



Article

The Influence of E-Government (Siak) Implementation on Employee Performance at the Population and Civil Registration Office of North Hulu Sungai District

Erwin Maulana¹, Selamat Riadi², Muhammad Afriaji³

^{1,2,3}Public Administration Study Program, Amuntai Institute of Administrative Sciences, Indonesia.

* Correspondence: erwinkeyz@gmail.com, [selamatriadi077@gmail.com](mailto:salamatriadi077@gmail.com), muhammad.afriaji64@gmail.com

Citation: Maulana E., Riadi S., Afriaji M. The Influence of E-Government (Siak) Implementation on Employee Performance at the Population and Civil Registration Office of North Hulu Sungai District. American Journal of Economics and Business Management 2025, 8(12), 6595-6599.

Received: 06th Sep 2025

Revised: 15th Oct 2025

Accepted: 25th Nov 2025

Published: 31th Dec 2025



Copyright: © 2025 by the authors. Submitted for open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license

(<https://creativecommons.org/licenses/by/4.0/>)

Abstract: E-Government is an internet-based information technology application and other digital devices managed by the government for the purpose of conveying information. With the existence of E-Government, the relationship between the government and the community becomes closer and more open, the government's ability increases, especially in saving resources and government sectors become efficient and their performance increases thereby saving the state budget. This study aims to analyze the magnitude of the influence of e-government on the performance of employees at the Department of Population and Civil Registration of North Hulu Sungai District. This research uses quantitative methods with data collection techniques used are questionnaires, documentation, observation. The data source was taken through sampling with a total sampling of 35 people. The results of the research and discussion regarding the analysis of the effect of implementing E-government on employee performance at the Population and Civil Registration Service of Hulu Sungai Utara Regency by using the Simple Linear Regression Test and T Test. The results of calculating the simple regression coefficient yield a value of $Y = 12.520 + 1.031 X$ or, which means that every one increase from the implementation of E-government has an effect of 1.031 on employee performance, so it can be concluded that there is an influence between variable X on variable Y. significant 5%, this means that $>$ then H_a is accepted and H_o is rejected, H_a or the Alternative Hypothesis reads "there is a positive and significant effect between the Implementation of E-Government on Employee Performance at the Population and Civil Registration Office of Hulu Sungai Utara Regency. For the Head of the Department of Population and Civil Registration of North Hulu Sungai Regency. It is hoped that it will further improve the implementation of e-government in employee performance by providing support to employees in its application such as always paying attention to facilities and infrastructure so that there are no more problems in implementing E-Government.

Keywords: E-Government Implementation, Employee Performance, Public Service Efficiency, Population and Civil Registration Office, Quantitative Regression Analysis.

1. Introduction

A. Background

In Indonesia, initiatives toward E-Government were introduced in 2001 through Presidential Instruction No. 6 of 2001 concerning Telematics (Telecommunications, Media, and Informatics), which stated that government officials must use telematics technology to support good governance and accelerate the democratic process. Then, the issuance of Presidential Instruction of the Republic of Indonesia No. 3 of 2003 concerning National

Policies and Strategies for E-Government Development is proof of the Indonesian government's seriousness in improving service quality through electronic government itself, and Government Regulation Number 82 of 2012 concerning the Implementation of Electronic Systems and Transactions was also issued [1]. The Population Administration Information System (SIAK) itself is an application for managing regional population data, including Resident Biodata, Family Cards (KK), Identity Cards (KTP), Population Certificates, and Civil Registration Certificates. The application can be used to manage population data at the sub-district or village level, which are geographically separate, but because it is internet-based, it can be collected at a single point, namely the Internet Data Center.

The insufficient server capacity often disrupts the operation of the SIAK, thereby hindering the performance of employees. Additionally, the availability of information technology infrastructure is still inadequate, which often leads to a considerable delay in the process of printing ID cards. This can lead to a lack of achievement of organizational goals and objectives, and can also hinder the implementation of e-government programs. Based on the explanation above, the author is interested in conducting research on "The Influence of E-Government (SIAK) Implementation on Employee Performance at the Hulu Sungai Utara District Population and Civil Registration Office" [2], [3], [4], [5], [6].

B. Problem Formulation

1. How significant is the influence of E-Government on employee performance at the Hulu Sungai Utara District Population and Civil Registration Office?
2. How do the factors influencing the implementation of E-Government (SIAK) affect employee performance at the Hulu Sungai Utara District Population and Civil Registration Office?

C. Research Objectives

1. To analyze the magnitude of the influence of e-government on employee performance at the Hulu Sungai Utara District Population and Civil Registration Office.
2. To determine the factors that influence the implementation of E-Government (SIAK) on employee performance at the Hulu Sungai Utara District Population and Civil Registration Office.

Theoretical Basis

A. E-Government

The World Bank defines e-government as "the use of information technology by government offices to provide better services to the public, businesses, and to facilitate cooperation between government institutions." According to the Ministry of Communication and Information, "E-government is an effort to develop electronic-based government administration in order to improve the quality of public services effectively and efficiently." According to the results of studies and research from the Harvard JFK School of Government, there are three elements of success that must be possessed and taken seriously. Each of these success elements is: Support, Capacity, and Value [7].

B. Performance

According to Sedarmayanti (2014:222), the indicators used to measure performance are as follows [8]:

1. Work Quality

The results of employees' work in completing tasks, as well as the employees' abilities and skills in performing the tasks assigned to them.

2. Quantity

The measure of the total work output of the unit or the number of activity cycles completed by employees, so that employee performance can be measured through this number (units/cycles).

3. Timeliness

Timeliness is the degree to which an activity is completed at the stated early time, viewed from the perspective of coordination with output results and maximizing the time available for other activities [9].

4. Effectiveness

Effectiveness here refers to the degree to which organizational resources (labor, money, technology, and raw materials) are maximized with the intention of increasing the results of each unit in using these resources [9].

5. Independence

This is the degree to which a person will eventually be able to perform their job functions without receiving assistance, guidance, or supervision [9].

C. Population Administration Information System (SIAK)

Definition of the Population Administration Information System based on Law Number 24 of 2013 concerning the 22nd amendment to Law Number 23 of 2006 concerning Population Administration. SIAK is an information system that utilizes information and communication technology to facilitate the management of population administration information at the organizer and implementing agency levels as a single unit. The objectives of the Population Administration Information System, according to Government Regulation Number 37 of 2007 concerning the implementation of Law Number 23 of 2006 regarding Population Administration and Civil Registration Management, are:

1. To improve the quality of population registration and civil registration services;
2. To provide accurate, complete, up-to-date, and easily accessible national and regional data and information regarding the results of population registration and civil registration;
3. To realize systematic data exchange through a single identification system, while still ensuring confidentiality.

2. Materials and Methods

The type of research used in this study is quantitative research with a sampling method of Probability Sampling using the Saturated Sampling technique. Saturated sampling is a sample that, even if its size is increased, will not improve representativeness and therefore will not affect the information value obtained. Thus, the saturated sampling technique is a sampling technique that considers the saturation value of the sample. Saturated samples are also often defined as samples that are already at maximum, because no matter how much their size is increased, it will not change the population's representativeness. This is often done when the population size is relatively small, less than 30 people, or when the research aims to generalize with very little error [10].

3. Results and Discussion

The validation used in this study was performed by comparing the calculated r value (r -count) with the table r value (r -table). If the calculated r value is greater than the table r value, the item is considered valid; conversely, if the calculated r value is less than the table r value, the item is considered invalid. R -calculated is found using the SPSS (Statistical Product and Services Solutions) software program application, version 20 for Windows, while r -table is found by looking at the r -table with the condition that the minimum r is 0.3. The next step taken by the researcher is to measure the accuracy of a measuring instrument used in data collection, which can be referred to as reliability [11], [12], [13], [14], [15]. Based on the results of the reliability test, the Cronbach's Alpha value for E-Government Implementation is 0.722, and for Employee Performance is 0.723. These

values are greater than the minimum Cronbach's Alpha value of 0.6; therefore, it can be concluded that the research variables used are reliable. The results of the normality test conducted using the One-sample Kolmogorov-Smirnov technique with a significance level of 0.05. The value obtained for Sig. (significance) is $0.077 > 0.05$. Therefore, it can be concluded that all variables are normally distributed. Thus, this data can be used in a simple linear regression test. The linearity test results show a significance value of $0.000 < 0.05$, so it can be concluded that there is a linear relationship between the implementation of e-government and employee performance. The data analysis regarding the relationship between the influence of e-government implementation and employee performance yielded a correlation coefficient value of 0.592. This value can be interpreted as the relationship between the two research variables being in the strong correlation category. To interpret the strength of the relationship between the two variables, we look at the correlation coefficient value calculated using the following interpretation of the r value:

- 0: No correlation between the two variables - $> 0 - 0.25$: Very weak correlation - $> 0.25 - 0.5$: Moderate correlation - $> 0.5 - 0.75$: Strong correlation - $> 0.75 - 0.99$: Very strong correlation - 1: Perfect correlation

From the data above, it can be concluded that there is a strong relationship between the E-government implementation variable (X) and the Employee Performance variable (Y) because they have a correlation of 0.592.

The results of the simple regression coefficient calculation yielded a value of $Y = 12.520 + 1.031 X$. This equation aligns with the formula for simple linear regression, which is $Y = a + bX$, where Y represents the dependent variable, a is a constant, and b is the regression coefficient for the independent variable (X). This means that for every one-unit increase in the implementation of E-government, there is an impact of 1.031 on employee performance. Therefore, it can be concluded that there is a strong influence of variable X on variable Y. The correlation analysis yielded an R value of 0.592. With a coefficient of determination of 35%, which also means there is a strong influence between the implementation of E-government and employee performance.

4. Conclusion

Conclusion

1. There is an influence between the implementation of E-Government and employee performance at the Hulu Sungai Utara District Population and Civil Registration Office. This is evidenced by the results of the Hypothesis Test using the Simple Linear Regression Test and T-Test. The calculation of the simple regression coefficient yielded the value $Y = 12.520 + 1.031 X$, which means that for every one-unit increase in the implementation of E-government, there is an impact of 1.031 on employee performance. Therefore, it can be concluded that there is an influence between variable X and variable Y.
2. The influence of E-Government (SIAK) implementation on employee performance at the Population and Civil Registration Office of North Hulu Sungai Regency is strong. This is proven by the research results using SPSS 25 application, from 35 respondents, the correlation value is 0.592, so the coefficient of determination (r^2) can be obtained = 35%, which can be interpreted as the influence of E-Government (SIAK) implementation on employee performance at the Population and Civil Registration Office of North Hulu Sungai Regency can be categorized as having a strong effect.

Suggestions

1. For the Head of the Population and Civil Registration Office of North Hulu Sungai Regency. It is hoped that the implementation of E-Government in employee performance will be further enhanced by providing support to employees in its

implementation, such as always paying attention to facilities and infrastructure, so that there are no more problems in the implementation of E-Government.

2. For employees of the Hulu Sungai Utara District Population and Civil Registration Office. It is hoped that performance will be further improved and that self-development will continue to produce good, satisfactory work that meets the expectations of the agency.

REFERENCES

- [1] Republik Indonesia, "Peraturan Pemerintah Nomor 82 Tahun 2012 tentang Penyelenggaraan Sistem dan Transaksi Elektronik," 2012, Jakarta.
- [2] W. H. DeLone and E. R. McLean, "The DeLone and McLean Model of Information Systems Success: A Ten-Year Update," *Inf. Syst. Res.*, vol. 19, no. 4, pp. 9–30, 2003, doi: 10.1287/isre.1070.0168.
- [3] R. Heeks, "Most eGovernment-for-Development Projects Fail: How Can Risks Be Reduced?," 2003.
- [4] H. J. Scholl, "Central Research Questions in E-Government, or Which Trajectory Should the Study Domain Take?," *Transform. Gov. People, Process Policy*, vol. 1, no. 1, pp. 67–88, 2007, doi: 10.1108/17506160710733763.
- [5] M. Yildiz, "E-government Research: Reviewing the Literature, Limitations, and Ways Forward," *Gov. Inf. Q.*, vol. 24, no. 3, pp. 646–665, 2007, doi: 10.1016/j.giq.2007.01.002.
- [6] A. B. Pratama and B. Irawan, "Implementasi Sistem Informasi Administrasi Kependudukan (SIAK) dalam Meningkatkan Kualitas Pelayanan Publik," *J. Adm. Publik*, vol. 16, no. 2, pp. 101–115, 2019.
- [7] E. Indrajit, *Electronic Government: Konsep Pelayanan Publik Berbasis Internet dan Teknologi Informasi*. Jakarta: APTIKOM, 2016.
- [8] Sedarmayanti, *Manajemen Sumber Daya Manusia, Reformasi Birokrasi, dan Manajemen Pegawai Negeri Sipil*. Bandung: PT Refika Aditama, 2014.
- [9] Sedarmayanti, *Manajemen Sumber Daya Manusia Reformasi Birokrasi dan Manajemen Pegawai Negeri Sipil*. Bandung: PT Refika Aditama, 2016.
- [10] G. D. Israel, "Sampling the Evidence of Extension Program Impact," *J. Ext.*, vol. 30, no. 2, pp. 1–6, 1992.
- [11] J. C. Nunnally and I. H. Bernstein, "Psychometric Theory," *Psychol. Assess.*, vol. 6, no. 3, pp. 290–291, 1994, doi: 10.1037/1040-3590.6.3.290.
- [12] A. Field, "Discovering Statistics Using IBM SPSS Statistics," *Br. J. Math. Stat. Psychol.*, vol. 66, no. 1, pp. 153–154, 2013, doi: 10.1111/bmsp.12011.
- [13] R. F. DeVellis, "Scale Development: Theory and Applications," *Appl. Psychol. Meas.*, vol. 36, no. 4, pp. 321–322, 2012, doi: 10.1177/0146621611435500.
- [14] L. J. Cronbach, "Coefficient alpha and the internal structure of tests," *Psychometrika*, vol. 16, no. 3, pp. 297–334, 1951, doi: 10.1007/BF02310555.
- [15] S. Azwar, "Reliabilitas dan Validitas," *Bul. Psikol.*, vol. 20, no. 1, pp. 1–19, 2012.