J-DA
JOURNAL
DEKSTOP APPLICATION

Received: 22 Oct 2022 | Revised: 30 Oct 2022 | Accepted: 30 Nov 2022 | Published: 12 Dec 2022 E-ISSN: 2961-9688, P-ISSN: 2961-9696

DOI: 10.59431/jda.v1i2.317

RESEARCH ARTICLE

Field Extension Worker Information System, Sabang Family Planning Agency

Muhammad Nurzahri [1] | Lukman Ahmad [2*]

[1,2*] Informatics Management Study Program, STMIK Indonesia Banda Aceh, Banda Aceh City, Aceh Province, Indonesia.

Correspondence

[2*] Informatics Management Study Program, STMIK Indonesia Banda Aceh, Banda Aceh City, Aceh Province, Indonesia.
Email: lukmanahmad@stmiki.ac.id

Funding information
LPPM STMIK Indonesia Banda Aceh.

Abstract
This study examines the implementation and evaluation of an information system developed for the data management of Reproductive Health Field Officers (PLKB) at the Community Empowerment, Family Planning, and Women's Empowerment Agency (BPMPKB) in Sabang City. The primary objective was to enhance the efficiency and accuracy of PLKB data administration, thereby facilitating more informed decision-making based on well-documented information. Data collection methods included observation, interviews, and analysis of documentation related to the existing data recording processes. The results indicate that the system's implementation positively influenced the effectiveness and efficiency of PLKB work and improved the quality of the resulting data. Nevertheless, certain challenges require attention, such as the need for more intensive user training and sustained system maintenance.

Keywords
Information System; PLKB Data Management; Efficiency; Accuracy; Decision Making.

1 | INTRODUCTION

National development strategies worldwide increasingly recognize the pivotal role of effective population management and family development programs. Within the Indonesian setting, national efforts towards population control and fostering family well-being rely heavily on the dedicated work of functional personnel operating at the grassroots level. Among these key actors, Family Planning Counselors (Penyuluh KB) and Family Planning Field Officers (Petugas Lapangan Keluarga Berencana - PLKB) possess undeniable significance (Trianziani, 2018). These officers are entrusted with the critical responsibilities of disseminating information, providing direct services, monitoring and evaluating program progress, and spearheading the development of Population, Family Planning, and Family Development (Kependudukan, Keluarga Berencana, dan Pembangunan Keluarga - KKBPK) initiatives within communities (NIM, 2017). Their direct interaction with families makes them indispensable for the successful implementation of national policies aimed at achieving demographic balance and enhancing family quality of life.

The contemporary operational landscape for government institutions is characterized by rapid technological advancements. To maintain relevance and effectively address evolving societal needs, public sector organizations must embrace technological integration and cultivate a skilled workforce capable of leveraging modern tools (Djatmika & Hendriyana, 2020). A crucial aspect impacted by this technological shift is data management, particularly the administration of field personnel information. Inaccurate or inefficient personnel data management can significantly impede an agency's progress, leading to suboptimal resource allocation, difficulties in performance monitoring, and challenges in strategic planning (Mardiana, 2017). The process of recording, tracking, and reporting field officer activities and the data they collect forms the bedrock for informed decision-making and program adjustments.

Government agencies across Indonesia grapple with challenges related to data management, often stemming from reliance on traditional, manual systems. The Community Empowerment, Family Planning, and Women's Empowerment Agency (Badan Pemberdayaan Masyarakat, Keluarga Berencana, dan Pemberdayaan Perempuan - BPMPKB) in Sabang City exemplifies these challenges, particularly concerning the administration of PLKB data. The prevailing manual processes for recording PLKB information and activities are frequently reported as laborious and time-consuming. Such methods typically involve extensive paperwork, leading to the accumulation of large volumes of physical documents. This reliance on manual systems inherently introduces risks of data entry errors, inconsistencies, and delays in information retrieval and reporting (Mardiana *et al*., 2018). Consequently, operational efficiency is compromised, staff productivity is hampered, and the ability of the agency to respond promptly to field requirements or generate accurate reports for higher authorities is diminished. Similar challenges in data reporting and management within family planning services have been noted in other regions, highlighting a systemic issue that warrants technological intervention (Mardiana, 2017; Mardiana *et al*., 2018).

To mitigate the inefficiencies and inaccuracies associated with manual data handling, the adoption of information systems presents a viable and increasingly necessary solution. Information systems are designed to streamline data processing, enhance data accuracy, improve accessibility, and support decision-making processes within organizations (Pangestu & Nita, 2021). Numerous studies have demonstrated the benefits of implementing information systems in various public service domains, including population data management (Pangestu & Nita, 2021), integrated health post (Posyandu) services for monitoring child, maternal, and elderly health (Wati *et al*., 2021; Pratama, 2016), and specific family planning service delivery platforms (Maleimakuni & Bulan, 2020). These systems often leverage database technologies to store information securely and provide structured methods for data input, retrieval, and analysis, thereby overcoming the limitations of paper-based records. The potential for improved data quality also facilitates more sophisticated analyses, such as classifying family welfare levels, which relies on accurate foundational data (Purnamasari & Assegaff, 2019).

Addressing the specific needs identified at BPMPKB Sabang, this research proposes the development and evaluation of a dedicated information system for PLKB data management. Recognizing the operational environment and potential resource constraints, a desktop-based application (*Desktopbase*) is proposed as a practical approach. The system is designed utilizing Visual Basic.NET as the programming language and Microsoft Office Access 2016 as the backend database management system. This technological choice aims to provide a robust yet relatively accessible platform for the agency. The primary goal of implementing such a system is to transition from cumbersome manual procedures to a more efficient, computerized process. Expected outcomes include a significant reduction in the time and effort required for data entry and report generation, improved data accuracy through validation mechanisms, enhanced data security, and better overall management of PLKB information.

Therefore, the central objective of this study is to design, develop, and subsequently evaluate the effectiveness of the proposed PLKB Data Management Information System within the BPMPKB Kota Sabang. The research methodology employed involves a combination of field study techniques and literature review. Field studies encompassed direct observation of the existing manual data handling processes, interviews with relevant personnel (including PLKB officers and administrative staff) to understand workflows and identify pain points, and analysis of

existing documentation. Complementary library research was conducted to gather relevant theoretical frameworks and insights from previous studies on information system development, family planning program management, and data administration in public sector contexts (e.g., Mardiana, 2017; Maleimakuni & Bulan, 2020; Djatmika & Hendriyana, 2020). The scope of the research is specifically focused on the development and assessment of the information system for PLKB data management at BPMPKB Sabang, utilizing Visual Basic.NET and Microsoft Access 2016.

The development of such a system is grounded in the principles of Informatics Management. This field involves the effective application of resources to achieve specific objectives through the systematic understanding and manipulation of data and information, primarily via computation-based systems. It integrates foundational concepts from computer science, information science, and computer engineering, focusing on the entire lifecycle of information from creation and processing to storage, retrieval, and utilization. Programming serves as a cornerstone, requiring proficiency in algorithms, logical structuring, and specific programming languages (like Visual Basic.NET in this instance). Furthermore, effective Informatics Management incorporates core management functions – planning, organizing, actuating (leading/directing), and controlling – applied to information resources and systems to meet organizational goals. The development of human resources, or 'brainware,' equipped with professional skills in software development and system management, is crucial for successful implementation and sustainability. Central to managing the data itself is the Database Management System (DBMS), such as Microsoft Access, which provides the essential interface between users, the application software, and the computerized database, enabling efficient storage, retrieval, and maintenance of large-scale data while ensuring integrity and security. This investigation seeks to provide a tangible solution to the operational inefficiencies observed at BPMPKB Sabang. By developing and evaluating a tailored information system, the study aims to demonstrate a pathway towards enhanced efficiency and accuracy in PLKB data management. Improved data handling is anticipated to directly support better monitoring of PLKB activities, facilitate more accurate reporting, and ultimately strengthen the agency's capacity to manage its family planning programs effectively. The findings are expected to offer practical insights for BPMPKB Sabang and potentially serve as a model or point of reference for other similar agencies facing comparable data management challenges within the Indonesian family planning network. The successful implementation represents a meaningful step in leveraging technology to support vital public health and family development initiatives.

2 | BACKGROUND THEORY

The effective management of population dynamics and the promotion of family well-being are cornerstones of national development strategies in Indonesia. Central to these efforts are the Kependudukan, Keluarga Berencana, dan Pembangunan Keluarga (KKBPK) programs, which encompass population development, family planning, and family development initiatives (Astuti, 2020). Government Regulation No. 87 of 2014 underscores the importance of these integrated programs and mandates the establishment of robust family information systems to support their implementation (Astuti, 2020). The success of these nationwide programs hinges significantly on the capabilities and performance of personnel operating at the community level, particularly the Family Planning Field Officers (Petugas Lapangan Keluarga Berencana - PLKB). These officers serve as the frontline implementers, tasked with crucial responsibilities including counseling, service delivery facilitation, community mobilization, data collection, monitoring, evaluation, and overall development of family planning initiatives within their designated areas (Trianziani, 2018; NIM, 2017; Karvianti, 2017). Their direct engagement with families makes them indispensable agents in achieving national demographic goals and improving family quality of life. The empowerment and effectiveness of PLKB are therefore critical factors in the successful execution of family planning services and programs (Karvianti, 2017; Lambelanova & Ramadhan, 2016).

The performance of PLKB is influenced by various factors, including leadership behaviors within the supervising agency and the individual competencies of the officers themselves (Sudarman, 2021). Effective leadership and adequate competency levels are positively correlated with higher performance outcomes, emphasizing the need for supportive management structures and continuous professional development (Sudarman, 2021). Identifying training needs through systematic analysis (Training Need Analysis - TNA) is crucial for enhancing PLKB competencies and ensuring they possess the necessary skills to fulfill their diverse roles effectively (Febriani & Yusuarsono, 2018). Furthermore, the performance of PLKB, along with the availability of service facilities, directly impacts key program indicators, such as the coverage of unmet family planning needs (Fatimah, 2017). Addressing unmet needs, often studied within specific program contexts like Kampung KB (Family Planning Village), requires diligent effort from field officers and highlights the importance of their data collection role in identifying target populations (Sulastri *et al*., 2019). Clear policies and guidelines regarding family planning counseling are also essential to support PLKB in their outreach activities (Ansanoor, 2017). Evaluating the effectiveness of programs like Kampung KB often involves assessing the contribution of various factors, including the role played by PLKB and the data they provide (Hidayat *et al*., 2021).

Despite their critical role, the operational effectiveness of PLKB and the agencies managing them, such as the Badan Pemberdayaan Masyarakat, Keluarga Berencana, dan Pemberdayaan Perempuan (BPMPKB) or similar entities (Dinas Pengendalian Penduduk dan Keluarga Berencana - DPPKB), is often hampered by challenges related to data management and reporting. Many agencies still rely heavily on manual, paper-based systems for collecting, storing, and processing data related to PLKB activities, target populations, and program achievements (Mardiana, 2017; Mardiana *et al*., 2018). These manual processes are inherently prone to inefficiencies, consuming significant time and resources for data entry, compilation, and report generation (Mardiana *et al*., 2018). They also increase the risk of data inaccuracies, inconsistencies, loss of documents, and delays in information availability, which can significantly hinder timely decision-making and program responsiveness (Mardiana, 2017). The burden of manual reporting can detract from the core field duties of PLKB and administrative staff, impacting overall productivity. The need for improved reporting systems for PLKB has been explicitly recognized, with approaches like Business Process Improvement (BPI) being suggested to redesign workflows for greater efficiency (Alifah *et al*., 2020).

Information Systems (IS) offer a powerful solution to overcome the limitations of manual data management. An IS can be defined as an integrated set of components for collecting, storing, processing, and distributing information, typically involving hardware, software, data, procedures, and people. In the context of public administration and health programs, IS are designed to enhance operational efficiency, improve data accuracy and reliability, facilitate better communication and coordination, and support evidence-based decision-making (Pangestu & Nita, 2021; Djatmika & Hendriyana, 2020). The implementation of well-designed information systems has shown positive impacts in various related domains. For instance, web-based systems have been developed for managing population and family planning data at the village level (Pangestu & Nita, 2021), while dedicated systems support the data management needs of integrated health posts (Posyandu) for monitoring the health of toddlers, pregnant women, and the elderly (Wati *et al*., 2021; Pratama, 2016). Specific systems have also been proposed and developed for family planning reporting within district-level agencies (Mardiana *et al*., 2018), web-based family planning services in specific program areas like Kampung KB (Maleimakuni & Bulan, 2020), and broader management information systems within regional family planning bodies (Djatmika & Hendriyana, 2020). These examples highlight the adaptability and potential benefits of IS across different facets of population and family health programs.

A core function of these information systems is effective data management, often facilitated by a Database Management System (DBMS). A DBMS provides the necessary tools to create, maintain, and access databases efficiently and securely, ensuring data integrity and consistency. Accurate and readily accessible data is fundamental for effective program management. It enables agencies to monitor progress towards targets, evaluate program impact, identify areas requiring intervention, and allocate resources more effectively (Mardiana *et al*., 2018; Hidayat *et al*., 2021). For example, comprehensive and accurate data is essential for establishing criteria and variables for identifying specific population groups, such as the poor, for targeted support programs (Isdijoso *et al*., 2016). Similarly, robust data allows for sophisticated analysis, such as classifying family welfare levels using methods like Naïve Bayes, which requires reliable input data (Purnamasari & Assegaff, 2019). Information systems can also incorporate decision support capabilities, potentially using techniques like Fuzzy Logic (e.g., Fuzzy Sugeno method) to assist in processes like selecting exemplary PLKB based on performance data (Prayantika *et al*., 2020), or employing programming tools like Visual Basic to build decision support applications for identifying outstanding program participants (Yulianti *et al*., 2012).

Furthermore, technology like Geographic Information Systems (GIS) can be integrated or used in conjunction with population and family planning data systems. GIS allows for the spatial analysis of data, enabling visualization of program reach, target achievement, and demographic patterns across geographic areas, which can significantly enhance planning and resource allocation, particularly for integrating program achievements and targets across regions (Heldayani *et al*., 2018). The development of information systems, whether desktop-based using tools like Visual Basic.NET and Microsoft Access as proposed in this study, or web-based platforms, represents a strategic investment in improving the foundational processes of data administration. Therefore, this research is situated within the theoretical context that recognizes the vital role of PLKB in Indonesia's family planning programs, acknowledges the significant challenges posed by traditional manual data management systems, and advocates for the adoption of information systems to enhance efficiency, accuracy, and data-driven decision-making. Drawing upon principles of information systems design, database management, and an understanding of the operational requirements of PLKB and managing agencies like BPMPKB, this study aims to develop and evaluate a specific IS solution. The theoretical underpinning rests on the premise that transitioning from manual to computerized data management for PLKB will streamline administrative processes, improve the quality and accessibility of information, support better performance monitoring and evaluation, and ultimately contribute to the more effective implementation of family planning programs in Sabang City, consistent with findings and recommendations from numerous studies in related contexts (e.g., Mardiana *et al*., 2018; Pangestu & Nita, 2021; Alifah *et al*., 2020; Djatmika & Hendriyana, 2020).

3 | METHOD

This research employed a Research and Development (R&D) approach aimed at developing and evaluating a desktop-based Information System for managing Family Planning Field Officer (PLKB) data to address the inefficiencies of the existing manual system at the Community Empowerment, Family Planning, and Women's Empowerment Agency (BPMPKB) in Sabang City. The R&D methodology was chosen for its suitability in creating a tangible technological solution for practical field needs, following established system development phases including requirements analysis, design, implementation, and evaluation. Initially, a comprehensive data collection and requirements analysis phase was conducted using field study methods—specifically direct observation of manual data handling processes, in-depth interviews with relevant stakeholders (agency heads, administrative staff, PLKB representatives), and analysis of pertinent documents (forms, registers, reports)—complemented by a literature review covering information systems, personnel data management, KKBPK programs, PLKB roles, and relevant technologies (Visual Basic.NET, MS Access). This phase yielded a detailed understanding of the manual system's shortcomings and a list of functional and non-functional requirements for the proposed system. Following the analysis, the system design phase commenced, involving the creation of the system architecture, database structure design using Microsoft Access 2016 (defining tables, relationships, data types, keys), user interface (UI) design focusing on intuitiveness and user-friendliness, and process/logic design outlining system workflows for data input, validation, storage, retrieval, updating, deletion, and report generation. Subsequently, the system development (implementation) phase translated the design into a functional application through database creation in MS Access 2016, coding using Visual Basic.NET, integrating the developed modules, and conducting initial internal unit and integration testing to ensure module functionality and interoperability. The developed system underwent a rigorous evaluation phase to assess its effectiveness and user suitability. This involved functional testing (black-box testing) to verify that all system features performed according to specifications, and crucially, User Acceptance Testing (UAT) where prospective end-users (BPMPKB staff) interacted directly with the system to perform typical data management tasks. Feedback on usability, interface clarity, processing speed, data accuracy, and overall satisfaction was gathered through direct observation during UAT, questionnaires, and brief interviews. The qualitative data from observations and interviews, along with any quantitative data from questionnaires, were then analyzed descriptively to identify the system's strengths and weaknesses from the user perspective, allowing for a qualitative comparison of efficiency against the previous manual methods and leading to conclusions about the system's success in meeting its objectives and providing recommendations for potential future enhancements. This structured methodology ensured the developed system was grounded in real-world needs and systematically validated for its utility within the BPMPKB Sabang City

4 | RESULT

Analysis of the current system is an important stage in the development of an information system, where the technique of decomposing components is used to achieve certain goals after identification of needs and feasibility studies are carried out. At this stage, information about the ongoing process in the administration field is collected to evaluate the existing advantages and disadvantages in order to produce more effective and efficient information. The Community Empowerment, Family Planning, and Women's Empowerment Agency of Sabang City has used a computerized system for inputting data for KB field officers, but only using the Microsoft Office Excel application. However, there are obstacles such as the process that seems slow, errors in making reports, and limited data accessibility. The data processing process also feels unsystematic, requiring the creation of a data coding system to recognize the desired object.

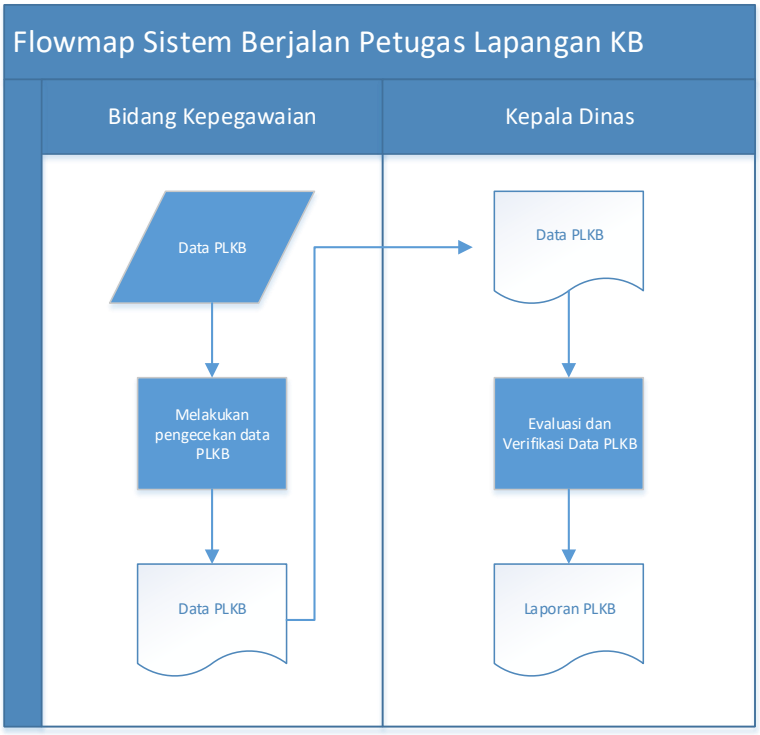

Figure 1. FlowMap Running

The data processing procedure for the KB field officer data collection is also explained, where the data is separated based on the work location and the report is submitted to the Head of the Service for verification. However, this process often experiences errors and delays in delivery to related parties, causing a waste of time and energy. In addition, data security is also a problem because the storage media used is easily damaged and accessed by many people.

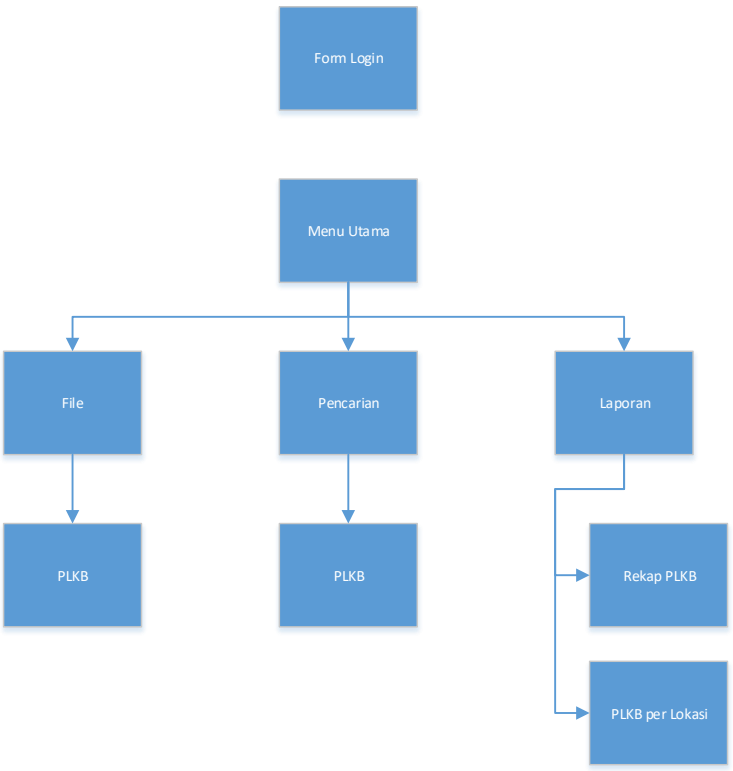

Figure 2. Program Menu Structure

Various weaknesses of the current system have also been identified, such as high operational costs, manual and slow data processing, and lack of data security. The author also provides suggestions for improving the information system by developing applications using Visual Basic.NET. By using this new design, it is expected that operational costs can be reduced, data processing becomes more efficient, and data security is more guaranteed. In addition, this new system also allows users to obtain more accurate and structured information.

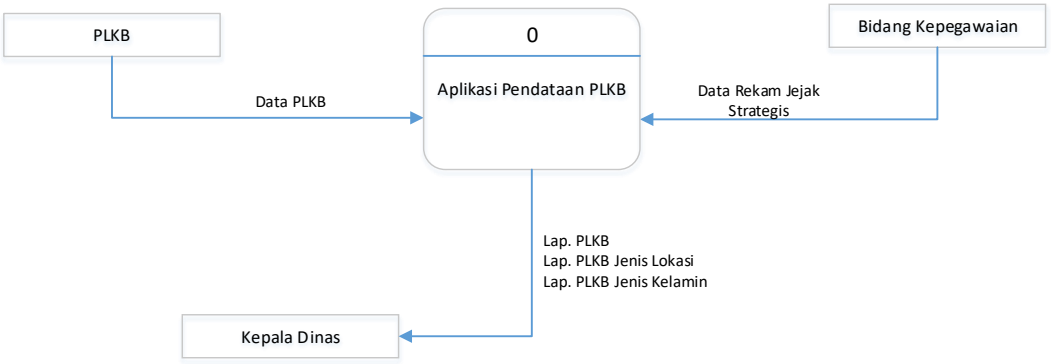

Figure 3. Context Diagram

Discussion of system design, program menu structure, and data flow diagrams provide an overview of how the new system will operate. Data structure design and input-output design are also described in detail, including the forms that will be used in the new system. In addition, specifications of the hardware and software needed are also included to ensure that the system can run smoothly.

Figure 4. Main Menu Form

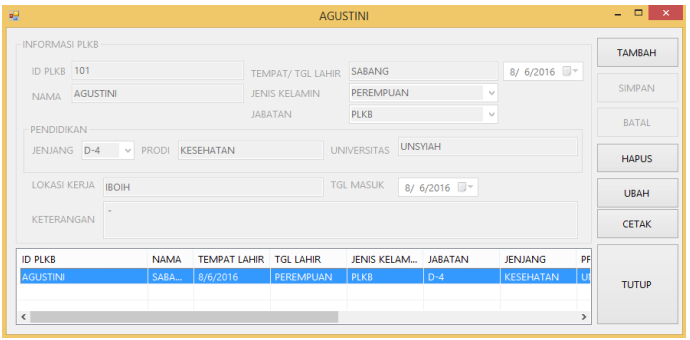

Figure 5. KB field officer data collection form

In the whole analysis and discussion, the author has succeeded in providing a clear picture of the shortcomings of the current system and providing the right solution through the development of a new information system. Thus, it is expected that the implementation of this new system can improve the efficiency and effectiveness in processing data for KB field officers at the Community Empowerment, Family Planning, and Women's Empowerment Agency of Sabang City.

5 | CONCLUSIONS AND FUTURE WORK

The conclusion of the observations that have been made shows that the application for recording data on KB field officers at the Community Empowerment, Family Planning, and Women's Empowerment Agency of Sabang City was designed with the aim of replacing manual data recording with computerized data. This aims to minimize the level of error in recording and managing KB field officer data, as well as simplifying and accelerating the data processing process. In addition, the implementation of a computerized system is also expected to encourage employees to be more disciplined in improving their performance, which in turn will contribute to the progress of the agency as a whole. From these results, several suggestions can be made for the improvement and optimization of this KB field officer data recording application. First, it is recommended that the company implement this information system comprehensively in its operations, so that it can help employees in recording KB field officer data and save administrative time in processing the data. Second, it is necessary to establish a security unit that is responsible for supervising and maintaining data security, in order to prevent data

manipulation by employees. By implementing these suggestions, it is hoped that the KB field officer data recording application can run more efficiently and effectively, and provide maximum benefits for the agency.

ACKNOWLEDGEMENTS

Thank you to the entire research team and LPPM STMIK Indonesia as funders for research development activities in 2021.

REFERENCES

Alifah, F. N., Triwibisono, C., & Suwarsono, L. W. (2020, October). Reporting System Design for Family Planning Field Officers in DPPKB Using Business Process Improvement (BPI). In *2020 6th Information Technology International Seminar (ITIS)* (pp. 13-18). IEEE.

Ansanoor, S. H. (2017). Tinjauan Yuridis Kebijakan Penyuluhan Keluarga Berencana di Provinsi Kepulauan Riau. *Jurnal Selat*, *4*(2), 190-204.

Astuti, R. P. (2020). *Implementasi Praturan Pemerintah Nomor 87 Tahun 2014 Tentang Perkembangan Kependudukan Dan Pembangunan Keluarga, Keluarga Berencana Dan Sistem Informasi Keluarga Di Kecamatan Bukit Batu Kabupaten Bengkalis (Studi Keluarga Berencana)* (Doctoral dissertation, Universitas Islam Riau).

Djatmika, G. H., & Hendriyana, A. (2020). Penerapan Sistem Informasi Manajemen Keluarga Berencana Pada Badan Kependudukan Keluarga Berencana Daerah. *Jurnal Ilmu Ekonomi Manajemen dan Akuntansi MH Thamrin p-ISSN*, *2716*, 3911.

Fatimah, S. (2017). *Hubungan Kinerja Petugas Lapangan Keluarga Berencana dan Jumlah Sarana Pelayanan KB dengan Cakupan Unmet Need KB di Kabupaten Pekalongan* (Doctoral dissertation, Universitas Muhammadiyah Semarang).

Febriani, F., & Yusuarsono, Y. (2018, October). Model Training Need Analysis (TNA) Petugas Lapangan Keluarga Berencana (PLKB) Di BKKBN Provinsi Bengkulu Dalam Meningkatkan Kompetensi. In *Prosiding Seminar Nasional Ilmu Sosial dan Teknologi (SNISTEK)* (Vol. 1, pp. 61-66).

Heldayani, E., Saputra, D., & Mala, V. Y. (2018). Pemanfaatan Sistem Informasi Geografi Untuk Integrasi Capaian Dan Target Pada Program Perkembangan Kependudukan Dan Pembangunan Keluarga (KKBPK) di Provinsi Sumatera Selatan. *Demography Journal of Sriwijaya (DeJoS)*, *2*(1), 1-14.

Hidayat, T., Kusuma, A. R., & Paselle, E. (2021). Evaluasi program kampung keluarga Berencana di Kecamatan Sangatta Utara Kabupaten Kutai Timur. *Jurnal Administrative Reform*, *9*(1).

Isdijoso, W., Suryahadi, A., & Akhmadi, A. (2016). Penetapan kriteria dan variabel pendataan penduduk miskin yang komprehensif dalam rangka perlindungan penduduk miskin di Kabupaten/Kota. *Kota, Kertas Kerja SMERU, The SMERU Research Institute*.

Isdijoso, W., Suryahadi, A., & Akhmadi, A. (2016). Penetapan kriteria dan variabel pendataan penduduk miskin yang komprehensif dalam rangka perlindungan penduduk miskin di Kabupaten/Kota. *Kota, Kertas Kerja SMERU, The SMERU Research Institute*.

Karvianti, A. D. (2017). Pemberdayaan Penyuluh Lapangan Keluarga Berencana (PLKB) Dalam Pelayanan Peserta Keluarga Berencana Pada Kantor Pemberdayaan Perempuan Dan Keluarga Berencana Kabupaten Kutai Barat. *Jurnal Paradigma*, *1*(3), 357-372.

Lambelanova, R., & Ramadhan, M. B. (2016). Peran Badan Pemberdayaan Perempuan dan Keluarga Berencana (BPPKB) dalam Melaksanakan Program Keluarga Berencana di Kabupaten Tanah Laut Provinsi Kalimantan Selatan. *Jurnal Dharma Praja*, *9*(1).

Maleimakuni, H. J., & Bulan, S. J. (2020). Sistem Informasi Pelayanan Keluarga Berencana Kampung Kb Berbasis Web Pada Dinas Pengendalian Penduduk Dan Kb Kabupaten Alor. In *Seminar Nasional & Konferensi Ilmiah Sistem Informasi, Informatika & Komunikasi* (pp. 1038-1043).

Mardiana, D. L. (2017). *Analisis Dan Perancangan Sistem Informasi Pelaporan Pendataan Keluarga Berencana Pada Dinas Pengendalian Penduduk Dan Keluarga Berencana Kabupaten Jombang* (Doctoral dissertation, Universitas Brawijaya).

Mardiana, D. L., Aknuranda, I., & Mursityo, Y. T. (2018). Analisis dan Perancangan Sistem Informasi Pelaporan Pendataan Keluarga Berencana Kabupaten Jombang Pada Dinas Pengendalian Penduduk dan Keluarga Berencana Kabupaten Jombang. *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer*, *2*(7), 2432-2441.

NIM, M. I. M. (2017). PENGAWASAN PETUGAS LAPANGAN KELUARGA BERENCANA DALAM PENDATAAN KELUARGA 2015 DI KECAMATAN SADANIANG KABUPATEN MEMPAWAH. *GOVERNANCE, Jurnal Ilmu Pemerintahan*, *6*(2).

Pangestu, A. R., & Nita, S. (2021, November). Rancang Bangun Sistem Informasi Kependudukan Dan Keluarga Berencana Di Kelurahan Tinap Berbasis Website. In *Prosiding Seminar Nasional Teknologi Informasi dan Komunikasi (SENATIK)* (Vol. 4, No. 1, pp. 725-733).

Pratama, S. (2016). Penerapan Sistem Informasi Posyandu Mawar Kelurahan Simpang Empat. *Technologia: Jurnal Ilmiah*, *7*(4).

Prayantika, P., Mesterjon, M., & Supardi, R. (2020). PENERAPAN METODE FUZZY SUGENO DALAM PEMILIHAN PENYULUH LAPANGAN KELUARGA BERENCANA TELADAN. *GATOTKACA Journal (Teknik Sipil, Informatika, Mesin dan Arsitektur)*, *1*(2).

Purnamasari, A., & Assegaff, S. (2019). Penentuan Klasifikasi Tingkat Kesejahteraan Keluarga Menggunakan Metode Naive Bayes Pada Kecamatan Pasar Jambi. *Jurnal Manajemen Sistem Informasi*, *4*(4), 480-491.

Sudarman, E. (2021). Pengaruh Perilaku Kepemimpinan dan Kompetensi Terhadap Kinerja Penyuluh Keluarga Berencana (PLKB) pada Dinas Pengendalian Penduduk dan Keluarga Berencana Kabupaten Karawang. *Aliansi: Jurnal Manajemen dan Bisnis*, *16*(2), 147-154.

Sudarman, E. (2021). Pengaruh Perilaku Kepemimpinan dan Kompetensi Terhadap Kinerja Penyuluh Keluarga Berencana (PLKB) pada Dinas Pengendalian Penduduk dan Keluarga Berencana Kabupaten Karawang. *Aliansi: Jurnal Manajemen dan Bisnis*, *16*(2), 147-154.

Sulastri, S., Krisnani, H., Sari, D. P., & Ekawati, R. (2019). Penanganan unmet need KB di Kampung KB: Studi kasus di dua kampung KB di Kabupaten Cianjur. *Jurnal Kependudukan Indonesia*, *14*(2), 119-136.

Trianziani, S. (2018). Pelaksanaan program keluarga berencana oleh petugas lapangan keluarga berencana (PLKB) di Desa Karangjaladri Kecamatan Parigi Kabupaten Pangandaran. *Moderat: Jurnal Ilmiah Ilmu Pemerintahan*, *4*(4), 131-149.

Wati, S. R., Magdalena, L., Hatta, M., & Ilyasa, R. (2021). Sistem Informasi Posyandu Pendataan Kesehatan Balita, Ibu Hamil, dan Lansia pada Posyandu Suka Mulya Desa Kepongpongan. *Jurnal Digit: Digital of Information Technology*, *11*(1), 39-50.

Yulianti, L., Sari, H. L., & Haryadi, B. H. (2012). Sistem Pendukung Keputusan Peserta KB Teladan Di BKKBN Bengkulu Menggunakan Pemrograman Visual Basic 6.0. *Jurnal Media Infotama*, *8*(2).

How to cite this article: Nurzahri, M., & Ahmad, L. (2022). Field Extension Worker Information System, Sabang Family Planning Agency. *Journal Dekstop Application (JDA)*, *1*(2), 75–83. https://doi.org/10.59431/jda.v1i2.317.