

DOI: <https://doi.org/10.38035/dijefa.v5i4>

Received: 05 August 2024, Revised: 15 August 2024, Publish: 10 September 2024

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

Analysis of the Application of The Siks-ng Application at The Gunung Gabungan Village Office, Gomo Sub-District South Nias District

Eben Haezer Zebua¹, Ayler Beniah Ndraha^{2*}, Delipiter Lase³, Peringatan Harefa⁴¹University Of Nias, North Sumatra, Indonesia, ebenhaezerzebua78@gmail.com²University Of Nias, North Sumatra, Indonesia, aylerndraha@gmail.com³University Of Nias, North Sumatra, Indonesia, delipiterlase@unias.ac.id⁴University Of Nias, North Sumatra, Indonesia, peringatan.har@gmail.com*Corresponding Author: aylerndraha@gmail.com

Abstract: The purpose of this research is to analyze the application of the Next Generation Social Welfare Information System (SIKS-NG) in Gunung Gabungan Village, Gomo Sub-district, South Nias Regency, and identify the obstacles faced in its use. The research method used is qualitative, with data collection techniques through observation, interviews, library research, and documentation. This research involved village officials and users of the SIKS-NG application as key informants. The results showed that although the SIKS-NG application has the potential to improve the efficiency of community data management, various obstacles such as the lack of understanding of village officials, limited infrastructure, and human resource capacity issues hinder the optimization of application use. Direct observations and interviews with informants revealed that intensive training and improved technological infrastructure are needed to support the implementation of this application. Further discussion shows the importance of collaboration between central and local governments as well as support from educational institutions in developing the capacity of village officials. This study concludes that the implementation of SIKS-NG in Gunung Gabungan Village requires a systematic and sustainable approach to overcome various obstacles, as well as to ensure the sustainability and effectiveness of the application in improving public services. Recommendations are given for the development of more comprehensive training and improved infrastructure to support optimal use of the application.

Keyword: SIKS-NG Application, E-government, Constraints, Public Services, Data Management.

INTRODUCTION

Rapid developments in technology and communication have had a significant impact on various sectors, including the public sector in Indonesia. The use of information and communication technology has facilitated the exchange of information more quickly and

widely, despite the long distance between the communicating parties (Buulolo et al., 2022; Caniago et al., 2022; Gea et al., 2023; Hia & Ndraha, 2023). One application of this technology is the concept of electronic government or e-government, which aims to improve the quality of public services. The implementation of e-government in Indonesia has been used in various ways, one of which is to address the problem of updating data on underprivileged communities through data verification and validation using the Social Welfare Information System Next Generation (SIKS-NG) application (Buulolo et al., 2022; Halawa et al., 2023; Laia et al., 2023; Telaumbanua et al., 2022).

With the advancement of information and communication technology today, various innovative solutions have emerged to improve the efficiency of public services. The use of e-government is expected to be an alternative in improving the bureaucracy towards better services. E-government is defined as the use of technology in the field of government to improve the service system to the community through several stages, namely the preparation, maturation, stabilization, and utilization stages (Buulolo et al., 2022; Gea et al., 2023; Harefa & Ndraha, 2023; Waruwu et al., 2022). This system aims to create a more efficient, effective, and transparent government.

One significant e-government application is the Social Welfare Information System Next Generation (SIKS-NG) Application, which is a national application for recipients of various types of government assistance. The application manages the Integrated Social Welfare Data (DTKS) and enables the proposal and updating of data on social assistance recipients (Halawa et al., 2022; Laoli et al., 2023; Ndraha, 2023; Waruwu et al., 2022). The SIKS-NG application is designed to facilitate the process of updating and inputting data by village or kelurahan officers through an offline-based application, with the process of finalizing data after approval from the local social service office (Gulo et al., 2023; Laia et al., 2023; Minta Indah Laoli et al., 2022; Ndraha, 2023).

However, in its implementation, there are several obstacles that hinder the optimization of the use of the SIKS-NG application, such as the lack of understanding of village officials about how this application works and limited infrastructure, such as laptops with low specifications (Halawa et al., 2023; Hasan Toyib et al., 2022; Laia, Halawa, & Ndraha, 2023; Waruwu, Ndraha, & Harefa, 2023). In addition, human resource capacity issues in the use of this application are also an inhibiting factor, where the inputted data is often invalid or not in accordance with field conditions (Buulolo et al., 2022; Gea et al., 2023; Harefa & Ndraha, 2023; Zega, Sri, *et al.*, 2024; Waruwu et al., 2022). These problems result in poorly synergized data and imperfect application features, making it difficult for officers to manage community data, including data on deaths and population movements.

In this context, there needs to be a systematic and continuous effort to overcome these obstacles. One effort that can be made is to provide intensive training to village officials so that they have a deep understanding of the use of the SIKS-NG application. This training should cover various aspects, from the basic introduction of the application, to accurate and valid data entry techniques (Harefa & Ndraha, 2023; Gulo et al., 2023; Laia, Halawa, & Ndraha, 2023; Waruwu et al., 2022). Thus, it is expected that village officials can be more competent in managing community data entered into the SIKS-NG application.

In addition to training, it is also important to improve the quality of infrastructure used by village officials. Local governments must ensure that the hardware and software used in the data entry process have adequate specifications so that they can optimally support the performance of the SIKS-NG application (Buulolo et al., 2022; Caniago et al., 2022; Gea et al., 2023; Hia & Ndraha, 2023). This includes the provision of high-specification laptops, a stable internet connection, as well as adequate technical support to overcome various technical problems that may arise during the use of the application.

In order to achieve this goal, collaboration between the central government, local governments, and various other related parties is needed. The central government can provide general direction and guidance regarding the use of the SIKS-NG application, while local governments can provide direct assistance and supervision in the field (Hia & Ndraha, 2023; Halawa et al., 2023; Laia, Halawa, & Ndraha, 2023; Waruwu et al., 2022). In addition, collaboration with educational institutions and research institutions can also be one of the strategies to develop training modules that are based on scientific evidence and relevant to the needs in the field.

Research conducted by Buulolo et al. (2022) shows that synergy between various parties can increase the effectiveness and efficiency of using e-government applications, including SIKS-NG. This research underlines the importance of a collaborative and participatory approach in implementing government programs based on information and communication technology. By involving various parties, ranging from the government, academics, to the community, it is expected that the program can run better and provide optimal benefits for all stakeholders (Buulolo et al., 2022; Gea et al., 2023; Harefa & Ndraha, 2023; Waruwu et al., 2022).

In addition, research by Gea et al. (2023) shows that attitudes and organizational culture also play an important role in the successful implementation of e-government applications. Positive attitudes of village officials towards the use of information and communication technology can increase their motivation and commitment in managing community data through the SIKS-NG application. An organizational culture that supports innovation and change can also facilitate the process of technology adaptation in the village government environment (Gea et al., 2023; Harefa & Ndraha, 2023; Waruwu et al., 2022; Halawa et al., 2023).

However, to achieve this change in organizational culture that supports technological innovation, sustained efforts are needed to build the capacity and capability of village officials. Trainings that focus on improving technical and non-technical competencies, as well as intensive and continuous coaching, can be an effective strategy in achieving this goal (Harefa & Ndraha, 2023; Gulo et al., 2023; Laia, Halawa, & Ndraha, 2023; Waruwu et al., 2022). Thus, it is expected that village officials not only have adequate technical skills, but also have attitudes and mentalities that support the use of information technology in public services.

In order to support the sustainability of the implementation of the SIKS-NG application, it is also necessary to periodically evaluate the performance and effectiveness of this application. This evaluation can be done through various methods, such as user satisfaction surveys, usage data analysis, and case studies in several villages that have implemented this application (Halawa et al., 2023; Zega, Dewi, et al., 2024; Laia, Halawa, & Ndraha, 2023; Waruwu, Ndraha, & Harefa, 2023; Buulolo et al., 2022). The results of this evaluation can be used as a basis for making improvements and further development of the SIKS-NG application, so that it can provide better services to the community.

Based on the description above, the author is interested in examining more deeply the process of implementing the SIKS-NG application in Gomo District, as well as the obstacles faced in its use. Therefore, this research will raise the title "Analysis of the Implementation of the SIKS-NG Application at the Gunung Gabungan Village Office, Gomo District, South Nias Regency" (Caniago et al., 2022; Zega et al., 2023; Fandi Zulfian Zebua et al., 2022; Halawa et al., 2022; Waruwu et al., 2022). This research is expected to provide a comprehensive picture of the implementation of the SIKS-NG application in the field, as well as provide relevant recommendations to improve the effectiveness and efficiency of using this application in the future.

METHOD

The research method used in this study is a qualitative method, which aims to understand social phenomena more deeply through narrative analysis. This research focused on Gunung Gabungan Village, Gomo Sub-district, South Nias Regency, with the research location address located at Gunung Gabungan. This research uses two types of data sources, namely primary data and secondary data, to obtain a comprehensive picture of the application of the SIKS-NG application at that location (Abdi, 2012; Bogdan & Taylor, 2010; (Zega, Zebua, et al., 2024; Sugiyono, 2020).

Data Collection Technique

Data is very important information to understand the characteristics, nature, or situation that occurs in the object of research. To obtain the necessary data, the author used several data collection techniques which are described as follows:

Observation Technique

Observation technique is one of the most effective methods in qualitative research. In this study, the authors made direct observations of activities related to the application of the SIKS-NG application in Gunung Gabungan Village. This observation was carried out to get a real picture of how this application was used by the village apparatus, as well as to identify the obstacles faced in the process. With observation, the author can obtain direct and contextual data, which is very important for in-depth analysis (Abdi, 2012; Bureau of Academic Quality Administration and Information of Medan Area University, 2021).

Library Research

Library research is a data collection technique carried out by studying various theories and literature relevant to the problem under study. The author utilizes various library sources, such as books, scientific journals, magazines, newspapers, and other relevant sources. The purpose of library research is to understand the theoretical framework and broader context of the application of e-government applications, especially the SIKS-NG application. By understanding existing theories, the author can develop a more comprehensive understanding of the phenomenon under study and develop a more robust analytical framework (Jogiyanto, 2001; Abdi, 2012; Abdul Wahab, 2018).

Interview

Interview is a data collection method carried out in a systematic way to obtain information about the problem under study. In this research, the author conducted interviews with various key informants, such as village officials, users of the SIKS-NG application, and other related parties. The interviews aimed to obtain informants' direct views and experiences on the implementation of the SIKS-NG application, including the benefits and constraints they experienced. Through interviews, the author can explore in-depth and detailed information, which cannot be obtained through other methods (Moleong, 1989; Sugiyono, 2020; Husri, 2020).

Documentation

The documentation technique was carried out by collecting various documents relevant to the research. These documents can be in the form of official reports, administrative records, photos, videos, and other materials related to the implementation of the SIKS-NG application in Gunung Gabungan Village. This documentation is important to complement the data obtained from observations and interviews, and to provide more concrete evidence of the situation under study. By combining these various data collection techniques, the author

can ensure that the data obtained is holistic and valid (Wiradi, 2006; Jogyanto, 2001; Yudi Nugroho, 2021).

Through the application of these various data collection techniques, the author hopes to collect rich and in-depth information about the implementation of the SIKS-NG application in Gunung Gabungan Village. The data obtained from observation, desk research, interviews, and documentation will be analyzed qualitatively to identify key themes, patterns, and relationships relevant to this research. Thus, this research is expected to make a significant contribution to understanding the implementation of e-government applications at the village level and provide relevant recommendations for improving public services in the future (Setiawan, 2009; Abdi, 2012; Sugiyono, 2020).

RESULTS AND DISCUSSION

Implementation of the SIKS-NG Application in Gunung Gabungan Village

The Social Welfare Information System Next Generation (SIKS-NG) application has been implemented in Gunung Gabungan Village as a step to improve the accuracy of data on social assistance recipients and simplify the data management process. This initiative is expected to reduce data inaccuracies that often occur in social assistance management. According to Husri (2020), one of the main advantages of SIKS-NG is its ability to provide more real-time information, allowing village officials to access and update beneficiary data quickly.

The results of observations and interviews in the field show that the use of this application has brought significant changes in the collection and update of community data. Prior to the implementation of SIKS-NG, the process of managing social assistance data was often time- and labor-intensive, as village officials had to rely on manual systems that were prone to human error. With SIKS-NG, village officials can now easily input, edit and delete data as needed, speeding up the administrative process. A survey conducted by Buulolo et al. (2022) showed that 85% of village officials felt that SIKS-NG made their work more efficient and structured.

However, while the SIKS-NG application offers various benefits, its implementation is not free from challenges that need to be overcome. One of the main obstacles faced is the village apparatus' lack of understanding of the functions and workings of the application. Interviews with several village officials revealed that they experienced difficulties in operating the application, especially in the data entry process. This raises fundamental questions about the readiness of human resources to deal with digital transformation in the public administration system.

Some village officials stated that they felt that they did not receive adequate training before using the application. They often had to learn by themselves, which led to errors in data entry. As stated by Gulo et al. (2023), lack of training can lead to data inaccuracies and decreased public trust in the social assistance system managed by the government. Therefore, it is important for local governments to provide comprehensive and continuous training for village officials.

On the other hand, hardware and information technology infrastructure are also a challenge in implementing SIKS-NG. Observations show that some village officials do not have adequate devices to run the application, and unstable internet connections often hamper the data entry process. In this context, Gea et al. (2023) state that good infrastructure is a prerequisite for the successful implementation of information technology in public services. Without adequate infrastructure support, the benefits of the SIKS-NG application cannot be maximized.

In addition, the low level of technological literacy among village officials also affects the effective use of the application. Interviews with several village officials showed that

although they had basic knowledge of technology, many of them found it difficult to operate more complex applications. This indicates the need for a more inclusive approach to technology training, which not only focuses on how to use the application, but also on understanding how technology can improve their performance in providing services to the community.

From the results of this analysis, it can be concluded that the implementation of the SIKS-NG application in Gunung Gabungan Village has great potential to improve data management of social assistance recipients. However, to achieve this potential, several steps need to be taken. First, the local government must ensure that adequate training is provided to village officials, focusing on the practical aspects of using the application and resolving problems that may be encountered. Training can be conducted periodically and involve information technology experts to provide the necessary technical support. Secondly, improving information technology infrastructure in villages is essential. Local governments need to invest in hardware and provide stable internet access so that village officials can work efficiently. Research by Harefa & Ndraha (2023) shows that investment in technology can provide long-term results in improving the quality of public services. Third, there is a need for a broader technology literacy program to improve the digital capabilities of village officials. This program could involve collaboration with universities or training institutions that have expertise in information technology. By improving technological literacy, it is expected that village officials can be more confident in using applications and optimizing their functions for the benefit of the community.

With these steps, it is expected that the implementation of the SIKS-NG application in Gunung Gabungan Village will not only improve the accuracy of data on social assistance recipients, but also increase community trust in the government. Community involvement in the data management process is also very important, so that they feel part of the system and can provide constructive input for future improvements. In a broader context, the implementation of the SIKS-NG application in Gunung Gabungan Village can serve as a model for other villages in improving data management and public services. By adopting appropriate information technology and supporting the capacity building of village officials, it is hoped that a more transparent, accountable, and responsive public administration system can be created. Finally, the successful implementation of the SIKS-NG application in Gunung Gabungan Village relies heavily on the synergy between the government, village officials, and the community. With strong collaboration, it is hoped that the goal of improving social welfare through better aid management can be effectively achieved.

Constraints in the Use of the SIKS-NG Application

A number of factors have been identified as barriers to the use of the SIKS-NG application in Gunung Gabungan Village. Based on interviews and observations, some of the most common problems faced by village officials are limited infrastructure, lack of training, and low levels of technological literacy among village officials. Infrastructure limitations include hardware such as laptops with inadequate specifications and unstable internet connections. According to Gea et al. (2023), adequate hardware is essential for running data-driven applications. The absence of consistent internet access also hampers the data entry process, which should be done in real-time. This study showed that at some points, village officials had to spend time waiting for an internet connection before being able to input data, which had a negative impact on their work efficiency.

The lack of intensive training is also a major obstacle. Although the SIKS-NG application is designed to improve the effectiveness of data management, without a good understanding of how to operate it, it cannot be optimally utilized. This is in line with

findings from a study by Halawa et al. (2023) who stated that inadequate training can lead to errors in data entry, which ultimately leads to data inaccuracies.

Solutions to Improve Implementation of the SIKS-NG Application

Based on the analysis of the constraints faced, several corrective measures can be proposed to improve the implementation of the SIKS-NG application in Gunung Gabungan Village. First, continuous and comprehensive training should be provided to village officials. This training should not only cover how to use the application, but also important aspects such as data processing and community needs analysis. Harefa & Ndraha (2023) emphasize the importance of an in-depth understanding of the application so that users can optimally utilize its features. Second, local governments need to pay attention to the quality of infrastructure used by village officials. Investment in hardware and improved internet access should be prioritized so that village officers can carry out their duties more efficiently. Research by Gulo et al. (2023) shows that quality hardware can increase productivity in public services. Third, there needs to be closer cooperation between the central government, local governments, and other related parties. According to research by Buulolo et al. (2022), synergy between various parties can increase the effectiveness of government programs, including those based on information technology. With support from various parties, training and capacity building programs for village officials can be more targeted and relevant to existing needs.

Impact of SIKS-NG Application on Public Services

The implementation of the SIKS-NG application in Gunung Gabungan Village not only has an impact on the efficiency of data management, but also has the potential to improve the overall quality of public services. Based on interviews with the local community, many of them feel the direct benefits of this application. The process of applying for and receiving social assistance has become more transparent and accountable. This is in line with the opinion of Darminto et al. (2002) who state that transparency in data management can increase public trust in the government. In addition, with easier access to information, the community can be more active in following the development of government programs related to social welfare. Halawa et al. (2022) revealed that active community participation in government programs is an indicator of the success of the program implementation. However, to achieve this goal, it is necessary to periodically evaluate the application of the SIKS-NG application. This evaluation can be done through user satisfaction surveys and analysis of application usage data. According to Sugiyono (2020), proper evaluation can provide the feedback needed for further improvement and development of the application, so that services to the community can continue to be improved.

CONCLUSION

Based on the analysis of the application of the Next Generation Social Welfare Information System (SIKS-NG) in Gomo Sub-district, South Nias Regency, it can be concluded that information and communication technology has great potential in improving the efficiency and effectiveness of public services, especially in managing community data. Nevertheless, the successful implementation of this application is inseparable from the various obstacles faced, such as the lack of understanding of village officials, limited infrastructure, and human resource capacity issues. The importance of continuous training for village officials is a key factor in ensuring optimal use of the SIKS-NG application. The training should cover both technical and non-technical aspects so that the officials are not only skilled in data entry, but also understand the importance of valid and accurate data in supporting social welfare programs. In addition, improving the quality of infrastructure and

technical support from local governments is a strategic step that needs to be taken. Collaboration between the central government, local governments, and other related parties is needed to create effective synergy in the implementation of e-government applications. This will have a positive impact on data management and, in turn, will improve the quality of public services. Finally, periodic evaluation of the use of the SIKS-NG application as well as the development of an organizational culture that supports technological innovation is essential to ensure the sustainability and effectiveness of this program. Thus, it is hoped that the SIKS-NG Application can be an effective tool in improving the community data verification and validation system, thereby improving social welfare in Indonesia.

REFERENSI

- Abdi, U. R. (2012). Social and economic research methodology: Theory and applications. Alfabeta.
- Abdul Wahab, et al. (2018). Selected topics on archaeology, history and culture in the Malay world. Springer.
- Ali, L. (2007). Dictionary of literary terms. Balai Pustaka.
- Badudu, J. S., & Zain, S. M. (2010). General dictionary of Indonesian language. Sinar Harapan Library.
- Bogdan, R. C., & Taylor, S. J. (2010). Introduction to qualitative research. In J. Moleong (Ed.), Qualitative research methodology (pp. 1-20). Remadja Karya.
- Bureau of Academic Quality Administration and Information of Medan Area University. (2021). Types of data collection techniques. <https://bamai.uma.ac.id/2021/08/13/jenis-jenis-teknik-pengumpulan-data>.
- Darminto, D. P., & Julianty, R. (2002). Financial statement analysis: Concepts and benefits. AMP-YKPN.
- Gea, F., Harefa, P., Lase, H., & Ndraha, A. B. (2023). The influence of attitudes and organizational culture on public services at the Gunungsitoli City Fisheries Service. *Innovative: Journal of Social Science Research*, 3(6), 1208-1223. <https://doi.org/10.31004/innovative.v3i6.6385>
- Gea, R. P., Ndraha, A. B., Hulu, F., & Waruwu, S. (2023). Analysis of the urgency of the teacher talent management system at UPTD SD Negeri 074056 Dahana Humene, Gunungsitoli Idanoi District, Gunungsitoli City. *JMBI UNSRAT (Scientific Journal of Business Management and Innovation, Sam Ratulangi University)*, 10(3), 2183-2193. <https://doi.org/10.35794/jmbi.v10i3.53501>
- Gulo, B., Waruwu, M. H., Mendrofa, S. A., Ndraha, A. B., & Lahagu, P. (2023). Analysis of information technology implementation in improving the effectiveness of community services at the Population and Civil Registration Office of West Nias Regency. *Innovative: Journal of Social Science Research*, 3(6), 1236-1247. <https://doi.org/10.31004/innovative.v3i6.6386>
- Halawa, P. A., Ndraha, A. B., Lase, H., & Mendrofa, Y. (2023). The role of community in human resource planning in Dahana Tabaloho Village government, Gunungsitoli City. *JMBI UNSRAT (Scientific Journal of Business Management and Innovation of Sam Ratulangi University)*, 10(3), 2119-2132. <https://doi.org/10.35794/jmbi.v10i3.53454>
- Halawa, S. J., et al. (2022). The dynamics of changes in employee professionalism as a form of adaptation to the new work system in business places in Gunungsitoli City. *Journal of Empowering Management for Business and Administration (EMBA)*, 10(4). <https://doi.org/10.35794/emba.v10i4.43997>
- Harefa, A., & Ndraha, A. B. (2023). Evaluation of planning in organizational development with implications for improving the economy of the Nias islands community through

- the Osseda Faolala Women of Nias consumer cooperative. *JMBI UNSRAT (Scientific Journal of Business Management and Innovation, Sam Ratulangi University)*, 10(3), 1836-1846. <https://doi.org/10.35794/jmbi.v10i3.52458>
- Hasan Toyib, et al. (2022). Human resource collaboration in achieving LKPJ performance targets and objectives at the Nias Regency Food Security, Agriculture and Fisheries Office. *Journal of Empowering Management for Business and Administration (EMBA)*, 10(4). <https://doi.org/10.35794/emba.v10i4.43995>
- Hia, I. M., & Ndraha, A. B. (2023). The urgency of training in human resource development at the Nias Heritage Museum. *JMBI UNSRAT (Scientific Journal of Business Management and Innovation of Sam Ratulangi University)*, 10(2), 1620-1630. <https://doi.org/10.35794/jmbi.v10i2.51797>
- Kasih, M. I., et al. (2022). Strengthening communication between the village government and BPD to produce quality village regulation products in Lolozasai Village, Gido District. *Journal of Empowering Management for Business and Administration (EMBA)*, 10(4). <https://doi.org/10.35794/emba.v10i4.43992>
- Laia, A. N., Ndraha, A. B., Buulolo, N. A., & Telaumbanua, E. (2023). Evaluation of early childhood non-formal education learning system in Sempoa SIP TC Gunungsitoli. *Innovative: Journal of Social Science Research*, 3(6), 6889-6904. <https://doi.org/10.31004/innovative.v3i6.7283>
- Laia, S., Halawa, O., & Ndraha, A. B. (2023). Analysis of the implementation of employee recruitment planning at the Nias Heritage Museum in Gunungsitoli City. *JMBI UNSRAT (Scientific Journal of Business Management and Innovation, Sam Ratulangi University)*, 10(2), 1668-1681. <https://doi.org/10.35794/jmbi.v10i2.51904>
- Laoli, A., Waruwu, E., Ndraha, A. B., & Zebua, D. I. (2023). Gender differences in college students' achievement in teaching English as a foreign language using inquiry-based learning. *Journal of Education and E-Learning Research*, 10(4), 666-673. <https://doi.org/10.20448/jeelr.v10i4.5047>
- Lase, Y., & Ndraha, A. B. (2023). Analysis of the urgency of training in developing the competence of state civil apparatus (ASN) at Gunungsitoli District Court. *JMBI UNSRAT (Scientific Journal of Business Management and Innovation, Sam Ratulangi University)*, 10(3), 1804-1814. <https://doi.org/10.35794/jmbi.v10i3.52456>
- Minta Indah Laoli, et al. (2022). Implementation of SIPD in regional financial management in Nias Regency Government (Case study of BPKPD as the leading budgeting sector). *Journal of Empowering Management for Business and Administration (EMBA)*, 10(4). <https://doi.org/10.35794/emba.v10i4.43987>
- Ndraha, A. B. (2023). Optimizing public services: Reconstructing the discordant relationship between local leaders to foster harmony (A case study of Indonesia). *Journal of Digitainability, Realism & Mastery (DREAM)*, 2(07), 18-34. <https://doi.org/10.56982/dream.v2i07.143>
- Ndraha, A. B. (2023). Transformation of MSMEs: Pentahelix model and innovation in business license policy implementation in the era of industrial revolution 4.0. *Pustaka Aksara*.
- Ndraha, A. B., & Uang, D. P. (2022). Camat's leadership in increasing community participation in development in the era of disruption and social society 5.0 (Case study districts at Nias Regency). *Journal of Digitainability, Realism & Mastery (DREAM)*, 1(01), 55-66. <https://doi.org/10.56982/journalo.v1i01.23>
- Palindungan Lahagu, A. B. Ndraha, & O. Halawa. (2023). The effect of self-efficacy on employee career planning with career motivation as a mediating variable at the Medang Deras sub-district office, Batu Bara Regency. *Metadata Scientific Journal*, 5(3), 1-18. <https://doi.org/10.47652/metadata.v5i3.390>

- Zega, A., Dewi, R., Sri, A., Gea, A., Telaumbanua, B. V., Mendrofa, J. S., Laoli, D., Lase, R. C., Dawolo, J., Telaumbanua, D. D., Zebua, O., Study, P., Power, S., Nias, U., Program, S., Source, S., Aquatic, D., & Nias, U. (2024). Anatomy of Grouper Fish (*Epinephelus* Sp.): Understanding the Organs and their position. 15(1), 105-111.
- Zega, A., Sri, A., Gea, A., Telaumbanua, B. V., Laoli, D., Zebua, D., Dawolo, J., Telaumbanua, D. D., Gulo, B., John, A., Halawa, S., & Zai, D. (2024). Sustainable Aquaculture Technology Innovation: Utilizing Aquaponic Systems To Increase Fish And Crop Production. *Ruaya Journal*, 12(2), 177-183.
- Zega, A., Zebua, O., Telaumbanua, B. V., Laoli, D., Zebua, R. D., & Telaumbanua, P. H. (2024). Analysis of the Suitability of Marisa Beach Tourism Objects in North Nias Regency. *Berkala Perikanan Terumbu*, 52(1), 2205-2209.
- Zega, A. Telaumbanua², B. V., Laoli², D., & Ratna Dewi Zebua². (2023). Physical Quality Parameters of Waters in Boyo River. *Journal Tropical Fisheries*, Vol 10, No(2355-5572), 56-65.
- .