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THE SERVICE OF SOCIAL WELFARE INFORMATION SYSTEM-NEXT GENERATION (SIKS-NG) SOCIAL WELFARE INTEGRATED DATA (DTKS)

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ABSTRACT

This study examines the implementation of the Social Welfare Information System–Next Generation (SIKS-NG) as an electronic-based public service for managing Integrated Social Welfare Data (DTKS) at the Bengkulu City Social Service. Using a qualitative descriptive approach, the research analyzes SIKS-NG services through six key dimensions: technology focus, operators’ technical skills, operators’ personal skills, organizational commitment, system integration, and the continuity of the Electronic-Based Government System (SPBE). Data were collected through interviews, observations, and document analysis, guided by the Regulation of the Minister of Social Affairs Number 3 of 2021. The findings indicate that while SIKS-NG has enhanced data standardization, transparency, and accountability in social assistance targeting, its effectiveness is constrained by limited human resources, uneven digital competencies among operators, and inadequate technological infrastructure. These constraints affect the timeliness and accuracy of DTKS updates, which are critical for ensuring equitable social protection. The study concludes that strengthening institutional capacity, expanding operator training, improving infrastructure, and reinforcing multi-level coordination are essential to optimize SIKS-NG performance and support sustainable digital welfare governance at the local level.

Keywords: SIKS-NG, DTKS, SPBE, digital public services, social protection governance, Indonesia.

INTRODUCTION

In 2019, a policy change was implemented, which involved a shift in nomenclature from integrated data to integrated social welfare data (DTKS), as outlined in Minister of Social Affairs Regulation No. 5 of 2019 regarding the management of integrated social welfare data. Through this regulation, integrated data management is expanded not only to data on the poor but also to include other social welfare data, such as social assistance data, data on the need for social welfare services (PPKS), and data on potential and sources of social welfare (PSKS). Starting from 2020, the DTKS determination has changed from previously 2 times a year to 4 times a year, in January, April, July, and October.

Updating/verifying and validating DTKS in accordance with the regulation of Law Number 13 of 2011 about Handling of the Poor, Law Number 23 of 2014 about regional government, and Minister of Social Affairs Regulation Number 28 of 2017 about General Guidelines for Verification and Validation of DT-PFM and OTM is the responsibility Regency/City Regional Government using the SIKS-NG Application. Likewise, DTKS in the Bengkulu City Area is the responsibility of the Bengkulu City Government; in this case, it is managed by the Bengkulu City Social Service.

In 2021, the Bengkulu City Government conducted another verification cycle across 67 sub-districts by involving RT, RW, and selected residents to update data via SIKS-NG. However, the verification process exposed persistent difficulties. Numerous complaints arose regarding unrecorded submissions, outdated entries, and the system's inconsistent responsiveness. These shortcomings are problematic, particularly because SIKS-NG serves as a vital public service instrument intended to support accurate, transparent, and accountable welfare administration.

The challenges encountered in Bengkulu illustrate broader issues associated with the local government's capacity to manage digital governance systems. Although DTKS requires frequent updating, the technological infrastructure, digital competencies of staff, and public literacy have not advanced at the same pace. This gap results in mismatches between field conditions and the information captured in the system. Many RT and RW leaders continue to face unreliable internet access, limited devices, and insufficient training, while residents often rely on local officers to correct or input data, contributing to delays and administrative congestion.

Inaccuracies in DTKS have direct consequences for social protection programs. Households eligible for assistance risk exclusion when their data is not properly recorded, while inclusion errors can divert resources away from those who need them most. Such distortions undermine public confidence and reduce the effectiveness of welfare interventions. Strengthening coordination across administrative levels, improving data management procedures, and providing targeted technical support are therefore essential to ensure that SIKS-NG functions as intended.

These inaccuracies and delays in DTKS updates have far-reaching consequences for the distribution of social protection programs. Households that should qualify for assistance may be overlooked if their data is not captured correctly, affecting their access to programs like PKH, BPNT, or emergency support. Conversely, families who are no longer eligible may continue to appear in the system, leading to inefficient resource allocation and potential public dissatisfaction. For this reason, improvements in data management practices, stronger coordination among administrative levels, and consistent oversight of verification activities are crucial. Establishing better support services such as technical guidance sessions or dedicated help desks could enhance the dependability of SIKS-NG. As Indonesia progressively shifts toward digitalized welfare administration, resolving these systemic issues is

essential to ensuring that DTKS remains a trustworthy basis for designing and implementing targeted social protection policies.

In 2021, the Regional Government of Bengkulu City, through the Social Service, verified the data again in 67 sub-districts. This involved inviting RT, RW, and several residents in Bengkulu City to update the data via the SIKS-NG Application. However, there are still many problems experienced by the Bengkulu City Social Service regarding this application which residents who receive assistance complain about, such as residents who add data that is not recorded in the application or data that is not updated. Even though SIKS-NG is a kind of public service that must be prioritized.

According to Lisnawati et al. (2023), public services meet basic needs and must be in accordance with the fundamental rights of citizens, and local governments are responsible for determining minimum service standards. Public services are the government's obligation to fulfill the rights of every citizen. To facilitate the delivery of government services to the community, a public service model is needed. In the concept of public services, there are several models; these models depend on the conditions and situations that exist in the area where the service is provided because each region has its own characteristics, such as social, economic, and topographical. Apart from those, choosing the right model can minimize challenges or obstacles that might occur.

Choosing the right approach to delivering public services has become increasingly important as governments confront a wider range of expectations from the people they serve. The variety of social needs such as welfare assistance, educational services, healthcare, and population administration demands that local authorities create service systems that are both effective and flexible enough to adjust to ongoing changes. Differences in infrastructure, economic development, cultural practices, and levels of digital literacy across regions substantially influence how public services should be structured. In more developed areas, advanced technological solutions may be appropriate, whereas communities in remote or less developed regions may need service models that rely more heavily on local engagement or blended methods to ensure equal access.

Moreover, the model used to deliver services has a direct impact on how much the community participates in public governance. Greater involvement in planning and implementing services generally leads to stronger public trust and more sustainable outcomes. In contrast, when services are highly centralized or disconnected from local realities, people may feel underserved or excluded, which can decrease service utilization and weaken satisfaction. For this reason, matching the service model with the characteristics of each region not only improves operational efficiency but also enhances the legitimacy of government actions in the eyes of the public.

The model chosen for service delivery also influences public participation. When communities actively engage in planning and implementation, trust and sustainability generally increase. Conversely, models that are too centralized or disconnected from local realities can lead to dissatisfaction and low service uptake. The rise of digital governance further complicates this landscape. While digital platforms enhance transparency and speed, they also create new challenges such as unequal access to technology, risks related to data protection, and the need for continuous staff training.

Recognizing these nuances, scholars have categorized service delivery into several models to guide governments in designing systems aligned with regional capacities and community needs. Understanding local diversity, strengthening public involvement, and assessing institutional readiness

remain central to ensuring that public services are equitable, relevant, and capable of protecting citizens' fundamental rights.

According to Loefeller in Indah (2016:7), public service models are classified into 4 main models namely "traditional service provision, self-help, little service provision and co-production". The central character of each service model is shown in Table 1.

Table 1

Various Model of Public Service

Who is Involved	Level of Active Involvement of Service Users and Communities	
	High	Low
Level of Active Involvement of Service Professionals	High	Co-Production
	Low	Self-Help (User Led-Self Organizing Services)
		Traditional Service Provision (Traditional Professionally Led Service)
		Little Service Provision (Volunteer-led Self-Organizing Services)

The service model through SIKS-NG is a public service that uses an information system assisted by an operator. According to Alter in Kadir (2002:6), "an information system is a combination of work procedures, information, people, and information technology organized to achieve organizational goals". Meanwhile, an information system is a framework that coordinates resources (humans, computers) to convert input into output (information) to achieve company goals. Next Generation Information System (SIKS-NG) services can be seen based on several aspects, according to Posihnon 2008 in Indah (2016:20).

Technology Focus

The SISK-NG DTKS application service focuses on applications that facilitate the registration of data on individuals or families classified as poor in Indonesia by the public and government. According to Lips and Schuppan (2009), the Implementation of e-government, such as the Internet and systems for geographic information, is expected to improve cost efficiency and effectiveness and to transform public service provision, administration, and engagement with the general public. This application contains all data on people who need material assistance. The SIKS-NG application continues to be developed to make it easy for the government and the public to access and view data anywhere. The SIKS-NG service can be opened anywhere, by using a computer or a smartphone. So, people can search for data easily.

Operator Skills (Technical Skill of Worker)

The completed Integrated Data contained in the SIKS-NG application continues to be developed. However, not everyone can access it well. Additionally, the government, in this case, the Ministry of Social Affairs, along with its apparatus, starting from the Provincial Social Service, City/Regency Social Service, and even every sub-district or village in a province, is obligated to provide operators to assist in delivering services to the community. According to Lolaeva (2022), information and communication technology is increasingly being used in the activities of public authorities, contributing

to the formation of an information society and reforming the entire public administration system. To assist people who cannot access the SIKS-NG application, the State Civil Apparatus in local government can provide support. The skills of operators who will serve the public include being able to use smartphones and laptops, as well as operating the SIKS-NG application effectively.

Operator's Personal Skills (Personal Skill of Worker)

Almost every village/sub-district already has an operator for the Next Generation Social Welfare Information System (SIKS-NG). According to Arifin (2023), Public service performance requires standard operational procedures, training, and education for employees to fulfill people's rights and provide fast, reliable, and effective services. This operator has a mandate from the Ministry of Social Affairs to input data and update the poverty data in each village and sub-district. The operator itself is an extension of the Ministry of Social Affairs, so that the chosen operator can at least operate a computer effectively and use the internet efficiently. So that the operator's duties can run well.

Government (Company)

The Ministry of Social Affairs (Kemensos) as the implementer of the poverty reduction program, it implements the program through various programs including Keluarga Harapan (the Family Hope) Program (PKH), Kelompok Usaha Bersama (Joint Business Groups or KUBE), Rehabilitasi Sosial Bagi Penyandang Masalah Kesejahteraan Sosial (Social Rehabilitation for People with Social Welfare Problems or PMKS), Bantuan Pangan Non Tunai (Non-Cash Food Assistance or BPNT), Program Kesejahteraan Sosial Anak (Child Social Welfare Program or PKSA), Program Simpanan Keluarga Sejahtera (Prosperous Family Savings Program or PSKS), Komunitas Adat Terpencil (Remote Indigenous Communities or KAT), and Social Welfare Information System. According to Supriyanto et al. (2023), accurate poverty data is very important for poverty alleviation, and this research develops an information system to identify, verify, and validate data on potential recipients of Social Assistance. The success of poverty alleviation is not only determined by appropriate, innovative programs, but must also be supported by clear poverty criteria, as well as accurate and up-to-date data. The duties and functions of the Ministry of Social Affairs include expanding poverty alleviation efforts, particularly in providing accurate, up-to-date, and integrated poverty data. The Social Welfare Data and Information Center (Pusdatin Kemensos) continually develops the Social Welfare Information System (SIKS) application, known as SIKS-NG (Social Welfare Information System - Next Generation). This online system can be accessed by Provincial and Regency/City Social Services throughout Indonesia.

The Availability of an Integrated System

SIKS-NG produces Integrated Data in accordance with applicable laws and regulations. The Ministry of Social Affairs is supported by the Regional Government to verify and validate poverty data that is accurate, up to date and integrated. According to Meng-bing and Shi (2019), accurate identification of people living in poverty is very important for the success of poverty alleviation programs. Registration report, or data changes are carried out in stages from the village/sub-district, sub-district, districts/municipalities, governors, up to the Minister of Social Affairs through the SIKS-NG system. Furthermore, poverty data that has been verified and validated is determined by the Minister of Social Affairs as integrated data that can be used by relevant ministries/institutions for poverty management. The SIKS-NG application is equipped with variables contained in the Integrated Database form, so the

information about poor communities is needed and it will be more complete. This will make it easier to integrate it into the Integrated Database and all national social protection programs.

Continuity of Electronic-Based Government Systems (SPBE)

In accordance with President Regulation No. 95 of 2018, the Electronic-Based Government System (SPBE) is a government administration that utilizes information and communication technology (ICT) to provide services to users of this system. According to Putra and Dhanuarta (2021), electronic-based government systems improve the quality of public services by utilizing information and communication technology through vertical and horizontal integration models. SIKS-NG is an electronic-based government system used as a public service feature that leverages information and communication technology. To achieve an excellent level of service, there are seven basic principles of SPBE, namely: Effectiveness, integration, sustainability, efficiency, accountability, interoperability, and security.

METHODOLOGY

This research is a descriptive study with qualitative data analysis because its focus is on a phenomenon or social reality. Qualitative research explores participants' perspectives through interactive and flexible methods. It aims to understand social phenomena from the viewpoint of the participants. Therefore, the meaning of qualitative research is that it investigates natural conditions where the researcher acts as the main instrument (Sugiyono, 2019: 18).

Researchers will describe phenomena related to the SIKS-NG Integrated Social Welfare Data (DTKS) Application Service at the Bengkulu City Social Service, based on Regulation of the Minister of Social Affairs of the Republic of Indonesia Number 3 of 2021 concerning the Management of Integrated Social Welfare Data. Meanwhile, the research is descriptive in nature. Nazir (2014:43) states that a descriptive method is a way to investigate the status of a group of people, an object, a condition, a system of thought, or a class of events. The goal of this descriptive research is to create systematic, factual, and accurate descriptions, images, or representations of the facts, characteristics, and relationships between the phenomena being investigated.

This research examines the Bengkulu City Social Service's implementation of the SIKS-NG Integrated Data Social Welfare (DTKS) Application Service in managing data on the poor, based on the Regulation of the Minister of Social Affairs of the Republic of Indonesia Number 3 of 2021 at the Bengkulu City Social Service. The study analyzes SIKS-NG services, focusing specifically on technology, the technical skills of workers, their personal skills, organizational aspects, the availability of an integrated system, and the continuity of electronic-based government systems (SPBE). For clearer understanding, the table below illustrates these aspects.

Table 2

Focus, Aspects, Research, Benchmarking

Research Focus	Research Aspects	Benchmarks	Source
SIKS-NG Service (Next Generation Social Welfare Integrated System)	<i>Technology Focus</i>	<ol style="list-style-type: none"> 1. The application focuses on one service, which is DTKS. 2. The application has been tested and trusted. 	Ponsignon 2008 in Indah (2016:20)
	Operator Skills (<i>Technical skills of the worker</i>)	<ol style="list-style-type: none"> 1. Operator skills in operating the application. 2. Operator skills in solving the problems related to the application. 	
	Operator Personal Skills (<i>Personal skills of the worker</i>)	<ol style="list-style-type: none"> 1. The availability of Social Service workers who provide trusted service to society. 2. The availability of Social Services in providing good services to society. 	
	Government (<i>Company</i>)	<ol style="list-style-type: none"> 1. The availability of government commitment toward services with technology-based solutions that are easy to access. 2. The availability of standard rules for service application that has been created. 	
	The availability of the integrated system	<ol style="list-style-type: none"> 1. The quality and smoothness in accessing the SIKS-NG of the Social Welfare Integrated System. 2. The simplicity in using the SIKS-NG application by the Society wherever and anywhere. 	
	Continuity of electronic-based government systems (SPBE)	<ol style="list-style-type: none"> 1. The synchronization of Service system notification of SIKS-NG at Social Service of Bengkulu City. Social Service of Bengkulu Province to Social Ministry of the Republic Indonesia. 2. SIKS-NG Management, which is clean, effective, transparent and accountable with electronic based 3. SIKS-NG service regulation. through government to simply the services for society. 	

RESULT AND DISCUSSION

Based on the research results, services utilizing the Social Welfare Information System-Next Generation (SIKS-NG) application on Integrated Social Welfare Data (DTKS) at Bengkulu City Social Service can be described through several aspects, including technology focus.

Technology Focus

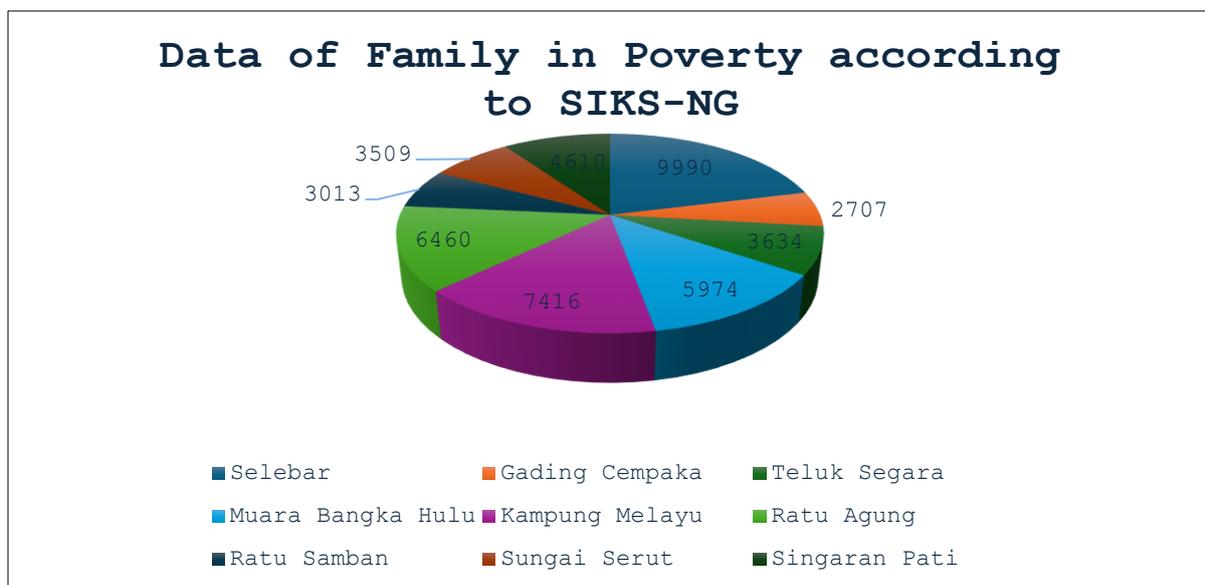
The SIKS-NG application is a management tool developed by the Ministry of Social Affairs of the Republic of Indonesia for proposing new data and enhancing the integrated database of poor communities. In the SIKS-NG application, there is also a menu to make improvements and propose new data on *Bantuan Sosial Pangan* (Food Social Assistance or BSP) recipients. This application is used to produce summary or resume data such as recapitulation and revised data as well as proposing new data. The process of updating and inputting data is carried out by officers in the village or sub-district. SIKS-NG can be accessed by all levels of society via https: Based on Minister of Social Affairs Regulation Number 5 of 2019 about DTKS management, SIKS-NG is an information system that contains data managed by the Ministry of Social Affairs of the Republic of Indonesia with the following stages:

1. Data collection by PSKS in sub-districts coordinated by the Social Service
2. Data verification by the Social Service in Bengkulu City sub-district
3. Data validation by the Social Service in Bengkulu City
4. Data verification and validation by the Bengkulu Province Social Service
5. Data verification and validation by the Indonesian Ministry of Social Affairs
6. Issuance of a DTKS Decree by the Ministry of Social Affairs which is carried out every January, April, July and October each year.

After the Ministry of Social Affairs has issued the DTKS Decree, this data can then be used to distribute aid according to the existing aid classifications, including: the Ministry of Social Affairs of the Republic of Indonesia, the Ministry of Health, the Ministry of Education and Culture, and the Ministry of Energy and Mineral Resources. Furthermore, based on Figure 1, the data on the poor population was taken from the SIKS-NG Application.

Figure 1

Data on the Number of Poor Families according to SIKS-NG in Bengkulu City



Operator Skills (Technical Skills of the Worker)

The Results from interviews with SIKS-NG Operators at the Bengkulu City Social Service indicate that the operators hold a bachelor's degree and are proficient in computer operation. Operators must be able to access the application from anywhere, using either a laptop or a smartphone. In operating SIKS-NG, the operator is tasked with serving people who need assistance, the operator's duties are as follows:

1. Enter or enter data
2. Update data
3. Publish data and information
4. Respond to responses, questions, input and all forms of communication in the Next Generation Social Welfare Information System (SIKS NG)
5. Other tasks related to the management of the Next Generation Social Welfare Information System (SIKS NG)

Operator Personal Skills (Personal Skill of Worker)

In 2021, almost every sub-district will have a Social Welfare Information System-Next Generation (SIKS-NG) operator. This operator has a mandate from the Ministry of Social Affairs to input data and update poverty data in each sub-district.

The results of interviews with the SIKS-NG DTKS operator of the Bengkulu City Social Service, the operator on duty. The operator, who has a mandate from the Ministry of Social Affairs, is tasked with inputting data and updating poverty data in Bengkulu City, as well as coordinating with operators in 67 sub-districts. Operators must receive socialization and learn how to use the SIKS-NG application to facilitate easier service to the public. Operators must also possess a 4S service attitude, including greetings, salutations, politeness, and manners, so that people feel satisfied with the operator's service.

Government (Company)

The Social Welfare Data and Information Center (Pusdatin Kemensos) continually develops the Social Welfare Information System (SIKS) application, known as SIKS-NG (Social Welfare Information System - Next Generation). Provincial and Regency/City Social Services can access this online system throughout Indonesia. The government regulations include Law Number 12 of 2011 regarding the care of the poor, Law Number 23 of 2014 regarding the regional government, and Minister of Social Affairs Regulation Number 3 of 2021 regarding the management of DTKS.

From the results of the interview with the informant, it can be concluded that the Social Service, regarding the SIKS-NG application, utilized the social welfare data collection program starting in 2018, using 2017 data. The program has been running for four years, utilizing the data collection application, and continues to be used. This application supports the accuracy of program targets because with this application, social services can record which people deserve the assistance easily because this application can see from the condition of the house that is suitable for the aid, then the condition of the family starting from the employment of household members, income, type of business owned and everything are in this application.

The introduction of SIKS-NG has brought notable changes to how social welfare administrators carry out their duties at the regional level. Before the system was implemented, the collection and processing

of social welfare data relied mainly on manual methods, a practice that often required considerable time and carried a high risk of input errors. With the adoption of SIKS-NG, however, the processes of entering, verifying, and validating data have become far more organized. Each household is now documented using a standardized set of indicators that describe its socio-economic status, enabling officers to assess eligibility in a manner that is more consistent with guidelines set by the Ministry of Social Affairs. In addition, the system's digital features allow staff in the field to revise household information immediately, making it possible to track changes in beneficiary conditions such as job status, income fluctuations, or shifts in family composition more accurately than before.

Building upon these administrative improvements, the informant pointed out that SIKS-NG has also contributed to strengthening openness between government institutions and the public. Since the data in the application is based on verified observations and objective indicators, the margin for personal bias in identifying aid recipients is significantly reduced. This aspect is particularly relevant in addressing complaints about mistargeted assistance. The documentation generated by the system provides a clear justification for why a household is included or excluded, allowing decisions to be grounded in verifiable evidence. Consequently, this fosters higher levels of trust among communities toward the social welfare services provided by the government.

Even with these positive developments, the informant acknowledged that several issues continue to impede the system's full effectiveness. The success of SIKS-NG depends heavily on the digital skills of its users as well as the availability of adequate technological support. In areas where internet access is unstable, the uploading and synchronization of data often experience delays. Moreover, some field officers still require additional training to operate the application correctly, and varying levels of competence can lead to incomplete or inconsistent entries, ultimately affecting the accuracy of targeting. To address these problems, ongoing capacity building, sufficient resource allocation, and routine evaluations of system performance are necessary to ensure that SIKS-NG can fully support the governance of social welfare programs.

Availability of an Integrated System

SIKS-NG is an information system that consists of several main components, such as collection, processing, presentation, and dissemination of Integrated Social Welfare Data (Integrated Data, Social Assistance Data, and PSKS Data), which is carried out in stages and continuously (from the village/subdistrict to national level) by utilizing information and communication technology. The Social Service also socializes the next generation social welfare data collection program application through 3 (three) SIKS NG platforms, such as: data correction, new proposals for BDT and KPM Rastra/BPNT membership, import files, checking data corrections, checking that KKS proposals have been checked, finalizing, and data authentication.

The integration of these components within SIKS-NG has strengthened the overall workflow of social welfare data management by ensuring that each phase from data collection to data validation and final reporting follows a standardized procedure. The tiered structure of the system, which begins at the village or sub-district level and progresses upward to the national level, allows for more accurate aggregation and harmonization of information. Through this mechanism, discrepancies that may occur at the lower administrative levels can be addressed early, reducing the likelihood of errors being carried forward to higher levels of government. The informant emphasized that this hierarchical flow is essential for maintaining the reliability of DTKS, given that program eligibility depends on the precision of the data recorded at the local level.

To support efficient data operations, the Social Service utilizes three key platforms in SIKS-NG, each designed to handle distinct functions. The data correction platform enables officers to revise inaccurate entries, update changes in household profiles, and rectify inconsistencies that may have resulted from field misreporting or system errors. Meanwhile, the new proposal platform allows communities or local officers to submit requests for adding households to the BDT database or proposing individuals for Rastra/BPNT assistance. This feature is critical in accommodating newly vulnerable groups who experience sudden socio-economic changes, such as job loss or family crises. Lastly, the file import platform facilitates bulk data processing, helping officers manage large volumes of information more efficiently without manually entering each record.

SIKS-NG is also equipped with features that allow officers to monitor the status of proposals, check whether the required verification has been completed, and confirm whether the KKS proposals have been reviewed. These tools help ensure that no submission is overlooked and that each case follows the appropriate verification stages. The finalization process, followed by data authentication, serves as the last checkpoint to validate the accuracy and legitimacy of household information before it becomes part of the official DTKS database. This multi-layered validation process not only strengthens data integrity but also enhances accountability in social assistance management, ensuring that government aid is distributed to the most deserving households in a transparent and systematic manner.

Given that SIKS-NG operates as a digital platform and forms an essential part of Indonesia's e-government infrastructure, its implementation must also be understood within the broader framework of national digital governance policies.

Continuity of Electronic-Based Government Systems (SPBE)

In accordance with Presidential Regulation No. 95 of 2018, the Electronic-Based Government System (SPBE) is a government administration that utilizes information and communication technology (ICT) to provide services to its users. SIKS-NG is a welfare data service that can be accessed directly by both operators and the public.

The SIKS-NG application is a data management system developed by the Ministry of Social Affairs' Data and Data Center. This application was developed in mid-2017. SIKS-NG was introduced to regional governments through social services by conducting national technical guidance (bimtek) in Jakarta in October 2017. The application was released on two platforms: the SIKS-NG offline version 1.0 and the SIKS-NG online version, along with their logos. Offline SIKS-NG can be used and distributed from the district level down to the village level, while online SIKS-NG can only be accessed by district/city social service officers. SIKS-NG has undergone several updates to improve existing functions and features, as well as fix bugs based on user feedback. Currently, the offline SIKS-NG version in use is 2.4.1. In 2019, SIKS-NG was introduced on the Android platform, commonly called SIKS-droid. This system simplifies the process for data collectors to verify and validate data during household visits using a smartphone or tablet, eliminating the need to print prelists on paper. Additionally, SIKS-droid includes a feature to document photos of the condition of the house, such as the roof, floor, walls, the identity of the head of the household, and the geographic coordinates of the household visited. In the same year, SIKS-NG received ISO 27001:2013 certification in the information security management category.

The continuous development of SIKS-NG reflects the government's commitment to strengthening digital governance in the social welfare sector. As part of a national effort to integrate data systems, the

Ministry of Social Affairs has consistently enhanced the application to ensure that it remains responsive to technological advancements and the evolving needs of regional administrators. One of the significant improvements introduced after 2019 was the optimization of interoperability features, enabling SIKS-NG to interact with other government databases, such as population administration systems managed by the Ministry of Home Affairs. This integration facilitates real-time matching of household identities, reducing duplication and improving the overall accuracy of beneficiary data.

Furthermore, the use of SIKS-droid represents an important breakthrough in field data collection. By utilizing mobile devices for verification and validation, enumerators can gather information more efficiently and with greater accuracy. The ability to capture photographic evidence and geographic coordinates enhances data reliability, as each household visit can be authenticated and cross-checked. Such features are crucial for minimizing fraudulent reporting and ensuring that social assistance programs reach the intended recipients. The informant emphasized that the adoption of mobile-based data collection has significantly reduced administrative burdens at the village and district levels, especially during periods of mass verification or emergency data updates, such as during natural disasters or economic shocks.

In addition, the development team at Pusdatin continues to refine SIKS-NG by incorporating user feedback through routine system evaluations and technical forums. These feedback loops ensure that issues experienced by field operators such as interface difficulties, slow synchronization, or data upload failures are addressed in subsequent updates. Training and technical assistance provided during regional sessions further support the capacity of local operators to utilize the application effectively. As a result, SIKS-NG is not only improving administrative efficiency but also contributing to a more transparent, accountable, and evidence-based social welfare system in Indonesia. The combination of robust technological features, continuous system upgrades, and improved human resource competencies positions SIKS-NG as a central pillar in advancing SPBE implementation within the social protection landscape.

Although the system has undergone continuous improvements and contributed significantly to strengthening digital governance, its implementation in the field still faces several challenges that affect the effectiveness and consistency of SIKS-NG services.

Problems in SIKS-NG Services

In the SIKS-NG service, assistance activities are carried out to accelerate data improvement which is carried out online to all Regency/City Social Services in Indonesia. This assistance activity, which is to accelerate data improvement on DTKS, was held as a follow-up to adjustments to the access method for utilizing population administration data provided by the Directorate General of Dukcapil to the Ministry of Social Affairs for the SIKS-NG application based on Minister of Home Affairs Regulation Number 102 of 2019.

Bengkulu City Social Service, according to the regulations in Minister of Social Affairs number 3 of 2021, data corrections should be carried out every 3 times a year. However, Bengkulu City Social Service has not been able to do it as it should. There are still many obstacles for the Bengkulu City Social Service, such as:

Lack of Human Resources (HR) at the Bengkulu City Social Service

Bengkulu City Social Service has 23 civil servants and 31 non-civil servants. However, in the field of social empowerment and handling the poor who are directly managed by the Integrated Social Welfare Data (DTKS), there are 3 civil servants and 3 non-civil servants, with 2 SIKS-NG operators, comprising one civil servant and one non-civil servant. According to current data on human resources, there is a lack of services for the poor, as evidenced by data from the center itself, which indicates that there are tens of thousands of poor people in Bengkulu City. This is very worrying for the Bengkulu City Government because the lack of human resources in the Bengkulu City Social Service has caused data corrections not to comply with the rules which 3 corrections and data processing to be carried out are processed in 1 year but this has not been implemented, so that in 1 year, only one correction and data processing can be carried out that can be done with the help of all civil servants and non-civil servants in the Bengkulu City Social Service.

Lack of Infrastructure at the Bengkulu City Social Service

The SIKS-NG service requires adequate facilities and infrastructure, both in terms of software and hardware. Regarding procedures, the implementation of SIKS-NG shows positive aspects by being equipped with a manual for operations, but it would be better if the manual was directly integrated into the application software to make it easier for SIKS-NG operators. The software used in SIKS-NG is very good and undergoes data upgrades each year. However, according to operators at the Bengkulu City Social Service, it is quite difficult to update existing data because the data upgrade menu requires approval through a decree from the Mayor. Meanwhile, data correction must be ongoing because some data becomes difficult to repair over time. Besides software, hardware issues also arise, as there are only two computers, and one is outdated, causing slow work for the operators. There is no lack of attention from the Bengkulu City Government in allocating a dedicated budget for managing SIKS-NG. Inadequate facilities pose significant challenges in managing poor data.

CONCLUSION

The conclusions of this research demonstrate that the implementation of the Integrated Social Welfare Data Information System (SIKS-NG) in Bengkulu City has generally complied with prevailing legal and regulatory frameworks. However, the findings also reveal persistent structural and operational weaknesses. These weaknesses include limited technological capacity, varying levels of operator proficiency, disparities in individual technical competencies, and inconsistencies in the application of government regulations. Although the Electronic-Based Government System (SPBE) has been formally adopted and operates according to established procedures, several constraints such as inadequate human resources within the Bengkulu City Social Service and insufficient technological infrastructure continue to impede the efficiency of data collection and verification for DTKS.

Based on these findings, this research recommends that the Bengkulu City Government expand the number of SIKS-NG operators at both the municipal and sub-district levels, supported by annually mandated appointments and regular technical training on DTKS governance. Strengthening institutional support must also include a targeted increase in budget allocations for poverty data management services, particularly for upgrading computer systems and supporting facilities that are essential for the optimal functioning of SIKS-NG.

Beyond these practical recommendations, the study underscores the necessity of enhancing institutional capacity to ensure that SIKS-NG can adequately respond to the escalating complexity of social welfare governance. As DTKS updates become more frequent and the volume of data expands, the need for technically skilled personnel, robust digital infrastructure, and continuous system maintenance becomes increasingly urgent. Without sufficient institutional readiness, the accuracy of DTKS and the precision of welfare targeting risk being compromised potentially leading to exclusion errors, inefficiency in resource allocation, and delays in program implementation. Consequently, SIKS-NG must be understood not merely as an administrative tool but as a strategic innovation that directly affects the effectiveness of social protection for vulnerable populations.

In addition, improved coordination among the Social Service, village governments, and community level institutions is imperative. Grassroots actors such as RT and RW play a fundamental role in ensuring that the data submitted through SIKS-NG accurately represents the socio-economic conditions of households. Their involvement enhances data credibility and supports more adaptive, evidence-based policy responses. Increasing public literacy regarding the importance of accurate welfare data is also essential, as it reduces misinformation and strengthens community participation in verification processes.

To ensure long-term sustainability, the institutionalization of regular evaluations of SIKS-NG performance is critical. These evaluations should assess system reliability, operational usability, data validity, and the effectiveness of capacity-building programs. The insights gained will guide continuous improvement and align system development with broader SPBE objectives. In conclusion, enhancing human resource competencies, improving technological infrastructure, and fostering robust multi-level collaboration are fundamental strategies for optimizing DTKS implementation and strengthening the quality and governance of social protection services in Bengkulu City.

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REFERENCES

- Arifin, Z. (2023). *Public Service Performance: A Case Study in Public Relation Information and Communication South Sulawesi Province*. *RUDN Journal of Public Administration*. <https://doi.org/10.22363/2312-8313-2023-10-3-450-464>.
- Indah, Lely. (2016). *Manajemen pelayanan publik (Menuju tata kelola yang baik)*. UB Press.
- Lisnawati, N. T., Putri, F. N., Sa'adah, S., Levina, V. V., & Ariesmansyah, A. (2023). Comparative study of public services in Pangalengan and Coblong Districts. *AURELIA: Jurnal Penelitian dan Pengabdian Masyarakat Indonesia*, 2(2). <https://doi.org/10.57235/aurelia.v2i2.749>
- Lips, A., & Schuppan, T. (2009). Transforming e-government knowledge through public management research. *Public Management Review*, 11, 739 - 749. <https://doi.org/10.1080/14719030903318921>.
- Lolaeva, A. (2022). Legal regulation of the use of information and communication technologies in the activities of public authorities. *Administrative and municipal law*. 2022. No. 1. P. 42-50. <https://doi.org/10.7256/2454-0595.2022.1.37359>.

- Majelis Permusyawaratan Rakyat Republik Indonesia. (2010). *Panduan pemasyarakatan Undang-Undang Dasar Negara Republik Indonesia Tahun 1945*. Sekretariat Jenderal MPR RI.
- Meng-bing, Z., & Shi, L. (2019). The key to precise poverty alleviation rests in the precise identification of impoverished populations—An analysis of the targeting effectiveness of China's Rural Dibao Program. *Social Sciences in China*, 40, 60 - 76. <https://doi.org/10.1080/02529203.2019.1595056>.
- Nazir, Moh. (2014). *Metode penelitian*. Ghalia Indonesia.
- Peraturan Menteri Sosial Republik Indonesia Nomor 3 Tahun 2021 tentang *Pengelolaan Data Terpadu Kesejahteraan Sosial*. Berita Negara Republik Indonesia Tahun 2021 Nomor 578.
- Putra, B., & Dhanuarta, C. (2021). Transformation of public services through electronic-based government system in Malang City. *International Journal of Education, Information Technology, and Others*, 4(3), 452-459. <https://doi.org/10.5281/zenodo.5205295>
- Republik Indonesia. (2009). *Undang-Undang Republik Indonesia Nomor 11 Tahun 2009 Tentang Kesejahteraan Sosial*.
- Republik Indonesia. (2011). *Undang-Undang Nomor 12 Tahun 2011 pasal 8 dan 9 tentang Penanganan Fakir Miskin*.
- Republik Indonesia. (2014). *Undang-Undang Nomor 23 Tahun 2014 tentang Pemerintah Daerah*.
- Sugiyono. (2019). *Metode penelitian kuantitatif, kualitatif dan R&D*. Alfabeta.
- Suharto, Edi. (2014). *Membangun masyarakat memberdayakan rakyat*. PT Refika Aditama.
- Sutanta, Edhy. (2003). *Sistem informasi manajemen*. Graha Ilmu.
- Supriyanto, A., Mulyani, S., Ariyanto, T., & Razaq, J. (2023). Information for the identification and verification of prospective poverty social assistance recipients. *Jurnal Teknik Informatika (JUTIF)*, 4(2), 429-440. <https://doi.org/10.52436/1.jutif.2023.4.2.722>.