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The Influence of E-Government on Employee Performance Moderated by Age and Gender (A Study on Employees at Sawahan District, Surabaya City)

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Abstract

This research aims to explore the impact of the implementation of E-Government on employee performance in the Sawahan District of Surabaya, considering the moderating effects of age and gender. E-Government is regarded as a significant innovation in enhancing the efficiency and transparency of public services. The study employs a quantitative approach, utilising data collection techniques through questionnaires distributed to 100 employees in the Sawahan District. Data analysis is conducted using Structural Equation Modeling (SEM) with a Partial Least Square (PLS) approach.

The findings of this research conclude that the implementation of E-Government significantly enhances employee performance in the Sawahan District. Age may act as a factor that weakens this influence, whereas gender may serve to strengthen it. Recommendations for future research include expanding the sample size and considering specific training for older employees to improve their adaptation to technology.

The limitations of this study include a sample that is confined solely to employees in the Sawahan District, which may not represent the entire population of employees in Surabaya or other regions, as well as an imbalanced proportion of age and gender. It is suggested that future research involve a more diverse sample and implement training programmes for older employees to facilitate better adaptation to the E-Government system.

INTRODUCTION

In the era of globalization and digitalization, E-Government has become a key element in modernizing the public sector in many countries. The main objective of E-Government is to improve the quality of public services through the use of information and communication technology (ICT). The Surabaya City Government has implemented E-Government as part of its Smart City initiative, which aims to enhance the quality of life for citizens and support sustainable development.

On July 1, 2021, the Surabaya City Government enacted Mayor's Regulation Number 41 of 2021, which introduced the Surabaya Single Window Alfa (SSW Alfa) platform. This platform was designed to simplify and accelerate the licensing process in Surabaya and represents the government's commitment to implementing E-Government in building a Smart City.

The implementation of E-Government requires all levels of government, including districts and sub-districts, to adopt technology in delivering public services. Employee performance in the context of E-Government has become increasingly important, especially in meeting the demand for efficient public services. Age is one of the factors that can influence employees' attitudes and abilities to adapt to new technologies.

Employee performance is a crucial indicator of organizational effectiveness, and factors such as age and gender can affect it. Research shows that older employees often possess greater experience and skills, which can improve decision-making quality and work effectiveness. However, younger employees tend to adapt more quickly to technological changes and innovative approaches.

The interaction between age and gender also provides insights into workplace dynamics. Older employees often demonstrate strengths in leadership, while younger employees may excel in creativity and problem-solving. Age can also influence employee motivation and commitment, with older generations tending to show higher levels of commitment to their work.

Gender likewise affects employee performance, as differences in communication styles and managerial approaches between men and women can shape team dynamics. Women often display stronger collaborative abilities, while men may demonstrate greater competitiveness. The combination of age and gender can create diverse perspectives within a team, but it may also present challenges related to stereotypes and biases.

Digital transformation in the public sector through E-Government not only aims to increase citizen satisfaction but also to improve internal organizational performance. Studies indicate that the adoption of E-Government has a significant impact on employee performance, particularly in terms of work efficiency and data-driven decision-making. However, this impact is not uniform across all employees, as demographic factors such as age act as moderators.

METHODS

This study aims to examine the effect of age and gender on employee performance, moderated by E-Government, in Sawahan District, Surabaya. The research method employed is quantitative, based on positivism principles, and designed to test hypotheses through data analysis. Primary data were collected through questionnaires distributed to selected respondents (Sugiyono, 2022).

The research sample consists of employees in Sawahan District, Surabaya, focusing on variables influencing employee performance. The variables analyzed include: Exogenous Variable (Y): Employee Performance, Moderating Variables (Z1, Z2): Age and Gender, Endogenous Variable (X1): E-Government

The operational definitions describe how variables are measured empirically: E-Government: The use of information technology by the government for public services, measured through accessibility, transparency, efficiency, and effectiveness. Employee Performance: The output of employees in carrying out their tasks, measured through productivity, work quality, efficiency, effectiveness, responsibility, and initiative. Gender: Biological differences between men and women, measured through access, participation, control, and benefits. Age: The length of an individual's life span, grouped into specific categories and measured using relevant indicators.

The research population consists of all employees in Sawahan District. The sampling technique applied is non-probability sampling with the census method, in which 100 employees were selected as respondents from a total of 214 employees. The research instrument is a questionnaire consisting of questions related to the variables studied. Each item in the questionnaire is specifically designed to measure variable indicators. Validity testing was conducted to assess the accuracy of the instrument, while reliability testing assessed its consistency. The instrument is considered valid if p-value < 0.05 and reliable if Cronbach's alpha > 0.6.

The primary data source is obtained directly through questionnaires distributed to employees. Data collection was carried out directly to ensure accuracy and reliability.

Data analysis was conducted using Structural Equation Modeling–Partial Least Squares (SEM-PLS) to test hypotheses and analyze relationships between variables. PLS was chosen due to its ability to handle complex variables and non-normal data distributions. The measurement model was used to evaluate the validity and reliability of the model. Convergent and discriminant validity, as well as composite reliability, were tested to ensure that the instruments met high measurement standards.

The structural model assessment was conducted to evaluate relationships among variables, using R-squared values and t-tests to examine the significance of path parameters. Hypotheses were tested based on t-statistics and probability values. Hypothesis acceptance criteria were determined by comparing t-statistics with the predefined threshold and using p-values to determine significance.

RESULTS AND DISCUSSION

In research, the implementation of validity testing is an essential step and consists of several distinct stages. One of the main components of this test is Convergent Validity, which can be measured through two primary methods: Outer Loadings (Loading Factor) and Average Variance Extracted (AVE). In addition, Discriminant Validity is also measured based on the Fornell-Larcker criterion and Cross Loading.

This validity test is crucial to ensure that the instruments used in the research can accurately measure what they are intended to measure. Therefore, an in-depth analysis of Convergent Validity and Discriminant Validity is highly important to improve the reliability and validity of research results. Researchers must carefully evaluate each step in this process to ensure that the data obtained are accurate and reliable.

The results of the Convergent Validity test indicate that several Outer Loading and AVE values do not meet the established standard criteria, namely values below 0.5. In this context, the AVE and Outer Loading values obtained during the study need to be examined further to determine the necessary corrective measures.

Table 1
Outer Loading Values in the Study

	X	Y	Z1	Z2	Z2 x X	Z1 x X
X1	0,670					
X2	0,932					
X3	0,897					
X4	0,918					
X5	0,826					
X6	0,781					
X7	0,827					
Y1		0,888				
Y2		0,919				
Y3		0,943				

Y4		0,919				
zY5		0,689				
Z1 1			0,754			
Z1 2			0,817			
Z1 3			0,793			
Z1 4			0,797			
Z1 x X						1.000
Z2 2				0,997		
Z2 3				0,673		
Z2 4				0,653		
Z2 x X					1.000	
Z2 1				0,744		

Source:Processed Data, 2025

In this study, convergent validity values were evaluated through the measurement of outer loading. Indicators with an outer loading value of ≥ 0.7 are considered valid, while indicators with a value ≤ 0.7 are considered invalid. However, in the context of preliminary research, indicators with an outer loading value of ≥ 0.5 can still be considered valid. The analysis results using SmartPLS version 3.4 show that the average outer loading value in this study is ≥ 0.5. This indicates that all indicators used in this study can be considered valid.

After conducting the loading factor analysis, the next step was to perform a convergent validity test through the measurement of Average Variance Extracted (AVE). The purpose of AVE measurement is to evaluate the convergent validity of a construct. Furthermore, for a construct to be declared valid, the AVE value must exceed 0.5 (Ghozali, 2021). The following table presents the AVE values in this study:

Table 2
AVE Values in the Study

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
X	0,928	0,930	0,943	0,706
Y	0,921	0,930	0,943	0,769
Z1	0,803	0,823	0,870	0,625
Z2	0,662	0,638	0,118	0,562

Source:Processed Data, 2025

Based on the analysis conducted, all the variables examined have met the criteria for Average Variance Extracted (AVE), with the minimum required value of 0.5. This indicates that the results of the Convergent Validity test are acceptable and considered valid. Furthermore, to ensure the validity of the study, Discriminant Validity testing will be carried out using the Fornell-Larcker criterion and Cross Loading as analytical methods.

The testing with the Fornell-Larcker criterion is conducted by comparing the square root of AVE (√AVE) with other latent variables. The main principle of this test is that the correlation value

between √AVE and the construct of the variable being analyzed must be higher than its correlation with the constructs of other variables. This analytical process requires close attention to the diagonal and vertical directions in each column of the variables being examined. By following these steps, the validity of the study can be scientifically ensured.

Table 3
Values from Fornell-Larcker Criterion Analysis

	X	Y	Z1	Z2	Z2 x X	Z1 x X
X						
Y	0,676					
Z1	0,255	0,306				
Z2	0,262	0,307	0,715			
Z2 x X	0,199	0,137	0,124	0,416		
Z1 x X	0,098	0,112	0,514	0,552	0,510	

Source:Processed Data, 2025

Table 3 shows that the √AVE value for Variable X, in relation to itself, is recorded at 0.676. This value is higher compared to the other variables in this study. Furthermore, the √AVE value for Variable Y is recorded at 0.306, while Variable Z1 reaches 0.715 and Variable Z2 stands at 0.416.

As the next step in testing Discriminant Validity, the Cross Loading test needs to be conducted. This test aims to evaluate the Outer Loading values of each variable construct. In this context, the Outer Loading value for a construct must be higher than the values found in other variables. The results of the Cross Loading values obtained in this study will be presented in the subsequent analysis.

Table 4
Processed Values of Cross Loading Factor

	X	Y	Z1	Z1 > Y	Z2	Z2 > Y
X * Z1	-0,109	-0,045	0,450	1,000	0,002	0,276
X * Z2	-0,172	-0,152	0,002	0,276	0,151	1,000
X1	0,571	0,453	0,090	0,015	0,121	-0,103
X2	0,865	0,644	0,045	-0,131	0,328	-0,174
X3	0,342	0,245	0,002	0,033	0,075	0,058
X4	0,805	0,642	0,101	-0,057	0,456	-0,144
X5	0,732	0,526	0,043	-0,092	0,221	-0,016
X6	0,846	0,684	0,111	-0,162	0,397	-0,269
X7	0,736	0,832	0,052	-0,075	0,429	-0,103
Y1	0,749	0,908	0,073	-0,102	0,447	-0,094
Y2	0,712	0,918	0,118	-0,009	0,453	-0,091
Y3	0,683	0,898	0,124	-0,037	0,433	-0,106
Y4	0,529	0,717	0,234	0,159	0,351	-0,079
Y5	0,825	0,755	0,210	-0,139	0,374	-0,243
Z1 1	-0,059	0,024	0,657	0,433	-0,003	0,076
Z1 2	0,141	0,190	0,879	0,312	0,107	-0,101
Z1 3	0,026	0,088	0,825	0,449	0,067	0,111
Z1 4	0,046	0,145	0,798	0,399	0,168	0,059
Z2 2	0,411	0,442	0,222	0,024	0,873	0,097

Z2 3	-0,075	-0,087	0,478	0,454	-0,279	0,189
Z2 4	0,251	0,324	0,223	0,198	0,658	0,279
Z2 1	-0,169	-0,087	0,479	0,388	-0,220	0,231

Source: Processed Data, 2025

Table 4 in this study shows that the Outer Loading values for each indicator related to the research variables have reached higher values compared to their relationships with other variable constructs. The analysis conducted using the Fornell-Larcker criterion and Cross Loading strengthens the validity of this study, particularly in the context of Discriminant Validity, which has been well verified. The findings from the previous analysis also confirmed the study's validity through the testing of both Convergent Validity and Discriminant Validity.

Furthermore, this study carried out reliability testing using Composite Reliability and Cronbach's Alpha values. The results indicate that both values are above 0.6, signifying an adequate level of reliability. The reliability values obtained in this study reflect the consistency and dependability of the instruments used.

Table 5
Processed Values of Composite Reliability

	Cronbach's Alpha	**rho_A**	**Composite Reliability**	**Average Variance Extracted (AVE)**
X	0,928	0,930	0,943	0,706
Y	0,921	0,930	0,943	0,769
Z1	0,803	0,823	0,870	0,625
Z2	0,662	0,638	0,118	0,562

Source: Processed Data, 2025

Table 5 in this study shows that the values of Cronbach's Alpha and Composite Reliability for each variable have met the established standard, namely above the threshold of 0.60. This indicates that the level of reliability achieved in this study can be considered adequate and acceptable. In addition, the measured Composite Reliability values are higher than the Cronbach's Alpha values. These findings confirm that all variables analyzed in this study have met the required criteria for reliability, which is a fundamental prerequisite in Structural Equation Modeling (SEM) research that can be analyzed using SmartPLS software.

The measurement process related to validity and reliability through the Measurement Model described earlier confirms that the instruments used for data collection in this study are both valid and reliable. These results demonstrate that the research instruments used have a justifiable level of consistency, providing confidence in the outcomes obtained in this study.

Descriptive analysis is a method used to evaluate the characteristics of data by providing a systematic and comprehensive overview of the population represented by the sample. The main objective of this analysis is to understand and interpret data based on the variables measured using quantitative data. Thus, descriptive analysis plays an important role in identifying patterns and trends in the population, as well as presenting structured and clear information. This facilitates researchers in making decisions and formulating relevant recommendations.

The following presents the distribution of respondents' answers to questions on the E-Government variable, which is summarized in the table below:

Table 6
Respondents' Answers on the E-Government Variable

Indikator	Item Pertanyaan	Mean	Kategori
X	X1	3,975	setuju
X	X2	4,025	setuju
X	X3	3,908	setuju
X	X4	4,025	setuju
X	X5	3,750	setuju
X	X6	3,950	setuju
X	X7	4,300	setuju

Source: Processed Data, 2025

Based on the data analysis conducted, this study concludes that respondents overall gave positive responses to the **E-Government** variable, with the average falling within the "agree" category. This assessment was measured through one main indicator and seven questionnaire items presented to the respondents.

From the analysis results, it was found that the item with the lowest average score was **item X5**, which obtained a score of 3.750. Conversely, the item with the highest average score was **item X7**, which reached 4.300, also within the "agree" category. These findings indicate variations in respondents' answers across different aspects related to E-Government, which may reflect differences in individual perceptions or experiences regarding government services based on electronic systems.

Overall, the results of this study provide insights into public perspectives on the implementation of E-Government and may serve as a basis for further policy development to improve the quality of public services through technology.

The following presents the distribution of respondents' answers to questions on the **Job Performance** variable, as shown in the table below:

Table 7
Respondents' Answers on the Job Performance Variable

Indikator	Item Pertanyaan	Mean	Kategori
Y	**Y1**	4,200	**setuju**
Y	**Y2**	4,309	**setuju**
Y	**Y3**	4,308	**setuju**
Y	**Y4**	3,942	**setuju**
Y	**Y5**	4,033	**setuju**

Source: Processed Data, 2025

Based on the results of the analysis conducted on the data presented above, it can be seen that respondents provided answers with an average that falls within the "agree" category for the **Job Performance** variable, measured through one indicator and five questionnaire items. From these results, it was found that **item Y4** recorded the lowest average score of 3.942. On the other hand, **item Y2** achieved the highest average score of 4.309, which also indicates an "agree" assessment from the respondents. This suggests a variation in respondents' perceptions of each item related to job performance, where some aspects received stronger support than others.

The following presents the distribution of respondents' answers to questions on the **Age** variable, as shown in the table below:

Table 8
Respondents' Answers on the Age Variable

Indikator	Item Pertanyaan	Mean	Kategori
Z1	**Z1 1**	3,050	**Netral**
Z1	**Z1 2**	3,183	**Netral**
Z1	**Z1 3**	3,092	**Netral**
Z1	**Z1 4**	3,017	**Netral**

Source: Processed Data, 2025

Based on the results of the analysis conducted on the collected data, it can be concluded that respondents generally provided answers with an average level of agreement that falls within the "agree" category for the **Age** variable. This is indicated by one indicator analyzed along with four questionnaire items presented to the respondents. In this analysis, it was found that **item Z1.1** recorded the lowest average score of 3.050, while **item Z1.2** achieved the highest average score of 3.183, indicating that the majority of respondents gave an "agree" assessment for this item. These findings provide a clear picture of respondents' perspectives regarding the Age variable examined in this study.

The following presents the distribution of respondents' answers to questions on the **Gender** variable, as shown in the table below:

Table 9
Respondents' Answers on the Gender Variable

Indikator	Item Pertanyaan	Mean	Kategori
Z2	**Z2 1**	2,225	**Tidak Setuju**
Z2	**Z2 2**	3,900	**Setuju**
Z2	**Z2 3**	2,667	**Netral**
Z2	**Z2 4**	3,283	**Netral**

Source: Processed Data, 2025

Based on the results of the analysis conducted on the collected data, it can be concluded that respondents tended to provide answers within the "Neutral" category regarding the **Gender** variable. This is reflected in one indicator and four questionnaire items presented to them. In this case, it was observed that **item Z2.1** recorded the lowest average score of 2.225. On the other hand, **item Z2.2** achieved the highest average score of 3.900, indicating that respondents gave an "Agree" assessment for this item. These findings provide a clear picture of respondents' perspectives on the Gender variable under study and highlight variations in the level of agreement given to the questions.

Ghozali (2021) explains the importance of evaluating the influence of independent latent variables on dependent latent variables in the context of the **Structural Equation Modeling (SEM)** method using the **Partial Least Squares (PLS)**approach. In this study, three main criteria were used to assess the strength of this influence.

First, if the R-Square value obtained is greater than 0.67, the effect is considered strong.
Second, if the R-Square value is above 0.33, it indicates a moderate effect.
Third, if the R-Square value is below 0.19, the effect is categorized as weak.

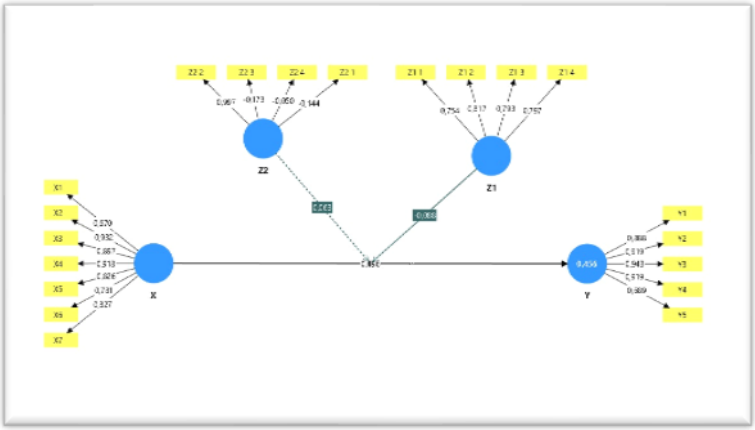
These criteria are crucial in the analysis as they provide a clear understanding of the strength of the relationships between the variables studied. The data obtained from the conducted tests demonstrate the importance of understanding R-Square values in assessing variable interactions. Thus, the results of this analysis can be used to illustrate more complex relationships in research employing the SEM method with the PLS approach.

Table 10
Processed R-Square Values

	R Square	R Square Adjusted
Y	0,456	0,428

Source: Processed Data, 2025

Based on the data presented, this study found that the obtained R-Square value falls into the **moderate** category, with the dependent variable recorded at **0.456**. This indicates that the influence of the independent variable (X) on the dependent variable (Y) is **45.6%**. The remaining **54.4%** can be explained by other variables not included in this analysis. Thus, these findings suggest that although the independent variable has a significant influence, there are also other factors affecting the dependent variable. The following is the SEM model diagram after bootstrapping from this study:



Sources : Output SmartPls 2025

Figure 1. SEM Diagram from the Bootstrapping Process

This study discusses the use of the bootstrapping method in hypothesis testing, which falls under the category of the Structural Model. The data used in the bootstrapping process was derived from the initial measurements conducted earlier. The main purpose of this test is to demonstrate the hypothesized relationships through a systematic simulation practice. This method aims to identify the direction and significance of the relationships between latent variables.

The hypothesis testing process involves a comparison with predetermined t-statistic values. To be declared significant, the t-statistic value obtained from the bootstrapping test must be greater than the one-tailed t-table value of 1.65, at a standard error rate of 5% or with a p-value below 0.05 (Hair et al., 2017).

This approach allows researchers to more accurately evaluate the relationships between variables in the studied model and provides a clearer picture of the validity of the proposed

hypotheses. Thus, the bootstrapping method functions not only as a testing tool but also as a means to increase confidence in the research findings. The use of this technique is crucial in complex data analysis, where interactions between latent variables may occur. It provides researchers with deeper insights into the dynamics within the explored model.

Table 11
Path Coefficient Values of Hypotheses

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
X -> Y	0,496	0,503	0,085	5.817	0,000
Z1 x X -> Y	-0,088	-0,082	0,109	1,807	0,020
Z2 x X -> Y	0,063	0,050	0,111	1,773	0,032

Source: Processed Data, 2025

Tabel 1
Value Specific Indirect Effects Hipotesis

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Z1 x X -> Y	-0,088	-0,082	0,109	1,807	0,020
Z2 x X -> Y	0,063	0,050	0,111	1,773	0,032

Source: Processed Data, 2025

Based on the analysis presented in Table 11, this study employed the bootstrapping method to test three hypotheses. From these tests, one negative and significant relationship was found between the independent variable (X) and the dependent variable (Y), moderated by variable Z1, with an Original Sample value of -0.088. According to Hair et al. (2017), the Original Sample value reflects the direction of the relationship between variables in the studied sample. This result indicates the rejection of the initial hypothesis, which proposed that the effect of X on Y was not influenced by Z1. The significance of the relationship was tested using a one-tailed hypothesis, where the obtained t-statistic must exceed 1.65 at a 0.05 significance level. In this study, the generated t-statistic was greater than 1.65, and the p-value was below 0.05.

To further explore the role of moderation, the researcher applied bootstrapping to the table of indirect effects. The results revealed that Age (Z1) functions as a moderating variable in the relationship between E-Government (X1) and Employee Performance (Y), with an Original Sample value of -0.088, a t-statistic of 1.807 (>1.66), and a p-value of 0.020 (<0.05). This indicates that changes in X1 have a significant impact on Y when moderated by Z1. On the other hand, Gender (Z2) also plays a role as a moderating variable in the relationship between X and Y, with an Original Sample value of 0.063, a t-statistic of 1.773 (>1.66), and a p-value of 0.032 (<0.05). This suggests that changes in X significantly affect Y when moderated by Z2.

Based on the above analysis, the hypothesis testing results can be summarized as follows:

Hypothesis 1 (H_1) accepted: There is a positive and significant relationship between E-Government (X1) and Employee Performance (Y) in Sawahan District, Surabaya, with an Original Sample value of 0.496 and a t-statistic of 5.817, which exceeds the t-table value of 1.65. The p-

value obtained was 0.000, meeting the criterion of being below 0.05. This shows that improvements in E-Government implementation are directly proportional to improvements in employee performance.

Hypothesis 2 (H_2) accepted: Age serves as a moderator in the influence of E-Government (X) on Employee Performance (Y) in Sawahan District, Surabaya. There is a significant relationship between X and Y, with a t-statistic of 5.817 and a p-value of 0.000. The moderating effect of Age weakens the influence of E-Government on Employee Performance, as shown by the Original Sample value of -0.088.

Hypothesis 3 (H_3) accepted: Gender acts as a moderator in the effect of E-Government (X) on Employee Performance (Y) in Sawahan District, Surabaya. The relationship between X and Y is significant, with a t-statistic of 5.817 and a p-value of 0.000. The moderating effect of Gender strengthens the influence of E-Government on Employee Performance, as reflected in the Original Sample value of 0.063.

DISCUSSION

Thus, this study demonstrates that E-Government has a significant impact on Employee Performance, and the moderating variables Age and Gender play important roles in either strengthening or weakening this relationship.

The purpose of this study was to explore the influence of E-Government on employee performance in Sawahan District, Surabaya, as well as the moderating role of Age and Gender. The findings show that E-Government has a positive and significant effect on employee performance. This is evidenced by an Original Sample value of 0.496 and a t-statistic of 5.817, which is far above the t-table value (1.65). The p-value obtained was 0.000, indicating that the results are statistically significant and not coincidental. Therefore, better implementation of E-Government corresponds to higher employee performance in the region.

This study is consistent with prior research by Lukman, Amin, and Gunawan (2024), who also found that the implementation of E-Government positively affects employee productivity and performance at the DP3APPKB office in Surabaya. Employees using the E-Government system reported improved work efficiency, with about 70% feeling more productive after the system's implementation.

Furthermore, the analysis shows that Age moderates the relationship between E-Government and employee performance. The findings reveal that the influence of E-Government on employee performance tends to weaken with increasing age, as indicated by the Original Sample value of -0.088 and a t-statistic of 1.807. This may be attributed to the demographic characteristics of employees in Sawahan District, where 80% of employees are over the age of 31, and may be less familiar with technology compared to younger employees.

This finding is supported by Chopra et al. (2022), who noted that older employees tend to be more skeptical of new technologies, affecting their performance in increasingly digital work environments. In contrast, younger employees showed greater adaptability to E-Government systems.

With regard to Gender, this study found that the variable also serves as a moderator in the relationship between E-Government and employee performance. The analysis revealed that the effect of E-Government on employee performance is strengthened by Gender, with an Original Sample value of 0.063 and a t-statistic of 1.773. This finding is consistent with Amsi and

Kiflemariam (2023), who highlighted that gender diversity can improve individual performance and foster a more innovative work environment.

Overall, the findings of this study underscore the importance of implementing E-Government to improve employee performance, while highlighting that Age and Gender can influence the effectiveness of such implementation. This study provides valuable insights for policymakers in designing more effective strategies to enhance employee performance through information technology.

CONCLUSION

This study successfully identified several important findings related to the implementation of E-Government and its impact on employee performance in Sawahan District, Surabaya. The main findings include:

1. Positive Influence of E-Government: The implementation of E-Government has been proven to have a positive and significant effect on employee performance. This confirms that the application of information technology in government can enhance work effectiveness and efficiency.
2. Impact of Age: Age has a negative influence on the relationship between E-Government and employee performance. Older employees tend to face difficulties in adapting to new technologies, which may hinder their performance.
3. Influence of Gender: Conversely, gender serves as a factor that strengthens the relationship between E-Government and employee performance. Differences in the way men and women interact with technology can contribute to improved performance when E-Government is implemented.
4. Overall, this study provides important insights into the factors affecting employee performance in the context of E-Government and highlights the need to consider employee demographics in efforts to improve performance through technology.

Limitations of the Study

This research has several limitations that may affect the results obtained:
Sample Size: The study only involved employees in Sawahan District, Surabaya, which has a limited number of staff. There is also an imbalance in the distribution of age and gender, with female employees dominating. This may cause the results to differ when compared with samples from other regions or previous studies.

These limitations emphasize the importance of expanding the scope of future research and considering more diverse demographic variations to obtain a more comprehensive understanding of the phenomenon studied. Future research involving a more diverse sample—both in terms of age and gender, as well as varied locations—can provide deeper and more accurate insights.

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