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The Influence of Education, Competence, and Motivation on Human Resource Development at PT. JNE Express Main Branch in Medan

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Article Info

ABSTRACT

This study aims to determine and analyze the influence of education, competence, and motivation on human resource (HR) development at PT. JNE Express Medan Main Branch. HR development is an important factor in increasing the effectiveness and efficiency of company operations, especially in the delivery service sector which is highly dependent on human performance. The independent variables in this study are education, competence, and motivation, while the dependent variable is HR development. The t-value of education is $1.834 > 1.684$ (n-k 44- 4 = 40 at 0.05 / 5%) and is significant at $0.009 < 0.05$, so education has a positive and significant effect on HR development. The t-value of competence is $1.747 > 1.684$ (n-k 44- 4 = 40 at 0.05/ 5%) and significant $0.009 < 0.05$, The t-value of education is $1.834 > 1.684$ (n-k 44- 4 = 40 at 0.05/ 5%) and significant $0.009 < 0.05$ The results of the study indicate that simultaneously education, competence, and motivation have a positive and significant effect on HR development. Partially, each variable also provides a significant contribution, where motivation has a dominant influence compared to other variables.

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INTRODUCTION

Human resources are one of the important organizational elements in both government and private institutions because their function is crucial to achieving the established vision and mission. Human resources, in this case employees, are crucial to the success of carrying out institutional functions. Institutions or bodies with qualified employees can certainly be a crucial factor in achieving expected performance. Employees are assets and function as capital (non-material/non-financial) in business organizations that can be realized into real potential physically and non-physically in realizing the organization's existence. According to (Ruiz et al., 2024; Van, Beurden et al., 2024), human resource management is the planning, organizing, coordinating, implementing, and supervising the procurement, development, remuneration, integration, and separation of labor in order to achieve organizational goals. One indicator of human resources that have potential and excel can be seen from the development of human resources. (Kusuma, 2021; Partimah, 2024) Human Resource Development (HRM) is a series of activities and processes designed to improve competence. It is a systematic and ongoing effort to improve employee qualifications, including technical knowledge, interpersonal skills, and positive work attitudes. Human resource development, a relatively new and evolving applied discipline, focuses on advancing knowledge, skills, competencies, and improving both personal and professional behavior in carrying out assigned tasks based on competence, experience, commitment, and time commitment. Employee performance can be measured by the quality and quantity achieved by an employee in carrying out their duties in accordance with their assigned responsibilities.

According to (Kasmir, 2019), one factor that can influence employee performance is work ability. Employee work ability contributes to employee performance within a company. The better an employee's

work ability, the higher their performance. Conversely, if an employee has low work ability, it will result in low performance. According to (Hustia, 2020; Shobirin & Siharis, 2022), employee performance is highly dependent on individual abilities, such as education, knowledge, and experience. Higher levels of ability lead to higher performance. Ability refers to an individual's capacity to perform various tasks within a job. According to (Masya & Salim Alatas, 2024; Mattayang, 2022), education is an individual's activity in developing their abilities, attitudes, and behaviors, both for future life, through specific organizations or unorganized settings. With strong abilities, employees can complete their work effectively, thus achieving maximum performance. Conversely, low abilities can lead to low employee performance. Ability demonstrates a person's potential to carry out tasks or jobs. A person's ability is the embodiment of their knowledge and skills. Employees with high abilities can support the achievement of an organization's vision and mission to advance and develop rapidly, anticipating global competition.

(Audina et al., 2024; Lala et al., 2024), the abilities possessed by each employee, especially in their field of work, are a necessity that must be realized immediately, because companies/management desperately need competent people to support the smooth and quality of their work. Therefore, company management aims to facilitate the achievement of company goals through the performance of competent employees. Another factor influencing employee performance is work discipline. A disciplined employee can be identified as an employee who always arrives and goes home on time, performs tasks well and complies with all organizational rules and applicable norms. According to (Kasmir, 2019), work discipline has a positive effect on employee performance, meaning that if work discipline increases, employee performance will also increase. The correlation coefficient value shows the strength of the relationship between work discipline and employee performance is very strong, meaning that every small change, whether an increase or decrease in work discipline, will affect a larger increase or decrease in employee performance.

This research was conducted at PT JNE Express Medan Main Branch. JNE is one of the most famous and widest logistics service providers in Indonesia and has many customers and is quite respected by its competitors who are also engaged in the same field. JNE serves shipments in the form of packages, documents, vehicles, etc. This division is responsible for sorting the Outbound Shipment according to its destination. Ensuring that all Outbound shipments can be processed Receiving well and, handing over goods from Counter & Pick Up officers. Researchers conducted a pre-survey to assess the level of employee work ability in developing their human resources, in this phenomenon that was obtained at PT JNE Expres Medan Utama Branch, especially in employees who were only comfortable with high school education or equivalent, meaning that for HR development, highly educated employees carried out so that thinking or reasoning souls were more likely to advance this was found in the company PT JNE Expres Medan Utama Branch. While the training that is often carried out by the company in this case how in after being given training and there are still many employees who have not mastered the material in the training so they still often ask questions in this case the results of the performance are still considered less than optimal. Motivation is a very good thing in a person or company, especially for employees, good motivation is a driving force for progress in every person, PT JNE Expres Medan Utama branch is seen in employees who do not understand the motivation given by the company, even though the leadership provides facilities or freedom in continuing education or opportunities to achieve a career, but here employees rarely take this opportunity, this is what causes the lack or development of human resources owned by employees.

METHOD

The research approach used in this study is quantitative research. According to (Sugiyono, 2019) quantitative research methods can be interpreted as research methods based on data collection using research instruments, quantitative/statistical data analysis with the aim of testing predetermined hypotheses. The variables in this study use 3 (three) independent variables, namely: Education (X1), Competence (X2) and Motivation (X3), and 1 (one) dependent variable, namely: Human Resource Development (Y). According to (Sugiyono, 2019) population is a generalization area consisting of: objects/subjects that have certain qualities and characteristics that have been determined by researchers to be studied and then conclusions drawn. The population in this study were employees in the Out Bound Division of PT. JNE EXPRESS Medan Main Branch as many as 55 employees, the number of employees in the company at PT JNE Express Medan Main Branch consists of three categories, namely permanent employees, contract employees, and freelance employees. Permanent employees are the largest group with a total of 40 people. Meanwhile, there are 13 contract employees, and only 2 freelance employees, who will be studied. The criteria referred to in this study are employees with permanent employee status. According to (Kholik & Yusri, 2025) the sample is a representative of the population. The sampling technique used in this study is purposive sampling. Purposive sampling technique according to (Sugiyono, 2018) is sampling using certain considerations according to the desired criteria to be able to determine the number of samples, so the number of samples in this study is 40 people. Data analysis in this study uses data quality tests, classical assumption tests, and multiple linear regression tests as well as hypothesis tests.

RESULT

　　　PT. Tiki Jalur Nugraha Ekakurir, commonly known as JNE, is one of the largest freight forwarding companies in Indonesia, thanks to its network and distribution reach spanning over 83,000 cities, including regencies, villages, and outermost islands. It operates over 8,000 sales outlets and employs over 50,000 employees throughout Indonesia. PT. Tiki Jalur Nugraha Ekakurir was officially established in 1990. In 1994, PT. Tiki Jalur Nugraha Ekakurir was officially established. In 1995, JNE introduced a drop point system, also known as "Takuhaibin." JNE capitalized on the proliferation of telecommunications kiosks (Wartel) at the time to open Takuhaibin, which became the forerunner to JNE agents, which now number over 8,000 throughout Indonesia by 2022. In 2000, JNE released a new logo with the "JNE EXPRESS" brand. JNE EXPRESS's reputation as a leading shipping company in Indonesia began to emerge in the second half of the 2000s, in line with the growing trend of using the internet for online trade and buying and selling transactions. The easy distribution of JNE agents in major cities and its 24-hour operational hours made JNE popular among online businesses.

　　　In 2013, JNE focused on expanding the capacity and capabilities of its physical and technological infrastructure to anticipate the rapid growth of online shopping transactions through marketplaces and the digital lifestyle trend in Indonesia. In 2014, JNE launched the MY JNE app, a multi-purpose Android-based application that helps customers check shipping rates, track package locations, locate the nearest counter, and facilitate transactions between sellers and individual buyers. In 2017, JNE launched e-fulfillment at several branches as an integrated business solution for Small, Micro, and Medium Enterprises (MSMEs), especially brand name owners, who sell online. E-fulfillment helps MSMEs focus on product development and digital marketing, while JNE handles logistics activities, from warehouse management and inventory management to sorting and packaging, to delivery to customers. In 2020, JNE pioneered the construction of a large-scale automated sorting center called Mega Hub at Mas Airport, Cengkareng, Tangerang. Mega Hub is projected to be able to process 1 million packages per day. In 2022, JNE launched Roket Indonesia, an app-based instant courier service that guarantees delivery within 1 hour. This service is now available in 54 cities and JNE branches.

Validity and Reliability Testing

　　　To determine the validity of the statements I have made, their validity will be tested by distributing a questionnaire to 40 respondents at PT. JNE EXPRESS, Medan's Main Branch. If the test results show a Corrected Item-Total Correlation value of >0.30, then the statement items presented are valid and acceptable.

Table 1. Results of the Educational Validity Test

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X1.1	18.25	9.866	.648	.803
X1.2	18.16	9.858	.565	.818
X1.3	18.05	8.882	.672	.796
X1.4	17.55	10.765	.464	.835
X1.5	18.89	8.568	.674	.797
X1.6	18.20	9.562	.657	.800

Source: Data Processed by Researchers, 2025

　　　The results of the validity test provided that the validity test of the education variable is declared valid if the Corrected Item-Total Correlation must be > 0.30, it is declared valid, while the results of the data provided are valid.

Table 2. Competency Validity Test Results

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X2.1	10.59	6.526	.848	.865
X2.2	10.93	6.809	.799	.883
X2.3	11.14	6.632	.809	.880
X2.4	10.36	7.725	.743	.904

Source: Data Processed by Researchers, 2025

The validity test results indicate that the competency variable is valid if the Corrected Item-Total Correlation is >0.30, while the data provided is valid.

Table 3. Results of the Motivation Validity Test

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X3.1	12.09	5.108	.862	.832
X3.2	11.80	6.957	.736	.882
X3.3	11.77	6.319	.790	.859
X3.4	11.52	6.023	.729	.881

Source: Data Processed by Researchers, 2025

The validity test results indicate that the motivation variable is valid if the Corrected Item-Total Correlation is >0.30, while the data provided is valid.

Table 4. Results of the Human Resource Development Validity Test

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Y1	12.64	1.307	.669	.596
Y2	12.27	2.529	.532	.704
Y3	13.20	2.073	.736	.590
Y4	13.30	2.027	.386	.760

Source: Data Processed by Researchers, 2025

The validity test results indicate that the motivation variable is valid if the Corrected Item-Total Correlation is >0.30, while the data provided is valid.

Table 5. Reliability Test (X1), Education (X2), Competence (X3), Motivation (Y) for Human Resource Development

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Pendidikan	47.20	83.794	.826	.732	.896
Kompetensi	54.68	85.431	.858	.755	.879
Motivasi	53.30	85.934	.931	.872	.851
Pengembangan SDM	51.89	94.615	.786	.680	.933

Source: Data Processed by Researchers, 2025

Table 5. We can see that the Cronbach's alpha value for all education, competence and motivation variables for HR development is > 0.60, so it can be said that the results of the reliability test for all variables are reliable.

Classical Assumption Test

Table 6. Kolmogorov-Smirnov Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Predicted Value
N		40
Normal Parameters[a]	Mean	17.1363636
	Std. Deviation	1.48390902
Most Extreme Differences	Absolute	.110
	Positive	.081
	Negative	-.110
Kolmogorov-Smirnov Z		.727
Asymp. Sig. (2-tailed)		.667

a. Test distribution is Normal.

Source: Data Processed by Researchers, 2025

It can be seen from Table 6 that the value of Asymp.Sig (2-tailed) 0.115 > 0.05 and the value of significance is normally distributed.
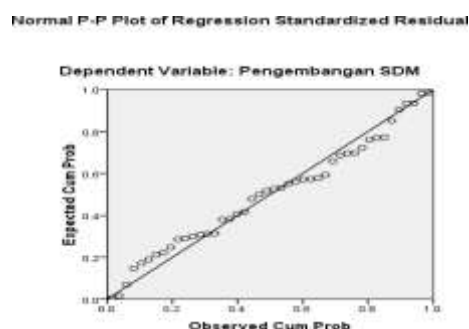

Figure 2. PP-Plot Normality Test
Source: Data Processed by Researchers, 2025

Based on Figure 2, the normality test for the PP-Plot above the histogram graph shows a balanced convexity in the middle, and the PP-Plot points lie between the graph lines, indicating that the data are considered normal.
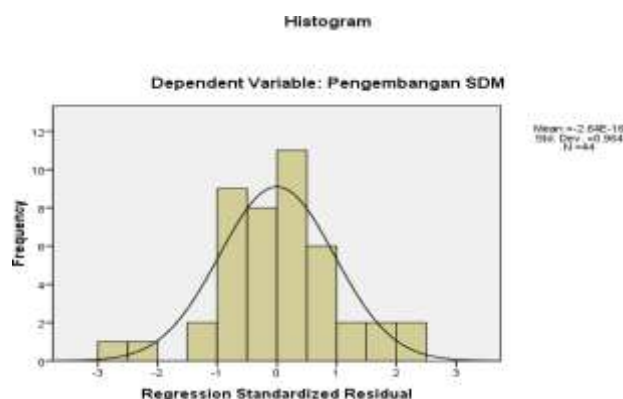

Figure 3. Histogram of Normality Test
Source: Data Processed by Researchers, 2025

Based on Figure 3, the PP-Plot histogram graph test was used to determine the results of the normality test. The figure above complies with the normality test, which states that data is considered normal if the line forms a bell shape and is centered, indicating a normal distribution.

Table 7. Multicollinearity Test Results

Coefficients^a			
		Collinearity Statistics	
Model		Tolerance	VIF
1	(Constant)		
	Pendidikan	.272	3.673
	Kompetensi	.252	3.967
	Motivasi	.169	5.906
a. Dependent Variable: Pengembangan SDM			

Source: Data Processed by Researchers, 2025

The results show that the results of the multicollinearity test for the variables of education, competence and motivation towards human resource development have a tolerance value of > 0.10 and VIF < 10, so this study is declared free from multicollinearity problems.
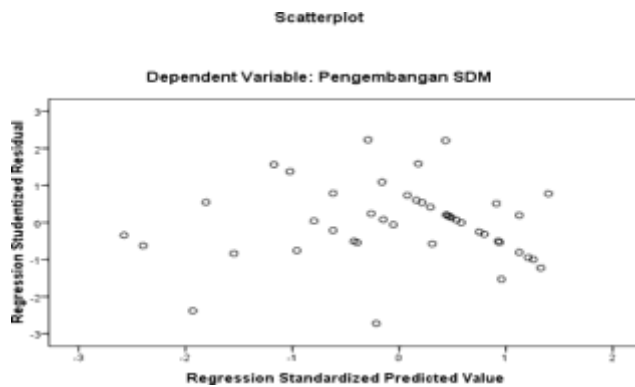
Figure 4. Scatterplot of Heteroscedasticity Test
Source: Data Processed by Researchers, 2025

Multiple Linear Regression Results

Multiple linear regression is a regression model that includes more than one independent variable. Linear regression analysis is often used to determine the influence of independent variables on the dependent variable (Ghozali, 2018).

Table 8. Multiple Linear Regression Results

Coefficients^a				
		Unstandardized Coefficients		Standardized Coefficients
Model		B	Std. Error	Beta
1	(Constant)	10.482	.979	
	Pendidikan	.070	.084	-.143
	Kompetensi	.097	.093	.186
	Motivasi	.432	.121	.778
a. Dependent Variable: Pengembangan SDM				

Source: Data Processed by Researchers, 2025

Constant α = 10.482
Using the constant α = 10.482, we can see that education, competence, and motivation can increase human resource development with a value of 0 (zero), thus human resource development is 10.482 units.
Constant β1 = 0.070
If a policy increases education by one unit, then human resource development will increase by 0.070 units based on the regression value.
Constant β2 = 0.097
If a policy increases competence by 0.097, then human resource development will increase by 0.097 units based on the regression test.
Constant β2 = 0.432
If a policy increases motivation by one unit, then human resource development will increase by 0.432 units based on the regression value.

Hypothesis Test Results

This test was conducted to determine whether the simultaneous influence of education, competence, and motivation on human resource development was positive and significant at the 5% confidence interval (Confidence Interval) or hypothesis testing level.

Table 9. Simultaneous Test Results (F Test)

ANOVA^b					
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	94.685	3	31.562	28.372	.000^a
	Residual	44.496	40	1.112		
	Total	139.182	43			

a. Predictors: (Constant), Motivasi, Pendidikan, Kompetensi

b. Dependent Variable: Pengembangan SDM

Source: Data Processed by Researchers, 2025

Note that the F-test yields an F-count of 28.372, which is greater than the F-table of 3.28 (n-k-1 at k = 44-4-1 = 39), indicating that Ha is accepted and Ho is rejected. This indicates that education, competence, and motivation influence human resource development, as the previously mentioned hypothesis (Ha) is accepted.

Table 10. T-Test Results (Partial)

Coefficients[a]			
Model		t	Sig.
1	(Constant)	10.706	.000
	Pendidikan	1.834	.004
	Kompetensi	1.747	.005
	Motivasi	3.580	.001
a. Dependent Variable: Pengembangan SDM			

Source: Data Processed by Researchers, 2025

The influence of education on human resource development

The calculated t-value for education is 1.834 > 1.684 (n-k 44-4 = 40 at 0.05/5%) and is significant at 0.009 < 0.05, so Ha is accepted and Ho is rejected. Therefore, education has a positive and significant effect on human resource development.

The influence of competence on human resource development

The calculated t-value for competence is 1.747 > 1.684 (n-k 44-4 = 40 at 0.05/5%) and is significant at 0.009 < 0.05, so Ha is accepted and Ho is rejected. Therefore, competence has a positive and significant effect on human resource development.

The influence of education on human resource development

The calculated t-value for education is 1.834 > 1.684 (n-k 44 - 4 = 40 at 0.05/5%) and is significant at 0.009 < 0.05. Therefore, Ha is accepted and Ho is rejected. Therefore, education has a positive and significant influence on human resource development.

Table 11. Results of the Coefficient of Determination (R2) Test

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.825[a]	.680	.656	1.055

a. Predictors: (Constant), Motivasi, Pendidikan, Kompetensi

b. Dependent Variable: Pengembangan SDM

Source: Data Processed by Researchers, 2025

The results of the determination test have been known; the adjusted R-square value of 0.656 is known as the coefficient of determination, which indicates that 0.656 (65.6%) of human resource development can be obtained and influenced by education, competence, and motivation. Variables outside the model that were not studied contributed 34.4% of the total.

DISCUSSION

The Influence of Education on Human Resource Development

Based on the test results for the education variable (X1), which has a t-value of 1.834 and a significance value of 0.004 < 0.05, while the t-value is > t-table. Using the equation (1.834 > 1.684), it can be

concluded that education has a positive and significant effect on human resource development. Furthermore, with an F-value of 28.372 and an F-value of 3.228, the equation yields 28.372 > 3.228. Therefore, education simultaneously has a positive and significant effect on human resource development.

The Influence of Competence on Human Resource Development

Based on the test results for the competency variable (X2), which has a t-value of 1.747 and a significance value of 0.005 < 0.05, while the t-value is > t-table. Using the equation (1.747 > 1.684), it can be concluded that competency has a positive and significant effect on human resource development. Furthermore, with an F-value of 28.372 and an F-value of 3.228, the equation yields 28.372 > 3.228. Therefore, competency simultaneously has a positive and significant effect on human resource development.

The Influence of Motivation on Human Resource Development

Based on the test results for the motivation variable (X3), which has a t-value of 3.580 and a significance value of 0.000 <0.05, while the t-value is > t-table. Based on the equation (3.580 > 1.684), it can be concluded that motivation has a positive and significant effect on human resource development. Furthermore, with an F-value of 28.372 and an F-value of 3.228, the equation yields 28.372 > 3.228. Therefore, motivation simultaneously has a positive and significant effect on human resource development..

CONCLUSIONS

Education partially has a positive and significant effect on human resource development at JNE's Medan Main Branch, with a regression value of 0.070, a calculated t-value of 1.834, a t-table value of 1.684, and a significance value of 0.009.

Competence partially has a positive and significant effect on human resource development at JNE's Medan Main Branch, with a regression value of 0.097, a calculated t-value of 1.747, a t-table value of 1.684, and a significance value of 0.005.

Motivation partially has a positive and significant effect on human resource development at JNE's Medan Main Branch, with a regression value of 0.432, a calculated t-value of 1.747, a t-table value of 3.580, and a significance value of 0.001.

Education, competence, and motivation simultaneously have a positive and significant effect on HR development at JNE Medan Main Branch with a significant value of 0.000 and an F-count value of 28.372 while the F-table is 3.284. Motivation is the variable that most influences HR development with the largest Standardized Coefficients Beta value of 0.121.

Based on this conclusion, the recommendation is: Based on the lowest validity value for the education variable, X1.4, it is recommended that PT JNT Medan's Main Branch, formal education alone is insufficient if it is not supported by appropriate training and work experience. Formal education is indeed fundamental in shaping employees' mindsets and basic skills. However, to keep pace with the dynamic developments in the delivery services industry, the company needs to provide regular technical training and capacity building programs. The company also needs to develop an internal training curriculum tailored to operational needs, such as training in customer service, delivery time management, and the use of digital tracking and logistics systems. Furthermore, it is crucial for management to provide access to learning through modern approaches, such as e-learning, webinars, or collaboration with professional training institutions.

Based on the lowest validity value for the competency variable, X2.4, it is recommended that PT JNT Medan's Main Branch, competency, encompassing knowledge, skills, and attitudes, is crucial to ensuring that employees can carry out their duties and responsibilities professionally and effectively. The company also needs to develop competency improvement programs based on job needs, for example, training in technical skills such as delivery management, the use of logistics applications, and communication and customer service skills. In addition to technical skills (hard skills), attention to developing behavioral competencies or soft skills such as discipline, initiative, teamwork, and adaptability is also crucial to supporting work effectiveness.

Based on the lowest validity value for the motivation variable, X3.4, it is recommended that PT JNT Medan's Main Branch should prioritize intrinsic (intrinsic) and extrinsic (external) motivation (such as salary and recognition) in shaping employee work behavior and determining how optimally their potential can be maximized by the company. Companies can provide employees with space to participate more in simple operational decision-making and provide challenges appropriate to their abilities, so they feel valued and have a significant role in the organization. Recognition of achievement is also an important factor—not just material rewards, but also verbal appreciation, positive feedback, and opportunities for growth.

Based on the lowest validity value for the HR development variable, Y4, it is recommended that PT JNT Medan's Main Branch continue to improve the quality and sustainability of its existing training programs. Effective training not only helps employees improve their skills, but also provides motivation and clarity of direction in their career development within the company. For this reason, companies should provide training that is more structured and tailored to real needs in the field.

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