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The Effect of Artificial Intelligence, Automation, and Burnout on the Performance of Generation Z Employees in the City of Samarinda

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Abstract

This research examines the influence of Artificial Intelligence (AI), automation, and burnout on the performance of Generation Z employees in Samarinda City. The rapid development of digital technology has prompted companies to adopt AI and automation to improve efficiency, while simultaneously increasing the risk of burnout among young workers who are highly adaptive to technological change. Using a quantitative approach, data were collected from 96 Gen Z employees through an online questionnaire employing a Likert scale. The samples were selected using purposive sampling, and the data were analyzed with multiple linear regression using SPSS. The findings show that AI has a positive but insignificant effect on employee performance due to its suboptimal utilization and the fact that not all job positions have integrated AI-based systems. Automation has a positive and significant effect, indicating that automated processes enhance efficiency, accelerate task completion, and reduce human error. Conversely, burnout has a negative and significant effect on performance, suggesting that high levels of stress, emotional fatigue, and workload pressure lead to decreased productivity. Overall, AI, automation, and burnout simultaneously have a significant influence on Gen Z employee performance, emphasizing the importance of integrating technological advancement with effective stress management strategies to maintain optimal performance in the digital era.

INTRODUCTION

The digital era has brought major transformations to the world of work through the application of Artificial Intelligence (AI) and automation (Brynjolfsson & McAfee, 2018; Dwivedi et al., 2021). These technologies enable various processes to be carried out faster, more accurately, and more efficiently than manual methods (Raisch & Krakowski, 2021). Many sectors, such as customer service, manufacturing, and finance—which previously relied on manual labor—are now supported by automated systems, thereby reducing the risk of burnout (Jarrahi, 2018; Makarius, Mukherjee, Fox, & Fox, 2020). For example, chatbots can handle basic customer inquiries, data-driven analytics support the financial sector, and automated machines increase productivity in manufacturing (Dwivedi et al., 2021).

The use of AI has grown significantly in Indonesia. The utilization of AI by knowledgeable workers is projected to reach 87% in 2024, up from 53% in the previous year (Nistanto RK et al., 2024). These figures indicate that AI is being leveraged not only to enhance efficiency but also to support professional competence development. Firdaus (2023) emphasized that AI is a branch of computer science that enables machines to perform human-

like tasks such as learning, pattern recognition, and autonomous decision-making. Optimal use of AI has the potential to increase the effectiveness and quality of employees' work.

Automation plays a crucial role in transforming work systems across various industrial sectors (Jasperneite et al., 2020; Rahmadina, 2024; Rayhan, 2023; Sharma et al., 2024; Tyagi et al., 2020). Processes that were previously carried out manually have been replaced by mechanical or computerized systems to improve efficiency and reduce errors. Hakim (2019) stated that automation involves transferring manual functions to automatic ones through mechanical equipment or computer systems. The implementation of automation saves time, improves work accuracy, and reduces the burden of repetitive tasks (Lo et al., 2024; Mohamed et al., 2022; Nowak & Remlein, 2025). However, this shift also requires employees to enhance their adaptability and technical competence to remain relevant.

Burnout is a psychological problem increasingly experienced by employees in today's demanding work environments. High workloads, performance targets, and the need for rapid adaptation make employees vulnerable to physical, mental, and emotional exhaustion. Syahputra and Ikhram (2024) stated that burnout is a syndrome that causes extreme fatigue and decreases work performance. This condition not only affects mental health but also reduces motivation and productivity.

Employee performance is a crucial indicator used to assess the quality and quantity of work outcomes in accordance with organizational standards. Sutrisno (2016) stated that performance is the result of work achieved by employees based on quality and quantity in carrying out duties and responsibilities. Performance levels are influenced by multiple factors, including technological development, individual adaptability, and psychological conditions such as burnout. The implementation of technology that is not balanced by employee readiness can create additional stress and negatively impact productivity.

In Samarinda City, the adoption of AI remains limited, as many companies rely only on basic automation systems such as personnel information management and data processing. Advanced AI-based predictive or fully automated technologies are not yet widely utilized, causing many work processes to remain manual. Consequently, Generation Z employees face greater work pressure due to heavy workloads and high performance demands that are not sufficiently supported by technology. Previous studies have shown that AI and automation have positive effects on performance (Pratama, 2023), while burnout has a negative effect (Yosanti and Kasmita, 2020). The limited research examining the combined influence of these three variables on Gen Z employees in Samarinda underscores the need for further investigation into how AI, automation, and burnout collectively affect their performance.

Based on this background, the researcher is interested in the study titled "The Influence of Artificial Intelligence, Automation, and Burnout on the Performance of Gen Z Employees in Samarinda City." The purpose of this study is to analyze the influence of Artificial Intelligence, automation, and burnout on the performance of Generation Z employees in Samarinda City, both partially and simultaneously. This study aims to provide empirical evidence on how technological factors and psychological conditions interact in shaping employee performance in the digital era. The findings are expected to offer valuable contributions both theoretically and practically. Theoretically, this research enriches the literature on human resource

management and organizational behavior, particularly in integrating technological innovation and employee well-being as determinants of performance. Practically, the results can provide insights for companies and organizations in formulating strategies that balance technological adoption with mental health management to maintain optimal employee performance in the modern workplace.

RESEARCH METHOD

Research Scope

This research was carried out on a number of employees who work in companies located in Samarinda City.

Required Data Details

The data needed to achieve the research objectives include:

1. Overview of Samarinda City
2. Overview of Generation Z of Samarinda City
3. Questionnaire
4. Respondents' answers to the research questionnaire

Data Collection Techniques

There are two ways of data collection techniques used in this study, namely field research using primary data obtained directly through interviews and the distribution of questionnaires to Gen Z employees in Samarinda City, and library research obtaining secondary data from various sources such as books, scientific journals, research reports, and articles obtained from websites related to this research.

Population and Sample

The population in this study is all Gen Z employees in Samarinda City. Population according to Sugiyono (2020:126) is a generalized area consisting of objects or subjects that have certain qualities and characteristics that are determined by researchers to be studied and then drawn conclusions.

The sample technique uses purposive sampling, which is a sample determination technique with certain considerations. The sample criteria set by the researchers include:

1. Generation Z or individuals born between 1997-2012.
2. Aged 20-27 years.
3. Work as an active employee.
4. Domiciled in Samarinda City.
5. Have a minimum working period of 6 months.

According to the source of the statement expressed in the Cochran formula, according to Singh and Masuku (2014) states that "The technique of calculating sample size for large or unknown populations of exact numbers can use the Cochran formula" as follows:

$$n = \frac{z^2 pq}{e^2}$$

Description:

n = number of samples required

z = price in the curve for a deviation of 5% with a value, 1.96.

P = true chance 50% = 0.5
Q = chance of error 50% = 0.5 E = sample error 10%
So the number of samples in this study is:

$$n = \frac{1{,}96^2\ (0{,}5)(0{,}5)}{0{,}1^2}$$

$$n = \frac{3{,}8416(0{,}5)(0{,}5)}{0{,}01}$$

$$n = \frac{3{,}8416.0{,}25}{0{,}01}$$

$$n = 96{,}04$$

From the calculation using this formula, the required number of samples was 96. This means that for the research to be conducted, it is necessary to collect data from 97 respondents to achieve a confidence level of 95% with a margin of error of 5%.

Analysis Tools

The analysis tool used in this study is multiple linear regression. The research instrument is tested through validity and reliability tests to ensure the feasibility of the statement items. The classical assumption test was carried out to ensure that the data met the requirements of regression analysis which included normality, multicollinearity, heteroscedasticity, and autocorrelation tests.

RESULTS AND DISCUSSION

Test Data Instruments

1. Validity Test

A validity test is carried out to ascertain whether each question in the questionnaire or data collection instrument is valid or not. This validity test was carried out by comparing r calculations > r tables.

Table 1. Validity Test of Artificial Intelligence Variables (X1)

Variable	r count	R Table	Remarks
X1.1	0,684	0,2006	Valid
X1.2	0,818	0,2006	Valid
X1.3	0,875	0,2006	Valid
X1.4	0,751	0,2006	Valid

Source: Data processed by researchers, 2025

Based on Table 1, it is known that the statement items of the Artificial Intelligence variable obtain r calculation > r table so that it can be concluded that the Artificial Intelligence variable used in this study is valid.

Table 2. Automation Variable Validity Test (X2)

Variabel	r count	R table	Remarks
X2.1	0,639	0,2006	**Valid**
X2.2	0,834	0,2006	**Valid**

Variabel	r count	R table	Remarks
X2.3	0,849	0,2006	**Valid**
X2.4	0,836	0,2006	**Valid**
X2.5	**0,633**	**0,2006**	**Valid**

Source: Data processed by researchers 2025

Based on Table 2, it is known that the items of the automation variable statement obtained r calculation > r table so that it can be concluded that the automation variable used in this study is valid.

Table 3. Burnout Variable Validity Test (x3)

Variabel	r_{count}	R_{table}	Remarks
X3.1	0,864	0,2006	**Valid**
X3.2	0,877	0,2006	**Valid**
X3.3	0,865	0,2006	**Valid**
X3.4	**0,754**	**0,2006**	**Valid**

Source: Data processed by researchers 2025

Based on Table 3, it is known that the items of the statement of the burnout variable obtained r > r table so that it can be concluded that the burnout variable used in this study is valid.

Table 4. Validity Test of Employee Performance Variables(X1)

Variabel	r_{count}	R_{table}	Remarks
Y1	0,720	0,2006	**Valid**
Y2	0,833	0,2006	**Valid**
Y3	0,747	0,2006	**Valid**
Y4	**0,588**	**0,2006**	**Valid**

Source: Data processed by researchers 2025

Based on Table 4, it is known that the items of employee performance variable statements obtained r calculation > r table so that it can be concluded that the employee performance automation used in this study is valid.

2. Reliability Test

Reliability testing using Cronbach's Alpha aims to assess the consistency of respondents' answers on measurement instruments, such as questionnaires. If the value of Cronbach's Alpha > 0.60, then the instrument is considered reliable, on the other hand, if the value of Cronbach's Alpha is less than 0.60, then the instrument is considered unreliable.

Table 5. Reliability Test

Variabel	*Cronbach's Alpha*	N of Items	Remarks
Artificial Intelligence **(X1)**	0,790	4	**Reliabel**

Automation (X2)	0,817	5	**Reliabel**
***Burnout* (X3)**	0,859	4	**Reliabel**
Employee Performance (Y)	**0,674**	**4**	**Reliabel**

Source: Data processed by researchers, 2025

Based on table 5, it is known that the results of the reliability test on the artificial intelligence variable are 0.790 > 0.60, the automation variable is 0.817 > 0.60, and the burnout variable is 0.674 > 0.60, so that all variable statements are declared reliable.

3. Classic Assumption Test

a. Normality Test

The normality test was performed to test whether the regression model between the bound veriabel and the independent variable both have a normal distribution or not. Testing can use the Kolmogrov-Smirnov test. Have a condition if Asymp. Sig is more than or equal to 0.05 then the data distribution is normal, if Asymp. If the sig is less than 0.05, then the data distribution is abnormal.

Table 6 Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		**96**
Normal Parameters[a,b]	Mean	**,0000000**
	Hours of deviation	**,40211486**
Most Extreme Differences	Absolute	**,087**
	Positive	**,087**
	Negative	**-,079**
Test Statistic		**,087**
Asymp. Sig. (2-tailed)		**,068c**
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Source: Data Processed by Researchers 2025

Based on table 6 above, it can be concluded that Asymp. Sig. (2-tailed) is 0.068 so the significance value is > 0.05, so in this study the data is distributed normally.

b. Linearity Test

The linearity test is used to determine the linearity of the data, which is whether two

variables have a linear relationship or not. If the value of P(Sig) Linearity < 0.05 and the value of Deviation form Linearty is significant > 0.05 (α = 5%), then it can be concluded that two variables are said to have a linear relationship. If the value of P(Sig) Linearity > 0.05 and the value of Deviation form Linearty is significant < 0.05 (α = 5%), then it can be concluded that the two variables are said to have no linear relationship.

Table 7. Linear Variable Linearity Test of Artificial Intelligence

ANOVA Table

			Sum of Squares	**df**	**Mean Square**	**F**	**Say.**
Performan Employees Artificial Intelligenc	Between Groups	(Combined)	2,898	10	,290	1,452	**,172**
		Linearity	,475	1	,475	2,378	**,000**
		Deviation from Linearity	2,423	9	,269	1,349	**,224**
	Within Groups		16,966	85	,200		
	Total		**19,865**	**95**			

Source: Data Processed by Researchers 2025

Based on table 7, it is known that the value of Sig. Linearity < 0.05 and the value of Sig. Deviance from Linearity for artificial intelligence is 0.224 > 0.05, so it can be concluded that the regression model has a linear relationship.

Table 8 Linearity Test of Automation Variables

ANOVA Table

			Sum of Squares	**df**	**Mean Square**	**F**	**Say.**
Employee Performance * Automation	Between Groups	(Combined)	5,669	13	,436	2,519	,006
		Linearity	3,152	1	3,152	18,205	,000
		Deviation from Linearity	2,517	12	,210	1,212	,289
	Within Groups		14,196	82	,173		
	Total		19,865	95			

Source: Data Processed by Researchers 2025

Based on table 8, it is known that the value of Sig. Linearity < 0.05 and the value of Sig. Deviance from Linearity for automation is 0.289 > 0.05, so it can be concluded that the regression model has a linear relationship.

Table 9 Burnout Variable Linearity Test

ANOVA Table

			Sum of Squares	**df**	**Mean Square**	**F**	**Say.**
Employee	Between	(Combined)	4,355	12	,363	1,942	,041

Performance * Burnout	Groups	Linearity	1,543	1	1,543	8,260	,005
		Deviation from Linearity	2,812	11	,256	1,368	,204
	Within Groups		15,509	83	,187		
	Total		19,865	95			

Source: Data Processed by Researchers 2025

Based on table 9, it is known that the value of Sig. Linearity < 0.05 and Sig. Deviance from Linearity for burnout is 0.204 > 0.05, so it can be concluded that the regression model has a linear relationship.

c. Multicollinearity Test

The multicollinearity test is used to determine whether there is a linear relationship between independent variables in the regression model. In this study, a multicollinearity test was carried out by looking at the values of Tolerance and Variance Inflation Factor (VIF) and the amount of correlation between bound variables. The results of the multicollinearity test can be seen in the following table:

Table 10. Multicollinearity Test

Coefficientsa								
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Say.**	**Collinearity Statistics**	
		B	**Std. Error**	**Beta**			**Tolerance**	**LIVE**
1	(Constant)	3,754	,344		10,917	,000		
	Artificial Intelligence	,025	,049	,049	,517	,607	,933	1,072
	Automation	,255	,065	,371	3,905	,000	,931	1,074
	Burnout	-,112	,040	-,256	-2,785	,006	,996	1,004

a. Dependent Variable: Employee Performance

Source: Data Processed by Researchers 2025

Based on table 10, it can be concluded that all independent variables in the multicollinearity test did not have symptoms of multicollinearity in this study by looking at the Tolerance value > 0.1 and the VIF value < 10.

d. Heterokedasticity test

The heterokedasticity test is a test that aims to find out the residual variant that is not the same as all the observations in the regression model. The way to find out the existence or absence of heterokedasticity relationships using the Glejser Test method is to regress the variable bound to the residual absolute value. Based on the calculation of the heterokedasticity test (Glejser Test) as follows:

Table 11 Heterokedasticity Test

Coefficientsa						
		Unstandardized Coefficients		**Standardized Coefficients**		
Model		**B**	**Std. Error**	**Beta**	**t**	**Say.**
1	(Constant)	1,479	,690		2,143	,035

Artificial Intelligence	,003	,025	,012	,112	,911
Automation	-,027	,026	-,109	-1,028	,307
Burnout	,028	,020	,141	1,377	,172

a. Dependent Variable: Abs_RES

Source: Data Processed by Researchers 2025

Based on table 11, it can be seen that the results of the heterokedasciotas test using the Geljser test showed the significance of the independent variable consisting of the artificial intelligence variable of 0.911, automation of 0.307, burnout of 0.172 showing a significance value greater than the sig value of 0.05. Thus, it can be concluded that in this study there is no heterokedasticity.

e. Autocorrelation test

The Autocorrelation test is used to find out whether or not there is a correlation that occurs between residual in an observation and other observations in the regression model, then the results of the autocorrelation test can be seen in the following table:

Table 12. Autocorrelation Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,476a	,227	,201	1,634	1,785

a. Predictors: (Constant), Burnout, Artificial Intelligence, Ototmatisasi
b. Dependent Variable: Employee Performance

Source: Data Processed by Researchers 2025

The autocorrelation test was performed using the Durbin Watson test. The condition for no autocorrelation is DU < DW < 4 – DU. Based on the output in table 12 test results

the autocorrelation shows Durbin Watson's hate of 1.785. The DU and DL values in the DW table α=5% with n = 96 and k = 3 (DL = 1.6039 and DU = 1.7326). Value 4 – DU = 4 – 1.7326 = 2.268. It can therefore be concluded that 1.7326 < 1.785 < 2.268 indicate that the Durbin Watson value is between two numbers of the autocorrelation limit, thus indicating that in the regression model there is no autocorrelation.

4. Regresi Linear Berganda

Linear regression is a technique used to determine the relationship between independent variables and bound variables. In this study, the independent variables are artificial intelligence X1, automation X2, and burnout X3, while the bound variable is employee performance Y.

Table 13. Multiple Linear Regression

Coefficientsa						
	Model	Unstandardized Coefficients		Standardized Coefficients	t	Say.
		B	Std. Error	Beta		
1	(Constant)	15,015	1,375		10,917	,000
	Artificial Intelligence	,025	,049	,049	,517	,607
	Automation	,204	,052	,371	3,905	,000
	Burnout	-,112	,040	-,256	-2,785	,006
a. Dependent Variable: Employee Performance						

Source: Data Processed by Researchers 2025

Based on the calculations in table 13, multiple linear regression equations from the variables of artificial intelligence, automation, and burnout on employee performance are obtained as follows:

$$Y= 15.015 + 0.025 (X1) + 0.204 (X2) – 0.112 (X3) + e$$

Based on the results obtained, the multiple linear regression equation is as follows:

a. Constant (α), Constant is 15.015, meaning that if the variables artificial intelligence (X1), automation (X2), and burnout (X3) are valued, then the employee performance value (Y) is 15.015, in other words if the free variable does not have an influence, then the bound variable has a value of 15.015.
b. The Effect of Artificial Intelligence (X1) on Employee Performance (Y), The Effect of the Artificial Intelligence (X1) Variable on Employee Performance (Y) is 0.025 or has a positive effect. Positive means that if artificial intelligence (X1) increases, employee performance (Y) will also increase, and vice versa, if artificial intelligence (X1) decreases, employee performance (Y) will decrease.
c. The Effect of Automation (X2) on Employee Performance (Y), The Effect of Automation (X2) on Employee Performance (Y) is 0.204 or has a positive effect. Positive means that if automation (X2) increases, employee performance also increases, and vice versa, if automation (X2) decreases, employee performance (Y) will decrease.
d. The Effect of Burnout (X3) on Employee Performance (Y), The Effect of Burnout (X3) on Employee Performance (Y) of -0.112 or Negative Effects. Negative means that the higher the level of burnout (X3) experienced by employees, the lower their employee performance (Y). Conversely, if the burnout rate (X3) decreases, then employee (Y) performance tends to increase.

5. Partial Significance Test (t-test)

The hypothesis in this study was tested for correctness using the pasrial significance test (t-test). This test is carried out by looking at the significant level (p-value), if the significance resulting from the calculation is < 0.05, then the hypothesis is accepted. On the other hand, if the significance value of the result is calculated >0.05, then the hypothesis is rejected. The results of data management using SPSS can be seen in the following table:

Table 14. Partial Significance Test (t-test)

Coefficientsa						
		Unstandardized Coefficients		Standardized Coefficients	t	Say.
	Model	B	Std. Error	Beta		
1	(Constant)	15,015	1,375		10,917	**,000**
	Artificial Intelligence	,025	,049	,049	,517	**,607**
	Automation	,204	,052	,371	3,905	**,000**
	Burnout	-,112	,040	-,256	-2,785	**,006**
a. Dependent Variable: Employee Performance						

Source: Data Processed by Researchers 2025

Partial tests were conducted to see individually the significant effect of independent variables on dependent variables. The distribution table t is searched at α=5% with the degree of freedom = df-k (df = the number of samples and k = the sum of the total variables), then df-k = 96-4 =92 with the significance of the result t of the table of 1.986.

Based on table 14 in the table of partial significance tests (t-test), it can be explained:

a. Artificial Intelligence (H1), Artificial intelligence (X1) obtained a calculation of 0.517 < 1.986 (t table). Then a significant value of 0.607 > 0.05 was obtained. Based on these results, it can be concluded that H1 is rejected, meaning that Artificial intelligence (X1) has a positive and insignificant influence on employee performance (Y). Although it has a positive influence, it is very weak and not statistically strong enough to affect employee performance. The hypothesis was rejected.
b. Automation (H2), Automation (X2) obtained a calculation of 3.905 > 1.986 (t table). Then a siphonic value of 0.000 < 0.05 was obtained. Based on these results, it can be concluded that H2 is accepted, meaning that automation (X2) has a positive and significant influence on employee performance (Y). The higher the level of automation in work, the better the employee performance. Hypotheses accepted.
c. Burnout (X3), Burnout (X3) obtained a calculation of -2.785 > 1.986 (t table). Then a significant value of 0.006 < 0.05 was obtained. Based on these results, it can be concluded that H3 is accepted, meaning that burnout (X3) has a negative and significant influence on employee performance. The higher the burnout an employee experiences, the lower their performance. Hypotheses accepted.

6. Simultaneous Test (F Test)

Simultaneous tests (F tests) are used to determine whether or not there is an effect of independent variables on bound variables. This test was carried out using a significant level of 0.05 (α=5%). The results of the simultaneous test (F test) can be seen in the following table:

Table 15. Simultaneous Test Results (F Test)

ANOVA						
	Model	**Sum of Squares**	**df**	**Mean Square**	**F**	**Say.**
1	Regression	72,055	3	24,018	8,991	,000b
	Residual	245,778	92	2,672		
	Total	317,833	95			
a. Dependent Variable: Employee Performance						
b. Predictors: (Constant), Burnout, Artificial Intelligence, Ototmatisasi						

Source: Data Processed by Researchers 2025

The F test table was searched at a confidence level of 95%, α=5% with the values df1 = k-1 (3-1) and df2 = the number of samples - the total number of variables (96 - 3), then the results of df1 = 2 and df2 = 93 with a Ftable value of 3.095 were obtained.

The results of statistical calculations show that the value of Fcal = 8.991 > Ftabel = 3.095 and a significant value of 0.000 < 0.05 so that it can be concluded that artificial intelligence, automation, and burnout simultaneously have a significant effect on employee performance, so the hypothesis is accepted.

7. Determination Test (R2)

The determination coefficient (R2) is used to measure how far a model variable is able to explain the variation of dependent variables. The results of the determination coefficient (R2) test can be seen in the following table:

Table 16. Determination Coefficient Test Results (R2)

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	,476a	,227	,201	1,634
a. Predictors: (Constant), Burnout, Artificial Intelligence, Ototmatisasi				

Source: Data Processed by Researchers 2025

Based on Table 16 above, an R value of 0.476 was obtained, indicating that the correlation coefficient shows a positive relationship between the variables of artificial intelligence, automation, and burnout with the variable of employee performance.

The interpretation of the R value (R = 0.476) in the context of this study generally refers to a moderate level of association, as correlations between 0.40 and 0.59 are typically categorized as moderate relationships. This means that the independent variables examined in this study influence the dependent variable, although the influence is not particularly strong. Furthermore, the coefficient of determination (R^2) was 0.476, which means that 47.6% of the variation in employee performance is explained by artificial intelligence, automation, and burnout, while the remaining 52.4% (1 – 0.476 = 0.524) is influenced by other variables not included in this study.

Discussion

Based on the results of the analysis, the influence of artificial intelligence, automation, and burnout on employee performance will be discussed as follows:

1. The Influence of Artificial Intelligence on Gen Z Employee Performance

The results of the study show that artificial intelligence (AI) does not have a significant effect on the performance of Gen Z employees in Samarinda City. These findings are shown through a t-value that is smaller than the t-table as well as a significance value above 0.05. Although the coefficient of influence of AI is positive, the magnitude of the influence is so weak that it does not have a significant impact on improving employee performance.

This condition indicates that the use of AI in the companies where respondents work is not optimal. Many routine jobs are still carried out manually or semi-digitally, so the contribution of AI has not been directly felt by employees. In addition, not all departments or divisions require the use of AI, which causes these variables to be unable to have a significant influence on performance. The results of this study are strengthened by the results of research conducted by Choirul Yofi (2023) who found that artificial intelligence does not have a significant influence on the performance of human resources.

2. The Effect of Automation on Gen Z Employee Performance

The results of the study show that automation has a positive and significant influence on employee performance. A t-value greater than the t-table as well as a significance below 0.05 confirms that the implementation of automation contributes directly to improving the efficiency and quality of work of Gen Z employees.

Employees are proven to have good ability to operate hardware and software used in the work process.

The existence of automated systems and databases also makes it easier to complete tasks, reduce manual errors, and speed up workflows. The results of this study are strengthened by the results of research conducted by Pratama (2023) which states that automation has a significant effect on human resource performance.

3. The Effect of Burnout on Gen Z Employee Performance

The results of the study show that burnout has a negative and significant effect on the performance of Gen Z employees. Indicators of burnout such as emotional fatigue, work pressure, and social stress have been shown to inhibit productivity, reduce focus, and reduce work motivation.

Some of the triggering factors for burnout that emerged in this study include high workload, lack of emotional management, conflicts with colleagues, and concerns about competency assessment. Without adequate technological support, repetitive work also worsens fatigue conditions. The results of this study are strengthened by the results of research conducted by Ni Made, Pradnya, Dhaniswari, and Sudarnice (2024) which shows that burnout has a negative and significant influence on the performance of Gen Z employees.

4. The Influence of Artificial Intelligence, Automation, and Burnout on Gen Z Employee Performance

Simultaneously, the three variables AI, automation, and burnout showed a significant influence on the performance of Gen Z employees.

Although AI is not partially significant, its presence in the shared model of automation and burnout shows that AI still plays a role in supporting technology-based work ecosystems. Automation makes a positive contribution to improving performance, while burnout has a negative impact.

The combination of the three reflects modern working conditions that require technological adaptation as well as attention to the psychological well-being of employees. The results of this study are strengthened by the results of research conducted by Advent Chandra et al. (2024) and the research of Ni Made Pradnya Dhaniswari and Sudarnice (2024), which both found the simultaneous influence of technological and psychological variables on human resource performance.

CONCLUSION

Based on the results of the analysis and discussion regarding the influence of artificial intelligence (AI), automation, and burnout on the performance of Generation Z employees in Samarinda City, the following conclusions can be drawn: Artificial intelligence has a positive but insignificant effect on the performance of Gen Z employees in Samarinda City. This is because the application of AI remains limited, has not been fully optimized, and not all job types require AI-based technological support. Automation has a positive and significant effect on the performance of Gen Z employees, while burnout has a negative and significant effect on their performance. Simultaneously, artificial intelligence, automation, and burnout significantly influence the performance of Gen Z employees in Samarinda City. The use of technologies such as AI and automation can help reduce workload and the risk of burnout, allowing performance to remain optimal amid the demands of the digital era.

Based on the conclusions of this study, the following suggestions are proposed. Employees are encouraged to make optimal use of AI and automation to minimize manual workloads and prevent burnout. Stress management and emotional regulation skills should be strengthened so that employees can better cope with work pressures. Furthermore, developing professional competencies and maintaining effective communication with supervisors are important for enhancing confidence and obtaining constructive feedback. Future researchers are encouraged to explore additional factors such as work environment, leadership style, organizational culture, or motivation that may also affect employee performance.

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