted to determine the simultaneous effect of the independent variables on the dependent variable. The criteria for conducting the F-test are by comparing the F-count value with the F-table value. If  $F\text{-count} < F\text{-table}$ , then  $H_0$  is accepted; however, if  $F\text{-count} > F\text{-table}$ , then  $H_0$  is rejected. Based on the significance value, if the significance value is smaller than 0.05, then  $H_0$  is rejected; if the significance value is greater than 0.05, then  $H_0$  is accepted. The following are the results of the F-test of the independent variables on the dependent variable.

**Table 3. F Test**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	193.328	4	48.332	15.769	.000 <sup>b</sup>
	Residual	208.426	68	3.065		
	Total	401.753	72			

a. Dependent Variable: Employee Performance

b. Predictors: (Constant), Job Satisfaction, Leadership, Career Development, Education and Training

Source: Data Processed in SPSS, 2025

### Coefficient of Determination Test

To determine how much influence leadership, education and training, career development, and job satisfaction have on employee performance at the Department of Industry, Trade, Energy, and Mineral Resources of North Sumatra Province, it is necessary to calculate the adjusted R Square value using SPSS version 25. The following are the results of the adjusted R Square calculation using SPSS version 25.

**Table 4. Determinancy Coefficient Test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.694 <sup>a</sup>	.481	.451	1.75074
a. Predictors: (Constant), Job Satisfaction, Leadership, Career Development, Education and Training Source: Data Processed in SPSS, 2025				

### DISCUSSION

Based on the results of the partial test (t-test), it was found that leadership (X1) had a significance value of  $0.043 < 0.05$  with a t-count of  $2.061 > t\text{-table of } 1.666$ , education and training (X2) had a significance value of  $0.001 < 0.05$  with a t-count of  $3.438 > t\text{-table of } 1.666$ , career development (X3) had a significance value of  $0.000 < 0.05$  with a t-count of  $3.775 > t\text{-table of } 1.666$ , and job satisfaction (X4) had a significance value of  $0.000 < 0.05$  with a t-count of  $6.836 > t\text{-table of } 1.666$ . Therefore,  $H_0$  is rejected for all variables, which means that leadership, education and training, career development, and job satisfaction each have a significant effect on employee performance.

It can be concluded that, partially, leadership, education and training, career development, and job satisfaction have a significant effect on the performance of employees at the Department of Industry, Trade, Energy, and Mineral Resources of North Sumatra Province.

Based on the results of the simultaneous test (F-test), the significance value was 0.00, which is smaller than 0.05, and the F-count value was 15.769, which is greater than the F-table value of 2.51. From these two results,  $H_0$  is rejected, meaning it can be concluded that simultaneously leadership, education and training, career development, and job satisfaction have a significant effect on the performance of employees at the Department of Industry, Trade, Energy, and Mineral Resources of North Sumatra Province.

From the coefficient of determination test, the Adjusted R Square value obtained was 0.451 or 45.1%. This indicates that 45.1% of employee performance is significantly influenced by leadership, education and training, career development, and job satisfaction at the Department of Industry, Trade, Energy, and Mineral Resources of North Sumatra Province.

### CONCLUSION

The conclusions of this study are as follows:

- Leadership partially has a positive and significant effect on employee performance at the Department of Industry, Trade, Energy, and Mineral Resources of North Sumatra Province.
- Education and training partially have a positive and significant effect on employee performance at the Department of Industry, Trade, Energy, and Mineral Resources of North Sumatra Province.
- Career development partially has a positive and significant effect on employee performance at the Department of Industry, Trade, Energy, and Mineral Resources of North Sumatra Province.

- d. Job satisfaction partially has a positive and significant effect on employee performance at the Department of Industry, Trade, Energy, and Mineral Resources of North Sumatra Province.
- e. Leadership, education and training, career development, and job satisfaction simultaneously have a positive and significant effect on employee performance at the Department of Industry, Trade, Energy, and Mineral Resources of North Sumatra Province.

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