

Effectiveness of SIAK (Population Administration Information System) in Population Administration Services

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ABSTRACT

Objective: This study aims to analyze the effectiveness of the implementation of the Population Administration Information System (SIAK) in population administration services in Krembung District, Sidoarjo Regency. **Method:** The method used is descriptive qualitative with data collection techniques through observation, interviews, and documentation. Effectiveness is measured using five indicators according to Campbell J. P., namely program success, target success, satisfaction with the program, input and output levels, and overall goal achievement. **Result:** The results of the study show that the implementation of SIAK has facilitated data management and accelerated services, but still faces several obstacles, such as disruptions to the main server, the lack of skills of some officers who are elderly, and the limited availability of blank documents. Although the infrastructure is sufficiently supportive, human resource readiness still needs to be improved through ongoing technical training. **Novelty:** Therefore, it can be concluded that SIAK is quite effective, but to achieve optimal effectiveness, strengthening is needed in terms of technical aspects and human resource management so that population administration services can run optimally and sustainably.

INTRODUCTION

The rapid advancement of information technology has brought about a new revolution, namely the shift from traditional work systems to the digital era. In the context of government, population administration is a crucial part because it serves to record population data with high validity and accuracy. Before digitization, population data recording was still done manually, so there were often discrepancies and delays in public services [1]. In government agencies, this change is marked by the abandonment of traditional government, which is synonymous with paper-based administration, in favor of electronic government or e-government [2]. E-government is the use of information technology that can improve relations between the government and other parties [3]. With the rapid development of globalization, the government is required to follow the implementation of digital-based public services, and this demand has led to the emergence of public service innovations in every government agency in Indonesia. One of the innovations from the local government to manage population administration is SIAK (Population Administration Information System), which is an information system designed through a series of procedures with the support of information and communication technology, which aims to organize and manage the population administration system in Indonesia [4]. Population data is used to develop programs aimed at controlling the number, growth rate, and distribution of the population. The management of population registration administration is the responsibility of local governments, but its implementation begins at the most basic level, namely the village or sub-district [5]. This is so that everyone living in Indonesia can be administratively registered as an Indonesian citizen (WNI), in accordance with the provisions contained

in the 1945 Constitution of the Republic of Indonesia and specifically regulated in Law Number 23 of 2006 concerning Population Administration. To overcome various problems and streamline the population administration process at the regional level, the government launched an information technology-based program called the Population Management Information System (SIMDUK) in 1996. This program is a national policy implemented at the district/city level and is specifically designed to handle various changes in the population status of the community, including recording, updating, and managing data related to the dynamics of population administration in a comprehensive manner [6].

In line with the times and the support of information technology, the government established a new policy to meet the increasingly complex needs of population data. To that end, the Population Administration Information System (SIAK) was formed [7]. SIAK is a web-based information system built following certain procedures and standards with the aim of regulating population administration data to achieve administrative order and assist officials at the local government level (district/city), particularly the Population and Civil Registration Office, in providing population services to the community quickly [8]. SIAK can be a solution to existing population issues. With online data management, the shortcomings of traditional data management can be minimized. Some of the advantages of SIAK include its use as a basis for policy formulation and evaluation, strategies for planning and implementing development related to the quality, quantity, and mobility of the population, as well as other development needs that are beneficial to the region [9]. SIAK aims to improve public services without discrimination, with fast, transparent, and accountable services [10]. SIAK was developed by the Directorate General of Population and Civil Registration (Ditjen Dukcapil) under the Ministry of Home Affairs. This system was introduced in 2004 and continues to undergo improvements to this day. Its implementation at the national level has been carried out in stages, with various system updates in line with community needs and technological advances. In line with advances in technology and information, local governments have begun to implement the Population Administration Information System (SIAK). This application was created to facilitate the process of managing population data, including the creation of identity cards, family cards, birth certificates, and other administrative services [11].

The Population Administration Information System (SIAK) is an innovation created to transform population administration in Indonesia. Introduced by the Ministry of Home Affairs in 2009, SIAK aims to consolidate national population data, improve public services, and facilitate access for the community. In this era of rapid digital advancement, it is crucial for the government to utilize the latest technology in order to provide clear, accurate, and long-term public services. The existence of SIAK is a concrete step towards overcoming existing challenges. Before SIAK was implemented, population administration in Indonesia often faced many problems. Obstacles such as duplicate data, lengthy processes, and a lack of transparency were major barriers to providing good services to the public. This situation not only disrupted government efficiency but also caused dissatisfaction among the public who wanted better services. Therefore, the presence of SIAK is a strategic step that not only resolves operational issues but also strengthens public trust in the government.

Population administration services using the SIAK application are essentially based on a solid legal foundation. These regulations were created so that their implementation can run in an orderly and focused manner. Several important regulations that form the basis for the use of SIAK include Law Number 23 of 2006 concerning Population Administration, which was later updated by Law Number 24 of 2013. In addition, there is also Government Regulation (PP) Number 37 of 2007 which regulates various technical aspects related to population administration. At the ministerial level, there is Permendagri No. 95 of 2019, which serves as a technical guide for the implementation of SIAK in the regions. Most importantly, the implementation of the SIAK system nationwide is reinforced through Presidential Decree (Keppres) No. 88 of 2004 concerning Population Administration Information Management. This Presidential Decree explains that the government needs a technology-based information system to manage population data in a more orderly, organized, and accessible manner. This system must also comply with national standards so that each region has a uniform and integrated system, rather than operating separately. Therefore, this Presidential Decree became the legal basis for the creation of the SIAK system, which was designed to replace the previous system, SIMDUK.

The main differences between SIMDUK and SIAK lie in the network and data storage methods. In the SIMDUK era, servers and population data were located in each sub-district, making it difficult to combine data within a regency because the data was scattered and often duplicated. The data exchange process was also done manually using floppy disks, which was obviously very slow and prone to errors. Meanwhile, SIMDUK also did not have uniform technical standards across all regions, as each region tended to develop its own system.

With the online-based SIAK system, which has been standardized nationally, population data processing has become more efficient, systematic, and accessible from various locations. Cooperation between the central and regional governments can also run more smoothly in providing population-related services. In addition, SIAK helps speed up the service process and increase public trust through the use of more accurate data and more transparent services. The SIAK application is implemented in several districts or cities in East Java for population administration, one of which is in Sidoarjo Regency. This application is not only used at the regency or city level, but also implemented at the sub-district level. One of the subdistricts in Sidoarjo that implements the SIAK application is Krembung Subdistrict. SIAK began operating in Krembung Subdistrict in 2012. Based on information from the Krembung Subdistrict Office, the number of Identity Cards (KTP) issued from 2020 to 2024 shows a steady increase, although there are some years with variations in the number of services.

Table 1. Summary of ID Card Services on the SIAK Application in Krembung District.

Year	Number
2020	596
2021	614
2022	592
2023	684

2024

724

Source: Krembung District, 2025

Based on data summary from the ID card service through the Population Administration Information System (SIAK) application, it was recorded that in 2020, there were 596 documents for ID card services. This figure increased to 614 documents in 2021. However, in 2022, there was a slight decrease to 592 documents. This decline was likely due to technical or operational issues, such as limited access to services due to the pandemic and system disruptions. Entering 2023, the number of services showed a significant increase again with a total of 684 documents. The peak occurred in 2024 with 724 documents successfully processed. This increase can be interpreted as a sign of improvement in the administrative service system, particularly through the implementation of the Population Administration Information System (SIAK) application. This improvement also reflects the results of various efforts to improve service facilities and infrastructure, increase the quality of the workforce, and raise public awareness of the importance of population documents. In addition, the dissemination of information and ease of access to digital services also contributed to the increase in the number of services. Meanwhile, for 2025, the collection of data on ID card production is still being recapitulated by the sub-districts. However, with the positive trend seen in previous years, it is very likely that the number of applications in 2025 will increase.

The implementation of E-Government in Indonesia has developed in various ways, ranging from public administration services to internal government information management systems. Some examples of E-Government applications that already exist in Indonesia include the Personnel Management Information System (SIMPEG), Electronic Procurement Services (LPSE), and the Population Administration Information System (SIAK). In addition, at the regional level, digital service innovations have been implemented, such as Plavon (Virtual Online Services) by the Population and Civil Registration Office in Sidoarjo, as well as SIAKBA (Information System for KPU Members and Ad Hoc Bodies) which was developed ahead of regional elections. The variety of these applications shows that the government is committed to providing more open, fast, and integrated public services. One of the most strategic E-Government applications that directly addresses the needs of the community is a system known as the Population Administration Information System (SIAK). SIAK is a system developed by the Ministry of Home Affairs and managed by the Population and Civil Registration Agency (Disdukcapil) to manage population data throughout Indonesia. This system enables the digital and integrated collection, recording, and issuance of population documents such as ID cards, family cards, birth certificates, and others. The implementation of SIAK aims to build a single database on population that is accurate, reliable, and useful for public services and government policies.

At the provincial level, the SIAK system has been implemented in all districts and cities under the supervision and coordination of the Provincial Population and Civil Registration Office. However, implementation in the field is often uneven due to various factors such as the availability of information technology infrastructure, workforce readiness, and financial support from the regions. Several provinces with good technological capabilities and governance systems can develop additional features or

inter-agency integration to improve public services. One of the regions that is active in implementing SIAK is Sidoarjo Regency. Through the Population and Civil Registration Office, the Sidoarjo Regency Government has used SIAK to support digital population services. Various innovations have also been created locally to overcome service challenges, such as Plavon Dispendukcapil, which allows residents to process population documents online without having to visit the office in person. In addition, Sidoarjo has also implemented the SIAKBA system to assist with election administration, demonstrating that the development of SIAK is not only focused on population document services, but can also be applied in other sectors such as general elections. However, in its implementation at the sub-district level, there are still several issues that hinder the optimization of services.

One example occurred in Krembung Subdistrict, Sidoarjo Regency. Based on observations and interviews, it was found that population administration services in Krembung through the SIAK system often experienced disruptions, mainly due to weak access to the central server, which hampered the document input and printing process. The unstable server often caused long queues and slowed down the service process for the community. In addition, the limited number of older human resources (HR) to operate the SIAK system is also a problem in itself. Some officers do not fully understand the digital procedures, so in the event of technical disruptions, they find it difficult to take quick action. This shows that even though the system is available, its effective implementation still depends heavily on adequate infrastructure support and the technical competence of the implementers in the field. To resolve these issues, the author uses Campbell J. P.'s theory in Primanda [12] with the following indicators: 1) program success, 2) target success, 3) satisfaction with the program, 4) input and output levels, and 5) overall goal achievement. Thus, this research is very important to determine the effectiveness of the implementation of the Population Administration Information System (SIAK) at the Krembung Subdistrict Office. This is mainly related to technical and non-technical challenges, such as infrastructure limitations, human resource competencies, and low public understanding. In addition to contributing to improving the quality of population administration services at the local level, this research is also relevant in supporting the digital transformation of public services in accordance with national e-government policy directives.

Previous studies entitled "Evaluation of the Implementation of the Population Administration Information System at the Population and Civil Registration Office of Semarang City" by Puguh Adi Nugroho [7]. The results of the study show that the political will, human resources, and value or benefits of SIAK are quite good, while infrastructure, socialization, and budget are still lacking. The obstacles lie in the lack of facilities and infrastructure, as well as the minimal procurement budget. This study emphasizes the political will regarding the lack of necessary knowledge in the legal regulations concerning the SIAK and the potential for irregularities in the implementation of the SIAK. The next study is entitled "Web-based Population Administration Information System in Bogangin Sumpiuh Village" by Fabriyan Fandi Dwi Imaniawan [13]. The results of this study are an analysis of user needs, including administrators, visitors, and users, who have different characteristics of interaction with

the system and different needs. This study emphasizes the website database in the village, namely the Entity Relationship Diagram (ERD).

The last study is entitled "Implementation of the Population Administration Information System" by Stefanus Arwandi Jai [4]. The result of this research is that the SIAK program implemented at the Tunggulwulung Village Office in Malang City has obstacles, namely manual data transmission, so that officers send files to the Malang City Population and Civil Registration Office. This study emphasizes manual population administration procedures, but the community is aware of orderly population administration. Meanwhile, the study entitled "The Effectiveness of Using the Population Administration Information System (SIAK) at the Subang Regency Population and Civil Registration Office"[14] explains that the effectiveness of the implementation of the Population Administration Information System (SIAK) at the Subang Regency Population and Civil Registration Office is considered not yet fully effective when compared to the theory of effectiveness proposed by Martani and Lubis.

The research findings show that the office has the facilities and infrastructure to support smooth service delivery, particularly in the operation of SIAK. In general, the implementation of SIAK in Subang Regency is functioning well. The management of SIAK by operators in the process of inputting population data is also considered effective thanks to the support of relatively adequate facilities. And from a study entitled "The Effectiveness of the Population Administration Information System (SIAK) in the Context of Optimizing Public Services in Pontianak City" [5] shows that SIAK makes it easier for the community to take care of various population administration needs. All results from population registration and civil registration activities are compiled into a single integrated database, covering three main components, namely population registration, civil registration, and population information management. This SIAK database is then used as an access service that provides information by name, by address, and by NIK for user agencies and institutions. In addition, SIAK also supports government programs by integrating population data into voter data during elections.

RESEARCH METHOD

This study uses a qualitative descriptive method with the aim of describing the extent of the effectiveness of the Population Administration Information System (SIAK) in Krembung District, Sidoarjo Regency. The qualitative method was chosen because it is considered capable of providing an in-depth description of existing phenomena through information obtained from key sources [15]. According to Moleong, qualitative-based research aims to understand social aspects from the participants' perspective through the collection of data in the form of words, actions, and documents [16]. This is supported by Yuliani's research, which states that qualitative methods are highly relevant in public administration studies because they provide opportunities for writers to explore more deeply the dynamics of policies and program implementation based on the real experiences of implementers and service recipients. The focus of this study is to determine the extent to which the effectiveness of the Population Administration Information System (SIAK) influences population administration services in Krembung District, Sidoarjo Regency, by referring to the five program effectiveness indicators proposed by Campbell J. P., namely program outcomes, goal achievement, community

satisfaction with the program, input and output ratios, and overall goal achievement. The main objective of this study is to evaluate the effectiveness of SIAK in providing population administration services using the program effectiveness indicators proposed by Campbell J.P in Primanda [12], namely program success, goal achievement, community satisfaction, alignment between input and output, and overall goal achievement. Data were obtained from primary sources through in-depth interviews with the Head of the Service Subdivision, SIAK operators, and the surrounding community, and from secondary sources such as journals, books, archives, and official reports. Informants were selected using purposive sampling, which is the selection of individuals based on specific reasons in line with the research objectives [17]. Data collection was carried out through observation, interviews, and documentation, while data analysis used an interactive model developed by Miles and Huberman, which included data reduction, data presentation, and conclusion drawing [18].

RESULTS AND DISCUSSION

Based on the results of the research and findings obtained in the field, in accordance with the research title related to the Effectiveness of SIAK (Population Administration Information System) in Population Administration Services. The data described will be presented descriptively. Effectiveness is a benchmark for comparing the processes carried out with the objectives and targets achieved. Program effectiveness can be realized if the efforts or actions taken are in line with the expected results. Effectiveness is used as a standard to compare the plans and processes carried out with the results achieved. In the effectiveness of this program, the author uses the program effectiveness theory proposed by Campbell J. P. in Primanda [12], which states that there are several indicators of effectiveness, namely: 1) program success, 2) target success, 3) satisfaction with the program, 4) input and output levels, 5) achievement of overall objectives as follows:

1. Program Success

According to Campbell J. P., the success of a program can be defined as the extent to which a program has achieved its primary objectives as designed from the outset. This indicator emphasizes the final outcome of the overall program implementation, whether it is in line with the expectations and plans that have been set or not. In the context of public services, particularly in the use of the Population Administration Information System (SIAK) application, the success of the program can be seen from how well this system functions in facilitating the smooth running of population administration services, such as the issuance of identity cards, family cards, birth certificates, and other documents.

If the application is able to speed up the service process, reduce long queues, and improve data accuracy, then the program can be said to be successful. However, if there are still many technical problems, such as frequent server downtime, or human resources are unable to operate the system properly, then the success of the program is questionable. For example, in a study in Krembung District, it was found that one of the main obstacles in the implementation of SIAK was its dependence on a central server that often experienced disruptions. This caused service delays and reduced the effectiveness of the program. In this case, the success of the program is not only measured by the

existence of technology or applications alone, but also by the readiness of supporting infrastructure and human resources. A program is considered successful if the technology implemented can be used optimally and has a positive impact on improving the quality of services directly felt by the community.

Based on an interview with Mr. Khoirul, the SIAK service operator, the following information was obtained:

"As an operator who uses the SIAK application every day in Krembung District, I feel that this system is actually quite helpful in speeding up administrative services. However, we often experience technical problems such as central server disruptions that cause the entire service process to stop. This certainly hinders the program because we cannot continue to serve the people who have come to wait in line. Even though this system is digital-based, if it is not balanced with server reliability and a quick response from the center when disruptions occur, the success of the program will be less than optimal. We hope that in the future there will be technical improvements so that services can run smoothly and the program can truly achieve its objectives." (Interview, July 15, 2025).

Meanwhile, an interview with Mr. Didit, the Head of Subdivision, yielded the following information:

"The SIAK program is actually quite good in terms of its system. However, its implementation still faces technical obstacles, mainly because this application is highly dependent on internet connection and the stability of the central server. So, if the network is unstable, services are also hampered." (Interview, July 18, 2025).

Based on these explanations, it can be concluded that the SIAK Program success indicators in Krembung Subdistrict have been achieved but are still not optimal. From the interview results, the implementation of SIAK has brought improvements in population administration services and clarity of procedures compared to the manual system that was previously in place. However, its implementation still faces several technical problems, such as disruptions to the main server and the lack of staff ability to operate the system. This situation has resulted in the effectiveness of the service not being fully realized. This evaluation is in line with the findings of Nugroho's [7] research, which shows that the implementation of SIAK in Semarang City can improve service effectiveness, although its achievement is still hampered by limited resources and budget.

2. Target Success

The indicator of success refers to the extent to which the program can reach the target community [19]. In Krembung Subdistrict, SIAK can actually be used by most residents. However, there are certain groups, especially the elderly or those who are not familiar with digital devices, who still need guidance.

Based on the results of an interview with Mr. Didit as the Head of Subdivision, the following information was obtained:

"Features such as resident data input, letter printing, and status checking can already be carried out smoothly. But when there are system updates, we usually need time to adjust, because sometimes there are changes in the display or new workflows. To help us understand the system, there are usually training sessions or technical guidance conducted every two to three months, and these are carried out alternately. The training is quite helpful, but since it is not very frequent and not all staff participate at the same time, there are sometimes differences in understanding among officers. Perhaps in the future, written guidelines or direct assistance could be added so that adjustments can be made more quickly." (Interview, July 18, 2025).

Meanwhile, an interview with Mr. Khoirul, a SIAK Service Operator, yielded the following information:

"The main objective of this program is to encourage the digitization of services, and so far it has been running in that direction. But in reality, the capabilities of officers in the field are still uneven. Some still have difficulties, especially when there are system updates or sudden technical problems. They are often confused about what to do and are unable to handle it themselves. There was training in the past, but it is not enough if there is no reinforcement or regular training updates. Ideally, training should be conducted periodically and comprehensively so that all officers have the same understanding and skills, so that services can be faster and not disrupted when the system changes or experiences problems." (Interview, July 15, 2025)

Based on the above explanation, it can be concluded that the Target Success indicator in the implementation of SIAK in Krembung Subdistrict has not been fully achieved. The analysis results show that SIAK services have reached most of the community, but there are still certain groups – especially the elderly and individuals with low digital literacy – who still face difficulties in utilizing the system. This finding is in line with Riki's [14] research entitled "The Effectiveness of the Implementation of the Population Administration Information System in Subang Regency," which indicates that the level of digital literacy among the community greatly affects the success of SIAK. Therefore, to achieve the targets in Krembung Subdistrict, support in the form of continuous socialization and intergenerational assistance is still needed so that the benefits of the program can be felt evenly. In addition, additional interventions such as training, user guides, and the provision of alternative services are needed so that groups with limited digital knowledge can still access population administration services fairly.

3. Satisfaction with the Program

Satisfaction with the program is an important benchmark for assessing the success of a public service program, because from this we can see how well the service meets public expectations (Kotler; Tjiptono) [20]. In the context of the implementation of the Population Administration Information System (SIAK), citizen satisfaction is closely related to the speed of service delivery, clarity of the process that must be followed, and ease of access to population documents. Based on the results of an interview with Mr. Khoirul, the SIAK Service Operator, the following information was obtained:

"If the system runs smoothly, it is certainly very helpful, because citizen data can be accessed immediately and population documents such as ID cards or family cards can be printed immediately without having to wait long. The process becomes more efficient and easier for both officers and the community. But in reality, it is not always like that. Sometimes the SIAK application does not respond or experiences errors, so work is delayed and services are temporarily suspended. This is quite disruptive, especially when many residents come to process documents at the same time. In addition, the availability of ID card blanks is often limited in the sub-district, so even though the recording process has been completed, ID cards cannot be printed immediately. This often hinders service and residents have to wait longer." (Interview, July 15, 2025).

Meanwhile, based on an interview with Mr. Mukhlis, a resident of Krembung Village who also uses the SIAK service, the information obtained is as follows:

"As a service user, I feel that there is now greater convenience in processing documents such as ID cards, which is now faster and more practical than before. However, I still often encounter technical problems such as server disruptions or system errors that cause services to be interrupted and require me to return another day. Additionally, ID card forms at the subdistrict office sometimes run out, so even though the data has been recorded, the ID card cannot be printed immediately, and I have to come back another day to wait for the forms to be available. I hope the system can be more stable and the availability of forms more guaranteed so that the service can be truly optimal." (Interview, July 25, 2025).

Based on the above explanation, it can be concluded that the Target Success indicator in the implementation of SIAK in Krembung Subdistrict has not been fully achieved. The results of the analysis show that SIAK services have reached most of the community, but there are still certain groups – especially the elderly and individuals with low digital literacy – who still face difficulties in utilizing the system. This is in line with the research by Jaya et al. [5] in Pontianak City, which found that SIAK was able to make it easier for the community to manage population administration because all population registration and civil registration data were integrated into a single database. The database was used to provide access to information by name, by address, and by NIK for various agencies, as well as to support the integration of voter data in elections. Thus, the research in Pontianak shows that the objectives of SIAK can be achieved broadly because the system is able to meet the needs of the community and user institutions. However, compared to Pontianak, in Krembung District, there are still gaps in certain community groups that have not been able to utilize the services optimally. This means that even though the objectives have been sufficiently achieved, the equitable utilization of services remains a challenge that needs to be addressed.

4. Input and Output Levels

This indicator is used to assess the efficiency of program implementation by comparing inputs (resources used) and outputs (results achieved). According to Arikunto and Jabar, the efficiency of a program can be seen from how much results are

obtained compared to the amount of resources used [21]. In other words, a good program should be able to produce maximum output with minimal input.

In the context of implementing the SIAK (Population Administration Information System) application, inputs include aspects such as Human Resources (HR), hardware (computers, printers, and internet networks), as well as training and capacity building support for field officers. Meanwhile, the output of this program can be seen based on the results of an interview with Mr. Khoirul, the SIAK operator in Krembung District, who provided the following information:

"As the SIAK operator in Krembung District, I have received training, but it is not conducted regularly, only once every two to three months, especially for officers who are elderly and not familiar with technology. The lack of preparation and human resources that are not fully ready have prevented the provision of optimal services to the community." (Interview, July 15, 2025).

The limited capabilities of older human resources are one of the factors that hinder the successful implementation of SIAK. Some older officers have difficulty understanding digital technology, so they need additional training and more in-depth guidance. Meanwhile, the results of an interview with Mr. Didit, the Head of Subdivision, revealed the following information:

"Inputs such as computers and internet networks are actually already available at the sub-district office, so in terms of facilities, it is quite supportive. However, if the system still frequently malfunctions or the operators do not fully understand how to operate it, the results will still not be optimal. Therefore, in my opinion, improvements must be made comprehensively, not only focusing on improving human resources, but also updating and refining the system so that services can truly run smoothly." (Interview, July 18, 2025).

Based on the above explanation, it can be concluded that the Input and Output indicators in the implementation of SIAK in Krembung Subdistrict are still not optimal. From the research results, the lack of human resources, especially older officers, has caused service quality to not reach its maximum potential even though equipment such as computers, printers, and internet connections are adequate. This is in line with Fabriyan Fandi Dwi Imaniawan's research [13], which emphasizes that user needs vary depending on their roles (administrator, visitor, user). If these needs are not properly accommodated, service output will not be optimal. The main difference is that Fabriyan's research highlights database design and system interaction needs, while the findings in Krembung focus more on human resource competencies. Both studies show that the success of the output is not only determined by facilities, but also by the suitability of user capabilities to system requirements. Another difference is that in Subang Regency, the main problem is the lack of operators who understand the system, while in Krembung District, the biggest challenge is the mismatch between the number of staff and the existing workload. Therefore, the input-output indicators have not been fully achieved, as program efficiency is still hampered by limited human resources. Although schedule

changes can help streamline services, this method has not been fully able to overcome the mismatch between input and output. This shows that strengthening technical aspects and human resource management is still needed in order to achieve optimal program effectiveness.

5. Achieving Overall Goals

The final indicator in the evaluation of the SIAK program is the overall achievement of the goals of the system that has been implemented. However, according to Rivai and Sagala, a program is considered successful if its main objectives can be realized in a tangible manner, in terms of efficiency, effectiveness, and impact on beneficiaries [22]. In the context of digital-based public services, success is not only seen from technical implementation, but also in the system's ability to create services that are fast, accurate, easily accessible, and have minimal administrative barriers (Dwiyanto).

The SIAK application, as a digital instrument for population administration services, is designed to accelerate the service process, simplify bureaucratic workflows, and build an integrated data system between agencies. However, as explained in the research by Siregar and Sembiring, achieving technology-based program objectives requires adequate human resources, stable infrastructure, and regular technical guidance.

Based on the results of an interview with Mr. Didit as the Head of Subdivision, the following information was obtained:

"The main objective of this population service is to provide fast and accurate services to the community. However, in the field, we are still in the adjustment phase. The system still often experiences problems and is not yet fully stable. On the other hand, human resource capabilities also need to be continuously improved so that the system can be operated optimally and services can run more efficiently." (Interview, July 18, 2025).

Meanwhile, the results of an interview with Mr. Khoirul, the SIAK Service Operator, revealed the following information:

"The data in the SIAK system is actually very complete. But in practice, we sometimes experience technical problems. Sometimes the system suddenly crashes or the central server cannot be accessed. When that happens, services are automatically hampered because almost all processes depend on the network and online system. We have to wait for the system to return to normal before we can continue with administrative services," (Interview, July 15, 2025)

Based on the research conducted, it can be concluded that the overall success indicators in the implementation of SIAK in Krembung Subdistrict have been achieved, although not yet to their full potential. This can be seen from the increased speed of administrative services for the population as perceived by the community, such as time savings and ease of processes that were not previously available in the manual system. However, this achievement is still often hampered by technical problems, especially disruptions to the main server, network instability, and limitations on blank documents.

This is relevant to Riki's [14] research in Subang Regency, which states that the effectiveness of SIAK is not yet fully optimal even though the facilities are available. While in Subang the main problem was more about the effectiveness gap according to Martani and Lubis' theory, in Krembung the obstacles were more apparent in terms of the central server and the limited digital literacy of the officers. These two studies show that although the objectives of SIAK have been generally realized, their achievement has not been maximized due to technical aspects and human resource readiness. Thus, it can be concluded that the indicators for overall achievement of objectives have been met, as the main objective of accelerating services has been realized. However, this achievement is still not optimal due to recurring technical problems that affect the continuity of services.

CONCLUSION

Fundamental Finding : Based on the results of research on the effectiveness of the implementation of the Population Administration Information System (SIAK) in Krembung Subdistrict, it can be concluded that this program has produced positive results, although it has not yet reached its full potential; (1) in terms of success rate, the issuance of population documents is quite high and feels faster than the manual system, although there are still server disruption issues. (2) Target achievement: SIAK services have reached most of the productive-age population, but there are still elderly groups and residents who have difficulty with digital literacy and require assistance. (3) Community satisfaction: Most residents are satisfied with the acceleration of services, although the limited availability of blank forms and technical problems remain a source of complaints. (4) The small number of employees, coupled with a lack of technological skills among some senior officers, has led to an imbalance between input and output. (5) In terms of overall achievement of objectives, SIAK is considered to have been able to provide faster, more efficient, and more transparent population administration services, although its sustainability is still affected by technical constraints, human resource capacity, and the level of community literacy. **Implication :** Therefore, it can be said that the implementation of SIAK in Krembung Subdistrict is quite effective, but improvements in infrastructure and human resource capacity are needed to strengthen the system and increase public trust. **Limitation :** Challenges remain in the form of server disruptions, limited blank form availability, and gaps in officers' digital competence which hinder the program from achieving maximum performance. **Future Research :** Further studies are needed to explore strategies for digital literacy development, advanced technical training, and innovative infrastructure solutions that can ensure the sustainability and scalability of SIAK services in the future.

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