

Digital Transformation Through the Srikandi Application on the Pekalongan City Government Correspondence System

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ABSTRACT

Digital transformation is a strategic step in improving the efficiency of government and public administration. This study aims to analyze the influence of the use and effectiveness of the Srikandi application on the correspondence system in the Pekalongan City Government. The research question asked is: Does the use and effectiveness of the Srikandi application have a significant effect on the mail system? The novelty of this research lies in the specific focus on the digital correspondence system as an important part of the regional bureaucracy, which is still rarely studied in depth. The method used was a quantitative *explanatory* design with a survey technique to 70 employees who were active users of the Srikandi application. Data were analyzed using *SmartPLS* through *outer model* testing (validity and reliability) and *inner model* (latent variable relationship test), accompanied by *bootstrapping* for hypothesis testing. The results show that both the use and effectiveness of the Srikandi application have a positive and significant effect on the mail system. This finding confirms that digitalization through the Srikandi application is able to improve the efficiency, accountability, and quality of mail management in the government environment. In conclusion, the Srikandi application plays an important role in forming a more *modern*, structured, and adaptive correspondence system and provides positive implications for strengthening government and public administration in the digital era.

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1. Introduction

The development of information and communication technology (ICT) has become a major catalyst in the transformation of various sectors, including the government sector. In the context of public bureaucracy, digitalization is no longer just an option but a strategic need to improve the efficiency, transparency, and accountability of services. One of the important aspects of the digitalization of government is the postal system, which plays a central role in administrative communication and organizational decision-making.

In this context, the Srikandi Application (Integrated Dynamic Archive Information System) is present as a national solution developed by the National Archives of the Republic of Indonesia (ANRI)

together with the Ministry of PAN-RB, Communication and Informatics, and BSSN. This application supports the management of official documents electronically, starting from the creation, delivery, to archiving of documents, in accordance with national archiving standards. As part of efforts to realize the Electronic-Based Government System (SPBE) and the One Data Indonesia program, Srikandi allows data integration between agencies and increases security and administrative efficiency.

The Pekalongan City Government, as a local government agency that is adaptive to technological innovation, has implemented the Srikandi application as an official digital correspondence system. This application is also part of the national One Data Indonesia program, which aims to simplify the administrative process and support electronic document management. The use of Srikandi is expected to be able to speed up the flow of correspondence, reduce dependence on physical documents, and increase bureaucratic accountability through more structured and transparent document management.

This study aims to analyze the influence of the use and effectiveness of the Srikandi application on the correspondence system within the Pekalongan City Government. The main question that needs to be answered is: Does the use and effectiveness of the Srikandi application significantly affect the quality of the postal system in the Pekalongan City Government?

This study is important because it brings together aspects of technology, organizational behavior, and change management in the context of local government. Although the implementation of *e-government* applications has been widely studied in general, studies that specifically evaluate the influence of the Srikandi application on the postal system at the local government level are still limited. Therefore, this research is expected to make an empirical contribution to the public sector innovation management literature and become a policy reference for other government agencies in designing sustainable digital transformation strategies.

Using an explanatory *quantitative approach*, this study aims to provide a measurable and comprehensive picture of the success of administrative digitalization through the Srikandi application, as well as identify the challenges of its implementation in the bureaucratic structure that has been formed for a long time.

2. Literature Review

Digital Transformation

Digital transformation is an inevitable change due to the Industrial Revolution 4.0 era, which has changed business models and ecosystems to be more innovative, complex, and dynamic. This process makes the organization more effective and efficient, even though it requires a lot of labor and costs. Digital transformation is shifting a wide range of activities from manual to digital, including in trade, transportation, hospitality, and financial services, which now demands speed and ease through digital platforms (Stuart O'Neill et al., 2022). According to (Verhoef et al., 2021) Digital transformation is a gradual process consisting of three main stages, including:

1. Digitization: The process of converting analog information into digital form. An example is converting physical documents into digital files.
2. Digitalization: Using digital technology to improve existing business processes. This includes the use of digital tools for operational efficiency and interaction with customers.
3. Digital Transformation: The most advanced stage in which digital technology is used to create new business models, change organizational structures, and change the way companies create

value for customers. This includes fundamental changes in the way companies operate and compete in the market.

According to (Pangandaheng et al., 2022) Digital transformation is a process of change that involves the integral use of digital technology to create and provide more value, rather than simply improving traditional methods. This transformation drives innovation and new creativity in various domains, as well as improving customer experiences, operational processes, and business models that create added value for users and organizations.

Srikandi Application

The SRIKANDI application (Integrated Dynamic Archive Information System) is a digital platform developed by the National Archives of the Republic of Indonesia (ANRI) to support Electronic Dynamic Archive Management in Government Agencies (ANRI, 2021). This application was designated as a general application in the field of dynamic archives through the Decree of the Minister of PANRB Number 679 of 2020. The main purpose and function of the SRIKANDI application is to support the implementation of the Electronic-Based Government System (SPBE). This application is designed to realize clean, effective, transparent, and accountable governance, as well as to improve the quality and trust in public services. In addition, SRIKANDI also plays an important role in the management of dynamic archives electronically, which includes the process of creating, using, maintaining, and shrinking archives, in accordance with applicable national archival standards.

ANRI has carried out various socialization, training, and mentoring activities to encourage the implementation of SRIKANDI in ministries, institutions, and local governments. The goal is for all government agencies to be able to manage dynamic archives electronically and integrate, thereby supporting bureaucratic efficiency and better public services. The information related to user data is as shown in the following image:

Figure 1. Data of users of the SRIKANDI Nasional application



Source: National Srikandi Application Dashboard Menu

Application Use

An application is a program or software designed to perform certain functions on an electronic device, such as a computer, smartphone, or tablet. This term comes from English "*Application Software*," which means application software. In today's technological context, applications are very diverse, covering a wide range of sectors and needs (Fatih, 2024).

The main function of the application is to make human life easier. With the app, various jobs and activities can be completed more efficiently. Its functions can also be differentiated based on the

purpose of its use, ranging from productivity applications, entertainment, to educational applications. The types of applications include:

1. **Mobile Apps:** These types of apps are specifically designed for *mobile* devices, such as Android and iOS. Examples of *mobile* apps include social media, games, and productivity tools.
2. **Web Application:** This application runs in a browser and does not need to be downloaded. Examples of web applications are *e-commerce platforms* and online collaboration tools.
3. **Desktop Applications:** Designed for use on computers, desktop applications have more complex features, such as graphic design software and data processing.

Application Effectiveness

The effectiveness of the application is seen from how far the application can help achieve public service goals quickly, precisely, and efficiently. Effectiveness is measured by the clarity of procedures, speed of service, and ease of use for accessing and processing permits (Ariyani et al., 2017). Application effectiveness is the system's ability to provide real benefits to users through ease of access, accuracy of information, and smoothness in the use of available features. Effectiveness can be measured through user satisfaction levels, frequency of use, and goal achievement of the app (Prastiwi & Jumino, 2018). According to (Ariyani et al., 2017) Application effectiveness is the extent to which the application can support user performance by providing an integrated, easy-to-use system, and is able to increase work productivity and accountability.

In general, application effectiveness can be interpreted as the level of success of an application in helping users achieve certain goals efficiently, easily, and productively. This includes technical aspects (features, functionality), behavioral aspects (adaptation, satisfaction), and outcome aspects (work output or public services).

Correspondence System

Correspondence is defined as an important part of written communication in an organization, especially in supporting the smooth running of managerial functions such as planning, organizing, directing, and supervising (Martian, 2020). Letters are not only a means of communication, but also serve as:

1. Reminder tool (letter)
2. Historical documentation
3. Authentic evidence
4. Internal and external means of connecting the organization

Letters are an important written communication tool in conveying information between parties. Technological developments are changing the method of writing letters from manual to electronic (*email*). Letters have a function as an official communication medium in an organization or company. According to research (Martian, 2020) Letters are divided into three types:

1. **Confidential letter:** A letter whose contents are important and should not be known to other parties.
2. **Important letter:** A letter that discusses the main and important things for the continuity of the organization.
3. **Regular letters:** Letters that are not classified as important or confidential, have a general content, and do not require follow-up.

Mail Information System is a technology-based application that allows organizations to manage mail electronically. Processes such as receiving, sending, managing archives, and reporting mail can be done faster and more efficiently (Solution, 2025). With a mailing information system, organizations can minimize the risk of manual errors and ensure that all documents are managed systematically. In addition, the system supports data security with encryption features and strict access controls. Some of the main benefits of a mailing information system (Solution, 2025):

1. Process Efficiency.
2. Transparency and Accountability.
3. Mail Data Security.
4. Ease of Access.
5. Digital Archive Management.

Previous Research

Some Previous studies have discussed the application of digital archival information systems in government agencies. Research by (Harahap & Trimurni, 2025) in the *Journal of Innovative Research (JUPIN)*, it was shown that the use of the Integrated Dynamic Archival Information System (Srikandi) application was able to simplify and accelerate the distribution of correspondence and the process of signing documents electronically. In addition, this application also facilitates tracking the status of documents and improves connectivity between government agencies.

Furthermore, the study conducted by (Iyep Saefulrahman et al., 2025) published by Publishing discusses the implementation of the digital archive management system at the Bandung City Library and Archives Office. The study revealed that despite challenges such as limited human resources, budgets, and infrastructure, the system is able to support efficient and transparent governance.

Other research by (Azzahra et al., 2025) published in *Domain Research: Evaluate the efficiency of electronic archiving systems in dynamic archive management in government institutions*. The results of the study show that the implementation of digital archiving applications has a positive influence on the efficiency of archive management, but this effect is not statistically significant because there are still obstacles, such as a lack of system integration and limited training for users.

In addition, (Teresa & Priambodo, 2025) through his article in the *Journal of Scientific Scholars* evaluated the use of the Srikandi application in improving the work efficiency of employees in the Development Administration Section of the Jombang Regency Regional Secretariat. The results of the analysis show that indicators of work efficiency, resource utilization, quality of work results, and cost effectiveness significantly contribute to improving employee performance after the implementation of the application.

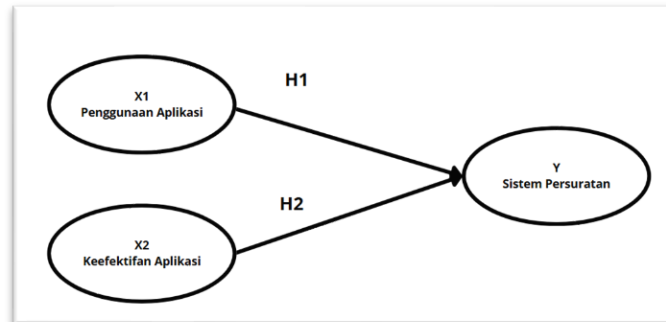
GAP Research

Based on previous research, it can be identified that although various previous studies have discussed the use and effectiveness of the Srikandi application in supporting archive management and improving the efficiency of government administration, most of the research still focuses on the general aspects of archives or the efficiency of employee performance as a whole. There have not been many studies that specifically examine the influence of the use and effectiveness of the Srikandi application on the postal system as an important part of bureaucratic administration, especially in the local government environment. Therefore, this study seeks to fill this gap by empirically analyzing how digital transformation through the Srikandi application has an impact on the postal system in the Pekalongan City Government.

Research Model

The use of applications and the effectiveness of Srikandi applications as independent variables that affect the dependent variable, namely the mail system. The research model is presented as shown in Figure 2:

Figure 2. Research Model



Research Hypothesis

H1: The use of the Srikandi application has a positive and significant effect on the correspondence system

H2: The effectiveness of the Srikandi application has a positive and significant effect on the postal system

3. Methods, Data, and Analysis

This study uses *an explanatory quantitative approach* to examine the causal relationship between the use and effectiveness of the Srikandi application in the mail system within the Pekalongan City Government. The sample consisted of 70 OPD administrative employees selected through purposive sampling, with the analysis unit in the form of individual active users of the application. Data was collected using a five-point Likert scale-based closed-ended questionnaire, which was designed based on the indicators of each variable.

The analysis was carried out using SmartPLS software, with an external model test stage to assess the validity (convergent and discriminant) and reliability of the instrument (Cronbach's Alpha and Composite Reliability). Furthermore, an inner model test was carried out to measure the contribution of independent variables to dependents through R^2 , f^2 , and hypothesis testing using the bootstrapping method, to assess the significance of the relationship between latent variables in the research model.

4. Results and Discussion

Research Results

Evaluation of the Outer Model

Validity Test

The test used Convergent Validity using the Loading Factor & Average Variance Extracted (AVE) test criteria and the Discriminant Validity test using the Heterotrait-Monotrait Ratio (HTMT) test criteria.

1) Loading Factor

The standard of this measurement is that the value of each *load* > 0.70 is said to be ideal. The measurement results are displayed as shown in the following table:

Table 1. Output Loading Factor SmartPLS 4

	X1	X2	Y
X1.1	0.903		
X1.2	0.916		
X1.3	0.880		
X1.4	0.780		
X1.5	0.927		
X2.1		0.878	
X2.2		0.839	
X2.3		0.903	
X2.4		0.941	
X2.5		0.887	
Y1			0.717
Y2			0.945
Y3			0.910
Y4			0.916

Based on the figure, the *loading factor value* in the application usage variable (variable x1), application effectiveness (variable x2), and the mail system (variable y) is > 0.70 , which means that it has met the standard.

2) Average Variance Extracted (AVE)

This measurement standard if the *AVE value* is > 0.50 , it shows a good convergent. The measurement results are displayed as shown in the following table:

Table 2. Output Average Variances Extracted (AVE) SmartPLS 4

Average variance extracted (AVE)	
X1	0.779
X2	0.793
Y	0.769

From the measurement results in the image, the AVE value of all variables is > 0.50 , which means that all variables have met the feasibility of *AVE evaluation*.

3) Heterotrait-Monotrait Ratio (HTMT)

This measurement standard is if the HTMT value < 0.90 . The measurement results are displayed as shown in the following table:

Table 3. Output Heterotrait-Monotrait Ratio (HTMT) SmartPLS 4

	X1	X2	Y
X1			
X2	0.285		
Y	0.383	0.869	

From the measurement results in the image, the HTMT value is < 0.90 , which means that all *discriminant validity* is in accordance with the standard and achieved.

Reliability Test

Testing using Cronbach's Alpha and Composite Reliability (ρ_c) values

1) Cronbach's Alpha

The measurement can be said to be qualified if Cronbach's Alpha value is > 0.70 . The measurement results are displayed as shown in the following table:

Table 4. Output Cronbach's Alpha SmartPLS 4

Cronbach's alpha	
X1	0.930
X2	0.935
Y	0.896

From the measurement results in the image, Cronbach's Alpha value for all variables is > 0.70 , which meets the criteria and is reliable.

2) Composite Reliability (ρ_c)

The measurement can be said to be eligible if the Composite Reliability (ρ_c) value > 0.70 . The measurement results are displayed as shown in the following table:

Table 5. Output Composite Reliability SmartPLS 4

Composite reliability (ρ_c)	
X1	0.946
X2	0.950
Y	0.929

From the measurement results in the image, the Composite Reliability (ρ_c) value for all variables is > 0.70 , which has met the criteria and reliability.

Inner Model Evaluation

a. R-Square (R^2)

The value of the determination coefficient (R^2) indicates how much the independent variable is able to explain the variation of the dependent variable in the model. In this study, the R^2 value describes the contribution of the use of the application and the effectiveness of the Srikandi application to the correspondence system in the Pekalongan City Government. The measurement results are displayed as shown in the following table:

Table 6. Output R-squared adjusted SmartPLS 4

R-square adjusted	
Y	0.662

From the results of the following measurements, the high R^2 value shows that the model used is quite strong in explaining the influence of two independent variables on the correspondence system, so it can be concluded that the model has good predictive power.

b. f-Square

The value of f-square is used to measure the magnitude of the effect of each independent variable on the dependent variable individually. In the context of this study, the value of f-square shows the unique contribution of application use and application effectiveness to the mail

system. The f-square value that meets the criteria indicates that each variable has a significant influence on improving the effectiveness of the postal system separately, and both make a substantial contribution to the research model. The measurement results are displayed as shown in the following table:

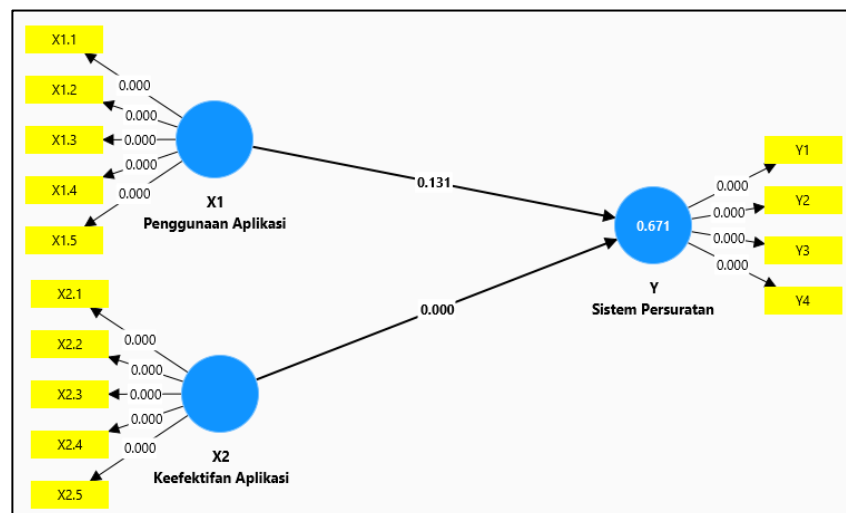
Table 7. Output f-square SmartPLS 4

	X1	X2	Y
X1			0.055
X2			1.639
Y			

Hypothesis Testing

Hypothesis testing was carried out to determine the significant influence of each independent variable on the dependent variable. The measurement results are displayed as shown in the following figure:

Figure 3. Output Bootstrapping SmartPLS 4



From the test results as shown in the picture, the hypothesis test shows that:

- H1: The use of the Srikandi application has a positive and significant effect on the mail system. H1 is accepted.
- H2: The effectiveness of the Srikandi application has a positive and significant effect on the mail system. H2 is accepted.

Discussion

The results showed that all instrument indicators were valid and reliable, with a *loading factor* value of > 0.70 , *AVE* > 0.50 , and *HTMT* < 0.90 . *Cronbach's Alpha* and *Composite Reliability* values are also > 0.70 , indicating high internal consistency. The research model was considered strong with an R^2 value of 0.662, as well as a significant contribution of the effectiveness of the application ($f^2 = 1.639$) and the use of the application ($f^2 = 0.055$) to the mail system. The *bootstrapping* test confirmed that both had a positive and significant effect.

Substantially, these findings reinforce that digitalization through the Srikandi application has a real impact on improving the efficiency, transparency, and accountability of correspondence. Consistent use of applications by employees speeds up the administrative process and supports better documentation. The perception of application effectiveness, including convenience, feature suitability,

and work adaptation, is an important factor in the success of digital transformation in the government environment.

5. Conclusions and Suggestions

Conclusion

The results of this study prove that the use and effectiveness of the Srikandi application have a positive and significant effect on the correspondence system within the Pekalongan City Government. Between the two, the effectiveness of the application has a greater influence, reflecting the importance of user perception of convenience, work adaptation, and satisfaction in using the application. The implementation of Srikandi has been proven to not only increase the speed and documentation of correspondence but also contribute to the formation of an efficient, transparent, and accountable digital work pattern. Overall, digitalization through this application strengthens modern and structured correspondence governance in the regional bureaucratic environment.

Suggestion

The Pekalongan City Government is advised to strengthen the digital literacy of employees through continuous training and improve the technology infrastructure that supports the Srikandi application. In addition, it is necessary to conduct periodic evaluations of the functionality of the application so that it remains adaptive to the dynamics of bureaucratic needs. For future research development, it is recommended to add variables such as digital leadership or organizational culture to dig deeper into the factors that influence the success of mail digitization. Follow-up research can also be conducted comparatively between agencies or regions, as well as with a wider scope of respondents to produce more general findings.

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