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The Effect of Individual Characteristics, Job Training, and Competence on Nurses' Career Development at Suradadi Regional General Hospital, Tegal Regency

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Abstract

This study aims to examine the effects of individual characteristics, job training, and competence on the career development of employees at Suradadi Regional General Hospital (RSUD Suradadi), Tegal Regency, both partially and simultaneously. A quantitative method was used. The analysis comprised instrument tests (validity and reliability), classical assumption tests, and multiple linear regression. The population was 91 inpatient nurses, and saturated sampling was applied so that the entire population became the sample. Data were collected through questionnaires. The results show that individual characteristics ($t = 3.429$; $\text{Sig.} = 0.001$), job training ($t = 3.431$; $\text{Sig.} = 0.002$), and competence ($t = 3.516$; $\text{Sig.} = 0.001$) each have a positive and significant partial effect on career development. Simultaneously, the three variables have a positive and significant effect on career development ($F = 100.204$; $\text{Sig.} = 0.000$), with an adjusted R^2 of 0.768. Competence has the largest standardized effect. The hospital is advised to strengthen nurses' competence, particularly teamwork skills.

Keywords : *Individual Characteristics; Job Training; Competence; Career Development*

I. INTRODUCTION

Human resources (HR) contribute greatly to a hospital's performance, and failure to manage them can disrupt the achievement of organizational goals, including career development, profit, and the organization's survival (Andrian et al., 2025). Career development is an important aspect of HR management because it concerns the planning and realization of steps designed to improve employees' skills, career prospects, and mobility within the organization. It reflects employees' opportunities to advance through improved ability, experience, and the opportunities the organization provides (Argianti, 2022).

RSUD Suradadi is a type C hospital owned by the Tegal Regency Government, providing health services including treatment, recovery, disease prevention, and referral services in line with hospital standards. Career development among its nurses still faces several issues. Promotion is carried out through a selective administrative mechanism, so promotion opportunities are not yet felt equally by all nurses, which may affect their motivation and readiness to develop their careers.

One factor related to career development is individual characteristics, the differences between one person and another. Because every person has a different personality, such differences inevitably arise in organizations (Sedayu, 2021). At RSUD Suradadi, the characteristics of employees overall are not yet optimal, particularly in terms of ability and self-confidence in career development. A second factor is job training, an effort to improve employees' expertise for performing a particular job, through which an organization can learn whether training affects career development (Insania & Pradita, 2025). Several units were recorded as having attended training long ago, with no regular updates, which indicates that training is not yet continuous and evenly distributed as part of career development efforts. A third factor is competence, a determinant of career advancement that organizations must attend to. If training is not continuous, employees' competence may stagnate or even decline, reducing their ability to complete tasks optimally (Syahputra & Tanjung, 2020).

Previous studies show relationships among these variables, but in organizations with different objects and characteristics. Ratnawati and Prastiwi (2017) found that individual characteristics and performance appraisal have a positive and significant effect on career development. Rezal et al. (2025) found that training has a positive and significant partial effect on career development. For competence, Fauzi and Siregar (2019) found a positive and significant effect on career development. Based on this phenomenon and research gap, this study aims to analyze the effects of individual characteristics, job training, and competence on the career development of RSUD Suradadi employees, both partially and simultaneously.

A. Literature Review and Hypotheses

Career development. Career development is the process and activity of preparing an employee to hold a position in the organization in the future (Syaiful Bahri, 2023). It combines future training needs with human resource planning (Gomes, 2003).

Individual characteristics. Individual characteristics describe the attitudes, interests, and needs that a person brings to the job. The characteristics most easily observed that influence organizational behavior are biographical characteristics: age, gender, marital status, work experience, number of dependents, and education level (Nasional, 2018).

Job training. Job training is simply defined as a learning process designed to change how a person performs the job. Organizations usually conduct training after recruitment, because it is given only to the organization's own employees (Triana & Mega, 2024).

Competence. Competence is the ability to carry out a job or task based on skills and knowledge and supported by the work attitude the job demands (Wibowo, 2010). Spencer (as cited in Moehariono, 2012) defines it as a person's underlying characteristics related to individual performance effectiveness, or characteristics with a causal relationship to a reference criterion of effective or superior performance in a given situation.

Previous studies and hypotheses. Ratnawati and Prastiwi (2017) and Septiana and Ali (2024) found that individual characteristics positively and significantly affect career development. Lubis (2018) and Rezal et al. (2025) found that job training affects career development, and Fauzi and Siregar (2019) found that competence has a positive and significant effect. Based on this theory and prior evidence, the hypotheses are: H_1 , individual characteristics affect career development; H_2 , job training affects career development; H_3 , competence affects career development; and H_4 , individual characteristics, job training, and competence simultaneously affect career development.

II. METHOD

This study uses a quantitative method because the data are numerical and analyzed statistically to test the hypotheses (Sugiyono, 2023). The variables are individual characteristics (X1), job training (X2), competence (X3), and career development (Y). The population is all 91 inpatient nurses of RSUD Suradadi, Tegal Regency. Saturated sampling (a census) was used, so the whole population was the sample ($n = 91$). Primary data were collected through observation and questionnaires. Observation provided supporting information on the work environment, organizational dynamics, and task implementation, while the questionnaire was the main instrument.

Career development (Y) is measured by educational background, training, and work experience. Individual characteristics (X1) are measured by ability, needs, beliefs, experience, and expectations. Job training (X2) is measured by instructors, participants, materials, methods, and objectives. Competence (X3) is measured by task skills, task management skills, contingency management skills, job role environment skills, and transfer skills. All variables use a 1–5 Likert scale.

Validity was tested on 30 non-respondents by comparing r -calculated with r -table (0.361 at the 5% level, $n = 30$); an item is valid if r -calculated $>$ r -table. Reliability was tested with Cronbach's alpha, with an instrument considered reliable if $\alpha > 0.70$. Data analysis used the Method of Successive Interval (MSI) to convert ordinal data to interval data, classical assumption tests (normality, multicollinearity, heteroscedasticity), multiple linear regression, the t -test, the F -test, and the coefficient of determination (R^2), using SPSS.

III. RESULTS AND DISCUSSION

A. Respondent Characteristics

The study involved 91 respondents (Table I). Most are female (59 respondents; 65%), aged 22–30 years (38; 42%), and hold a Diploma 3 (D3) degree (63; 69%). Male respondents number 32 (35%); 22 (24%) are aged 41–50, 18 (20%) are aged 31–40, and 13 (14%) are aged 51–60. S1 graduates number 28 (31%). By length of service, 42 respondents (46%) have 1–5 years, 23 (25%) have 6–10 years, 18 (20%) have 11–15 years, and 8 (9%) have more than 15 years.

TABLE I. RESPONDENT CHARACTERISTICS

Characteristic	Category	Number	%
Gender	Male	32	35
	Female	59	65
Age	22–30 years	38	42
	31–40 years	18	20
	41–50 years	22	24
	51–60 years	13	14
Education	Diploma 3 (D3)	63	69
	Bachelor (S1)	28	31
Length of service	1–5 years	42	46
	6–10 years	23	25
	11–15 years	18	20
	> 15 years	8	9

Source: primary data (2026).

B. Instrument Testing

The validity test on 30 non-respondents shows that all items for career development, individual characteristics, job training, and competence have r -calculated values above 0.361, so all items are valid. The reliability test gives Cronbach's alpha of 0.736 for career development, 0.853 for individual characteristics, 0.870 for job training, and 0.870 for competence. All exceed 0.70, so the instruments are reliable and suitable for the study (Ghozali, 2018).

C. Classical Assumption Tests

Normality. The one-sample Kolmogorov–Smirnov test on the unstandardized residuals (Table II) gives a test statistic of 0.090, a residual mean of 0.000, and a standard deviation of 1.813. The asymptotic significance (two-tailed) of 0.066 is above 0.05, so the residuals do not differ significantly from a normal distribution and the normality assumption is met (Ghozali, 2018).

TABLE II. ONE-SAMPLE KOLMOGOROV-SMIRNOV TEST (UNSTANDARDIZED RESIDUAL)

Statistic	Value
N	91
Normal parameters: mean	0.000
Normal parameters: std. deviation	1.813
Most extreme differences: absolute	0.090
Most extreme differences: positive	0.038
Most extreme differences: negative	-0.090
Test statistic	0.090
Asymp. Sig. (2-tailed)	0.066

Source: SPSS output (processed by the authors, 2026). Test distribution is normal; calculated from data; Lilliefors significance correction.

Multicollinearity. Individual characteristics (X1) have a tolerance of 0.166 and a VIF of 6.039; job training (X2) 0.178 and 5.619; and competence (X3) 0.134 and 7.435 (Table III). All tolerance values are above 0.10 and all VIF values below 10, so no multicollinearity is indicated, although the VIF values are moderately high, which suggests that the three predictors are fairly strongly related to one another.

TABLE III. MULTICOLLINEARITY TEST

Variable	Tolerance	VIF
Individual characteristics (X1)	0.166	6.039
Job training (X2)	0.178	5.619
Competence (X3)	0.134	7.435

Source: SPSS output (2026). Dependent variable: career development.

Heteroscedasticity. In the scatterplot, the studentized residuals are spread randomly above and below zero on the Y axis and form no pattern such as funneling, widening, or waves. Heteroscedasticity is therefore not indicated, and the model is suitable for further analysis.

D. Multiple Linear Regression and Hypothesis Tests

Table IV shows the regression results. The constant of 1.530 means that if individual characteristics, job training, and competence are held constant, career development is 1.530. The coefficients of individual characteristics (0.268), job training (0.278), and competence (0.301) are all positive: improvements in the three variables tend to improve nurses' career development. Competence has the largest standardized coefficient (Beta = 0.487), followed by job training (0.432) and individual characteristics (0.428).

TABLE IV. MULTIPLE LINEAR REGRESSION AND PARTIAL TESTS

Variable	B	Std. Error	Beta	t	Sig.
(Constant)	1.530	1.326		1.154	0.252
Individual characteristics (X1)	0.268	0.078	0.428	3.429	0.001
Job training (X2)	0.278	0.074	0.432	3.431	0.002
Competence (X3)	0.301	0.086	0.487	3.516	0.001

Source: SPSS output (2026). Dependent variable: career development (Y).

The partial tests show that individual characteristics ($t = 3.429$; Sig. = 0.001 < 0.05), job training ($t = 3.431$; Sig. = 0.002 < 0.05), and competence ($t = 3.516$; Sig. = 0.001 < 0.05) each significantly affect career development, so H_1 , H_2 , and H_3 are accepted.

The simultaneous test (Table V) gives $F = 100.204$, greater than the F -table value of 2.71, with Sig. = 0.000 < 0.05. H_0 is rejected and H_4 is accepted: individual characteristics, job training, and competence jointly have a positive and significant effect on the career development of inpatient nurses at RSUD Suradadi.

TABLE V. F-TEST (ANOVA) RESULTS

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	1,022.139	3	340.713	100.204	0.000
Residual	295.817	87	3.400		
Total	1,317.956	90			

Source: SPSS output (2026). Predictors: individual characteristics, job training, competence. Dependent variable: career development.

Table VI shows $R = 0.881$, indicating a very strong relationship between the three independent variables and career development. R^2 is 0.776 and adjusted R^2 is 0.768, so the three variables explain 76.8% of the variation in career development, while the remaining 23.2% is influenced by factors outside the model.

TABLE VI. COEFFICIENT OF DETERMINATION (MODEL SUMMARY)

R	R^2	Adjusted R^2	Std. Error of Estimate
0.881	0.776	0.768	1.844

Source: SPSS output (2026). Predictors: individual characteristics, job training, competence. Dependent variable: career development.

E. Discussion

Individual characteristics. Individual characteristics have a positive and significant effect on career development ($B = 0.268$; $t = 3.429 > 1.987$; Sig. = 0.001), so H_1 is accepted. The better the characteristics employees have, the better the career development they obtain. Characteristics such as ability, needs, beliefs, experience, and expectations help employees improve themselves and gain career development opportunities. This result is in line with Ratnawati and Prastiwi (2017), who found that individual characteristics affect career development.

Job training. Job training has a positive and significant effect on career development ($B = 0.278$; $t = 3.431 > 1.987$; Sig. = 0.002), so H_2 is accepted. The better the training provided to employees, the better the career development. Training improves employees' knowledge, skills, and abilities and so supports their readiness to develop their careers. This result is in line with Cahyadi et al. (2022), who found that training positively and significantly affects career development.

Competence. Competence has a positive and significant effect on career development ($B = 0.301$; $t = 3.516 > 1.987$; Sig. = 0.001), so H_3 is accepted. The higher the competence employees have, the better the career development. Competence, covering the ability to carry out work, manage tasks, handle particular situations, cooperate, and adapt to change, supports career advancement. This result is in line with Fauzi and Siregar (2019).

Simultaneous effect. The three variables jointly have a positive and significant effect on career development ($F = 100.204 > 2.71$; Sig. = 0.000), so H_4 is accepted, and together they explain 76.8% of its variation. This result is in line with Septiana and Ali (2024), who found that individual characteristics, organizational characteristics, and work motivation affect career development.

IV. CONCLUSIONS

Individual characteristics, job training, and competence each have a positive and significant effect on the career development of inpatient nurses at RSUD Suradadi, Tegal Regency ($B = 0.268, 0.278$, and 0.301 ; $t = 3.429, 3.431$, and 3.516 , all > 1.987 ; Sig. ≤ 0.002), and together they have a positive and significant effect ($F = 100.204 > 2.71$; Sig. = 0.000; adjusted $R^2 = 0.768$). RSUD Suradadi is advised to raise nurses' competence, particularly teamwork (job role environment skills), through teamwork training, team building, case discussions, and job rotation among units, which can improve coordination, communication, and service quality and support career development. Future research may examine competence, especially teamwork, in more depth using other methods such as qualitative or mixed methods, extend the object to other hospitals, and add variables such as leadership, organizational culture, work motivation, job satisfaction, or work environment.

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