

Research Article

The Effect of Educational Level and Work Experience on Employee Performance at the Garuda Ngamprah Chips Factory in West Bandung (MSME)

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Abstract: This research was conducted on employees of the Garuda Cracker Factory MSME located on Jl. Raya Gadobangkong, West Bandung Regency exactly in Ngamprah District. The research was done on purpose to identify the significance of the effect of education and also work experience, both separately and together. The methods applied were descriptive and associative. The analysis focus is individuals who are employees of the Garuda Cracker Factory MSME on Jl. Raya Gadobangkong, Ngamprah District, West Bandung West Bandung. The sample size used was 95 respondents. It applied a saturated sampling method because all population members were taken as samples, namely all employees at the Garuda Cracker Factory MSME. Then it applied analysis of multiple linear regression and also tests were done for the validity and also reliability of the instruments. The results show a significant influence on the variables in both individually and also collectively. The influence of education on performance reached 20.6%, while work experience influenced employee performance by 44.9%, and the combined influence of education and also work experience toward employee performance was 65.5%.

Keywords: Education; Employee Performance; Msmes; Work Experience; Work Performance.

1. Introduction

Business activities encompass all economic endeavors carried out by individuals, organizations, or business entities to produce commodities and/or services that meet societal needs and generate profits in Indonesia (Mathis & Jackson, 2017). These activities include production, distribution, administration, innovation, marketing, and the development of human resource quality (Nurdin et al., 2021). Business activities in Indonesia are regulated by various laws and regulations designed to foster a healthy, fair, and sustainable commercial environment (Robbins, 2016). The government seeks to ensure legal certainty for companies by implementing measures that facilitate business operations, provide legal protection, and enhance national economic competitiveness (Hasibuan, 2019).

The kind of Micro, Small, and Medium Enterprises (MSMEs) take such a significant role to help strengthening economic structure in national level through productive and independent business activities (Robbins & Coulter, 2018). One concrete example of the presence of MSMEs at the regional level is the Garuda Crackers Factory in the Ngamprah District, West Bandung Regency, which serves as a case of a small and medium enterprise in the snack food industry. The increasing level of competition in the MSME sector has forced companies to maintain organizational sustainability. To develop within today's highly competitive landscape, organizations require skilled and high-performing human resources (Hutahaean, 2018).

Industrial development requires a significant human role within companies to help achieve established visions and missions. However, in terms of labor absorption, employment

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conditions in Indonesia can still be considered less than optimal due to various constraints (Laudon & Laudon, 2018). One of these relates to the mismatch between educational background and work experience and the job responsibilities assigned to individuals (Suwatno & Priansa, 2016). Human resources are closely associated with employee performance within a company, and every organization faces demands to produce strong performance at both individual and group levels (Kinicki & Williams, 2020).

Companies cannot operate effectively without addressing employee performance issues. Education and work experience are two important factors widely recognized as significantly influencing the employee performance's quality in many companies (Kamaludin, 2023). According to the background, the researcher is interested to carry a study on the influence of education level and also work experience on employee performance at the Garuda Crackers MSME Factory in Ngamprah, West Bandung.

2. Preliminaries or Related Work or Literature Review

Theory of Education Level

The level of education, according to Mulyasa (2017), is a formal indicator that reflects an individual's achievement in the learning process and their ability to adapt to social and work environments. Education levels can be defined as the stages or tiers within the formal education system that indicate a person's learning attainment and serve as an indicator of cognitive, affective, and psychomotor competencies acquired through the learning process. Furthermore, Mulyasa (2017) explains that the dimensions of education level consist of five aspects: knowledge, skills, attitudes or values, emotional maturity, and social competence.

Theory of Work Experience

Work experience is a learning process gained through direct involvement in relevant work activities, which progressively enhances an individual's competence and readiness to handle more complex tasks, as stated by Raymond A. Noe et al. (2017). The dimensions of work experience, according to Noe et al. (2017), include tenure (length of employment), task variety, job relevance to the current position, and level of responsibility, including the scope of roles and decisions previously held.

Performance Theory

Performance can be claimed as the outcomes earned by both individuals or groups within a company related to the authority and also responsibilities assigned, with the aim of realizing organizational goals in a manner that is legal, legitimate, and ethical, as explained by Sedarmayanti (2017). The dimensions of performance, according to Sedarmayanti (2017), include quality of work results, quantity of work results, total output produced within a certain period, timeliness (speed), attendance, and the ability to cooperate (teamwork).

3. Materials and Method

Research Object

Employees of the Garuda Crackers MSME Factory in Ngamprah, West Bandung Regency.

Place and Time of Research

It was done on employees of the Garuda Crackers Factory located at Jl. Raya Gadobangkong No. 38/42, Ngamprah District, West Bandung Regency, West Java 40552. The research was carried out from July to September 2025. The schedule of research activities is presented as follows.

Population

Population can be claimed as an area of generalization including factors like objects or individuals with specific quantities and also characteristics examined by the researcher to be analyzed, and drawn conclusions for as explained by Sugiyono & Sutopo (2023). The population used are the employees of the Garuda Crackers Factory in Gadobangkong, Ngamprah District, West Bandung Regency, totaling 95 employees in 2025.

Sample

As defined by Sugiyono (2017), saturated sampling can be claimed as technique in which the entire members of the population are taken to be samples. This method is also referred to as a census, where every member is taken in the sample. Because the population size was relatively small, not exceeding 100 respondents, the researcher included the entire population of employees of the Garuda Crackers Factory, consisting of 95 respondents.

Conceptual Framework

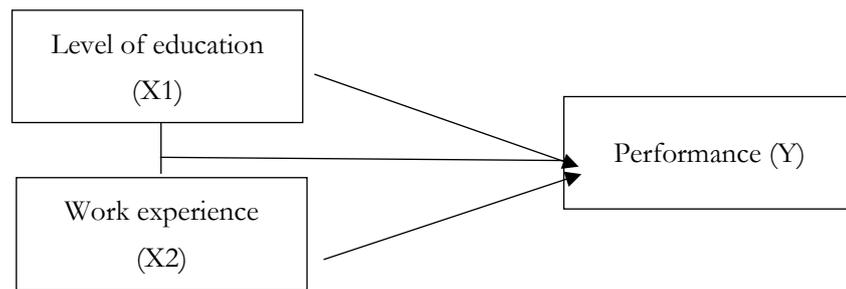


Figure 1. Research Paradigm

Description:

X1 = Education level as Independent variable:

X2 = Work Experience as Independent variable

Y = Employee Performance as Dependent variable

H1 = Hypothesis on the influence of education level on employee performance

H2 = Hypothesis on the influence of work experience on employee performance

4. Results and Discussion

Analysis descriptive

Recapitulation results answer respondents, that variables level education covers about 10 statements that received actual average value 271, value This in category Enough because inside interval range 247 – 321. Average value based on statement lowest that is I remain behave professional although currently is at in condition lack of emotion Good obtained mark amounting to 221. This caused by Because majority UKM Factory employees Garuda Crackers have level relatively formal education medium to down, so that understanding about importance professionalism, ethics work and control emotions on the spot Work Still limited.

Recapitulation results answer respondents, that experience Work contains 8 statements that have weighted average value actual 318, which is categorized as enough, because is at in range 247–321. The minimum average value, obtained from I try statement For complete work based on standards the applicable quality, is 261. This is caused by experience Work extensive staff, who have get used to they with pattern Work specific and custom.

Recapitulation results answer respondents, that variables performance has 10 statements, resulting in weighted average value current amounting to 279, which is categorized as enough, because is at in range 247-321. The minimum average value, obtained from I am patient statement when colleague Work own style different work with style Work I itself, is 205. System evaluation performance prioritize results work, namely quantity and speed production, rather than behavior work, which causes employee more concentrate on solving task. As a result, tolerance to difference method Work colleague become low Because considered hinder target achievement.

Validity Test

Testing validity evaluate validity questionnaire (Sugiyono, 2019). Testing validity help give measurement of authenticity or accuracy of the data obtained.

Validity test results attached in table under :

Table 1. Validity Test of Education Level (X1)

Variable	Statement Items	r count	r critical	Information
Education Level(X1)	X1.1	0.526	0.300	Valid
	X1.2	0.733	0.300	Valid
	X1.3	0.616	0.300	Valid
	X1.4	0.676	0.300	Valid
	X1.5	0.517	0.300	Valid
	X1.6	0.631	0.300	Valid
	X1.7	0.579	0.300	Valid
	X1.8	0.639	0.300	Valid
	X1.9	0.454	0.300	Valid
	X1.10	0.421	0.300	Valid

Source : Results by SPSS data, 2026

Referring from Table 1, all acquisition calculated r value known Already beyond mark r threshold 0.300. Shows all statement variables level education including in valid group, because coefficient correlation beyond important r value.

Table 2. Validity Test Experience Work (X2).

Variable	Statement Items	r count	r critical	Information
Experience (X2)	X2.1	0.624	0.300	Valid
	X2.2	0.634	0.300	Valid
	X2.3	0.681	0.300	Valid
	X2.4	0.706	0.300	Valid
	X2.5	0.760	0.300	Valid
	X2.6	0.756	0.300	Valid
	X2.7	0.464	0.300	Valid
	X2.8	0.541	0.300	Valid

Source : Results by SPSS data, 2026

Referring from Table 2, all calculated r value known beyond mark r threshold 0.300. Shows all statement in variables experience Work including in valid category, because show significant correlation to variables the.

Table 3. Performance Validity Test (Y).

Variable	Statement Items	r count	r critical	Information
Performance (Y)	Y1	0.548	0.300	Valid
	Y2	0.581	0.300	Valid
	Y3	0.555	0.300	Valid
	Y4	0.445	0.300	Valid
	Y5	0.538	0.300	Valid
	Y6	0.509	0.300	Valid
	Y7	0.568	0.300	Valid
	Y8	0.487	0.300	Valid
	Y9	0.376	0.300	Valid
	Y10	0.555	0.300	Valid

Source : Results by SPSS data, 2026

crucial r value more big on the number 0.300, and all calculated r value recorded exceed mark as in table 3. This is signify that every statement in variables performance including valid category because own significant correlation with variables the.

Reliability Test

Testing reliability, as defined by Sugiyono (2019), refers to the level at which the measurement executed in a way repetitive will obtain consistent data. The test results are attached in table under :

Table 4. Reliability Test.

Variables	<i>Cronbach's Alpha</i>	Information
Level of education	0.778	Reliable
Experience Work	0.792	Reliable
Performance	0.693	Reliable ;

Source : Data results by SPSS, 2026

Referring to Table 4 coefficient *Cronbach's alpha* For level education 0.778 and for experience work 0.792 and variables performance employee 0.693. This value including in range mark *Cronbach's alpha* 0.61 to 0.80. This meaningful If level education, experience Work as well as performance claimed reliable.

Assumption Test Classic

Normality Test

This test make an effort see if the data is already experience normal distribution, a prerequisite For use statistics parametric under this (Sugiyono, 2019).

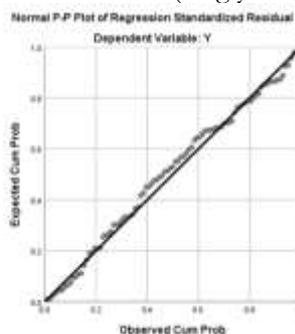


Figure 1. Normality Test Using the Propility Plots
Method Source : Data Processed by SPSS, 2025

Figure 1 illustrates dot, dot, dot data distribution is clustered near the diagonal line and one way with its trajectory, showing pattern normal distribution.

Multicollinearity Test

This test make an effort know If There is indication connection between variables free in a regression model where the model is assessed good and quality generally No There is relatedness between variables free the.

Table 5. Multicollinearity Test Using *the Tolerance Variance Inflation Factor (VIF)* Method.

Model	Coefficients	Unstandardized Coefficients		Standardized Coefficients	t	sig	Collinearity Statistics	
		B	Std.Error	Beta			Tolerance	VIF
		(Constant)	4,920	1,899				1,591
Education Level (X1)	.309	.507	.357	5,444	.000	.869	1,151	
Experience Work (X2)	.582	.063	.608	9	.000	.869	1,151	

Source : Data Processed by SPSS, 2026

Referring to the results Table 5 shows that :

- a) Tolerance value For level education (X1) and experience work (X2) is 0.869. Multicollinearity No There is If acquisition mark tolerance exceeds 0.10.
- b) Inflation Factor Variance (VIF) for level education (X1) and experience work (X2) is 1.151. The value of VIF below the number 10 means No found indication multicollinearity.

Heteroscedasticity Test

This test try see If there is a model of regression There is founf an indication of variance iinequality of residuals between observations carried out (Priyono & Chandra, 2016).

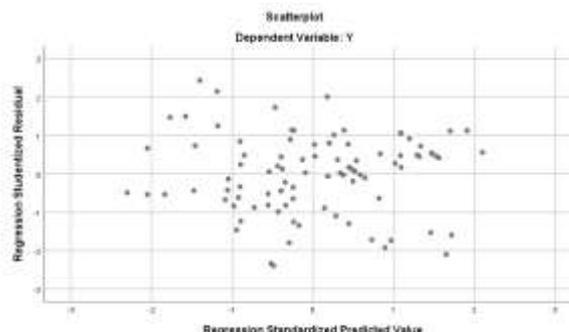


Figure 2. Heteroscedasticity Test Using the Scatterplot Method.

Source : Data Processed by SPSS, 2026

Referring to Figure 2, the scatterplot method shows No found indication visible patterns clear, with points that experience distribution of values Y axis is 0. Can be delivered if the regression model No show existence heteroscedasticity.

Autocorrelation Test

This test try check does the linear regression model represent connection from error at time t and error in time t-1 (Ghozali, 2018). This test executed through method compare Durbin-Watson statistics (d) through acquisition the specified dL and du values, or with use Durbin-Watson table for categorization to evaluate calculated d value.

Table 6. Autocorrelation Test.

Model	R	R Square	Adjusted square	R	Standard Error of the Estimate	Durbin-Watson
1	.810 ^a	.655	.648		3,416	1,783

a. Predictors: (Constant), Education Level, Experience Work
 b. Dependent Variable: Performance

Source : SPSS Study Data, 2026

Referring to the results SPSS calculations in Table 4.15 is generated Durbin Watson value 1.783. Obtained results :

Number of data (n) = 95,
 independent variable (k) = 2,
 dL value (DW Table, n:95, K:2) = 1.623
 Du value (Table DW, n:95, K:2) = 1.7091
 DW value = 1.783

The value of 4 – dL is = 2.377.
 $du \leq d \leq 4 - dL = 1,709 < 1,783 < 2,377$

Referring to the provisions table statistics durbin Watson then the Decision accepts null hypothesis or No There is autocorrelation and fit data For to be continued.

Analysis Method

Analysis Multiple Linear Regression

This study utilise analysis multiple linear regression, as effort in observe impact achievement education as well as experience Work to performance, there is results regression as stated under This

Table 7. Analysis Multiple Linear Regression.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4,920	1,899		2,591	.011
Education Level (X1)	.309	.057	.357	5,444	.000
Experience Work (X2)	.582	.063	.608	9,268	.000

Source : Data Processed by SPSS, 2026

Refer to the table on to describe coefficients in equality regression namely :

B = 4,920
 X1 = 0.309
 X2 = 0.582

So the formula the equations that apply namely :

$$Y = 4.920 + 0.309 X1 + 0.582 X2$$

Information :

- a. The value of constant $\beta_0 = 4.920$ shows performance No affected by the level education. If the level education is zero (0) or still No change, value performance is 4,920.
- b. Coefficient regression For level education (X1) is 0.309, which means If correlation positive from level education and performance.
- c. Coefficient regression For experience work (X2) is 0.582, indicating correlation positive between experience work and performance.

Coefficient Determination

This test make an effort know to what extent does it fluctuate? variables bound to get influence from fluctuations variables independent. This test also validates how much Far variables free capable provide explanation to variation in variables freedom. The findings of this test attached in table under :

Table 8. Coefficients Determination.

Model Summary ^b						
Model	R	R Square	Adjusted square	R	Standard Error of the Estimate	Durbin-Watson
1	.810 ^a	.655	.648		3,416	1,783
a. Predictors: (Constant), Education Level (X1), Experience Work (X2)						
b. Dependent Variable: Performance(Y)						

Source : Data Processed by SPSS, 2026

According to Table 8 coefficient determination (R^2) obtained namely 0.655, indicating There is influence combination from level education (X1) and experience work (X2) to performance (Y) contributed 65.5%, and the other 34.5% came from from factors outside the model, including motivation, compensation, discipline, and influence culture.

In knowing big impact from every variables free to bound, necessary counted enforce Beta x Zero Order x 100% formula. Beta is mark coefficient regression that has been normalized, while zero order is connection in a way individual from each variable free to bound. Through With the help of SPSS, the Beta value and zero order were obtained results like under This :

Table 9. Analysis Coefficient Determination Partial.

Coefficients Model	Standardized Coefficients Beta	Correlations Zero-order
Education Level (X1)	.309	.655
Experience Work (X2)	.582	.655

- a. Dependent Variable: Performance (Y)
- Source : Data Processed by SPSS, 2026

Refer to the table executed calculation related influence in a way individual or partial from every variables

Coefficient Determination of Education Level (X1)

$$KD = \beta \times \text{Zero Order} \times 100\%$$

$$\beta X1 = 0.357$$

$$\text{Zero Order } X1 = 0.578$$

$$KD (X1) = 0.357 \times 0.578 \times 100\% = 20.6\%$$

Coefficient Determination Experience Work (X2)

$$KD = \beta \times \text{Zero Order} \times 100\%$$

$$\beta X2 = 0.608$$

$$\text{Zero Order } X2 = 0.738$$

$$KD X2 = 0.608 \times 0.738 \times 100\% = 44.9\%$$

The Influence of Education Level on Employee Performance

Referring to (Mulyasa, 2017) the level of education is assessed as formal indicators that show achievement of the learning process a person and ability in adapt with environment social and work. Education has an influence to expertise and efficiency Work employees. Higher education allows somebody Work more fast, precise and responsible answer Because own more insight and knowledge wide ” (Kamaludin, 2023).

Probability significance level education (X1) at 0.000 < 0.05, it means to be reject H0 and accept H1. It also can be said that meaningful If level education produce significant and partial influence to performance employees at the factory Garuda UMKM Biscuits, which means If

level education tall have correlation with increase in level performance. Variable level education contributed 20.6% of variables performance.

Influence Experience Work On Employee Performance

Experience Work is the learning process obtained through involvement direct in activity relevant work, which is gradually increase ability and readiness individual For not quite enough more answers complex (Noe et al., 2017). Employees with experience substantial work show competence professional in overcome various challenges on the spot work. Experience This will grow source Power man quality capable height increase performance and achievement they (Rahmawati, 2016).

Significance experience work (X2) is at the 0.000 level, satisfying criteria mark significance under the number 0.05. It can be meant to reject H0 and also accept H1. This is meaningful If experience Work produce influence with large partial to performance employees at UMKM Factory Garuda Biscuits. Experience substantial work will help give improvement in performance. Variable experience Work contributed 44.9% of the influence performance.

The Influence of Education Level and Experience Work On Employee Performance

Education and experience Work are two factors recognized importance in a way significant influence quality performance employees in many company (Kamaludin, 2023). Education offers framework Work theoretical and conceptual, whereas experience Work give knowledge practical and real (Mangkunegara, 2020). Combined both of them produce power skilled and capable work, which is direct influence performance (Nitisemito, 2022).

Based on results testing hypothesis show that level education as well as experience Work produce influence to performance employee. Referring to the results Data analysis from SPSS obtained the total influence from level education as well as experience Work to performance employees at the Garuda Crackers Factory UMKM is 65.5%.

6. Conclusion

According to the analysis and discussion, several conclusions are able to be formulated: The education level of employees at the Garuda Crackers Factory overall remains in the category of moderate and has not yet earned the good category. This condition is largely due to the fact that the majority of employees at the MSME Garuda Cracker Factory have relatively low to middle levels of formal education, resulting in limited understanding of the importance of professionalism, work ethics, and emotional control in the workplace. The work experience of employees at the Garuda Crackers Factory overall is also in the category of moderate and has not yet achieved the category of good. Employees with limited work experience still require guidance, while more experienced employees tend to rely on their own working methods, which results in work quality that has not yet been fully optimized. Employee performance at the Garuda Crackers Factory overall falls into the moderate category and has not yet reached the good category. This is partly due to a performance appraisal system that emphasizes work output (quantity and speed of production) rather than work behavior, leading employees to focus primarily on completing their individual tasks. Education level has a significant and partial influence on employee performance at the Garuda Crackers MSME in Ngamprah, West Bandung Regency, with an influence value of 20.6%. Work experience has a significant and partial effect on employee performance at the Garuda Crackers MSME in Ngamprah, West Bandung Regency, with an influence value of 44.9%. Education level and also work experience simultaneously give such a significant influence on employee performance at the Garuda Crackers MSME in Ngamprah, West Bandung Regency, with a combined influence value of 65.5%.

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